

ELITE STORM SYSTEMS

700 S. JOHN RODES BLVD.
MELBOURNE, FL 32904
PH. 321.690.1976

THE ULTIMATE STORM PANEL GALVANIZED STEEL

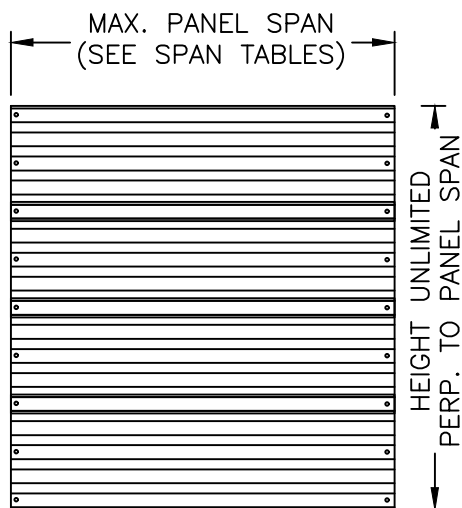
General Notes:

- This system has been tested and evaluated as a large missile impact protective system in accordance with the requirements of the 8th Edition (2023) Florida Building Code (FBC) excluding the High Velocity Hurricane Zone. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E 1996 and FBC Sections 1609.1.2.2 & R301.2.1.2.1.
- Positive and negative design pressures to be used with these drawings shall be determined by others for specific sites in accordance with the local governing code.
- The system detailed herein is generic and does not provide information for a specific site. If site conditions deviate from the conditions detailed herein, a licensed engineer or registered architect shall prepare site specific documents to be used in conjunction with this document.
- Product markings shall be rolled into each panel with spacing in between marking no greater than 36" and shall be labeled as follows:

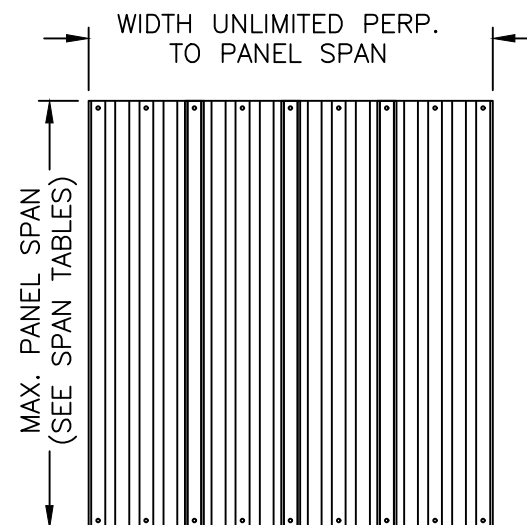
Elite Storm Systems
Rockledge, FL
FBC Approval FL#10106.2
ASTM E 330
ASTM E 1886/1996 Missile Level D

- Galvanized steel storm panels shall be ASTM A653 SS Grade 80, 80 ksi minimum yield strength, tested thickness 0.022".
- All extrusions shall be 6063-T6 aluminum alloy, unless noted otherwise.
- All bolts & washers shall be zinc coated steel, galvanized steel, stainless steel, or 2024-T4 aluminum alloy with a minimum tensile yield strength of 60 ksi.
- Permit holder shall verify the adequacy of the existing structure to withstand new superimposed loads.
- Storm panels have been designed and tested to the maximum spans and loads shown on these drawings.
- Top & bottom details shown may be interchanged as field conditions dictate. Panels may be mounted horizontally where applicable. Panel attachment to studded angle (item #5) mounting hardware is at 12-1/2" o.c. maximum.
- All other panel attachments to mounting hardware are at 6-1/4" o.c. maximum. Direct mount of panel to structure is at 6-1/4" o.c. maximum.

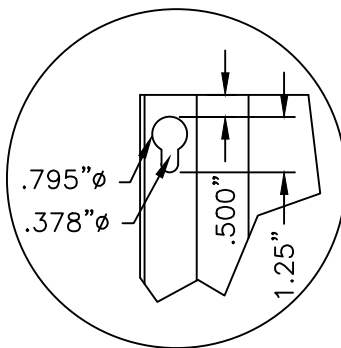
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9	BILL OF MATERIALS & COMPONENTS



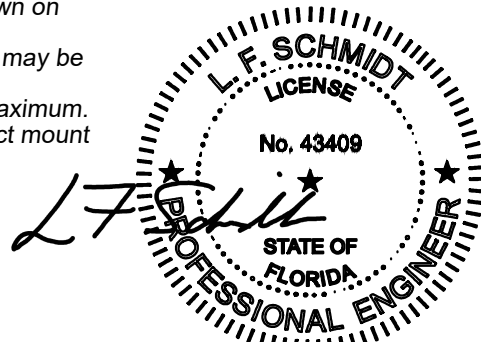
TYPICAL HORIZONTAL INSTALLATION



TYPICAL VERTICAL INSTALLATION



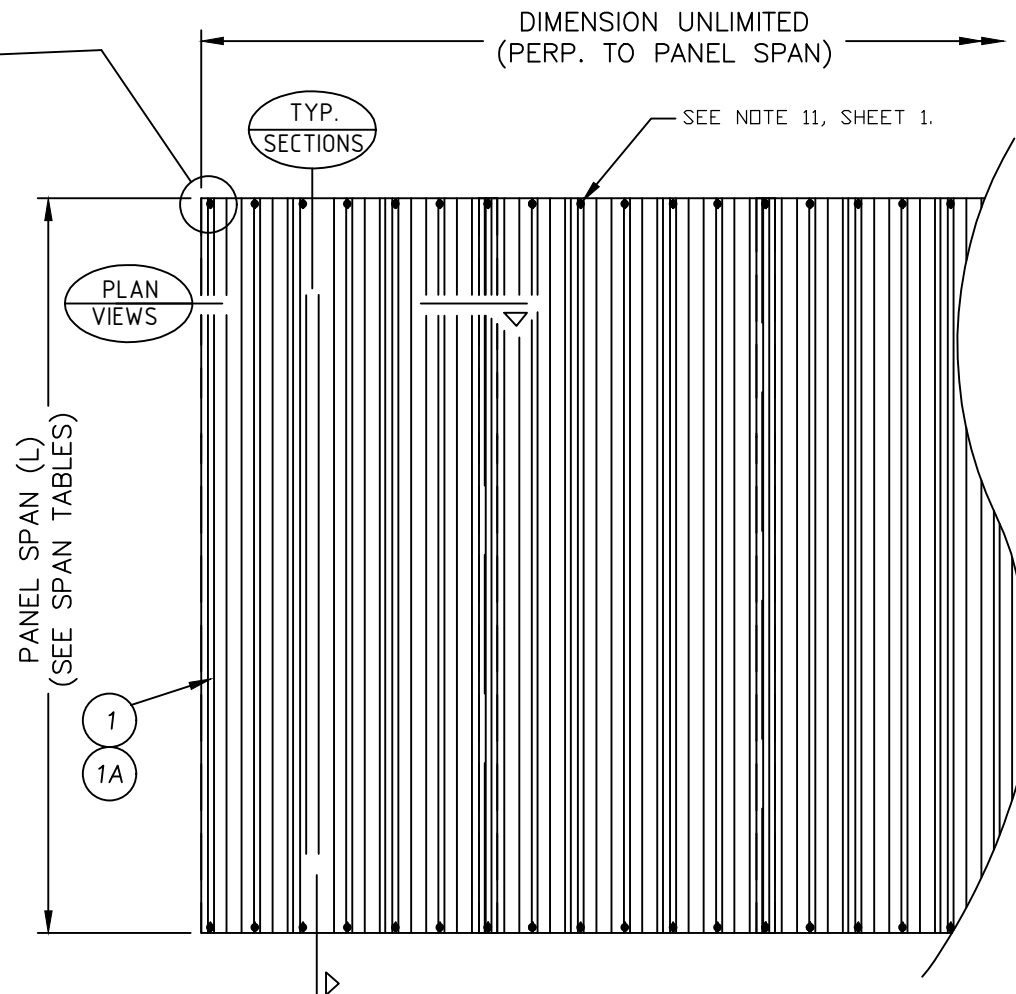
TYP. KEYHOLE PUNCH DETAIL
IN PANEL FOR INSTALLATION



Digitally signed by Lyndon F Schmidt
Date: 2023.08.09 14:16:56 -04'00'

This item has been digitally signed and sealed by
L. F. Schmidt, P.E. 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.

THIS PRODUCT APPROVAL IS VALID
ONLY FOR THE STATE OF FLORIDA



Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW
BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT:
ELITE HURRICANE SHUTTERS
GALV. STEEL STORM PANEL
PART OR ASSEMBLY:
TYPICAL ELEVATIONS AND
GENERAL NOTES

NO.	DATE	REVISIONS
5	8/09/23	UPDATE TO 8TH ED. (2023) FBC
4	8/07/20	UPDATE TO 7TH ED. (2020) FBC
3	2/13/18	UPDATE TO 6TH ED. (2017) FBC
2	4/23/15	UPDATE TO 5TH ED. (2014) FBC
1	05/22/12	UPDATE TO 2010 FBC

DATE: 2/4/08

SCALE: N.T.S.

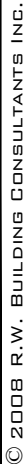
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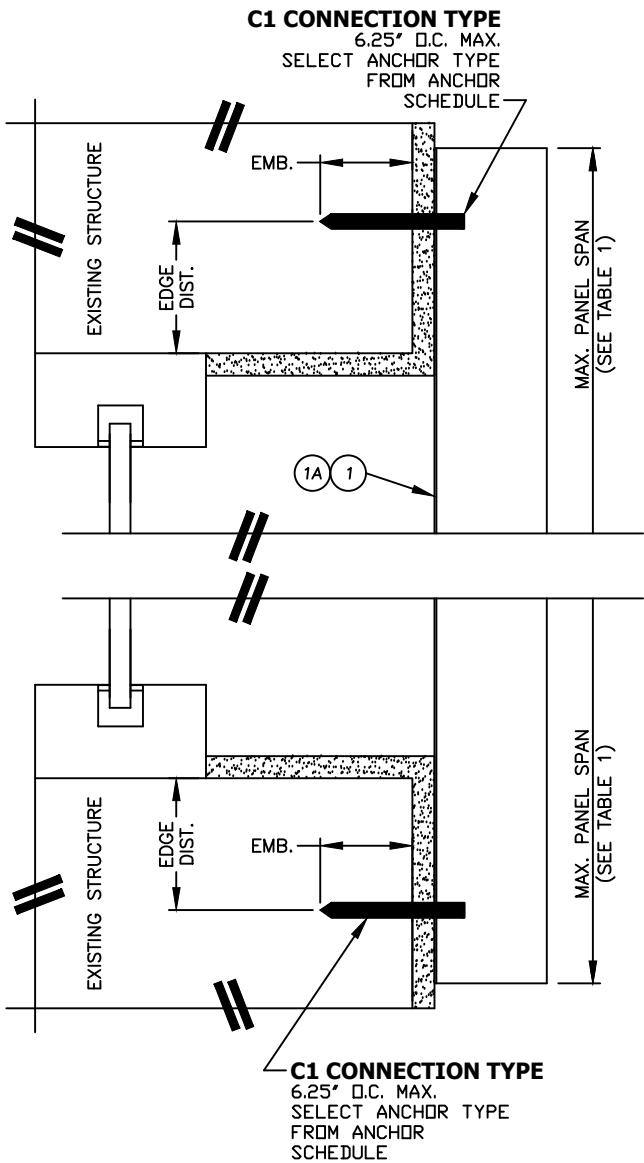
CHK. BY: LFS

DRAWING NO.:

FL-10106.2

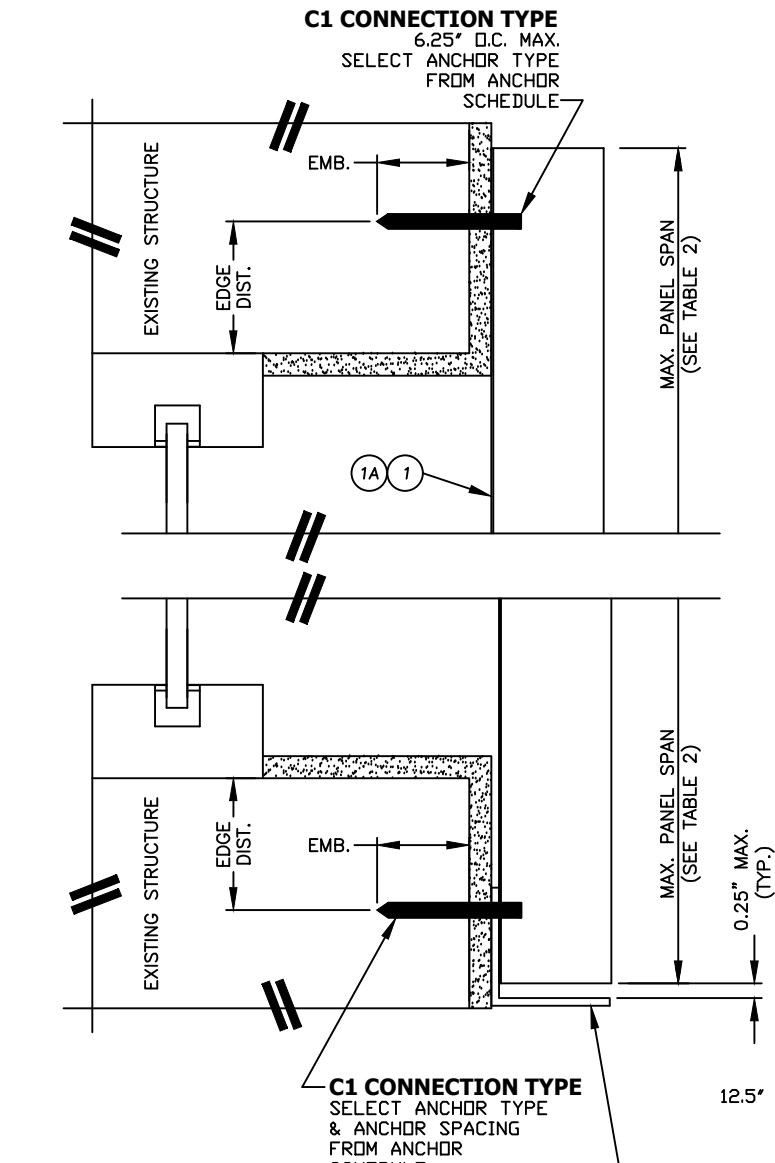
SHEET 1 OF 9





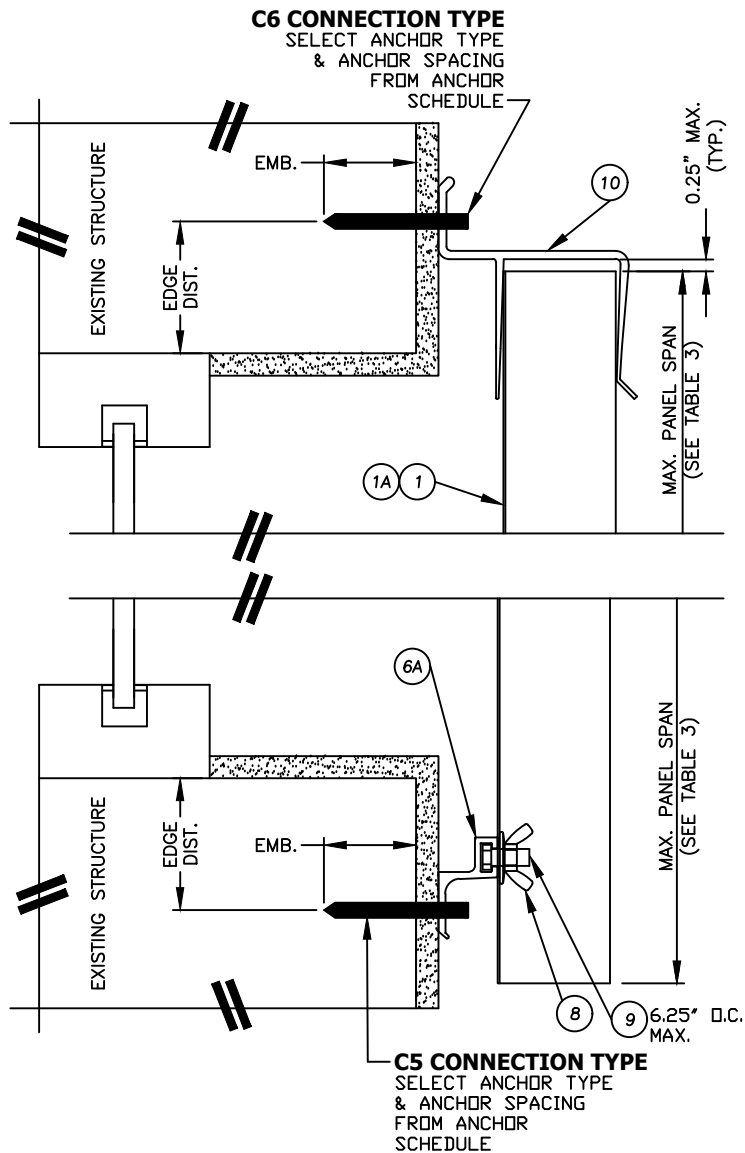
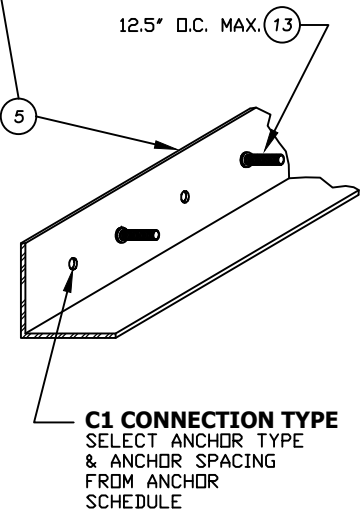
1 DIRECT MOUNT SECTION
TABLE 1 - PANEL SPAN
DIRECT MOUNT
ALLOWABLE DESIGN PRESSURES

PANEL SPAN (in)	ALLOWABLE DESIGN PRESSURE	
	(+) PSF	(-) PSF
144.0	50.0	50.0
132.0	52.5	52.5
120.0	56.0	56.0
108.0	59.0	59.0
106.0	60.0	60.0
96.0	66.0	66.0
84.0	75.5	75.5
72.0	88.0	88.0
60.0	106.0	106.0
0-53.0	120.0	120.0



2 STUDDED ANGLE MOUNT SECTION
TABLE 2 - PANEL SPAN
STudded ANGLE MOUNT
ALLOWABLE DESIGN PRESSURES

PANEL SPAN (in)	ALLOWABLE DESIGN PRESSURE	
	(+) PSF	(-) PSF
106.0	40.0	40.0
96.0	46.5	46.5
84.0	57.0	57.0
72.0	72.5	72.5
60.0	97.5	97.5
0-53.0	120.0	120.0



3 1" "F" HEADER + 1" OFFSET "F" TRACK MOUNT SECTION
TABLE 3 - PANEL SPAN
1" "F" HEADER + 1" OFFSET "F" TRACK MOUNT
ALLOWABLE DESIGN PRESSURES

PANEL SPAN (in)	ALLOWABLE DESIGN PRESSURE	
	(+) PSF	(-) PSF
106.0	40.0	40.0
96.0	45.0	45.0
84.0	53.5	53.5
72.0	65.5	65.5
60.0	84.0	84.0
0-53.0	100.0	100.0

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

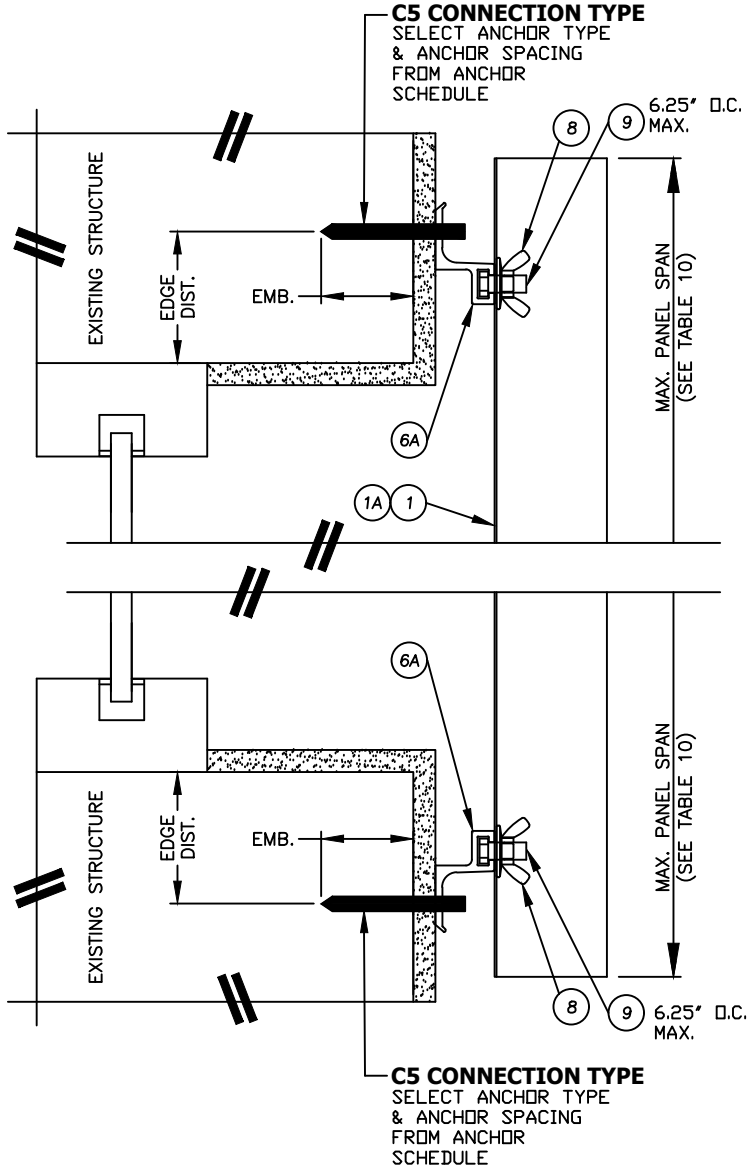
BUILDING CONSULTANTS, INC.
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GALV. STEEL STORM PANEL
PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS

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SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
DRAWING NO.: FL-10106.2
SHEET 3 OF 9

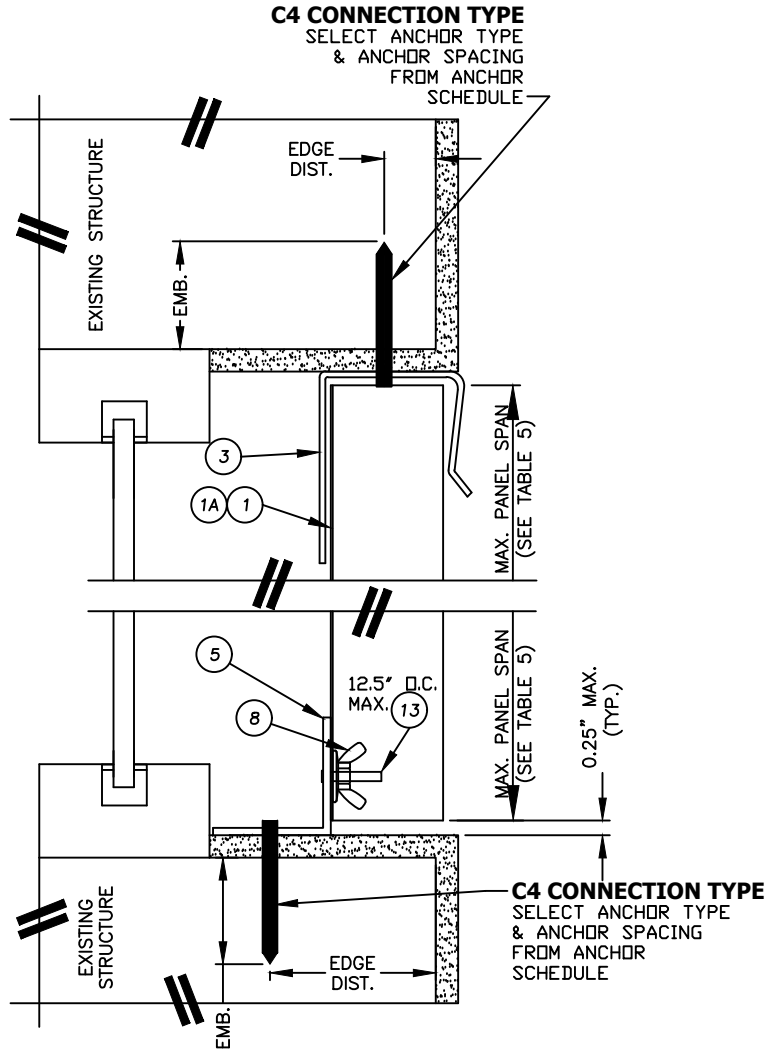
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4 1" OFFSET "F" TRACK MOUNT

TABLE 10 - PANEL SPAN
1" OFFSET "F" TRACK MOUNT
ALLOWABLE DESIGN PRESSURES

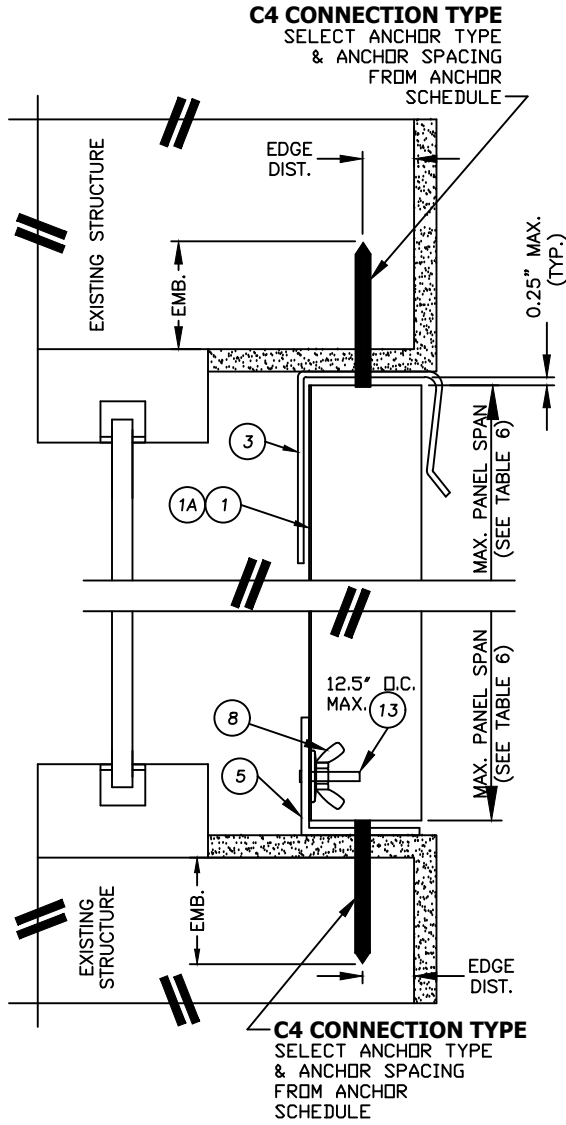
PANEL SPAN (in)	ALLOWABLE DESIGN PRESSURE	
	(+) PSF	(-) PSF
106.0	40.0	40.0
96.0	45.0	45.0
84.0	53.5	53.5
72.0	65.5	65.5
60.0	84.0	84.0
0-53.0	100.0	100.0



5 "U" HEADER + STUDDED
ANGLE MOUNT SECTION

TABLE 5 - PANEL SPAN
"U" HEADER + STUDDED ANGLE MOUNT
ALLOWABLE DESIGN PRESSURES

PANEL SPAN (in)	ALLOWABLE DESIGN PRESSURE	
	(+) PSF	(-) PSF
106.0	40.0	40.0
96.0	46.5	46.5
84.0	57.0	57.0
72.0	72.5	72.5
60.0	97.5	97.5
0-53.0	120.0	120.0



6 "U" HEADER + STUDDED
ANGLE MOUNT SECTION

TABLE 6 - PANEL SPAN
"U" HEADER + STUDDED ANGLE MOUNT
ALLOWABLE DESIGN PRESSURES

PANEL SPAN (in)	ALLOWABLE DESIGN PRESSURE	
	(+) PSF	(-) PSF
106.0	40.0	40.0
96.0	46.5	46.5
84.0	57.0	57.0
72.0	72.5	72.5
60.0	97.5	97.5
0-53.0	120.0	120.0

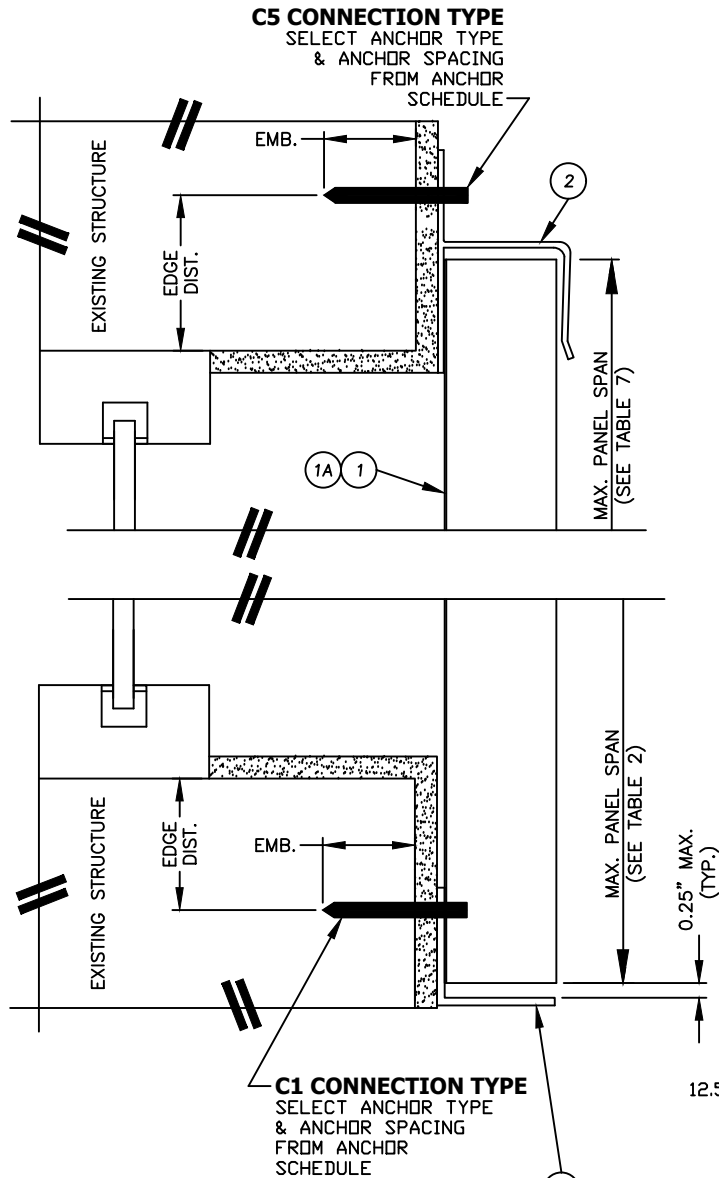
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

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PART OR ASSEMBLY:
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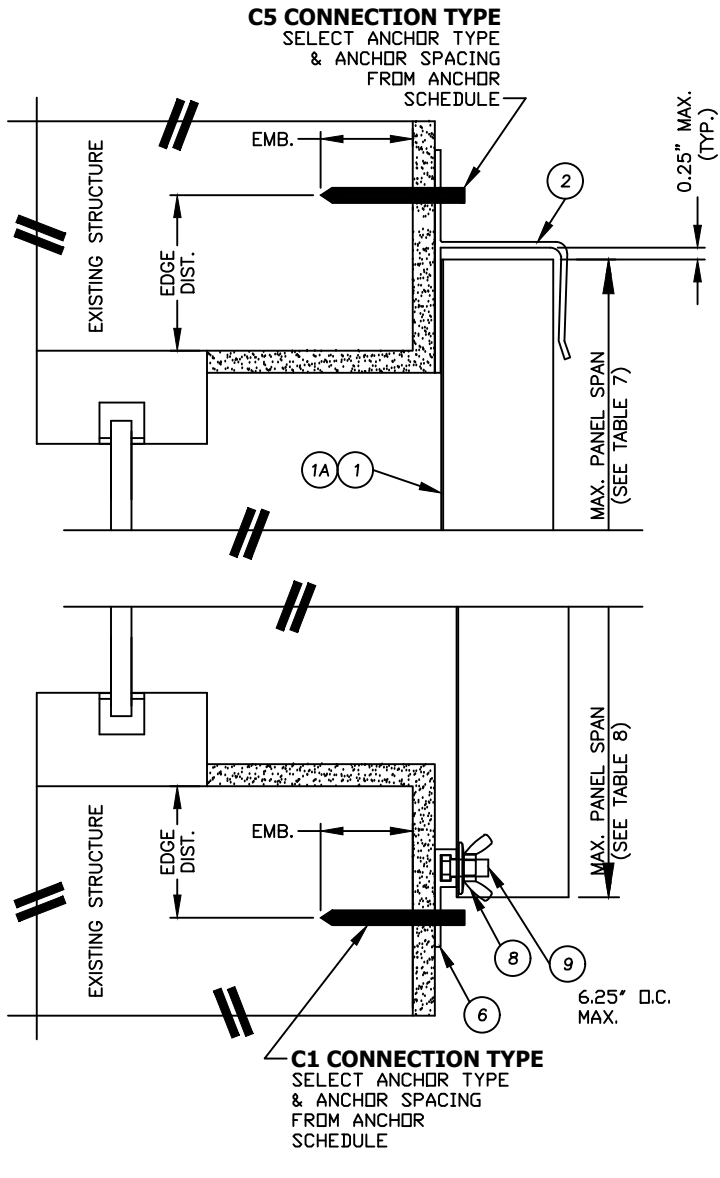
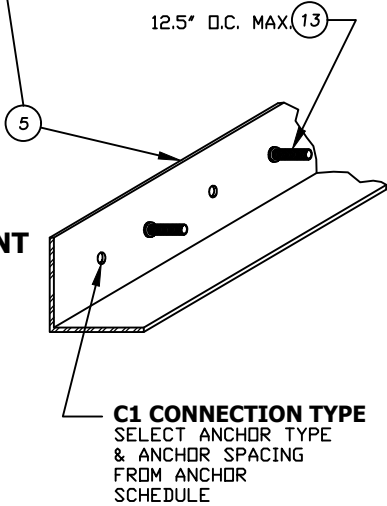
DATE	REVISIONS
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3 02/13/18	UPDATE TO 6TH ED. (2017) FBC
2 4/23/15	UPDATE TO 5TH ED. (2014) FBC
1 05/22/12	UPDATE TO 2010 FBC
NO. DATE	

DATE: 2/4/08
SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
DRAWING NO.: FL-10106.2
SHEET 4 OF 9



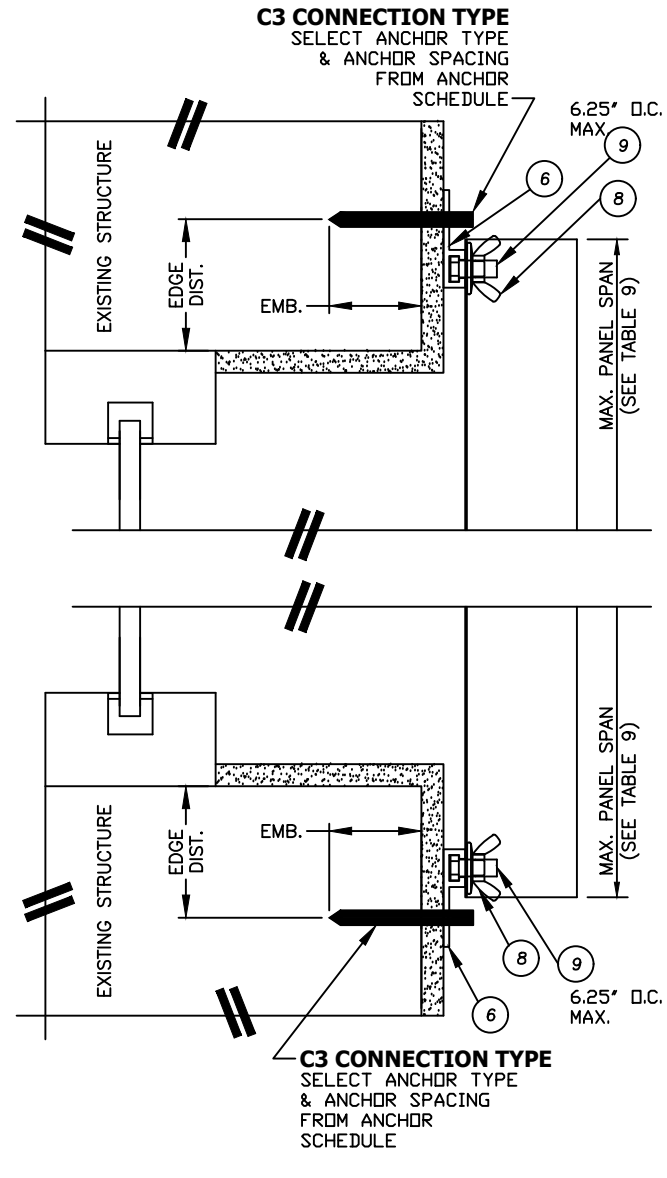
**7 "h" HEADER + STUDDED
ANGLE MOUNT SECTION**
TABLE 7 - PANEL SPAN
"h" HEADER + STUDDED ANGLE MOUNT
ALLOWABLE DESIGN PRESSURES

PANEL SPAN (in)	ALLOWABLE DESIGN PRESSURE	
	(+) PSF	(-) PSF
106.0	40.0	40.0
96.0	45.0	45.0
84.0	53.5	53.5
72.0	65.5	65.5
60.0	84.0	84.0
0-53.0	100.0	100.0



**8 "h" HEADER + FLUSH "F"
TRACK MOUNT SECTION**
TABLE 8 - PANEL SPAN
"h" HEADER + FLUSH "F" TRACK MOUNT
ALLOWABLE DESIGN PRESSURES

PANEL SPAN (in)	ALLOWABLE DESIGN PRESSURE	
	(+) PSF	(-) PSF
106.0	40.0	40.0
96.0	45.0	45.0
84.0	53.5	53.5
72.0	65.5	65.5
60.0	84.0	84.0
0-53.0	100.0	100.0



9 "F" TRACK MOUNT SECTION
TABLE 9 - PANEL SPAN
"F" TRACK MOUNT
ALLOWABLE DESIGN PRESSURES

PANEL SPAN (in)	ALLOWABLE DESIGN PRESSURE	
	(+) PSF	(-) PSF
106.0	40.0	40.0
96.0	45.0	45.0
84.0	53.5	53.5
72.0	65.5	65.5
60.0	84.0	84.0
0-53.0	100.0	100.0

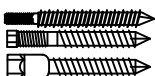
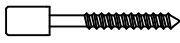
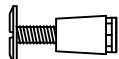
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GALV. STEEL STORM PANEL
PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS			
		LFS	JK	LFS	BY
5	8/09/23	UPDATE TO 8TH ED. (2023) FBC			
4	8/07/20	UPDATE TO 7TH ED. (2020) FBC			
3	02/13/18	UPDATE TO 6TH ED. (2017) FBC			
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1	05/22/12	UPDATE TO 2010 FBC			

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SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
DRAWING NO.: FL-10106.2
SHEET 5 OF 9

ANCHOR SCHEDULE																				
FASTENER MAX. SPACING (IN.) REQ'D FOR VARIOUS DESIGN LOADS AND SPANS																				
EXISTING STRUCTURE	ANCHOR TYPE	INSTALLATION DETAILS																		
		EDGE DISTANCE (SEE NOTE 1)	LOAD PSF MAX. (SEE NOTE 1)	SPANS UP TO 53" (SEE NOTE 1)						SPANS UP TO 106" (SEE NOTE 1)					SPANS UP TO 144" (SEE NOTE 1)					
				CONNECTION TYPE						CONNECTION TYPE					CONNECTION TYPE					
				C1	C3	C4	C5	C6	C1	C3	C4	C5	C6	C1	C3	C4	C5	C6		
CONCRETE	 1/4"φ ITW TAPCON EM = 1.75" CL = 4.0" Fc = 3000 PSI	ED = 2.5"	40	16.0	16.0	16.0	16.0	16.0	16.0	16.0	15.6	16.0	13.3	16.0						
			55	16.0	16.0	16.0	16.0	16.0	16.0	16.0	15.8	11.3	12.3	9.7	16.0					
			70	16.0	16.0	16.0	16.0	15.2	16.0	12.4	8.9	9.6	7.6	16.0						
			85	16.0	16.0	14.7	15.9	12.5	16.0	10.2	7.3	7.9	6.2	13.5						
			100	16.0	16.0	12.5	13.5	10.7	15.6	8.7	6.2	6.7	5.3	11.5						
			110	16.0	15.8	11.3	12.3	9.7	14.2	7.9	5.6	6.1	4.8	10.4						
			120	16.0	14.5	10.4	11.3	8.9	13.0	7.2	5.2	5.6	4.4	9.5						
	 1/4"φ DeWALT ULTRACON+ EM = 1.75" CL = 4.0" Fc = 3000 PSI	ED = 2.5"	40	16.0	16.0	16.0	16.0	16.0	16.0	16.0	15.6	14.0	11.0	16.0						
			55	16.0	16.0	16.0	16.0	16.0	16.0	13.1	11.3	10.1	8.0	16.0						
			70	16.0	16.0	16.0	16.0	12.6	16.0	10.3	8.9	8.0	6.3	13.5						
			85	16.0	16.0	14.6	13.1	10.4	15.1	8.4	7.3	6.5	5.2	11.1						
			100	16.0	14.4	12.4	11.2	8.8	12.9	7.2	6.2	5.6	4.4	9.5						
			110	16.0	13.1	11.3	10.1	8.0	11.7	6.5	5.6	5.0	4.0	8.6						
			120	16.0	12.0	10.4	9.3	7.3	10.7	6.0	5.2	4.6		7.9						
	 1/4"φ ELCO/DeWALT MALE/ FEMALE "PANELMATE" EM = 2.0" CL = 3.0" Fc = 3350 PSI	ED = 2.5"	40	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	14.2	16.0						
			55	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	14.5	13.1	10.3	16.0					
			70	16.0	16.0	16.0	16.0	16.0	16.0	13.3	11.4	10.3	8.1	16.0						
			85	16.0	16.0	16.0	16.0	13.4	16.0	10.9	9.4	8.5	6.7	14.4						
			100	16.0	16.0	16.0	14.4	11.4	16.0	9.3	8.0	7.2	5.7	12.2						
			110	16.0	16.0	14.5	13.1	10.3	15.1	8.4	7.2	6.5	5.1	11.1						
			120	16.0	15.5	13.3	12.0	9.5	13.9	7.7	6.6	6.0	4.7	10.2						
	 1/4"φ ITW "SAMMYS SSC" EM = 2.0" CL = 3.0" Fc = 3295 PSI	ED = 2.5"	40	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0						
			55	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	13.1	15.4	12.2	16.0					
			70	16.0	16.0	16.0	16.0	16.0	16.0	16.0	15.6	10.3	12.1	9.5	16.0					
85			16.0	16.0	16.0	16.0	15.7	16.0	12.8	8.4	10.0	7.8	16.0							
100			16.0	16.0	14.4	16.0	13.4	16.0	10.9	7.2	8.5	6.7	14.4							
110			16.0	16.0	13.1	15.4	12.2	16.0	9.9	6.5	7.7	6.1	13.1							
120			16.0	16.0	12.0	14.1	11.1	16.0	9.1	6.0	7.0	5.5	12.0							
 5/16"φ ITW TAPCON XL EM = 1.75" CL = 3.75" Fc = 3000 PSI	ED = 3.0"	40	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	13.0	16.0						
		55	16.0	16.0	16.0	16.0	16.0	16.0	16.0	15.5	14.6	12.0	9.5	16.0						
		70	16.0	16.0	16.0	16.0	14.9	16.0	12.1	11.4	9.4	7.4	16.0							
		85	16.0	16.0	16.0	15.6	12.3	16.0	10.0	9.4	7.8	6.1	13.2							
		100	16.0	16.0	16.0	13.2	10.4	15.2	8.5	8.0	6.6	5.2	11.2							
		110	16.0	15.5	14.6	12.0	9.5	13.8	7.7	7.3	6.0	4.7	10.2							
		120	16.0	14.2	13.4	11.0	8.7	12.7	7.1	6.7	5.5	4.3	9.3							
 ALL POINTS 1/4"φ SOLID SET EM = 0.875" CL = 3" Fc = 3000 PSI	ED = 2.0"	40	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	14.3	12.4	9.8	16.0						
		55	16.0	16.0	16.0	16.0	14.2	16.0	11.6	10.4	9.0	7.1	15.3							
		70	16.0	16.0	16.0	14.2	11.2	16.0	9.1	8.1	7.1	5.6	12.0							
		85	16.0	15.0	13.4	11.7	9.2	13.4	7.5	6.7	5.8	4.6	9.9							
		100	16.0	12.8	11.4	9.9	7.8	11.4	6.4	5.7	4.9	3.9	8.4							
		110	16.0	11.6	10.4	9.0	7.1	10.4	5.8	5.2	4.5	3.5	7.6							
		120	16.0	10.6	9.5	8.3	6.5	9.5	5.3	4.7	4.1	3.2	7.0							

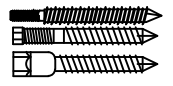
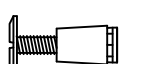
EM = MINIMUM EMBEDMENT (PENETRATION)
CL = MINIMUM CENTER TO CENTER ANCHOR SPACING

MASONRY ANCHOR SCHEDULE NOTES:

1. SPANS AND LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SCHEDULE ONLY. ALLOWABLE STORM PANEL SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN THE SPAN TABLES.
2. SEE MOUNTING SECTION DETAILS FOR IDENTIFICATION OF CONNECTION TYPE.
3. TO USE THE ANCHOR SCHEDULE, FIRST DETERMINE THE DESIGN PRESSURE, SPAN AND CONNECTION TYPE FOR THE SPECIFIC OPENING BEING PROTECTED. ENTER ANCHOR SCHEDULE AT A LOAD EQUAL TO OR GREATER THAN THE REQUIREMENT AND A SPAN EQUAL TO OR GREATER THAN THE REQUIREMENT; USE THE ANCHOR SPACING LISTED FOR THE SPECIFIC CONNECTION TYPE AND ANCHOR SELECTED.
4. LINEAR INTERPOLATION IS ALLOWED FOR INTERMEDIATE FASTENER SPACING AND LOADS.
5. EXISTING STRUCTURE MAY BE CONCRETE, HOLLOW BLOCK OR WOOD FRAMING. REFER TO ANCHOR SCHEDULE FOR PROPER ANCHOR TYPE BASED ON TYPE OF EXISTING STRUCTURE.
6. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE ANCHOR MANUFACTURER'S RECOMMENDATIONS.
7. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES WALL FINISH, WALL COVERINGS, STUCCO AND SIMILAR MATERIALS.
8. WASHERED WINGNUTS AND LOCKNUTS SHALL BE INSTALLED SUCH THAT THE NUT IS FLUSH WITH THE THREADED STUD OR BOLT, MINIMUM. SIDEWALK SCREWS (WAFFER HEAD SCREWS) SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR U.O.N.
9.  DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
10. SEE THE COMPONENT DETAILS SHEET FOR LOCATION OF ANCHOR POINTS ON EACH TYPE OF MOUNTING HARDWARE.

Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813	
PRODUCT: ELITE HURRICANE SHUTTERS GALV. STEEL STORM PANEL		PART OR ASSEMBLY: ANCHOR SCHEDULE – CONCRETE	
5	8/09/23	UPDATE TO 8TH ED. (2023)	FBC
4	8/07/20	UPDATE TO 7TH ED. (2020)	FBC
3	2/13/18	UPDATE TO 6TH ED. (2017)	FBC
2	4/23/15	UPDATE TO 5TH ED. (2014)	FBC
1	05/22/12	UPDATE TO 2010 FBC	LFS
NO.	DATE		BY
			REVISIONS
DATE: 2/4/08			
SCALE: N.T.S.			
DWG. BY:		EW	
CHK. BY:		LFS	
DRAWING NO.: FL-10106.2			
SHEET 6		OF 9	

Z:\2023 FBC Drawings\Elite Sorm Systems\FL-10106 R6\FL-10106.2.dwg

ANCHOR SCHEDULE																												
FASTENER MAX. SPACING (IN.) REQ'D FOR VARIOUS DESIGN LOADS AND SPANS																												
EXISTING STRUCTURE	ANCHOR TYPE	EDGE DISTANCE (SEE NOTE 1)	INSTALLATION DETAILS																									
			LOAD PSF MAX. (SEE NOTE 1)	SPANS UP TO 53" (SEE NOTE 1)					SPANS UP TO 84" (SEE NOTE 1)					SPANS UP TO 106" (SEE NOTE 1)					SPANS UP TO 144" (SEE NOTE 1)									
				CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE									
HOLLOW CONCRETE BLOCK	 1/4"Ø ITW TAPCON EM = 1.25" CL = 4.0"	ED = 2.5"	40	16.0	8.9	9.2	6.9	5.4	10.1	5.6	5.8	4.3		8.0	4.4	4.6			9.7									
			55	11.6	6.5	6.7	5.0		7.3	4.1	4.2			5.8					7.0									
			70	9.1	5.1	5.2			5.7					4.5														
			85	7.5	4.2	4.3			4.7																			
			100	6.4					4.0																			
			110	5.8																								
			120	5.3																								
	 1/4"Ø DeWALT ULTRA CON+ EM = 1.25" CL = 3.0"	ED = 2.5"	40	16.0	10.6	11.9	8.2	6.5	12.0	6.7	7.5	5.2	4.1	9.5	5.3	5.9	4.1	3.2	7.0									
			55	13.8	7.7	8.9	6.0	4.7	8.7	4.8	5.6	3.7		6.9	3.8	4.4	3.0											
			70	10.8	6.0	8.3	4.7	3.7	6.8	3.8	5.2			5.4	3.0	4.1												
			85	8.9	5.0	6.1	3.8	3.0	5.6	3.1	3.8			4.4		3.0												
			100	7.6	4.2	4.9	3.3		4.8		3.1			3.8														
			110	6.9	3.8	3.7	3.0		4.3					3.4														
			120	6.3	3.5	3.2			4.0					3.1														
	 1/4"Ø ELCO/DeWALT MALE/ FEMALE "PANELMATE" EM = 1.25" CL = 3.0"	ED = 2.0"	40	16.0	16.0	16.0	16.0	12.6	16.0	13.0	13.9	10.1	7.9	16.0	10.3	11.0	8.0	6.3	13.1									
			55	16.0	15.0	16.0	11.6	9.2	16.0	9.4	10.4	7.3	5.8	13.4	7.5	8.2	5.8	4.6	9.5									
			70	16.0	11.8	15.4	9.1	7.2	13.3	7.4	9.7	5.7	4.5	10.5	5.9	7.7	4.5	3.6	7.4									
			85	16.0	9.7	11.3	7.5	5.9	10.9	6.1	7.1	4.7	3.7	8.6	4.8	5.6	3.7											
			100	14.7	8.2	9.1	6.4	5.0	9.3	5.2	5.7	4.0	3.1	7.3	4.1	4.5	3.2											
			110	13.4	7.5	6.9	5.8	4.6	8.4	4.7	4.3	3.6		6.7	3.7	3.4												
			120	12.3	6.8	6.0	5.3	4.2	7.7	4.3	3.8	3.3		6.1	3.4	3.0												
	 1/4"Ø ITW DYNABOLT SLEEVE ANCHOR EM = 1.125" CL = 3.0"	ED = 1.5"	40	16.0	16.0	16.0	16.0	13.0	16.0	13.4	15.9	10.4	8.2	16.0	10.6	12.6	8.2	6.5	14.0									
			55	16.0	16.0	15.4	12.0	9.4	16.0	9.7	11.9	7.5	5.9	13.8	7.7	9.4	6.0	4.7	10.1									
			70	16.0	16.0	12.1	9.4	7.4	13.7	7.6	11.1	5.9	4.6	10.8	6.0	8.8	4.7	3.7	8.0									
			85	16.0	13.1	10.0	7.7	6.1	11.2	6.3	8.2	4.9	3.8	8.9	5.0	6.5	3.8	3.0	6.5									
			100	15.2	11.2	8.5	6.6	5.2	9.6	5.3	6.5	4.1	3.2	7.6	4.2	5.2	3.3											
			110	13.8	10.1	7.7	6.0	4.7	8.7	4.8	5.0	3.7		6.9	3.8	3.9	3.0											
			120	12.6	9.3	7.0	5.5	4.3	8.0	4.4	4.3	3.4		6.3	3.5	3.4												
	 ALL POINTS 1/4"Ø SOLID SET EM = 0.875" CL = 3"	ED = 2.0"	40	16.0	16.0	16.0	16.0	13.3	16.0	13.7	12.1	10.6	8.4	16.0	10.8	9.6	8.4	6.6	14.3									
			55	16.0	15.7	14.4	12.2	9.6	16.0	9.9	9.1	7.7	6.1	14.1	7.8	7.2	6.1	4.8	10.4									
			70	16.0	12.4	13.5	9.6	7.6	14.0	7.8	8.5	6.0	4.8	11.1	6.2	6.7	4.8	3.8	8.1									
85			16.0	10.2	9.9	7.9	6.2	11.5	6.4	6.2	5.0	3.9	9.1	5.1	4.9	3.9	3.1	6.7										
100			15.5	8.6	7.9	6.7	5.3	9.8	5.4	5.0	4.2	3.3	7.7	4.3	3.9	3.3												
110			14.1	7.8	6.0	6.1	4.8	8.9	4.9	3.8	3.8	3.0	7.0	3.9	3.0	3.0												
120			12.9	7.2	5.3	5.6	4.4	8.1	4.5	3.3	3.5		6.4	3.6														

EM = MINIMUM EMBEDMENT (PENETRATION)
CL = MINIMUM CENTER TO CENTER ANCHOR SPACING

MASONRY ANCHOR SCHEDULE NOTES:

1. SPANS AND LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE STORM PANEL SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN THE SPAN TABLES.
2. SEE MOUNTING SECTION DETAILS FOR IDENTIFICATION OF CONNECTION TYPE.
3. TO USE THE ANCHOR SCHEDULE, FIRST DETERMINE THE DESIGN PRESSURE, SPAN AND CONNECTION TYPE FOR THE SPECIFIC OPENING BEING PROTECTED. ENTER ANCHOR SCHEDULE AT A LOAD EQUAL TO OR GREATER THAN THE REQUIREMENT AND A SPAN EQUAL TO OR GREATER THAN THE REQUIRMENT; USE THE ANCHOR SPACING LISTED FOR THE SPECIFIC CONNECTION TYPE AND ANCHOR SELECTED.
4. LINEAR INTERPOLATION IS ALLOWED FOR INTERMEDIATE FASTENER SPACING AND LOADS.
5. EXISTING STRUCTURE MAY BE CONCRETE, HOLLOW BLOCK OR WOOD FRAMING. REFER TO ANCHOR SCHEDULE FOR PROPER ANCHOR TYPE BASED ON TYPE OF EXISTING STRUCTURE.
6. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE ANCHOR MANUFACTURER'S RECOMMENDATIONS.
7. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES WALL FINISH, WALL COVERINGS, STUCCO AND SIMILAR MATERIALS.
8. WASHERED WINGNUTS AND LOCKNUTS SHALL BE INSTALLED SUCH THAT THE NUT IS FLUSH WITH THE THREADED STUD OR BOLT, MINIMUM. SIDEWALK SCREWS (WAFER HEAD SCREWS) SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR U.O.N.
9.  DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
10. SEE THE COMPONENT DETAILS SHEET FOR LOCATION OF ANCHOR POINTS ON EACH TYPE OF MOUNTING HARDWARE.

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409


BUILDING CONSULTANTS, INC.
P.O. Box 230, Vairco, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT:

ELITE HURRICANE SHUTTERS
GALV. STEEL STORM PANEL

PART OR ASSEMBLY:
ANCHOR SCHEDULE -
HOLLOW BLOCK

			LFS	UPDATE TO 8TH ED. (2023)	FBC
5	8/09/23		LFS	UPDATE TO 7TH ED. (2020)	FBC
4	8/07/20		JK	UPDATE TO 6TH ED. (2017)	FBC
3	2/13/18		JK	UPDATE TO 5TH ED. (2014)	FBC
2	4/23/15		LFS	UPDATE TO 2010 FBC	
1	05/22/12		BY		
	NO.1	DATE			

REVISIONS

DATE: 2/4/08

SCALE: N.T.S.

DWG. BY: EW

CHK. BY: LFS

DRAWING NO.: FL-10106.2

SHEET 7 OF 9

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ANCHOR SCHEDULE																	
FASTENER MAX. SPACING (IN.) REQ'D FOR VARIOUS DESIGN LOADS AND SPANS																	
EXISTING STRUCTURE	ANCHOR TYPE	INSTALLATION DETAILS															
		LOAD PSF MAX. (SEE NOTE 1)	SPANS UP TO 53" (SEE NOTE 1)					SPANS UP TO 106" (SEE NOTE 1)					SPANS UP TO 144" (SEE NOTE 1)				
			CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE				
			C1	C3	C4	C5	C6	C1	C3	C4	C5	C6	C1	C3	C4	C5	C6
WOOD (G >= 0.55) (SOUTHERN YELLOW PINE)	 1/4"φ ELCO/DeWALT MALE/ FEMALE "PANELMATE" EM = 1.88" CL = 3.0"	40	16.0	16.0	16.0	16.0	16.0	16.0	16.0	13.6	16.0	15.3	16.0				
		55	16.0	16.0	16.0	16.0	16.0	16.0	16.0	9.8	14.1	11.1	16.0				
		70	16.0	16.0	15.5	16.0	16.0	16.0	14.2	7.7	11.0	8.7	16.0				
		85	16.0	16.0	12.8	16.0	14.4	16.0	11.7	6.4	9.1	7.2	15.4				
		100	16.0	16.0	10.8	15.5	12.2	16.0	9.9	5.4	7.7	6.1	13.1				
		110	16.0	16.0	9.8	14.1	11.1	16.0	9.0	4.9	7.0	5.5	11.9				
		120	16.0	16.0	9.0	12.9	10.2	14.8	8.3	4.5	6.4	5.1	10.9				
	 1/4"φ LAG SCREW EM = 1.88" CL = 2.0"	40	16.0	16.0	16.0	16.0	16.0	16.0	16.0	8.1	16.0	14.4	16.0				
		55	16.0	16.0	11.8	16.0	16.0	16.0	16.0	5.9	13.3	10.5	16.0				
		70	16.0	16.0	9.2	16.0	16.0	16.0	13.4	4.6	10.4	8.2	16.0				
		85	16.0	16.0	7.6	16.0	13.6	16.0	11.0	3.8	8.6	6.8	14.6				
		100	16.0	16.0	6.4	14.6	11.5	16.0	9.4	3.2	7.3	5.7	12.4				
		110	16.0	16.0	5.9	13.3	10.5	15.3	8.5	2.9	6.6	5.2	11.2				
		120	16.0	15.7	5.4	12.2	9.6	14.0	7.8	2.7	6.1	4.8	10.3				
	 1/4"φ WOOD SCREW EM = 1.88" CL = 2.0"	40	16.0	16.0	14.5	16.0	16.0	16.0	14.8	7.2	11.5	9.1	16.0				
		55	16.0	16.0	10.6	16.0	13.2	16.0	10.8	5.3	8.4	6.6	14.2				
		70	16.0	16.0	8.3	13.2	10.4	15.2	8.5	4.1	6.6	5.2	11.2				
		85	16.0	14.0	6.8	10.8	8.5	12.5	7.0	3.4	5.4	4.2	9.2				
		100	16.0	11.9	5.8	9.2	7.2	10.6	5.9	2.9	4.6	3.6	7.8				
		110	16.0	10.8	5.3	8.4	6.6	9.6	5.4	2.6	4.2	3.3	7.1				
		120	16.0	9.9	4.8	7.7	6.0	8.8	4.9	2.4	3.8	3.0	6.5				
	 1/4"φ SMS EM = 1.88" CL = 2.0"	40	16.0	16.0	14.5	16.0	16.0	16.0	14.8	7.2	11.5	9.1	16.0				
		55	16.0	16.0	10.6	16.0	13.2	16.0	10.8	5.3	8.4	6.6	14.2				
		70	16.0	16.0	8.3	13.2	10.4	15.2	8.5	4.1	6.6	5.2	11.2				
		85	16.0	14.0	6.8	10.8	8.5	12.5	7.0	3.4	5.4	4.2	9.2				
		100	16.0	11.9	5.8	9.2	7.2	10.6	5.9	2.9	4.6	3.6	7.8				
		110	16.0	10.8	5.3	8.4	6.6	9.6	5.4	2.6	4.2	3.3	7.1				
		120	16.0	9.9	4.8	7.7	6.0	8.8	4.9	2.4	3.8	3.0	6.5				

EM = MINIMUM EMBEDMENT (PENETRATION)
CL = MINIMUM CENTER TO CENTER ANCHOR SPACING

WOOD ANCHOR SCHEDULE NOTES:

1. SPANS AND LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE STORM PANEL SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN THE SPAN TABLES.
2. SEE MOUNTING SECTION DETAILS FOR IDENTIFICATION OF CONNECTION TYPE.
3. TO USE THE ANCHOR SCHEDULE, FIRST DETERMINE THE DESIGN PRESSURE, SPAN AND CONNECTION TYPE FOR THE SPECIFIC OPENING BEING PROTECTED. ENTER ANCHOR SCHEDULE AT A LOAD EQUAL TO OR GREATER THAN THE REQUIREMENT AND A SPAN EQUAL TO OR GREATER THAN THE REQUIRMENT; USE THE ANCHOR SPACING LISTED FOR THE SPECIFIC CONNECTION TYPE AND ANCHOR SELECTED.
4. LINEAR INTERPOLATION IS ALLOWED FOR INTERMEDIATE FASTENER SPACING AND LOADS.
5. EXISTING STRUCTURE MAY BE CONCRETE, HOLLOW BLOCK OR WOOD FRAMING. REFER TO ANCHOR SCHEDULE FOR PROPER ANCHOR TYPE BASED ON TYPE OF EXISTING STRUCTURE.
6. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE ANCHOR MANUFACTURER'S RECOMMENDATIONS.
7. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES WALL FINISH, WALL COVERINGS, STUCCO AND SIMILAR MATERIALS.
8. WASHERED WINGNUTS AND LOCKNUTS SHALL BE INSTALLED SUCH THAT THE NUT IS FLUSH WITH THE THREADED STUD OR BOLT, MINIMUM. SIDEWALK SCREWS (WAFFER HEAD SCREWS) SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR U.O.N.
9. DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
10. SEE THE COMPONENT DETAILS SHEET FOR LOCATION OF ANCHOR POINTS ON EACH TYPE OF MOUNTING HARDWARE.
10. ANCHORS INSTALLED INTO THE 1.5" FACE OF 2X FRAMING SHALL BE IN THE CENTER OF THE 1.5" FACE (.75" EDGE DISTANCE). ANCHORS SHALL BE A MINIMUM OF 2" FROM ENDS OF 2X FRAMING.
11. FOR CONNECTION TYPE "C4", ANCHORS SHALL BE INSTALLED A MINIMUM OF 1" FROM THE LOADED EDGE OF 2X FRAMING AND A MINIMUM OF 2" FROM THE ENDS OF 2X FRAMING.
12. FIELD VERIFY THAT ANCHORS ARE INTO ADEQUATE STRUCTURAL WOOD FRAMING MEMBERS AND NOT INTO PLYWOOD, OSB OR OTHER SIMILAR MATERIALS.
13. SPECIFIC GRAVITY (G = 0.55) IS FOR SOUTHERN YELLOW PINE.

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

ELITE HURRICANE SHUTTERS
GALV. STEEL STORM PANEL

PART OR ASSEMBLY:
ANCHOR SCHEDULE – WOOD

58/09/23
48/07/20
32/13/18
24/23/15
105/22/12

UPDATE TO 8TH ED. (2023)
UPDATE TO 7TH ED. (2020)
UPDATE TO 6TH ED. (2017)
UPDATE TO 5TH ED. (2014)
UPDATE TO 2010 FBC

FBC
FBC
FBC
FBC
FBC

LFS
LFS
JK
JK
LFS

REVISIONS

BY

DATE: 2/4/08

SCALE: N.T.S.

DWG. BY: EW

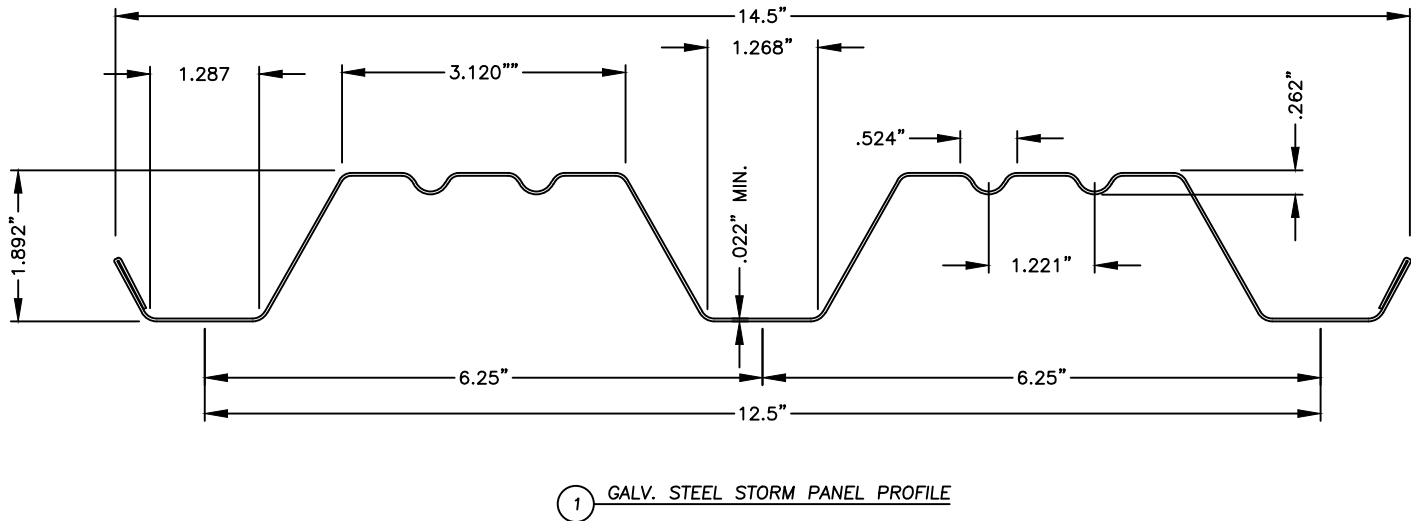
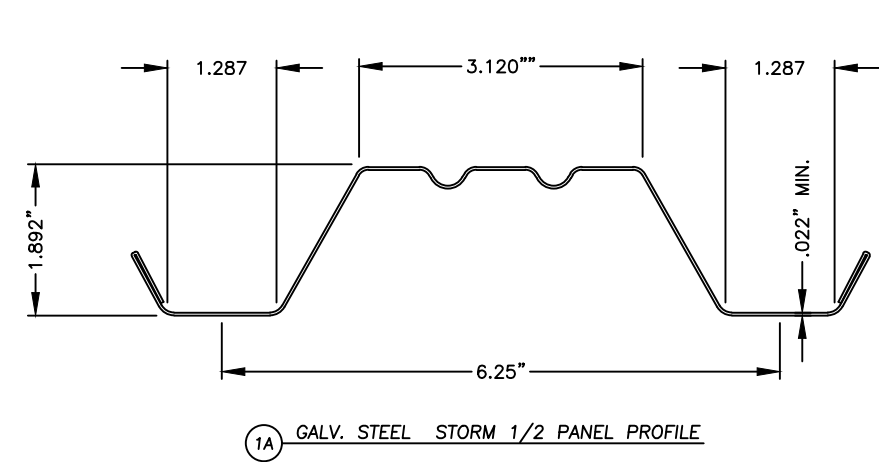
CHK. BY: LFS

DRAWING NO.: FL-10106.2

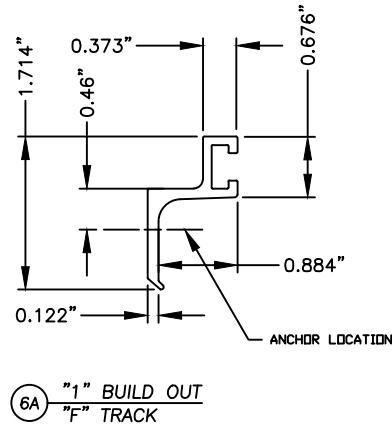
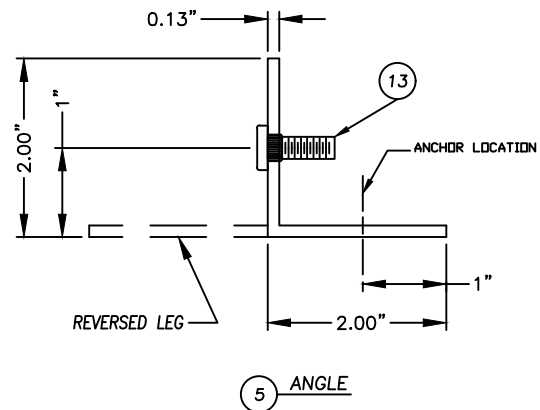
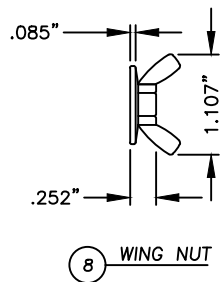
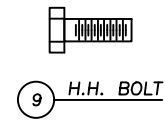
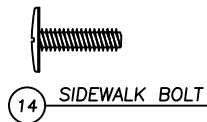
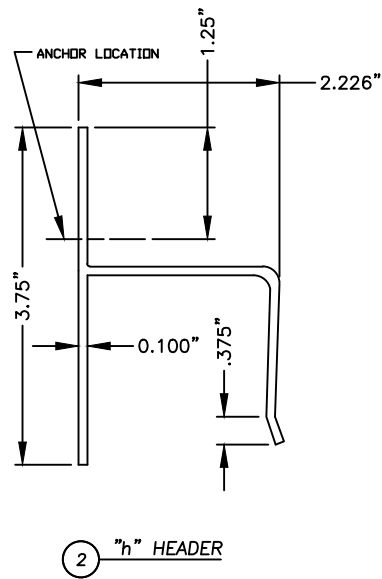
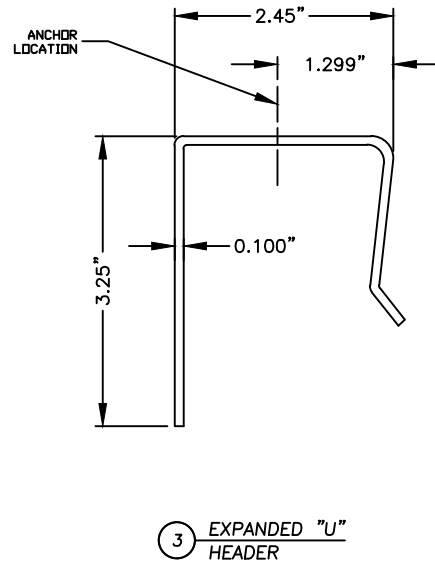
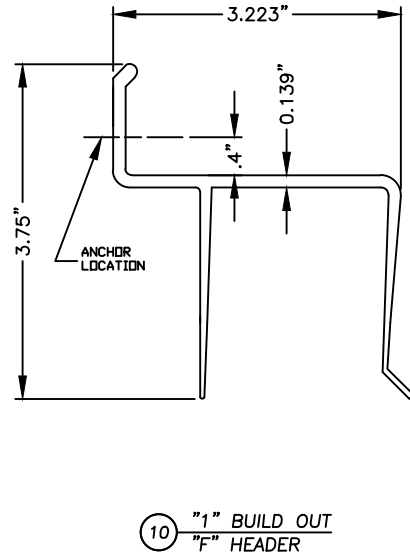
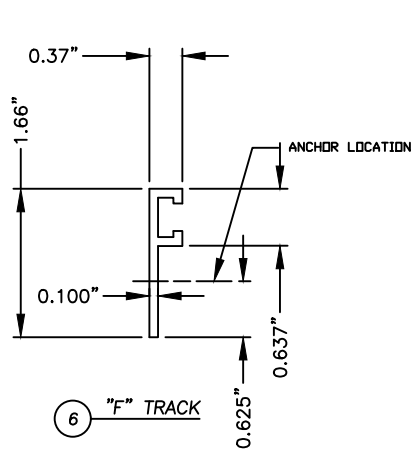
SHEET 8 OF 9

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BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813



ITEM	DESCRIPTION	MATERIAL
1	GALV. STEEL STORM PANEL (0.022" MIN. THK) ASTM A653 SS GRADE 80, Fy = 80 KSI MIN.	STEEL
1A	GALV. ST'L STORM 1/2 PANEL (0.022" MIN. THK.) ASTM A653 SS GRADE 80, Fy = 80 KSI MIN.	STEEL
2	"h" HEADER	ALUMINUM
3	EXPANDED "U" HEADER	ALUMINUM
5	2" x 2" ANGLE	ALUMINUM
6	"F" TRACK	ALUMINUM
6A	1" BUILD-OUT "F" TRACK	ALUMINUM
8	WASHERED WINGNUT	STEEL
9	1/4-20 x 3/4" H.H. BOLT	S.S.
10	1" BUILD OUT "F" HEADER	ALUMINUM
13	1/4"-20 x 3/4" KNURLED STUD	S.S.
14	1/4"-20 SIDEWALK BOLT	S.S.



Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813	
PRODUCT: ELITE HURRICANE SHUTTERS GALV. STEEL STORM PANEL		PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS	
5	8/09/23	UPDATE TO 8TH ED. (2023) FBC	LFS
4	8/07/20	UPDATE TO 7TH ED. (2020) FBC	LFS
3	2/13/18	UPDATE TO 6TH ED. (2017) FBC	JK
2	4/23/15	UPDATE TO 5TH ED. (2014) FBC	JK
1	05/22/12	UPDATE TO 2010 FBC	LFS
NO.	DATE	REVISIONS	
DATE: 2/4/08			
SCALE: N.T.S.			
DWG. BY: EW			
CHK. BY: LFS			
DRAWING NO.: FL-10106.2			
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