EASTERN METAL SUPPLY

2" CLEAR BERTHA STORM PANEL

LARGE MISSILE IMPACT RESISTANT (MISSILE LEVEL D) VALID FOR USE INSIDE AND OUTSIDE THE HVHZ (SEE LIMITATIONS HEREIN)

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

GENERAL NOTES:

- THIS SPECIFICATION HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) FOR USE INSIDE AND OUTSIDE OF THE HVHZ, PER TAS 201, 202 & 203 AND ASTM E330, E1886 & E1996 TEST PROTOCOLS. CONTRACTOR SHALL INVESTIGATE AND CONFORM TO ALL LOCAL BUILDING CODE AMENDMENTS WHICH MAY APPLY. DESIGN CRITERIA BEYOND AS STATED HEREIN MAY REQUIRE ADDITIONAL SITE-SPECIFIC SEALED ENGINEERING.
- WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN
- POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7 AND CHAPTER 1609 OF THE FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE ASD DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
- TOP AND BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY AS APPLICABLE.
- SEPARATE 'SITE-SPECIFIC' SIGNED AND SEALED ENGINEERING SHALL BE REQUIRED IN ORDER TO DEVIATE, INTERPOLATE, AND EXTRAPOLATE FROM LOADS, DEFLECTIONS, OR SPANS CONTAINED HEREIN. CONTACT THIS ENGINEER AND VISIT THE ACCOMPANYING DIGITAL INFORMATION REFERENCED HEREIN FOR ALTERNATE SPAN CALCULATIONS AS MAY BE REQUIRED.
- 6. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
- ALL STORM PANELS SHALL BE CLEAR POLYCARBONATE, t=0.100" AND CONFORM TO THE SPECIFICATIONS LISTED HEREIN.
- THE STRUCTURAL ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS BY THIS SYSTEM SHALL BE VERIFIED BY OTHERS. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR. WOOD BUNKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.

SYSTEM PERFORMANCE DERIVATIONS

SYSTEM PERFORMANCE DERIVED FROM CERTIFIED TEST REPORT(S) #BT-EMS-18-001 & #BT-EMS-18-004 BY BLACKWATER TESTING, INC. AND TEST REPORT(S) #ATLSF 0615.01-11 BY AMERICAN TEST LAB OF SOUTH FLORIDA, PER TAS 201, 202 & 203 TEST STANDARD(S).

GENERAL NOTES (CONTINUED):

- 9. 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.
- 10. ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE. ALL TOLERANCES SHALL BE IN ACCORDANCE WITH ADM 2015.
- 11. CONCRETE ANCHORS NOTED HEREIN SHALL BE EMBEDDED TO NON-CRACKED CONCRETE ONLY. INSTALL ALL CONCRETE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.
- 12. PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF (1) LABEL PER PANEL, CONTAINING THE FOLLOWING INFORMATION:

EASTERN METAL SUPPLY, INC. WEST PALM BEACH, FL TAS 201, TAS 202 & TAS 203 **ASTM E330, ASTM E1886 & ASTM E1996** FLORIDA PRODUCT APPROVAL NUMBER

- 13. CONTRACTOR IS RESPONSIBLE TO INSULATE OR PROTECT ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- 14. ALL FASTENERS TO BE ¼"Ø OR GREATER SAE GRADE 5 UNLESS NOTED OTHERWISE, FASTENERS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3.7.2 BY THE ALUMINUM ASSOCIATION, INC., & ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.
- 15. REFER TO FASTENER MANUFACTURER'S PUBLISHED DATA SHEETS AND RECOMMENDATIONS FOR FASTENER INSTALLATION INSTRUCTIONS.
- 16. ENGINEER SEAL AFFIXED HERETO VALIDATE STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
- 17. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- 18. PRESSURE VALUES ON THIS APPROVAL ARE (ASD) ALLOWABLE DESIGN PRESSURES.
- 19. ALTERATIONS ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

FRANK BENNARDO, P.E.

OCTOBER 6, 2023

NOTE REGARDING USE OF THIS DOCUMENT & USE OUTSIDE FLORIDA:

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. THIS PRODUCT EVALUATION IS VALID FOR USE IN **FLORIDA ONLY**. USE OF THIS EVALUATION REQUIRES A REVIEW &
CERTIFICATION BY A LOCAL DESIGN PROFESSIONAL WHO SHALL BE RESPONSIBLE FOR THE PROPER ADAPTATION OF THIS GENERAL PERFORMANCE EVALUATION TO ANY SITE-SPECIFIC PROJECT. CONTACT THIS OFFICE AT ENGINEERINGEXPRESS.COM/QUOTE FOR ASSISTANCE WITH YOUR PROJECT-SPECIFIC NEEDS & FOR ADAPTATION & CERTIFICATION OF THIS DOCUMENT OUTSIDE OF FLORIDA.

PAGE INDEX:

SHEET INDEX							
# SHEET	DESCRIPTION						
1	COVER SHEET						
2	TYP. VERTICAL MOUNT ELEVATION						
3	PARTS & ALLOWABLE SPANS						
4	CONNECTION DETAILS						
5-6	ANCHOR SCHEDULE						

TERMINOLOGY:

THE FOLLOWING ABBREVIATIONS APPEAR IN THIS APPROVAL: "INC." FOR "INCORPORATION", "CORP." FOR "CORPORATION", "ALUM" FOR "ALUMINUM, "ASD" FOR "ALLOWABLE STRESS DESIGN", "ASTM" FOR "AMERICAN SOCIETY FOR TESTING AND MATERIALS", "CS" FOR "CARBON STEEL", "CONN" FOR "CONNECTION", "EMBED" FOR "EMBEDMENT", "DIST." FOR "DISTANCE", "GA" FOR "GAUGE", "HVHZ" FOR "HIGH-VELOCITY HURRICANE ZONE", "LB" FOR "POUND", "MAX" FOR "MAXIMUM, "N.T.S." FOR "NOT TO SCALE", "PSF" FOR "POUNDS PER SQUARE FOOT (lb/ft2)", "SPECS" FOR "SPECIFICATIONS", "&" FOR "AND", "MAX" FOR "MAXIMUM", "W/" FOR "WITH", "EXIST" FOR "EXISTING, "STRUCT" FOR "STRUCTURE", "CONC." FOR "CONCRETE". CONTACT ENGINEERING **EXPRESS FOR ADDITIONAL** ABBREVIATION/TERMINOLOGY CLARIFICATIONS.

VISIT ECALC.IO/EASTERN

FOR SITE-SPECIFIC DEVIATIONS & MORE INFORMATION ABOUT THIS DOCUMENT OR SCAN THIS QR CODE

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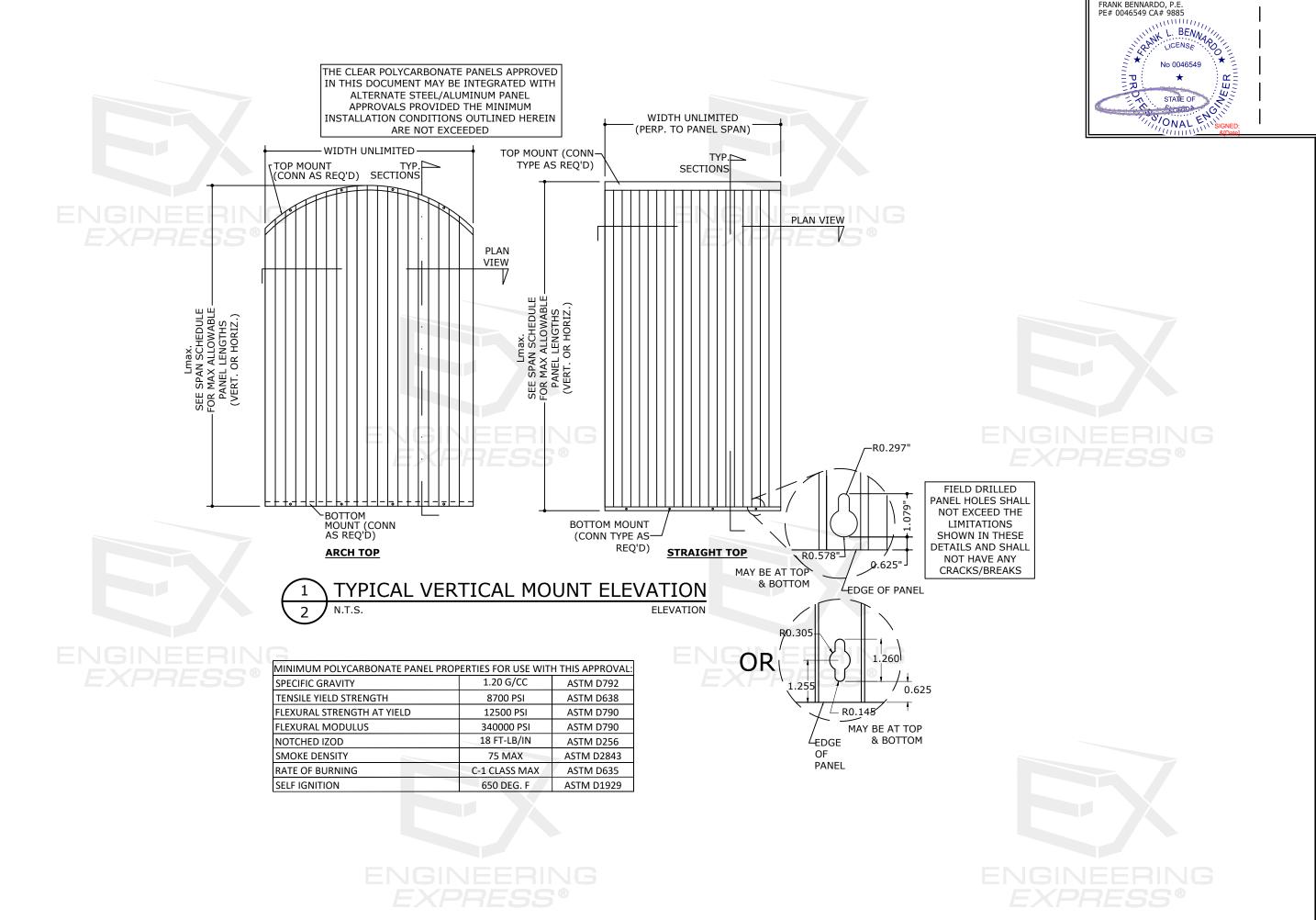
2" CLEAR BERTHA STORM F A BUILDING CODE EIGHTH E A STATEWIDE APPROVAL (FS

FLORIDA I



23-65158

SCALE: NTS UNLESS NOTED



FRANK BENNARDO, P.E. PE# 0046549 CA# 9885 OCTOBER 6, 2023 FL

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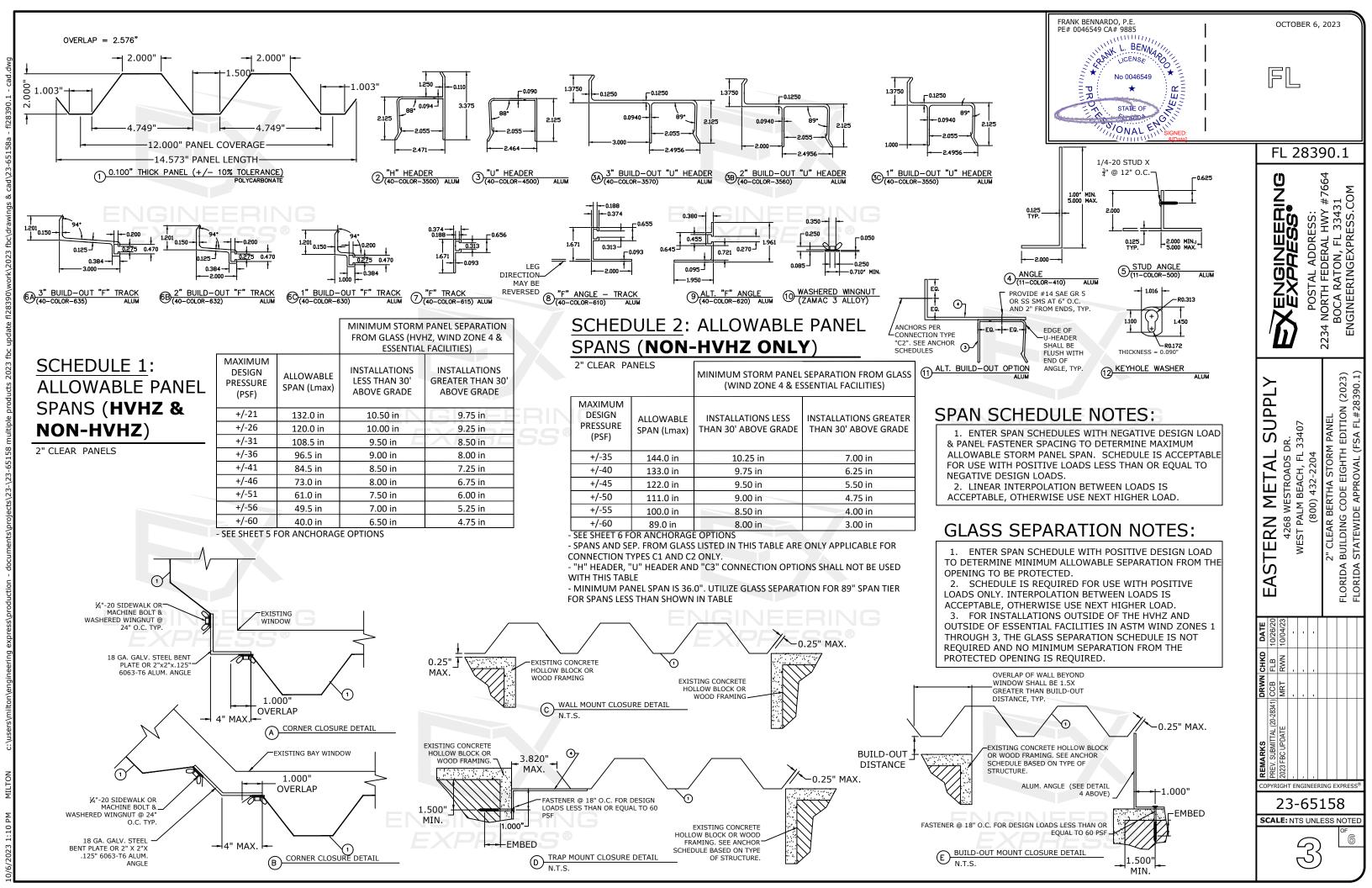
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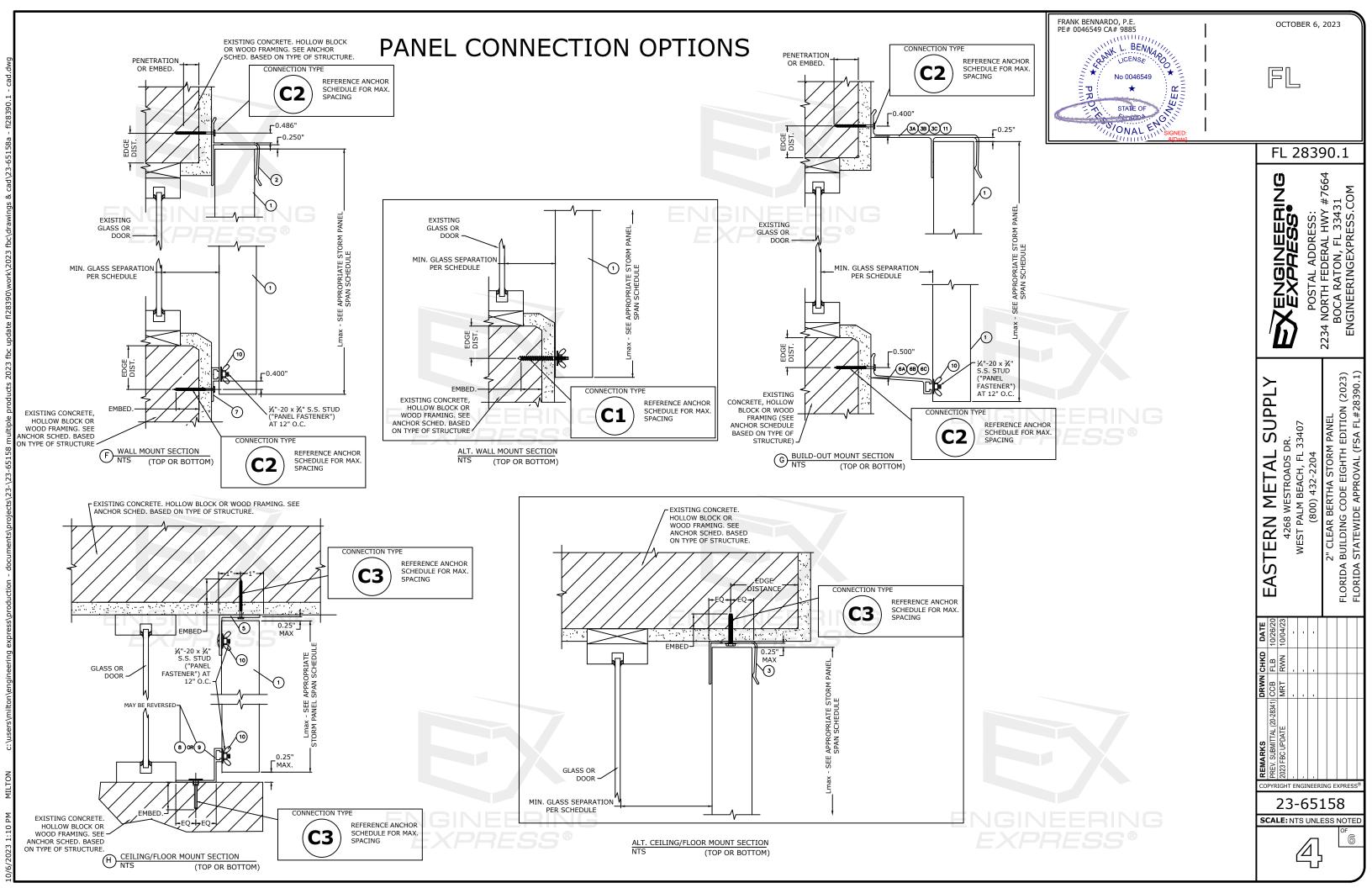
2" CLEAR BERTHA STORM PANEL FLORIDA BUILDING CODE EIGHTH EDITION (2023) FLORIDA STATEWIDE APPROVAL (FSA FL#28390.1)

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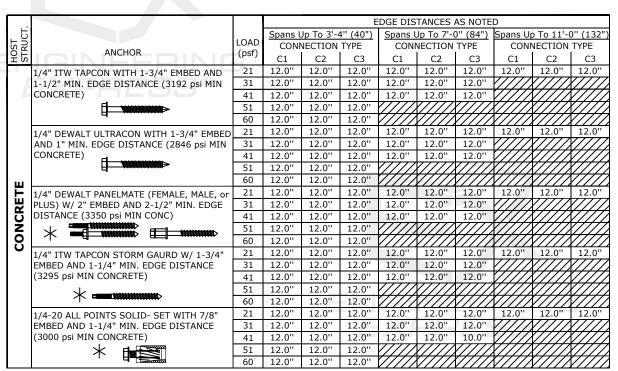
23-65158 SCALE: NTS UNLESS NOTED







ANCHOR SPACING (FOR SCHEDULE 1 - HVHZ & NON-HVHZ):



			EDGE DISTANCES AS NOTED									
. b	ANCHOR		Spans l	Jp To 3'-4	1'' (40" <u>)</u>	Spans l	Jp To 7'-()" (84")	Spans Up To 11'-0" (132")			
Z S			CONNECTION TYPE			CON	NECTION	TYPE	CONNECTION TYPE			
HOST STRUCT.	ANCHOR	(psf)	C1	C2	C3	C1	C2	C3	C1	C2	C3	
OCK	1/4" ITW TAPCON WITH 1" EMBED AND 2"	21	12.0"	12.0"	12.0"	12.0"	12.0"	11.0"	12.0"	12.0"	7.0''	
12	MIN. EDGE DISTANCE (1900 psi MIN CMU)	31	12.0"	12.0"	12.0"	12.0"	12.0''	7.5''				
1 -		41	12.0"	12.0"	12.0"	6.0"	9.5"	5.5"				
8			12.0"	12.0"	9.5''							
ED)			12.0"	12.0''	8.0''							
🖫	1/4" DEWALT ULTRACON WITH 1-1/4" EMBED AND 1" MIN. EDGE DISTANCE (1900 psi MIN	21	12.0"	12.0''	12.0"	12.0"	12.0"	11.0"	12.0"	12.0"	7.0''	
15		31	12.0"	12.0"	12.0"	12.0"	12.0"	7.5"				
臣	CMU)	41	12.0"	12.0''	12.0"	6.0"	11.5"	5.5"				
1 1 /		51	12.0"	12.0"	9.5''							
15		60	12.0"	12.0"	8.0''							
10	1/4" DEWALT PANELMATE (FEMALE, MALE, or	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0''	12.0"	12.0"	11.0"	
B	PLUS) W/ 1-1/4" EMBED AND 2" MIN. EDGE	31	12.0"	12.0"	12.0"	12.0"	12.0''	11.5"				
	DISTANCE (2000 psi MIN CMU)	41	12.0"	12.0"	12.0"	12.0"	12.0''	9.0"				
OR		51	12.0"	12.0"	12.0"							
	7, 4 61	60	12.0"	12.0"	12.0"							
>	1/4-20 ALL POINTS SOLID- SET WITH 7/8"	21	12.0"	12.0"	12.0"	12.0''	12.0''	11.5"	12.0"	12.0"	7.0''	
16	EMBED AND 1-1/4" MIN. EDGE DISTANCE	31	12.0"	12.0"	12.0"	12.0"	12.0''	7.5''				
LLO	(1800 psi MIN CMU)	41	12.0"	12.0"	12.0"	12.0"	12.0"	5.5"				
로	* f	51	12.0"	12.0''	9.5''							
Ĭ			12.0"	12.0"	8.0''							

ALTERNATE ANCHOR NOTE:

FOR ALL $\frac{1}{4}$ " AND $\frac{5}{16}$ " DIAMETER ANCHOR OPTIONS LISTED IN THE ANCHOR SCHEDULES, AN EQUIVALENT DIAMETER HILLMAN/ALL-POINTS SOLID-SET ANCHOR (CARBON OR STAINLESS STEEL) MAY BE USED IN LIEU OF THE OPTION(S) LISTED SO LONG AS THE LISTED MINIMUM EMBEDMENT. EDGE DISTANCE AND SPACING ARE ACHIEVED.

				EDGE DISTANCES AS NOTED									
F.			Spans l	Spans Up To 3'-4" (40") Spans Up To 7'-0" (84")						Spans Up To 11'-0" (132"			
. Š	ANGUAR	LOAD	CONNECTION TYPE			CONNECTION TYPE			CONNECTION TYPE				
STRUCT.	ANCHOR	(psf)	C1	C2	C3	C1	C2	C3	C1	C2	C3		
	1/4" ITW TAPCON WITH 1-3/8" THREAD	21	12.0"	12.0''	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.0"		
	PEN. AND 3/4" MIN. EDGE DISTANCE	31	12.0"	12.0"	12.0''	12.0"	12.0"	11.0"					
	(G=0.42 MIN)	41	12.0"	12.0''	12.0''	12.0"	12.0"	8.0"					
		51	12.0"	12.0''	12.0''								
			12.0"	12.0''	12.0''								
	1/4" DEWALT ULTRACON WITH 1-3/8"		12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.0"		
	THREAD PEN. AND 3/4" MIN. EDGE	31	12.0''	12.0''	12.0''	12.0"	12.0"	11.0"					
	DISTANCE (G=0.42 MIN)		12.0''	12.0''	12.0''	12.0''	12.0"	8.0''					
		51 60	12.0''	12.0''	12.0''								
	7		12.0''	12.0''	12.0''								
	1/4" DEWALT PANELMATE (FEMALE, MALE,	21	12.0''	12.0''	12.0''	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"		
	or PLUS) W/ 1-7/8" EMBED AND 3/4" MIN. EDGE DISTANCE (G=0.54 MIN.)	31	12.0''	12.0''	12.0''	12.0"	12.0"	12.0"					
		41 51	12.0''	12.0''	12.0''	12.0"	12.0"	12.0"					
ב			12.0''	12.0''	12.0''								
2			12.0''	12.0''	12.0''								
Š Š	1/4" ITW TAPCON STORM GAURD W/ 1-3/4"	21	12.0''	12.0''	12.0''	12.0''	12.0"	12.0"	12.0"	12.0"	10.0"		
>	EMBED AND 1-1/4" MIN. EDGE DISTANCE	31	12.0''	12.0''	12.0''	12.0''	12.0"	11.0"					
	(G=0.42 MIN)	41	12.0"	12.0''	12.0''	12.0"	12.0"	8.0"					
	× ====================================	51	12.0"	12.0"	12.0"						<i>\///</i>		
		60	12.0''	12.0"	12.0"		/////						
	1/4-20 PANELMATE INSERT WITH 1-5/8"	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	11.5"		
	EMBED AND 3/4" MIN. EDGE DISTANCE	31	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"			////		
	(G=0.42 MIN.)	41	12.0"	12.0"	12.0"	12.0"	12.0"	9.0''					
	×	51	12.0"	12.0"	12.0"	/////	/////		/////				
	, , , , , , , , , , , , , , , , , ,	60	12.0"	12.0"	12.0"	////	////	////	////	////	////		
	1/4" WOOD OR LAG SCREW WITH 1-3/8"	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0''	12.0"	9.5"		
	MIN THREAD PEN. AND 3/4" MIN. EDGE DISTANCE (G=0.42 MIN.)	31	12.0"	12.0'' 12.0''	12.0"	12.0'' 12.0''	12.0" 12.0"	10.5'' 7.5''		<i>/////</i>	<i>\///</i>		
	l	41 51	12.0"	12.0"	12.0"	12.0	12.0	/.5					
		60	12.0"	12.0"	12.0'' 11.0''	<i>\////</i>	<i>\////</i>	/////	<i>\////</i>	////	////		

ANCHOR NOTES:

- ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
- ENTER ANCHOR SCHEDULE BASED ON PANEL FASTENER SPACING, THE EXISTING STRUCTURE MATERIAL, & ANCHOR TYPE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN.SELECT CONNECTION TYPE BASED ON APPROPRIATE MOUNTING CONDITION (SEE MOUNTING DETAILS ON SHEET 3 FOR IDENTIFICATION OF CONNECTION TYPE).
- "PANEL FASTENERS" ARE STUDS USED IN CONJUNCTION WITH ALL MOUNTING EXTRUSIONS ("F"-TRACK, STUDDED ANGLE, ETC.). "PANEL FASTENERS" SHALL BE SPACED AT 12" O.C. ALL END PANEL HOLES SHALL HAVE PANEL FASTENERS, TYP.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- HOLLOW BLOCK HOST STRUCTURE SHALL CONFORM TO ASTM C90 BLOCK.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES. WALL FINISHES SHALL BE LIMITED TO 1/4" MAX OR SHALL BE VERIFIED BY OTHERS TO ADEQUATELY TRANSFER LOADS TO HOST
- CONCRETE ANCHORS NOTED HEREIN SHALL BE EMBEDDED TO UN-CRACKED CONCRETE ONLY.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD. FASTENING TO PLYWOOD IS ACCEPTABLE ONLY FOR SIDE
- 10. WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2" X 4" (MIN.) WOOD STUD (¾" EDGE DISTANCE IS ACCEPTABLE FOR WOOD FRAMING). WOOD STUD SHALL BE G=0.42 OR GREATER DENSITY, U.N.O. LAG SCREWS SHALL HAVE PHILLIPS PAN HEAD OR HEX HEAD.
- 11. REMOVABLE ANCHORS ARE: DEWALT PANELMATE, ALL-POINTS SOLID-SET.
- 12. MACHINE SCREWS SHALL HAVE 1/2" MINIMUM ENGAGEMENT OF THREADS INTO THE BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD (SIDEWALK BOLT) U.N.O.
- 13. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO OR OTHER WALL FINISHES.
- 14. ZZ DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
- * DIRECT MOUNTING CONDITIONS.
- LINEAR INTERPOLATION IS NOT PERMITTED FOR USE WITH THE ANCHOR SCHEDULES LISTED ON THIS SHEET.
- 17. PROVIDE KEYHOLE WASHER FOR 1/4-20 SIDEWALK BOLTS (OR TRUSS HEAD SCREWS)

FL 28390.1

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OCTOBER 6, 2023

FRANK BENNARDO, P.E.

PE# 0046549 CA# 9885

(2023) 2" CLEAR BERTHA STORM PANEL BUILDING CODE EIGHTH EDITION (202: STATEWIDE APPROVAL (FSA FL#28390.

SUPPLY

STERN METAL

EA

FLORIDA E

23-65158 SCALE: NTS UNLESS NOTED

ANCHOR SPACING (FOR SCHEDULE 2 - NON-HVHZ ONLY):

	PANELS								
							AS NOTE		
5			Spans Up To 3'-0" Spans Up To 7'-0" Spans Up To						
SS	ANGLIOR	LOAD	CONN	I TYPE	CONN	I TYPE	CON	N TYPE	
HOST STRUCT.	ANCHOR	(psf)	C1	C2	C1	C2	C1	C2	
	1/4" ITW TAPCON WITH 1-3/4"	35	12.0"	12.0"	12.0"	12.0''	12.0"	12.0"	
	EMBED AND 1-1/2" MIN. EDGE	40	12.0"	12.0"	12.0"	12.0''	///		
	DISTANCE (3192 psi MIN	45	12.0"	12.0"	12.0"	12.0''		Y/Z/Z	
	CONCRETE)		12.0"	12.0"	12.0"	12.0"			
	f	55	12.0"	12.0"	12.0"	12.0"			
	H	60	12.0"	12.0"	12.0"	12.0"	Y/J		
	1/4" DEWALT ULTRACON WITH 1-3/4"	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	EMBED AND 1" MIN. EDGE DISTANCE	40	12.0"	12.0"	12.0"	12.0"		1///	
	(2846 psi MIN CONCRETE)		12.0"	12.0"	12.0"	12.0"	///	7///	
		50	12.0"	12.0"	12.0"	12.0"	//		
		55	12.0"	12.0"	12.0"	12.0"	///		
		60	12.0"	12.0"	12.0"	12.0"	777		
lш	1/4" DEWALT PANELMATE (FEMALE,	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
l 🔚	MALE, or PLUS) W/ 2" EMBED AND	40	12.0"	12.0"	12.0"	12.0"	///		
CONCRET	2-1/2" MIN. EDGE DISTANCE (3350	45	12.0"	12.0"	12.0"	12.0"	///		
9	psi MIN CONC)	50	12.0"	12.0"	12.0"	12.0"	///		
Ιō		55	12.0"	12.0"	12.0"	12.0"	///		
Ŭ		60	12.0"	12.0"	12.0"	12.0"	///		
	1/4" ITW TAPCON STORM GAURD W/	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	1-3/4" EMBED AND 1-1/4" MIN. EDGE	40	12.0"	12.0"	12.0"	12.0"	///		
	DISTANCE (3295 psi MIN CONCRETE)	45	12.0"	12.0"	12.0"	12.0"	///		
	1	50	12.0"	12.0"	12.0"	12.0"			
		55	12.0"	12.0"	12.0"	12.0"	///		
		60	12.0"	12.0"	12.0"	12.0"	///		
	1/4-20 ALL POINTS SOLID- SET	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	WITH 7/8" EMBED AND 1-1/4"	40	12.0"	12.0"	12.0"	12.0"	///	///	
	MIN. EDGE DISTANCE (3000 psi	45	12.0"	12.0"	12.0"	12.0"	///		
	MIN CONCRETE)	50	12.0"	12.0"	12.0"	12.0"	///		
	* +	55	12.0"	12.0"	12.0"	12.0"	///		
		60	12.0"	12.0"	12.0"	12.0"	///		

				Е	DGE DIS	TANCES	AS NOTE	D
\Box			Spans Up	To 3'-0''	To 7'-0''	Spans Up	To 12'-0'	
RU	ANCHOR	LOAD	CONN	TYPE	CONN	TYPE	CONI	N TYPE
STRUCT	ANCHOR	(psf)	C1	C2	C1	C2	C1	C2
	1/4" ITW TAPCON WITH 1" EMBED	35	12.0"	12.0"	6.0''	11.5"	6.0''	6.0''
	AND 2" MIN. EDGE DISTANCE (1900	40	12.0"	12.0"	6.0''	10.0"	///	
	psi MIN CMU)	45	12.0"	12.0"	6.0''	9.0"		///
Ź.		50	12.0"	12.0"	6.0''	8.0"	//	///
ВГОСК		55	12.0"	12.0"	6.0''	7.0"	///	///
) L	H	60	12.0"	12.0"	6.0''	6.0"	777	///
—	1/4" DEWALT ULTRACON WITH 1-1/4"	35	12.0"	12.0"	12.0"	12.0"	6.0''	7.0''
	EMBED AND 1" MIN. EDGE DISTANCE	40	12.0"	12.0"	12.0"	12.0"	///	
	(1900 psi MIN CMU)	45	12.0"	12.0"	6.0''	10.5"	///	///
rilleu		50	12.0"	12.0"	6.0''	9.5"		///
4		55	12.0"	12.0"	6.0"	8.5"		///
-100	T	60	12.0"	12.0"	6.0"	7.0"	Y/J	
כ	1/4" DEWALT PANELMATE (FEMALE,	35	12.0"	12.0"	12.0"	12.0"	12.0"	11.0"
פֿצ	MALE, or PLUS) W/ 1-1/4" EMBED	40	12.0"	12.0"	12.0"	12.0"		
	AND 2" MIN. EDGE DISTANCE (2000	45	12.0"	12.0"	12.0"	12.0"		
(OR	psi MIN CMU)	50	12.0"	12.0"	12.0"	12.0"		
		55	12.0"	12.0"	12.0"	12.0"		
≥		60	12.0"	12.0"	12.0"	11.0"		
LLOW	1/4-20 ALL POINTS SOLID- SET WITH	35	12.0"	12.0"	12.0"	12.0"	6.0''	8.5"
	7/8" EMBED AND 1-1/4" MIN. EDGE	40	12.0"	12.0"	12.0"	12.0"	///	
5	DISTANCE (1800 psi MIN CMU)	45	12.0"	12.0"	12.0"	12.0"		
_		50	12.0"	12.0"	6.0''	11.0"		V/Z
	* 1	55	12.0"	12.0"	6.0"	10.0"		
		60	12.0"	12.0"	6.0''	8.5"	$Y \overline{Z} \overline{Z}$	///

			EDGE DISTANCES AS NOTED						
H			Spans Up To 3'-0" Spans Up To 7'-0" Spans Up				n To 12'-0''		
HOST STRUCT.		LOAD		TYPE		TYPE	CONN TYPE		
5 X	ANCHOR	(psf)	C1	C2	C1	C2	C1	C2	
Τ 0)	1/4" ITW TARCON WITH 1 2/0" TURES	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	1/4" ITW TAPCON WITH 1-3/8" THREAD PEN. AND 3/4" MIN. EDGE DISTANCE	40	12.0"	12.0"	12.0"	12.0"	7 /	777	
	(G=0.42 MIN)	45	12.0"	12.0"	12.0"	12.0"	///	///	∥
	(3 3.12 1.114)	50	12.0"	12.0"	12.0"	12.0"	Y//	///	
	d d	55	12.0"	12.0"	12.0"	12.0"	///	///	L
		60	12.0"	12.0"	12.0"	12.0"	///		
	1/4" DEWALT ULTRACON WITH 1-3/8"	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	THREAD PEN. AND 3/4" MIN. EDGE	40	12.0"	12.0"	12.0"	12.0"	777	77	
	DISTANCE (G=0.42 MIN)	45	12.0"	12.0"	12.0"	12.0"	//		
	,	50	12.0"	12.0"	12.0"	12.0"	///		
	f was a second	55	12.0"	12.0"	12.0"	12.0"	Y//	///	
	H manufathan	60	12.0"	12.0"	12.0"	12.0"	///		
	1/4" DEWALT PANELMATE (FEMALE, MALE,	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	or PLUS) W/ 1-7/8" EMBED AND 3/4" MIN.	40	12.0"	12.0"	12.0"	12.0"	///		
	EDGE DISTANCE (G=0.54 MIN.)	45	12.0"	12.0"	12.0"	12.0"	//		
		50	12.0"	12.0"	12.0"	12.0"			
۵		55	12.0"	12.0"	12.0"	12.0"	///		
ō		60	12.0"	12.0"	12.0"	12.0"	V//		
WOOD	1/4" ITW TAPCON STORM GAURD W/ 1-3/4"	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
>	EMBED AND 1-1/4" MIN. EDGE DISTANCE	40	12.0"	12.0"	12.0"	12.0"	///		
	(G=0.42 MIN)		12.0"	12.0"	12.0"	12.0"			
		50	12.0"	12.0"	12.0"	12.0"			
		55	12.0"	12.0"	12.0"	12.0"	Y/Z		
	•	60	12.0"	12.0"	12.0"	12.0"	Y/\overline{Z}	///	
	1/4-20 PANELMATE INSERT WITH 1-5/8"	35	12.0"	12.0"	12.0"	12.0"	12.0"	11.5"	
	EMBED AND 3/4" MIN. EDGE DISTANCE	40	12.0"	12.0"	12.0"	12.0"	V/J		
	(G=0.42 MIN.)	45	12.0"	12.0"	12.0"	12.0"	\mathbb{Z}/\mathbb{Z}		
	_4 N	50	12.0"	12.0"	12.0"	12.0"			
	* 	55	12.0"	12.0"	12.0"	12.0"	//		
		60	12.0"	12.0"	12.0"	11.5"			
	1/4" WOOD OR LAG SCREW WITH 1-3/8"	35	12.0"	12.0"	12.0"	12.0"	12.0"	11.5"	
	MIN THREAD PEN. AND 3/4" MIN. EDGE	40	12.0"	12.0"	12.0"	12.0"	V//	///	
	DISTANCE (G=0.42 MIN.)	45	12.0"	12.0"	12.0"	12.0"		\mathbb{Z}/\mathbb{Z}	
		50	12.0"	12.0"	12.0"	12.0"			
		55	12.0"	12.0"	12.0"	12.0"	[//		
	J	60	12.0"	12.0"	12.0"	11.5"	Y/		

OCTOBER 6, 2023 PE# 0046549 CA# 9885 FL ONAL

FL 28390.1

2" CLEAR BERTHA STORM PANEL BUILDING CODE EIGHTH EDITION (202: STATEWIDE APPROVAL (FSA FL#28390.

STERN METAL

SUPPLY

EĄ

FLORIDA E

23-65158 SCALE: NTS UNLESS NOTED

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ANCHOR NOTES:

ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.

ENTER ANCHOR SCHEDULE BASED ON PANEL FASTENER SPACING, THE EXISTING STRUCTURE MATERIAL, & ANCHOR TYPE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN. THIS SHEET APPLIES TO CONNECTION TYPE "C1" AND "C2" ONLY (SEE MOUNTING DETAILS ON SHEET 3 FOR IDENTIFICATION OF CONNECTION TYPE). "H" HEADER AND "U" HEADER OPTIONS ARE NOT APPLICABLE FOR THESE TABLES.

ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

- HOLLOW BLOCK HOST STRUCTURE SHALL CONFORM TO ASTM C90 BLOCK.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES. WALL FINISHES SHALL BE LIMITED TO 1/4" MAX OR SHALL BE VERIFIED BY OTHERS TO ADEQUATELY TRANSFER LOADS TO HOST STRUCTURE.
- CONCRETE ANCHORS NOTED HEREIN SHALL BE EMBEDDED TO UN-CRACKED CONCRETE ONLY.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD. FASTENING TO PLYWOOD IS ACCEPTABLE ONLY FOR SIDE CLOSURE PIECES.
- WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2" X 4" (MIN.) WOOD STUD (3/4" EDGE DISTANCE IS ACCEPTABLE FOR WOOD FRAMING). WOOD STUD SHALL BE G=0.42 OR GREATER DENSITY, U.N.O. LAG SCREWS SHALL HAVE PHILLIPS PAN HEAD OR HEX HEAD.
- 10. REMOVABLE ANCHORS ARE: DEWALT PANELMATE, ALL-POINTS SOLID-SET.
- 11. MACHINE SCREWS SHALL HAVE 1/2" MINIMUM ENGAGEMENT OF THREADS INTO THE BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD (SIDEWALK BOLT) U.N.O.
- 12. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO OR OTHER WALL FINISHES.
- 13. ZZI DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
- 14. * DIRECT MOUNTING CONDITIONS.
- LINEAR INTERPOLATION IS NOT PERMITTED FOR USE WITH THE ANCHOR SCHEDULES LISTED ON THIS SHEET.
- PROVIDE KEYHOLE WASHER FOR 1/4-20 SIDEWALK BOLTS

ALTERNATE ANCHOR NOTE:

FOR ALL $\frac{1}{4}$ " AND $\frac{5}{16}$ " DIAMETER ANCHOR OPTIONS LISTED IN THE ANCHOR SCHEDULES, AN EQUIVALENT DIAMETER HILLMAN/ALL-POINTS SOLID-SET ANCHOR (CARBON OR STAINLESS STEEL) MAY BE USED IN LIEU OF THE OPTION(S) LISTED SO LONG AS THE LISTED MINIMUM EMBEDMENT, EDGE DISTANCE AND SPACING ARE ACHIEVED.