

WAYNE-DALTON, A DIVISION OF OVERHEAD DOOR CORP.

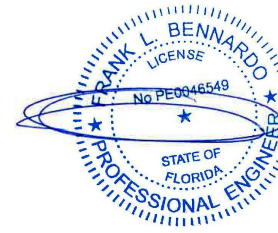
FABRIC-SHIELD STORM PANEL
RATED FOR IMPACT RESISTANCE

VALID FOR USE OUTSIDE THE HVHZ ONLY (SEE LIMITATIONS HEREIN)

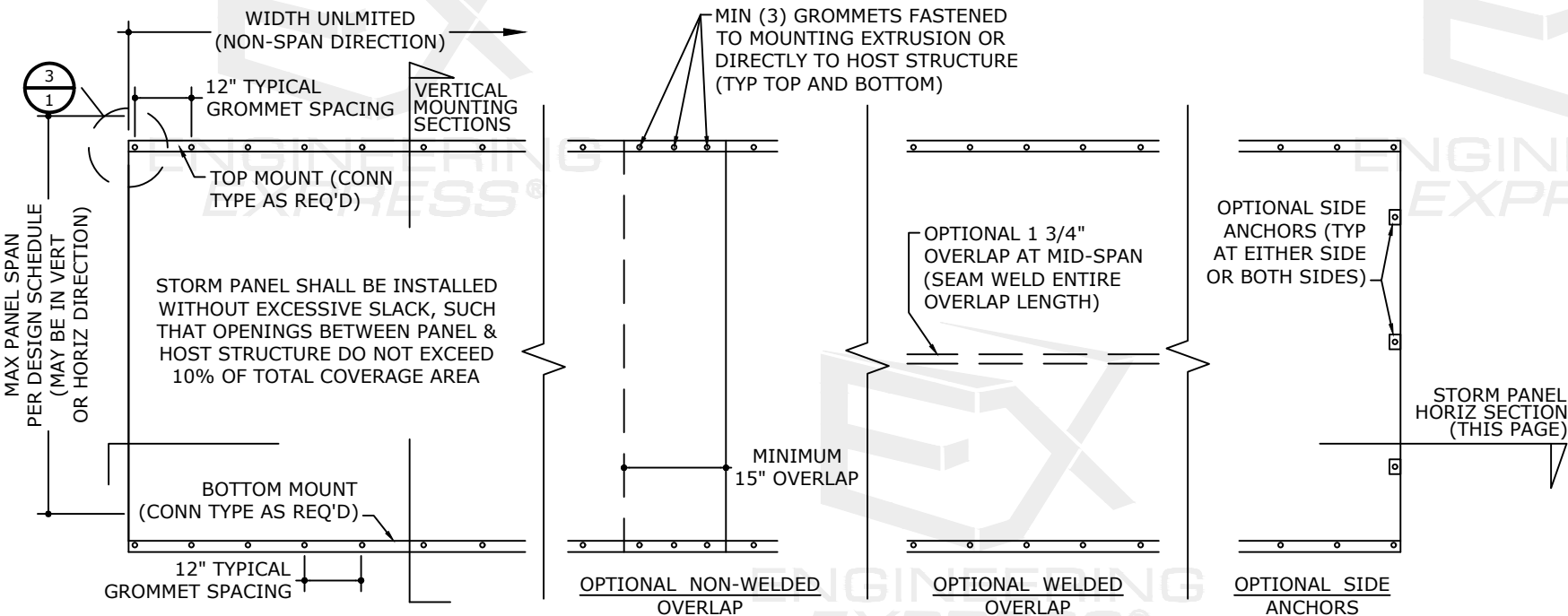
NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

FRANK BENNARDO, P.E.
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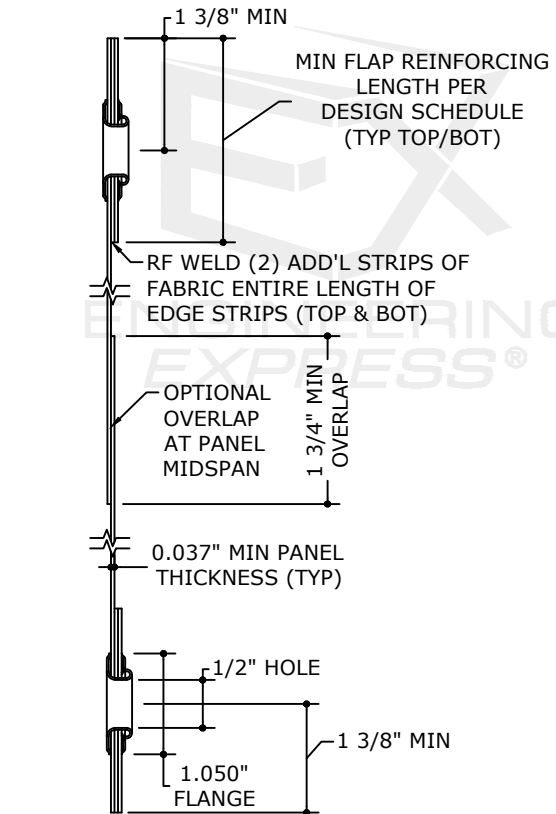
AUGUST 11, 2023



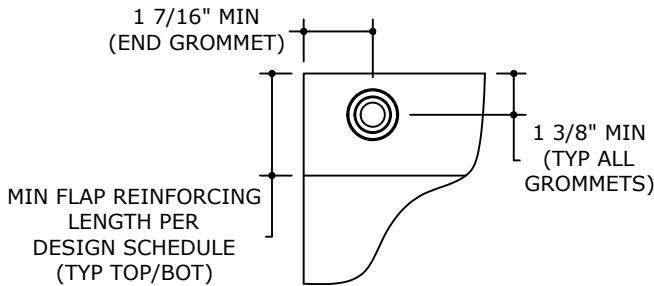
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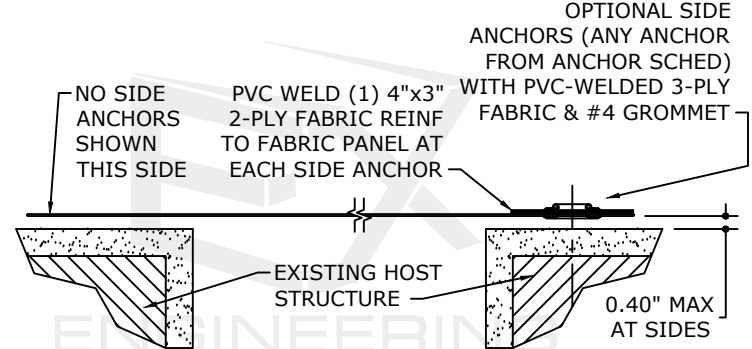
1
1
TYPICAL VERTICAL MOUNT
N.T.S. ELEV



2
1
PANEL PROFILE
6" = 1'-0"



3
1
CORNER GROMMET
3" = 1'-0" ELEV



4
1
HORIZONTAL SECTION
N.T.S. HORIZ SECTION

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.

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TERMINOLOGY:

THE FOLLOWING ABBREVIATIONS APPEAR IN THIS APPROVAL: "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". CONTACT ENGINEERING EXPRESS FOR ADDITIONAL ABBREVIATION/TERMINOLOGY CLARIFICATIONS.

VISIT [ECALC.IO/60448](https://ecalculator.com/60448)

FOR SITE-SPECIFIC DEVIATIONS
& MORE INFORMATION ABOUT THIS DOCUMENT
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Wayne-Dalton

A Division of Overhead Door Corporation

3395 Addison Drive
Pensacola, FL 32514

Fabric-Shield Storm Panel

FLORIDA BUILDING CODE EIGHTH EDITION (2023)

FLORIDA STATEWIDE APPROVAL (FSA FL# 3327.1)

REMARKS	DRWN	CHKD	DATE
PREV. SUBMITTAL (20-29574)	CCB	RWN	07/28/20
2023 FBC UPDATE	MRT	ERJRN	08/11/23

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23-60448

SCALE: NTS UNLESS NOTED



POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE-SPECIFIC WIND LOAD REQUIREMENTS SHALL BE DETERMINED IN ACCORDANCE WITH ASCE 7 AND THE GOVERNING BUILDING CODE BY SEPARATE ENGINEERING CERTIFICATION AND SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUE LISTED HEREIN FOR ANY ASSEMBLY WITHIN THE LIMITATIONS STATED HEREIN.

MAX ALLOWABLE SPAN	MIN FLAP REINFORCING LENGTH	ALLOWABLE PRESSURES				DESIGN LOADS	
		DIRECT MOUNT		TRACK MOUNT		TENSION	SHEAR
108"	2-1/8"	+62 PSF	-66 PSF	+62 PSF	-60 PSF	308 LB/FT	627 LB/FT
76-1/4"	6-3/8"	+96 PSF	-96 PSF	-	-	305 LB/FT	479 LB/FT
61"	6-3/8"	+119 PSF	-119 PSF	-	-	302 LB/FT	407 LB/FT
39"	6-3/8"	+128 PSF	-128 PSF	-	-	209 LB/FT	418 LB/FT

SPAN NOTES:

1. ALLOWABLE PRESSURES SHALL NOT BE EXCEEDED.
2. PANEL SPANS LONGER THAN MAXIMUM NOTED ABOVE ARE NOT ACCEPTABLE.
3. PANEL SPANS LESS THAN MINIMUM NOTED ABOVE ARE NOT ACCEPTABLE.
4. NO SEPARATION FROM GLASS IS REQUIRED WHEN PANEL SPAN IS GREATER THAN MINIMUM SPAN NOTED ABOVE.
5. VALID FOR PANELS MOUNTED VERTICALLY OR HORIZONTALLY.

SPANS UP TO	MINIMUM GLASS SEPARATION	
	INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE
108"	21.0"	6.5"
76-1/4"	11.1"	3.1"
61"	11.1"	2.1"
39"	8.1"	1.2"

1. GLASS SEPARATION SCHEDULE PROVIDES MINIMUM SEPARATION DISTANCE REQUIRED BETWEEN EXTERIOR FACE OF GLAZING (OR OTHER PRODUCT BEING PROTECTED) AND INTERIOR FACE OF INSTALLED STORM PANEL.
2. SEPARATION FROM GLASS IS REQUIRED ONLY WHEN INSTALLED WITHIN ASTM WIND ZONE 4 AND ESSENTIAL FACILITIES.

1. THIS STORM PANEL SYSTEM HAS BEEN TESTED AND EVALUATED AS A LARGE MISSILE PROTECTIVE SYSTEM IN ACCORDANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AND THE INTERNATIONAL BUILDING/RESIDENTIAL CODE, FOR USE OUTSIDE FLORIDA'S HIGH VELOCITY HURRICANE ZONE (HVHZ) ONLY.
2. PRESSURE VALUES ON THIS APPROVAL ARE (ASD) ALLOWABLE DESIGN PRESSURES.
3. WIND LOAD DURATION FACTOR $C_d = 1.6$ HAS BEEN USED FOR WOOD ANCHOR DESIGN.
4. 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 BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO EXISTING STRUCTURE.
5. 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 SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
6. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
7. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
8. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS.
9. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
10. ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI U.N.O.
11. STORM PANELS SHALL BE PVC COATED WOVEN POLYESTER FABRIC (THICKNESS $t=0.037"$) WITH A MIN. $F_u=16.053$ KSI.
12. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE (i.e. WITH LINE OF ANCHORAGE IN VERTICAL DIRECTION).
13. PANELS MAY BE INSTALLED WITH OPTIONAL SIDE ANCHORS AS DEPICTED HEREIN, HOWEVER SYSTEM PERFORMANCE IS BASED ON TESTING WITHOUT SIDE ANCHORS. TESTS SHOW A FAILURE LOAD OF 987 LBS FOR THE #4 GROMMET AND 4"x3" 3-PLY PVC-WELDED FABRIC CONSTRUCTION AT EACH SIDE ANCHOR (ANCHOR NOT CONSIDERED).
14. ALL ACCEPTANCE CRITERIA HAVE BEEN MET FOR THIS SHUTTER AS A NON-POROUS SYSTEM, AS DEFINED IN ASTM E1996. IN KEEPING WITH THIS STANDARD WHEN INSTALLED OUTSIDE OF ASTM WIND ZONE 4 AND ESSENTIAL FACILITIES, NO MINIMUM SEPARATION FROM THE GLAZING BEING PROTECTED IS REQUIRED, AND BREAKING OF THIS GLAZING DOES NOT COMPROMISE THE BUILDING ENVELOPE.
15. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
16. CONCRETE ANCHORS NOTED HEREIN SHALL BE EMBEDDED TO UN-CRACKED CONCRETE ONLY. INSTALL ALL CONCRETE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.
17. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE AS NOTED HEREIN. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
18. ENGINEER SEAL AFFIXED HERETO VALIDATES 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.
19. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
20. ALTERATIONS, ADDITIONS, HIGHLIGHTING, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.
21. PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL CONTAINING:
WAYNE-DALTON CORP.
PENSACOLA, FL
ASTM E330, E1886 & E1996
FLORIDA STATEWIDE APPROVAL NUMBER

FL 3327.1

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Wayne-Dalton

A Division of Overhead Door Corporation
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Pensacola, FL 32514

Fabric-Shield Storm Panel

FLORIDA BUILDING CODE EIGHTH EDITION (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL# 3227.1)

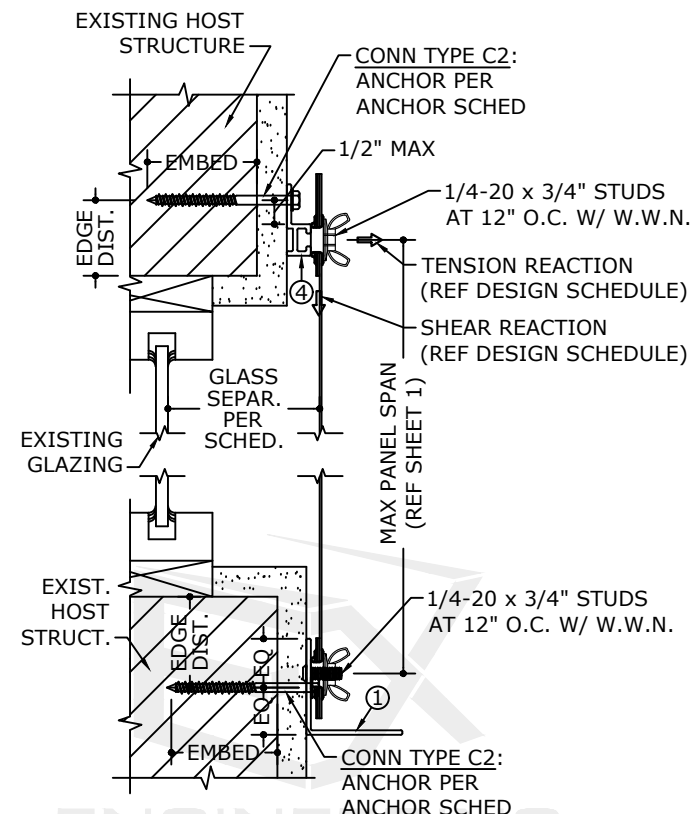
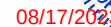
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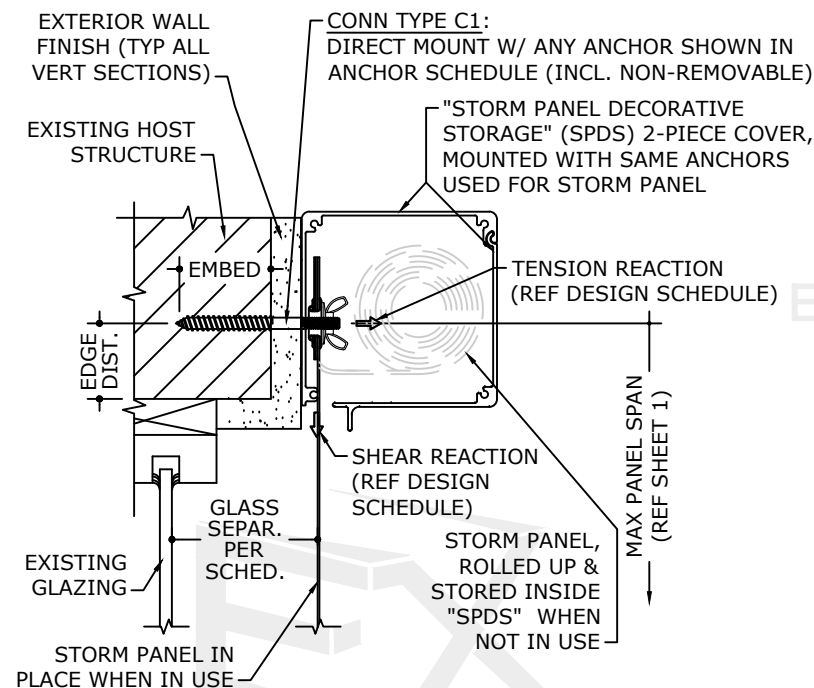
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SCALE: NTS UNLESS NOTED

2



 MOUNTING SECTION
3" = 1'-0" VERT SECTION



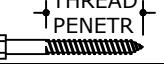
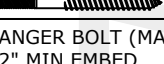
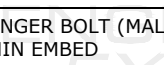

 (OPTIONAL) $3'' = 1'-0''$ VERT SECTION

HOST STRUCT.	ANCHOR	LOAD (psf)	3/4" MIN EDGE DISTANCE (UNLESS OTHERWISE NOTED)								
			Spans Up To 4'-0"			Spans Up To 6'-0"			Spans Up To 9'-0"		
			CONN TYPE			CONN TYPE			CONN TYPE		
			C1	C2	C3	C1	C2	C3	C1	C2	C3
WOOD (G=0.55)	1/4" LAG SCREW WITH MIN 2-3/32" THREAD PENETR. 	38	10"	10"	3"	7"	7"		4"	4"	
		47	8"	8"	3"	5"	5"		4"	4"	
		66	6"	6"		4"	4"		3"	3"	
		96	4"	4"		3"	3"		3"	3"	
		128	4"	4"		3"	3"				
		38	9"	9"	4"	6"	6"	3"	4"	4"	
	1/4" TAPCON (DEWALT OR S.S. ITW) OR 1/4" DEWALT CRETE-FLEX OR #14 WOOD SCREW WITH 1-1/2" MIN THREAD PENETR. 	47	7"	7"	3"	5"	5"		3"	3"	
		66	5"	5"		4"	4"				
		96	4"	4"		3"	3"				
		128	3"	3"		3"	3"				
		38	12"	12"	12"	11"	11"	12"	7"	7"	10"
		47	12"	12"	12"	9"	9"	12"	6"	6"	7"
	1/4" ITW TAPCON SG WITH 1-1/2" MIN EMBED 	66	9"	9"	12"	6"	6"	8"	4"	4"	4"
		96	8"	8"	9"	5"	5"	4"	4"	4"	4"
		128	6"	6"	7"	5"	5"	4"			
		38	12"	12"	12"	12"	12"	12"	8"	8"	8"
		47	12"	12"	12"	10"	10"	10"	7"	7"	6"
		66	11"	11"	11"	7"	7"	7"	5"	5"	4"
	3/16" ITW SAMMY SUPER SCREW WITH 1-1/2" MIN EMBED 	96	10"	10"	8"	6"	6"	4"	5"	5"	4"
		128	7"	7"	6"	6"	6"	4"			
		38	12"	12"	12"	12"	12"	12"	10"	10"	9"
		47	12"	12"	12"	12"	12"	12"	8"	8"	7"
		66	12"	12"	11"	8"	8"	8"	6"	6"	4"
		96	11"	11"	9"	7"	7"	5"	6"	6"	4"
1/4" DEWALT PANELMATE (MALE OR FEMALE) WITH 1-7/8" MIN EMBED 	128	8"	8"	7"	7"	7"	5"				
	38	10"	10"	3"	7"	7"		4"	4"		
	47	8"	8"	3"	5"	5"		4"	4"		
	66	6"	6"		4"	4"		3"	3"		
	96	4"	4"		3"	3"		3"	3"		
	128	4"	4"		3"	3"					
1/4" HANGER BOLT (MALE) W/ 2 1/2" MIN EMBED & 1 1/4" E.D. 	38	12"	12"	12"	12"	12"	12"	11"	11"	10"	
	47	12"	12"	12"	12"	12"	12"	9"	9"	8"	
	66	12"	12"	12"	9"	9"	9"	6"	6"	5"	
	96	12"	12"	10"	8"	8"	5"	6"	6"	5"	
	128	9"	9"	8"	8"	8"	5"				
	38	12"	12"	12"	12"	12"	12"	10"	10"	12"	
5/16" HANGER BOLT (MALE) W/ 2 1/2" MIN EMBED & 1 1/4" E.D. 	47	12"	12"	12"	12"	12"	12"	8"	8"	9"	
	66	12"	12"	12"	9"	9"	9"	6"	6"	5"	
	96	12"	12"	11"	8"	8"	6"	6"	6"	5"	
	128	9"	9"	8"	8"	8"	6"				
	38	12"	12"	12"	12"	12"	12"	10"	10"	12"	
	47	12"	12"	12"	12						

- 1) 1/4" TAPCONS SHALL BE BY ITW, ULTRACONS SHALL BE BY DEWALT, AS LISTED IN APPROPRIATE ANCHOR SCHEDULE. "DEWALT PANELMATE" ANCHORS MAY BE MALE OR FEMALE ONLY, AS ILLUSTRATED.
- 2) ENSURE MINIMUM EDGE DISTANCE FOR ALL ANCHORS PER RESPECTIVE ANCHOR SCHEDULE. EDGE DISTANCE OF 3/4" IS ACCEPTABLE FOR ANCHORS TO WOOD, EXCEPT FOR 5/16" AND 3/8" HANGER BOLTS. REFERENCE ANCHOR SCHEDULE FOR MINIMUM EDGE DISTANCE REQUIREMENTS FOR THESE ANCHORS.
- 3) MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
- 4) ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- 5) ALL CONCRETE ANCHORS SPECIFIED HEREIN SHALL BE INSTALLED TO NON-CRACKED CONCRETE ONLY.
- 6) WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT ANCHORS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
- 7) ANCHORS FASTENED TO NARROW FACE OF STUD FRAMING SHALL BE LOCATED IN CENTER OF NOMINAL 2x4 (MIN) WOOD STUD (i.e. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR ANCHORS TO WOOD FRAMING). WOOD STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55, "SPRUCE-PINE-FIR" G=0.42, OR GREATER DENSITY.
- 8) ANCHOR SCHEDULE APPLIES FOR ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
- 9) MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.
- 10) DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE FOR USE.
- 11) * DESIGNATES ANCHORS WHICH ARE REMOVABLE AND MAY BE USED FOR DIRECT MOUNT INSTALLATIONS.

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ANCHOR SCHEDULE 2

HOST STRUCT.	ANCHOR	LOAD (psf)	3/4" MIN EDGE DISTANCE								
			Spans Up To 4'-0"			Spans Up To 6'-0"			Spans Up To 9'-0"		
			CONN TYPE	C1	C2	C3	CONN TYPE	C1	C2	C3	CONN TYPE
WOOD (G=0.42)	1/4" LAG SCREW WITH MIN 2-3/32" THREAD PENETR. 	38	9"	9"	3"	6"	6"		4"	4"	
		47	7"	7"		5"	5"		3"	3"	
		66	5"	5"		4"	4"				
		96	4"	4"		3"	3"				
		128	3"	3"		3"	3"				
	1/4" TAPCON (DEWALT OR S.S. ITW) OR 1/4" DEWALT CRETE-FLEX OR #14 WOOD SCREW WITH 1-1/2" MIN THREAD PEN. 	38	8"	8"	3"	5"	5"		4"	4"	
		47	6"	6"	3"	4"	4"		3"	3"	
		66	5"	5"		3"	3"				
		96	4"	4"							
		128	3"	3"							
	1/4" ITW TAPCON SG WITH 1-1/2" MIN EMBED 	38	11"	11"	12"	7"	7"	10"	5"	5"	6"
		47	9"	9"	12"	6"	6"	8"	4"	4"	5"
		66	6"	6"	8"	4"	4"	5"	3"	3"	3"
		96	5"	5"	6"	4"	4"	3"	3"	3"	
		128	4"	4"	5"	4"	4"	3"			
	3/16" ITW SAMMY SUPER SCREW WITH 1-1/2" MIN EMBED 	38	12"	12"	12"	8"	8"	8"	6"	6"	5"
		47	10"	10"	10"	7"	7"	7"	5"	5"	4"
		66	7"	7"	7"	5"	5"	5"	3"	3"	
		96	6"	6"	5"	4"	4"	3"	3"	3"	
		128	5"	5"	4"	4"	4"	3"			
	1/4" DEWALT PANELMATE (MALE OR FEMALE) WITH 1-7/8" MIN EMBED 	38	12"	12"	12"	9"	9"	9"	6"	6"	6"
		47	11"	11"	11"	8"	8"	7"	5"	5"	4"
		66	8"	8"	8"	5"	5"	5"	4"	4"	3"
		96	7"	7"	6"	5"	5"	3"	4"	4"	3"
		128	5"	5"	5"	5"	5"	3"	4"	4"	3"
	1/4" HANGER BOLT (MALE) W/ 2 1/2" MIN EMBED & 1 1/4" E.D. 	38	9"	9"	3"	6"	6"		4"	4"	
		47	7"	7"		5"	5"		3"	3"	
		66	5"	5"		4"	4"				
		96	4"	4"		3"	3"				
		128	3"	3"		3"	3"				
	5/16" HANGER BOLT (MALE) W/ 2 1/2" MIN EMBED & 1 1/4" E.D. 	38	12"	12"	12"	12"	12"	11"	8"	8"	7"
		47	12"	12"	12"	10"	10"	9"	7"	7"	6"
		66	11"	11"	9"	7"	7"	6"	5"	5"	3"
		96	9"	9"	7"	6"	6"	4"	5"	5"	3"
		128	7"	7"	6"	6"	6"	4"	5"	5"	3"
	3/8" HANGER BOLT (MALE) W/ 3" MIN EMBED & 1 1/2" E.D. 	38	12"	12"	12"	12"	12"	12"	9"	9"	9"
		47	12"	12"	12"	10"	10"	11"	7"	7"	7"
		66	11"	11"	11"	7"	7"	7"	5"	5"	4"
		96	10"	10"	8"	6"	6"	4"	5"	5"	4"
		128	7"	7"	7"	6"	6"	4"	5"	5"	4"

ANCHOR SCHEDULE 3

HOST STRUCT.	ANCHOR	LOAD (psf)	2" MIN EDGE DISTANCE									2-1/2" MIN EDGE DISTANCE									
			Spans Up To 4'-0"			Spans Up To 6'-0"			Spans Up To 9'-0"			Spans Up To 4'-0"			Spans Up To 6'-0"			Spans Up To 9'-0"			
			CONN TYPE			CONN TYPE			CONN TYPE			CONN TYPE			CONN TYPE			CONN TYPE			
			C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	
CONCRETE	1/4" TAPCON (ITW) WITH 1-3/4" EMBED (3192 psi MIN CONC)	38	12"	12"	12"	12"	12"	11"	10"	10"	7"	12"	12"	12"	12"	12"	12"	12"	12"	8"	
	47	12"	12"	12"	12"	12"	9"	8"	8"	6"	12"	12"	12"	12"	12"	10"	10"	10"	6"		
	66	12"	12"	10"	8"	8"	6"	5"	5"	4"	12"	12"	10"	10"	10"	7"	7"	7"	4"		
	96	11"	11"	7"	7"	7"	4"	5"	5"	4"	12"	12"	8"	9"	9"	5"	7"	7"	4"		
	128	8"	8"	6"	7"	7"	4"	5"	5"	4"	10"	10"	6"	9"	9"	5"	7"	7"	4"		
	1/4" ULTRACON (DEWALT) WITH 1-3/4" EMBED (2846 psi MIN CONC)	38	12"	12"	12"	12"	12"	11"	12"	12"	7"	12"	12"	12"	12"	11"	12"	12"	7"		
	47	12"	12"	12"	12"	12"	9"	9"	9"	6"	12"	12"	12"	12"	12"	9"	11"	11"	6"		
	66	12"	12"	9"	10"	10"	6"	7"	7"	4"	12"	12"	9"	12"	12"	6"	8"	8"	4"		
	96	12"	12"	7"	8"	8"	4"	7"	7"	4"	12"	12"	7"	10"	10"	4"	8"	8"	4"		
	128	9"	9"	6"	8"	8"	4"	7"	7"	4"	11"	11"	6"	10"	10"	4"	8"	8"	4"		
	1/4" DEWALT PANELMATE WITH 2" EMBEDMENT (MIN 3350psi CONC)	38	12"	12"	12"	12"	12"	12"	12"	12"	9"	12"	12"	12"	12"	12"	12"	12"	8"		
	47	12"	12"	12"	12"	12"	11"	10"	10"	7"	12"	12"	12"	12"	12"	10"	10"	10"	6"		
	66	12"	12"	11"	11"	11"	7"	7"	7"	4"	12"	12"	10"	11"	11"	7"	8"	8"	4"		
	96	12"	12"	9"	9"	9"	5"	7"	7"	4"	12"	12"	8"	9"	9"	5"	8"	8"	4"		
	128	11"	11"	7"	9"	9"	5"	7"	7"	4"	10"	10"	6"	9"	9"	5"	8"	8"	4"		
	1/4-20 ALL POINTS SOLID-SET ANCHOR W/ 7/8" EMBED (MIN 3000psi CONC)	38	12"	12"	12"	12"	12"	10"	12"	12"	7"	12"	12"	12"	12"	12"	11"	12"	12"	7"	
	47	12"	12"	12"	12"	12"	8"	10"	10"	5"	12"	12"	12"	12"	12"	9"	12"	12"	6"		
	66	12"	12"	8"	11"	11"	6"	7"	7"	3"	12"	12"	10"	12"	12"	6"	9"	9"	4"		
	96	12"	12"	6"	9"	9"	4"	7"	7"	3"	12"	12"	7"	10"	10"	5"	9"	9"	4"		
	128	10"	10"	5"	9"	9"	4"	7"	7"	3"	12"	12"	6"	10"	10"	5"	9"	9"	4"		
	1/4-20 DEWALT CALK-IN WITH 7/8" EMBEDMENT (MIN 3000psi CONC)	38	12"	12"	9"	8"	8"	6"	6"	6"	4"	12"	12"	10"	12"	12"	7"	8"	8"	5"	
	47	10"	10"	7"	7"	7"	5"	4"	4"	3"	12"	12"	8"	10"	10"	6"	6"	6"	4"		
	66	7"	7"	5"	5"	5"	3"	3"	3"		10"	10"	6"	7"	7"	4"	5"	5"	3"		
	96	6"	6"	4"	4"	4"		3"	3"		9"	9"	4"	6"	6"	3"	5"	5"	3"		
	128	5"	5"	3"	4"	4"		3"	3"		7"	7"	4"	6"	6"	3"	5"	5"	3"		
	1/4" ITW TAPCON SG OR SAMMY SUPER SCREW W/ MIN 1 3/4" EMBEDMENT (MIN 3295psi CONC)	38	12"	12"	12"	12"	12"	9"	9"	9"	6"	12"	12"	12"	12"	12"	11"	10"	10"	7"	
	47	12"	12"	10"	11"	11"	7"	7"	7"	4"	12"	12"	12"	12"	12"	9"	8"	8"	6"		
	66	12"	12"	7"	8"	8"	5"	5"	5"	3"	12"	12"	10"	9"	9"	6"	6"	6"	4"		
	96	10"	10"	6"	7"	7"	3"	5"	5"	3"	11"	11"	7"	7"	7"	4"	6"	6"	4"		
	128	7"	7"	5"	7"	7"	3"	5"	5"	3"	8"	8"	6"	7"	7"	4"	6"	6"	4"		
		1/4" - DEWALT CRETE-FLEX W/ 2" EMBED (MIN 3350psi CONC)	38	12"	12"	12"	12"	12"	12"	12"	12"	8"	12"	12"	12"	12"	12"	12"	12"	12"	8"
			47	12"	12"	12"	12"	12"	10"	11"	11"	6"	12"	12"	12"	12"	12"	10"	11"	11"	6"
			66	12"	12"	10"	12"	12"	7"	8"	8"		12"	12"	10"	12"	12"	7"	8"	8"	
			96	12"	12"	8"	10"	10"		8"	8"		12"	12"	8"	10"	10"		8"	8"	
		128	11"	11"	6"	10"	10"		8"	8"		11"	11"	6"	10"	10"		8"	8"		
		1/2" - ITW REDHEAD MULTI-SET II W/ 1-5/8" EMBED (MIN 3000psi CONC)	38											12"	12"	12"	12"	12"	12"	12"	12"
			47											12"	12"	12"	12"	12"	12"	12"	10"
			66											12"	12"	12"	12"	12"	11"	12"	7"
			96											12"	12"	12"	12"	11"	12"	12"	7"
		128											12"	12"	10"	12"	12"	8"	12"	12"	7"
		3/8-16 DEWALT CALK-IN W/ 1 1/4" EMBED (MIN 3000psi CONC)	38	12"	12"	12"	12"	12"	10"	12"	12"	7"	12"	12"	12"	12"	12"	12"	12"	12"	9"
			47	12"	12"	12"	12"	12"	8"	9"	9"	5"	12"	12"	12"	12"	12"	11"	12"	12"	7"
			66	12"	12"	9"	10"	10"	6"	7"	7"	4"	12"	12"	11"	12"	12"	7"	12"	12"	5"
			96	12"	12"	7"	8"	8"	4"	7"	7"	4"	12"	12"	9"	12"	12"	5"	12"	12"	5"
		128	9"	9"	5"	8"	8"	4"	7"	7"	4"	12"	12"	7"	12"	12"	5"	12"	12"	5"	
		1/2" - PANELMATE L INSERT W/ 1-1/4" EMBED & 3-1/2" MIN E.D. (MIN 2700psi CONC)	38	12"	12"	12"	12"	12"	9"	12"	12"	6"	12"	12"	12"	12"	12"	9"	12"	12"	6"
	47		12"	12"	11"	12"	12"	8"	12"	12"		12"	12"	11"	12"	12"	8"	12"	12"		
66	12"		12"	8"	12"	12"		9"	9"		12"	12"	8"	12"	12"		9"	9"			
96	12"		12"	6"	10"	10"		9"	9"		12"	12"	6"	10"	10"		9"	9"			
128	12"	12"		10"	10"		9"	9"		12"	12"		10"	10"		9"	9"				

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HOLLOW BLOCK

STUDDED ANGLE

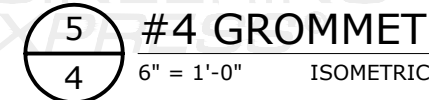
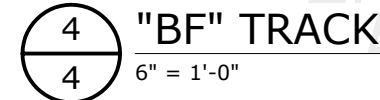
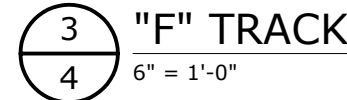
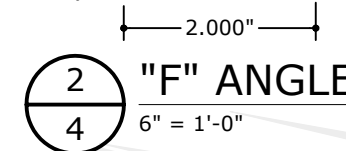
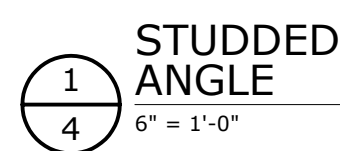
6" = 1'-0"

Technical drawing of a studded angle. The drawing shows a cross-section of the angle with dimensions: 0.373" (top flange thickness), 0.313" (web thickness), 0.472" (bottom flange thickness), 0.658" (total width), and 1.675" (total height). A circular symbol with a horizontal line through it contains the number 1 above the number 4. A scale bar indicates 6" = 1'-0".

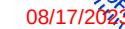
STUDDED ANGLE

6" = 1'-0"

Technical drawing of a studded angle. The drawing shows a cross-section of the angle with dimensions: 0.373" (top flange thickness), 0.313" (web thickness), 0.472" (bottom flange thickness), 0.658" (total width), and 1.675" (total height). A circular symbol with a horizontal line through it contains the number 1 above the number 4. A scale bar indicates 6" = 1'-0".



AUGUST 11, 2023



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23-60448

SCALE: NTS UNLESS NOTED

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