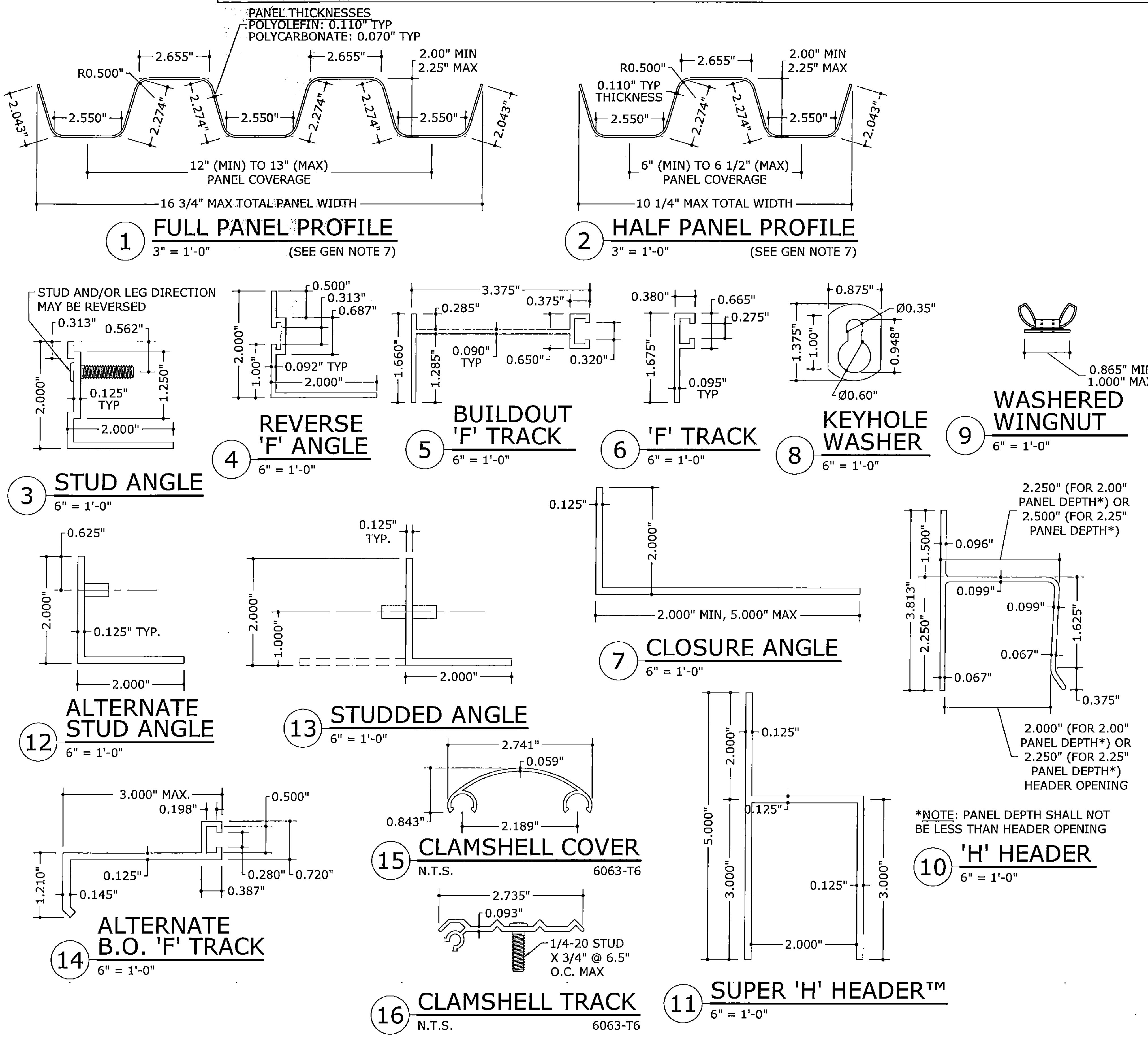
ValueGUARD™ POLYMER STORM PANELS



GENERAL NOTES:

1) THIS SYSTEM HAS BEEN TESTED AND EVALUATED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2010 FLORIDA BUILDING CODE AND THE 2009 INTERNATIONAL BUILDING/RESIDENTIAL CODE PER ASTM STANDARDS E330, E1886, & E1996. PANELS ARE APPROVED FOR USE IN FLORIDA OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, OR THROUGHOUT OTHER AREAS GOVERNED BY THE 2009 IBC/IRC.

2) NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN PER 2005 NDS SPECIFICATIONS.

3) 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 PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-10 AND CHAPTER 1609 OF THE 2010 FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.

4) DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.

5) 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.

6) THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS IS OUTSIDE THE SCOPE OF THIS CERTIFICATION AND SHALL BE VERIFIED BY OTHERS.

7) ALL STORM PANELS (FULL AND HALF, TRANSLUCENT POLYOLEFIN AND TRANSPARENT POLYCARBONATE) MAY VARY IN "COVERAGE WIDTH" BETWEEN THE RESPECTIVE MINIMA & MAXIMA SHOWN HEREIN, PROVIDED THAT THE PANEL PROFILE HEIGHT IS MAINTAINED BETWEEN THE MAXIMUM & MINIMUM SHOWN.

8) THIS PRODUCT APPROVAL IS FOR THE USE OF TRANSLUCENT POLYOLEFIN STORM PANELS AND TRANSPARENT POLYCARBONATE PANELS. ALL STORM PANELS SHALL BE MANUFACTURED BY TRANSPARENT PROTECTION SYSTEMS, Inc.

9) ALL TRANSLUCENT POLYOLEFIN PANELS SHALL BE EXTRUDED FROM SYNTHETIC THERMOPLASTIC POLYMER WITH A PROPRIETARY TPS ADDITIVE FOR ENHANCED UV PROTECTION AND WEATHERABILITY, WITH THICKNESS T=0.110" (±0.011"). TYPICAL TENSILE STRENGTH Fy=4.0 KSI & FLEXURAL MODULUS IS 190.0 KSI.

10) ALL TRANSPARENT POLYCARBONATE PANELS SHALL BE EXTRUDED FROM SYNTHETIC THERMOPLASTIC POLYMER RESIN (UV STABILIZED), WITH THICKNESS T=0.070" (±0.007"). TYPICAL TENSILE STRENGTH Fy=8.9 KSI & FLEXURAL MODULUS IS 328.7 KSI.

11) ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.N.O.

12) PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL CONTAINING THE FOLLOWING:
TRANSPARENT PROTECTION SYSTEMS, INC.
WEST PALM BEACH, FLORIDA
ASTM E330, E1886 & E1996
PRODUCT APPROVAL NUMBER

13) STORM PANELS HAVE BEEN DESIGNED AND TESTED TO THE MAXIMUM SPANS AND CORRESPONDING LOADS SHOWN HEREIN. REFERENCE HURRICANE TEST LABORATORY (HTL OF RIVIERA BEACH, FL) TEST REPORTS #0239-0107-05 & #0239-0216-05.

14) TOP & BOTTOM MOUNTING SECTIONS MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY AS APPLICABLE.

15) USE OF KEYHOLE WASHERS IS OPTIONAL IN CONJUNCTION WITH HOLES FIELD DRILLED AT Ø3/8". IF HOLES ARE Ø1/2" OR LARGER (Ø5/8" MAX), KEYHOLE WASHERS OR WASHERED WINGNUTS WITH 1.000" MINIMUM DIAMETER SHALL BE USED. WASHERED WINGNUTS SHALL HAVE 0.865" MINIMUM WASHER DIAMETER. ALL STORM PANELS SHALL BE MOUNTED USING ANCHORS OR 1/4-20 STUDS AT EVERY VALLEY (i.e. 6.5" O.C. MAX).

16) ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.

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12/14/2011

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A FRANK L. BENNARDO, P.E., INC. INNOVATION

TPS Transparent Protection Systems, Inc.
6643 42nd Terrace North
West Palm Beach, FL 33407

ValueGUARD™ POLYMER STORM PANELS AND MaxLite™ STORM PANEL SYSTEM
FLORIDA STATEWIDE APPROVAL

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CL	FLB	3/2/06
"H" HEADER / MAXLITE	KL	CL	10/26/06
2007 FBC	KL	CL	12/31/08
2010 FBC UPDATE	EFT	KL	12/13/11

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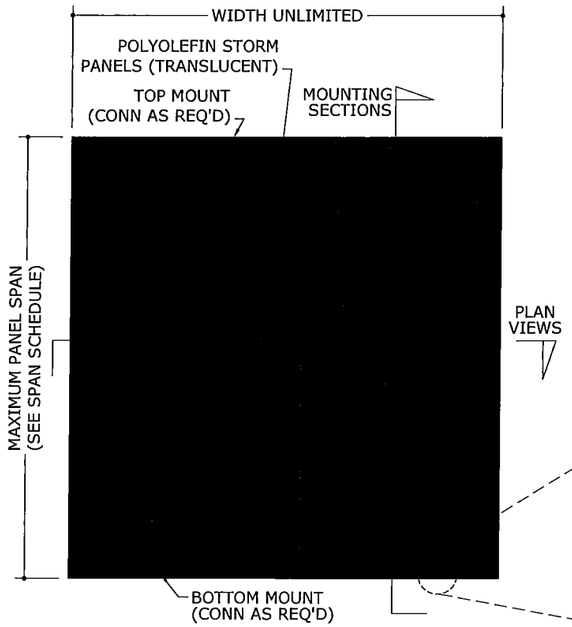
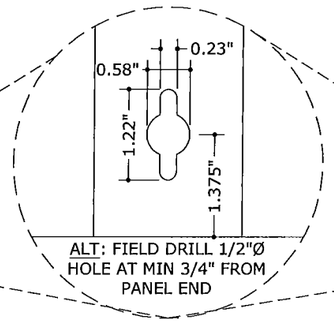
ValueGUARD™ STORM PANEL SYSTEM

POLYOLEFIN STORM PANELS (Non-HVHZ)



1/2 TYPICAL ELEVATION

N.T.S.

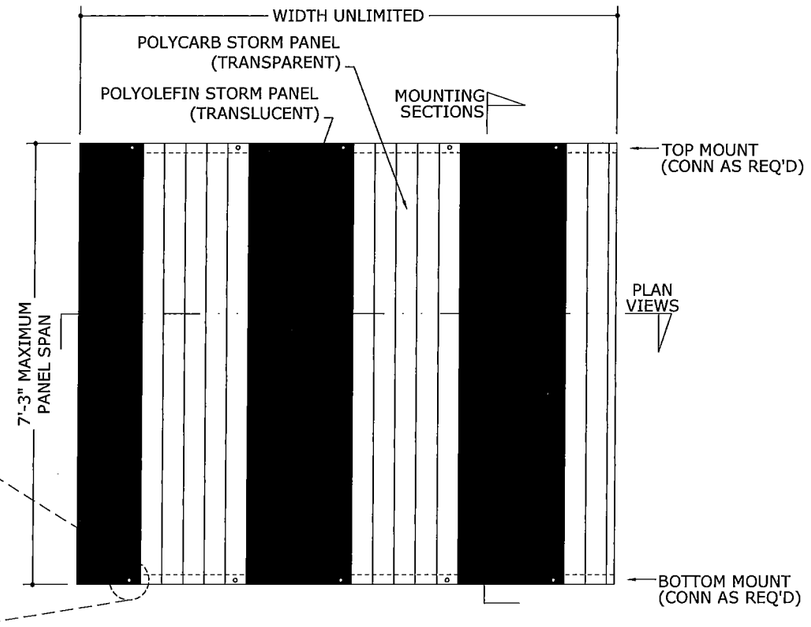


2/2 KEYHOLE DETAIL

N.T.S.

MaxLITE™ STORM PANEL SYSTEM

ALTERNATING POLYOLEFIN & POLYCARBONATE STORM PANELS (Non-HVHZ)



3/2 TYPICAL ELEVATION

N.T.S.

ValueGUARD™ STORM PANEL SYSTEM

MAXIMUM PANEL SPAN SCHEDULE (POSITIVE CONN.)

LOAD (psf)	MAX SPAN (ft)
± 25	10'-0"
± 30	10'-0"
± 35	10'-0"
± 40	10'-0"
± 45	9'-3"
± 50	8'-8"
± 55	8'-2"
± 60	7'-8"
± 65	7'-3"
± 70	6'-4"
± 75	5'-7"
± 80	4'-11"
± 85	4'-3"
± 90	3'-9"

MAXIMUM PANEL SPAN SCHEDULE (W/ "H" HEADERS)

LOAD (psf)	MAX SPAN (ft)
± 26.5	7'-3"
± 35	5'-10"
± 55	4'-9"
± 70	3'-9"

MAXIMUM SPAN SCHEDULE NOTES:

1. SPANS SHOWN IN MAX PANEL SPAN SCHEDULES ARE MAXIMUM ALLOWABLE SPANS AT EACH RESPECTIVE DESIGN PRESSURE.
2. "POSITIVE CONNECTION" SPAN SCHEDULE MAY BE USED TO DETERMINE MAXIMUM ALLOWABLE SPANS FOR PANELS INSTALLED USING ANY COMBINATION OF MOUNTING EXTRUSIONS INVOLVING A POSITIVE CONNECTION - i.e. ALL INSTALLATIONS WHICH DO NOT INCLUDE AN "H" HEADER.
3. SPAN SCHEDULE LABELLED FOR USE "WITH 'H' HEADERS" MUST BE USED FOR ALL INSTALLATIONS WHERE THE "H" HEADER IS USED.
4. ALL TABLES ARE VALID FOR PANELS MOUNTED HORIZONTALLY OR VERTICALLY. SPAN DIRECTION IS ALWAYS PERPENDICULAR TO LINE OF ANCHORAGE.

Max*LITE*™ STORM PANEL SYSTEM

MAX PANEL SPAN:	7'-3"
MAX DESIGN LOAD:	±65 PSF

NOTE: MaxLITE™ STORM PANEL SYSTEM IS NOT VALID FOR USE WITH "H" HEADERS.

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PROFESSIONAL ENGINEER
12/14/2011

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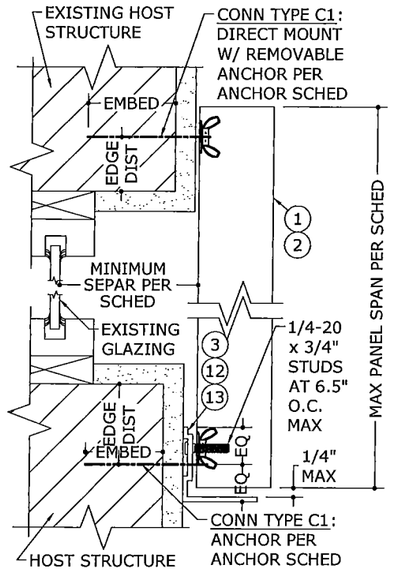
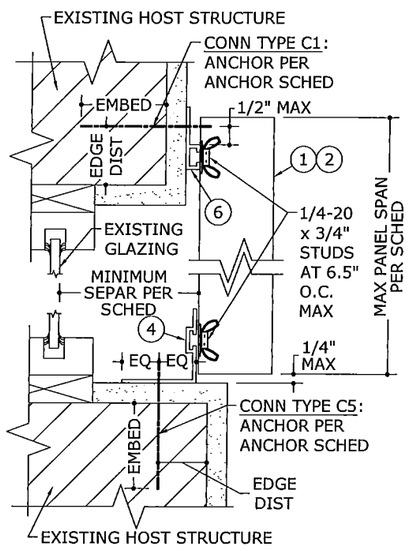
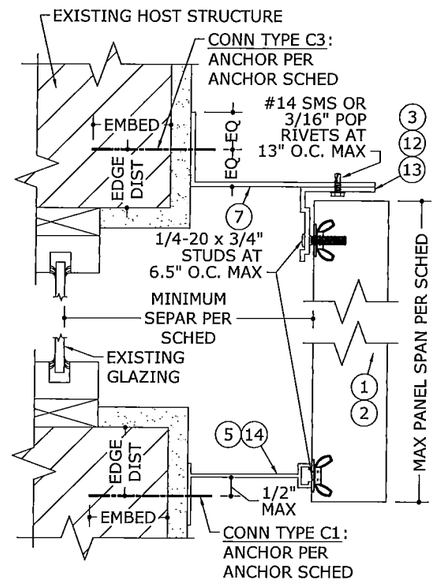


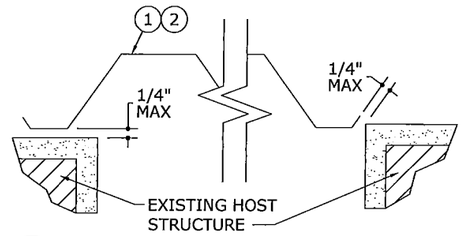
1/3 MOUNTING SECTION
3" = 1'-0" VERT SECTION



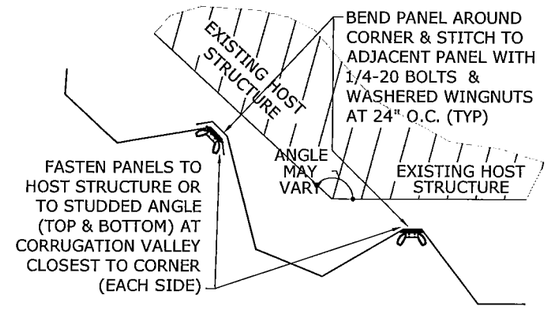
2/3 MOUNTING SECTION
3" = 1'-0" VERT SECTION



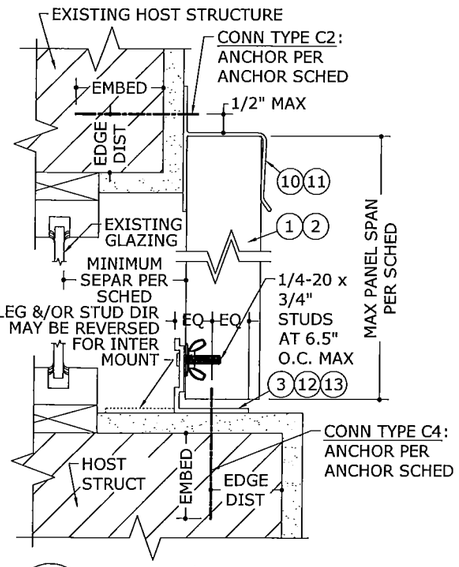
3/3 MOUNTING SECTION
3" = 1'-0" VERT SECTION



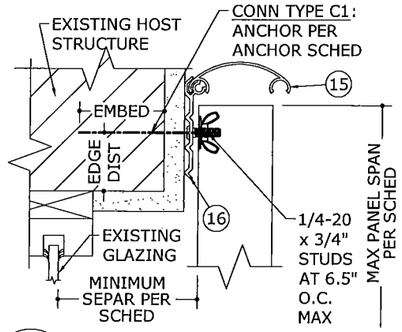
6/3 WALL MOUNT CLOSURE
3" = 1'-0" PLAN VIEW



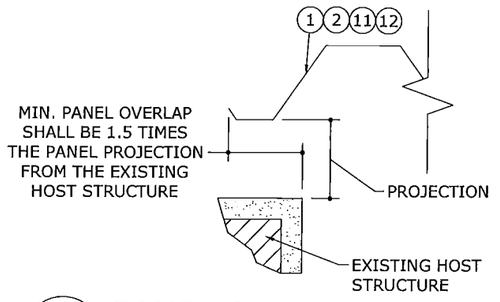
7/3 CORNER CLOSURE
N.T.S. PLAN VIEW



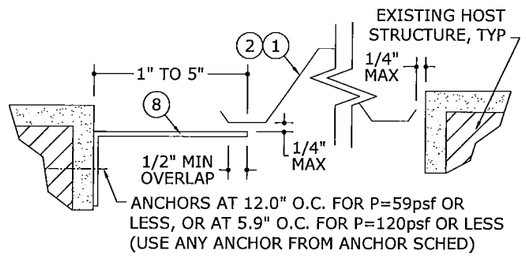
4/3 MOUNTING SECTION
3" = 1'-0" VERT SECTION



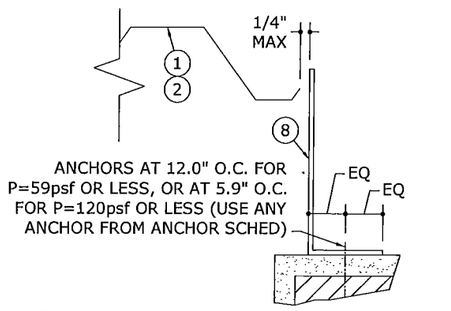
5/3 MOUNTING SECTION
N.T.S. VERT SECTION



10/3 PANEL OVERLAP
N.T.S. PLAN VIEW

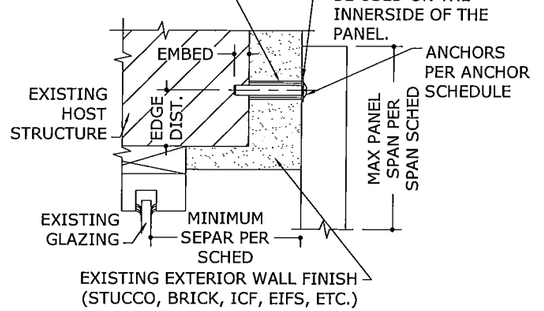


8/3 TRAP MOUNT CLOSURE
3" = 1'-0" PLAN VIEW



9/3 BUILD-OUT CLOSURE
3" = 1'-0" PLAN VIEW

ALUMINUM OR GALVANIZED STEEL SPACER:
- REQUIRED ONLY FOR EIFS, ICF, OR OTHER MALLEABLE FINISHES.
- OPTIONAL FOR STUCCO, BRICK, OR OTHER RIGID FINISHES.



NOTE: SHUTTER SYSTEM MAY BE ANCHORED THROUGH EXTERIOR WALL FINISH TO HOST STRUCTURE WITH ANY MOUNTING CONDITION SHOWN HEREIN.

11/3 MOUNTING SECTION THRU EXTERIOR WALL FINISH (BRICK, ICF, EIFS, ETC.)
N.T.S. VERT SECTION

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ValueGUARD™ POLYMER STORM PANELS
AND MaxLite™ STORM PANEL SYSTEM
FLORIDA STATEWIDE APPROVAL

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ANCHOR SCHEDULE

2-1/2" MIN EDGE DISTANCE

HOST STRUCT.	ANCHOR	LOAD (psf)	Spans Up To 6'-0" CONN TYPE C1	C2	C3	C4	C5	Spans Up To 8'-6" CONN TYPE C1	C2	C3	C4	C5	Spans Up To 10'-0" CONN TYPE C1	C2	C3	C4	C5
CONCRETE	1/4" TAPCON (ELCO OR ITW) WITH 1-3/4" EMBED (3192psi MIN CONC)	30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		38	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		47	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	12.9"	13.0"	13.0"	13.0"	13.0"	9.5"	9.9"	12.8"	12.8"
		54	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	9.9"	10.5"	13.0"	13.0"	13.0"	9.4"	9.8"	12.8"	12.8"
		120	13.0"	9.4"	9.8"	12.8"	12.8"	13.0"	9.4"	9.8"	12.8"	12.8"	13.0"	9.4"	9.8"	12.8"	12.8"
	1/4" ELCO PANELMATE WITH 1-3/4" MIN EMBED (3350psi MIN CONC) *	30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		38	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		47	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		54	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		120	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
	1/4-20 ALL POINTS SOLID-SET WITH 7/8" MIN EMBED (3000psi MIN CONC) *	30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		38	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		47	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		54	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		120	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
	1/4-20 POWERS CALK-IN WITH 7/8" MIN EMBED (2000psi MIN CONC) *	30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		38	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	12.6"	12.6"	13.0"	13.0"	13.0"	10.7"	10.7"
		47	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	12.5"	13.0"	10.2"	10.2"	13.0"	9.2"	9.6"	8.6"	8.6"
		54	13.0"	13.0"	13.0"	12.5"	12.5"	13.0"	9.6"	10.1"	8.9"	8.9"	13.0"	9.1"	9.5"	8.6"	8.6"
		120	13.0"	9.1"	9.5"	8.6"	8.6"	13.0"	9.1"	9.5"	8.6"	8.6"	13.0"	9.1"	9.5"	8.6"	8.6"
HOLLOW BLOCK	1/4" TAPCON (ELCO OR ITW) WITH 1-1/4" EMBED	30	13.0"	13.0"	13.0"	13.0"	13.0"	9.6"	9.6"	9.6"	9.6"	9.6"	8.2"	8.2"	8.2"	8.2"	8.2"
		38	10.8"	10.8"	10.8"	10.8"	10.8"	7.6"	7.6"	7.6"	7.6"	7.6"	6.5"	5.3"	6.5"	6.5"	6.5"
		47	8.7"	8.7"	8.7"	8.7"	8.7"	6.2"	4.7"	5.6"	6.2"	6.2"	5.2"	3.5"	3.6"	5.2"	4.9"
		54	7.6"	7.6"	7.6"	7.6"	7.6"	5.4"	3.6"	3.8"	5.4"	5.1"	5.2"	3.5"	3.6"	5.2"	4.8"
		120	5.2"	3.5"	3.6"	5.2"	4.8"	5.2"	3.5"	3.6"	5.2"	4.8"	5.2"	3.5"	3.6"	5.2"	4.8"
	1/4" ELCO PANELMATE (FEMALE, MALE, OR PLUS) W/ 1-1/4" MIN EMBED *	30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	11.0"	11.0"	11.0"	11.0"	11.0"
		38	13.0"	13.0"	13.0"	13.0"	13.0"	10.2"	10.2"	10.2"	10.2"	10.2"	8.7"	7.1"	8.7"	8.7"	8.7"
		47	11.7"	11.7"	11.7"	11.7"	11.7"	8.3"	6.4"	7.6"	8.3"	8.3"	7.0"	4.7"	4.9"	7.0"	6.5"
		54	10.2"	10.2"	10.2"	10.2"	10.2"	7.2"	4.9"	5.2"	7.2"	6.9"	7.0"	4.6"	4.8"	7.0"	6.5"
		120	7.0"	4.6"	4.8"	7.0"	6.5"	7.0"	4.6"	4.8"	7.0"	6.5"	7.0"	4.6"	4.8"	7.0"	6.5"
	1/4-20 ALL POINTS SOLID-SET WITH 7/8" MIN EMBED *	30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		38	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	12.6"	12.6"
		47	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	12.0"	12.0"	13.0"	9.7"	10.1"	10.2"	10.2"
		54	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	10.1"	10.7"	10.4"	10.4"	13.0"	9.7"	10.1"	10.2"	10.2"
		120	13.0"	9.7"	10.1"	10.2"	10.2"	13.0"	9.7"	10.1"	10.2"	10.2"	13.0"	9.7"	10.1"	10.2"	10.2"

3/4" MIN EDGE DISTANCE

HOST STRUCT.	ANCHOR	LOAD (psf)	Spans Up To 6'-0" CONN TYPE C1	C2	C3	C4	C5	Spans Up To 8'-6" CONN TYPE C1	C2	C3	C4	C5	Spans Up To 10'-0" CONN TYPE C1	C2	C3	C4	C5
WOOD	1/4" TAPCON (ELCO OR ITW) OR #14 WOOD SCREW W/ 1-1/2" EMBED	30	13.0"	13.0"	13.0"	13.0"	13.0"	10.0"	10.0"	10.0"	10.0"	10.0"	8.5"	8.5"	8.5"	8.5"	8.5"
		38	11.2"	11.2"	11.2"	11.2"	11.2"	7.9"	7.9"	7.9"	7.9"	7.9"	6.7"	5.5"	6.7"	6.7"	6.7"
		47	9.1"	9.1"	9.1"	9.1"	9.1"	6.4"	4.9"	5.9"	6.4"	6.4"	5.4"	3.6"	3.8"	5.4"	5.1"
		54	7.9"	7.9"	7.9"	7.9"	7.9"	5.6"	3.8"	4.0"	5.6"	5.3"	5.4"	3.6"	3.7"	5.4"	5.0"
		120	5.4"	3.6"	3.7"	5.4"	5.0"	5.4"	3.6"	3.7"	5.4"	5.0"	5.4"	3.6"	3.7"	5.4"	5.0"
	1/4" ELCO PANELMATE (FEMALE, MALE, OR PLUS) W/ 1-7/8" MIN EMBED *	30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		38	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		47	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		54	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		120	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
	1/4" LAG SCREW OR HANGAR BOLT W/ MIN 2-3/32" THREAD PENETR'N (THREAD PENETR) *	30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	10.2"	10.2"	13.0"	13.0"	13.0"	8.6"	8.6"
		38	13.0"	13.0"	13.0"	11.4"	11.4"	13.0"	13.0"	13.0"	8.0"	8.0"	13.0"	13.0"	13.0"	6.8"	6.8"
		47	13.0"	13.0"	13.0"	9.2"	9.2"	13.0"	13.0"	13.0"	6.5"	6.5"	13.0"	13.0"	13.0"	5.5"	5.5"
		54	13.0"	13.0"	13.0"	8.0"	8.0"	13.0"	13.0"	13.0"	5.6"	5.6"	13.0"	13.0"	13.0"	5.5"	5.5"
		120	13.0"	13.0"	13.0"	5.5"	5.5"	13.0"	13.0"	13.0"	5.5"	5.5"	13.0"	13.0"	13.0"	5.5"	5.5"
	7/16" WOOD BUSHING W/ 7/8" MIN EMBED & 1/4-20 S.S. MACHINE SCREW *	30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
		38	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	11.9"	13.0"	13.0"	13.0"
		47	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"	10.7"	12.7"	13.0"	13.0"	11.8"	7.9"	8.2"	11.8"	11.0"
		54	13.0"	13.0"	13.0"	13.0"	13.0"	12.1"	8.2"	8.7"	12.1"	11.5"	11.8"	7.8"	8.1"	11.8"	10.9"
		120	11.8"	7.8"	8.1"	11.8"	10.9"	11.8"	7.8"	8.1"	11.8"	10.9"	11.8"	7.8"	8.1"	11.8"	10.9"

MINIMUM SPAN SCHEDULE

ONE (1) CLOSURE AT TOP OR BOTTOM

TOP OR BOTOM WITH CLOSURE	TOP OR BOTTOM MOUNT WITHOUT CLOSURE: DIRECT MOUNT	STUD ANGLE (WALL MOUNT)	"F" TRACK	REVERSE "F" ANGLE	B.O. 2x5 + STUD ANGLE	B.O. "F" TRACK	"H" OR SUPER "H" HEADER	STUD ANGLE (TRAP MOUNT)
DIRECT MOUNT	32"	30"	33"	30"	30"	32"	30"	30"
STUD ANGLE (WALL MOUNT)	32"	30"	33"	30"	30"	32"	30"	30"
"F" TRACK	33"	30"	35"	30"	30"	33"	30"	30"
REVERSE "F" ANGLE	32"	30"	33"	30"	30"	32"	30"	30"
B.O. 2x5 + STUD ANGLE	32"	30"	33"	30"	30"	32"	30"	30"
B.O. "F" TRACK	32"	30"	33"	30"	30"	32"	30"	30"
"H" OR SUPER "H" HEADER	30"	30"	30"	30"	30"	30"	30"	30"
STUD ANGLE (TRAP MOUNT)	32"	30"	33"	30"	30"	32"	30"	30"

MINIMUM SPAN SCHEDULE

NO TOP/BOTTOM CLOSURES

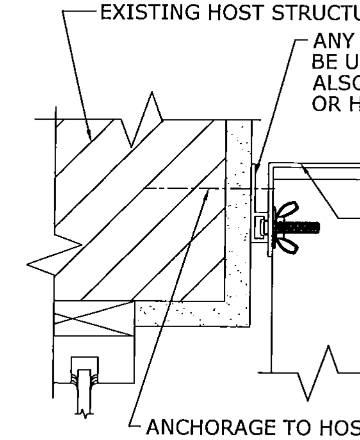
TOP MOUNT	BOTTOM MOUNT: DIRECT MOUNT	STUD ANGLE (WALL MOUNT)	"F" TRACK	REVERSE "F" ANGLE	B.O. 2x5 + STUD ANGLE	B.O. "F" TRACK	"H" OR SUPER "H" HEADER	STUD ANGLE (TRAP MOUNT)
DIRECT MOUNT	53"	32"	55"	32"	32"	53"	30"	32"
STUD ANGLE (WALL MOUNT)	32"	30"	33"	30"	30"	32"	30"	30"
"F" TRACK	55"	33"	57"	33"	33"	55"	30"	33"
REVERSE "F" ANGLE	32"	30"	33"	30"	30"	32"	30"	30"
B.O. 2x5 + STUD ANGLE	32"	30"	33"	30"	30"	32"	30"	30"
B.O. "F" TRACK	53"	32"	55"	32"	32"	53"	30"	32"
"H" OR SUPER "H" HEADER	30"	30"	30"	30"	30"	30"	30"	30"
STUD ANGLE (TRAP MOUNT)	32"	30"	33"	30"	30"	32"	30"	30"

ANCHOR SCHEDULE NOTES:

1. THIS ANCHOR SCHEDULE SHALL BE USED FOR ValueGUARD™ & MaxLite™ STORM PANEL SYSTEMS.
2. 1/4" TAPCONS MAY BE BY ITW OR BY ELCO. "ELCO PANELMATE" ANCHORS MAY BE MALE, FEMALE, OR PANELMATE PLUS, AS ILLUSTRATED. HEAD STYLE MAY BE STD 13/32" OR WASHERED 5/8" HEX HEAD.
3. ENSURE MINIMUM 2" EDGE DISTANCE FOR ALL ANCHORS TO CONCRETE & TO HOLLOW BLOCK. EDGE DISTANCE OF 3/4" IS ACCEPTABLE FOR ANCHORS TO WOOD.
4. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
5. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
6. WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
7. WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, ANCHOR 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 STUD SHALL BE "SOUTHERN PINE" G=0.55 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 EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.
10. * DESIGNATES REMAVABLE ANCHORS. PANELS SHALL BE MOUNTED DIRECTLY TO THE HOST STRUCTURE ONLY WITH THESE ANCHORS, LOCATED AT KEYHOLES AND LESS THAN OR EQUAL TO ALLOWABLE SPACING SHOWN IN ANCHOR SCHEDULE.

MINIMUM SPAN SCHEDULE NOTES:

1. THESE SCHEDULES SHALL BE USED FOR ValueGUARD™ & MaxLite™ STORM PANEL SYSTEMS ("H" OR SUPER "H" HEADERS MAY NOT BE USED IN COMBINATION WITH MaxLite™ STORM PANEL SYSTEM).
2. SPANS SHOWN HERE ARE MINIMUM ALLOWABLE SPANS BASED ON ANY COMBINATION OF MOUNTING CONDITIONS AT TOP OR BOTTOM. PANEL LENGTHS LESS THAN THOSE NOTED IN TABLES ABOVE ARE NOT ACCEPTABLE.
3. NO SEPARATION FROM GLASS IS REQUIRED WHEN PANEL LENGTH IS GREATER THAN THAT NOTED FOR RESPECTIVE MOUNTING COMBINATIONS ABOVE.
4. SIDE CLOSURES REQUIRED IF GAP BETWEEN PANEL AND STRUCTURE EXCEEDS DISTANCE SHOWN IN HORIZONTAL SECTION DETAILS (REF. DETAILS 6/3, 9/3 AND 10/3).
5. TABLES ABOVE ARE VALID FOR PANELS MOUNTED HORIZONTALLY OR VERTICALLY.
6. TOP/BOTTOM CLOSURES MAY CONSIST OF NON-STRUCTURAL 28ga (0.018" MIN) GALV STEEL OR 0.022" MIN SHEET ALUMINUM OF ALLOY 5052-H32 OR 3004-H34. REFERENCE DETAILS HEREIN FOR DEPICTION OF TOP/BOTTOM CLOSURE MOUNTING REQUIREMENTS.
7. STORM PANELS MAY BE INSTALLED WITH A 12" MINIMUM SPAN WHEN INSTALLED WITH A CLOSURE ANGLE AT BOTH TOP AND BOTTOM.



1/4 TOP/BOTTOM CLOSURE
3" = 1'-0" VERT SECTION

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ValueGUARD™ POLYMER STORM PANELS AND MaxLite™ STORM PANEL SYSTEM FLORIDA STATEWIDE APPROVAL

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CL	FLB	3/2/06
"H" HEADER / MAXLITE	KL	CL	10/26/06
2007 FBC	KL	CL	12/31/08
2010 FBC UPDATE	EFT	KL	12/13/11

05-TPS-0001
SCALE: 07
PAGE DESCRIPTION:

ValueGUARD™ STORM PANEL SYSTEM

GLASS SEPARATION SCHEDULE (POSITIVE CONN.)

POSITIVE DESIGN PRESSURE	SHUTTER SPAN UP TO	MINIMUM SEPARATION FROM GLASS	
		INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE
25 PSF	45"	5.6"	1.2"
	60"	10.6"	1.7"
	90"	10.6"	4.5"
	120"	10.6"	5.8"
35 PSF	45"	5.6"	1.3"
	60"	10.6"	2.0"
	90"	10.6"	5.9"
	120"	10.6"	7.7"
45 PSF	45"	5.6"	1.4"
	60"	10.6"	2.2"
	90"	10.6"	7.3"
	111"	10.6"	8.6"
60 PSF	45"	5.6"	1.5"
	60"	10.6"	2.6"
	90"	10.6"	9.4"
	92"	10.6"	9.4"
75 PSF	45"	5.6"	1.6"
	60"	10.6"	3.0"
	67"	10.6"	4.3"
90 PSF	45"	5.6"	1.7"

NOTE: SEPARATION FROM GLAZING IS REQUIRED ONLY IN ASTM WIND ZONE 4 AND ESSENTIAL FACILITIES.

GLASS SEPARATION SCHEDULE (W/ "H" HEADERS)

SHUTTER SPAN UP TO	MINIMUM SEPARATION FROM GLASS	
	INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE
87"	10.6"	3.9"
70"	10.6"	3.0"
57"	10.6"	2.8"
45"	8.1"	2.0"

NOTE: SEPARATION FROM GLAZING IS REQUIRED ONLY IN ASTM WIND ZONE 4 AND ESSENTIAL FACILITIES.

Max*LITE*™ STORM PANEL SYSTEM

GLASS SEPARATION SCHEDULE (Max*LITE*™ STORM PANEL)

SHUTTER SPAN UP TO	MINIMUM SEPARATION FROM GLASS	
	INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE
87"	13.7"	10.7"

NOTE: SEPARATION FROM GLAZING IS REQUIRED ONLY IN ASTM WIND ZONE 4 AND ESSENTIAL FACILITIES.

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ValueGUARD™ POLYMER STORM PANELS
AND MaxLite™ STORM PANEL SYSTEM
FLORIDA STATEWIDE APPROVAL

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-	-	-	-

05-TPS-0001

SCALE:

07

PAGE DESCRIPTION:

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