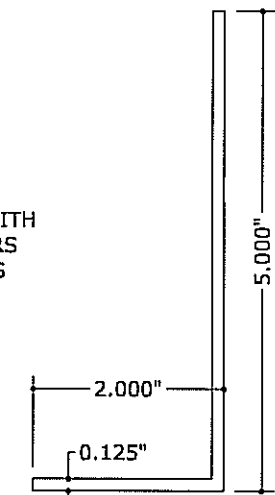
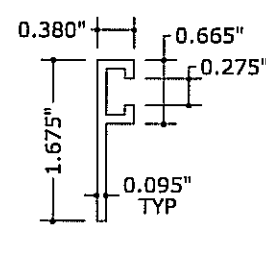
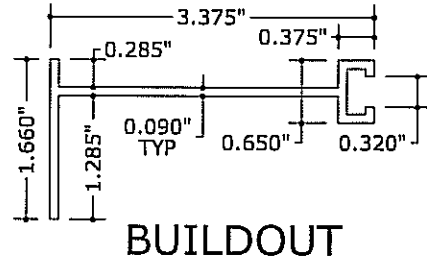
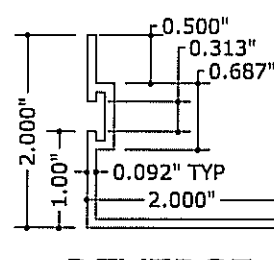
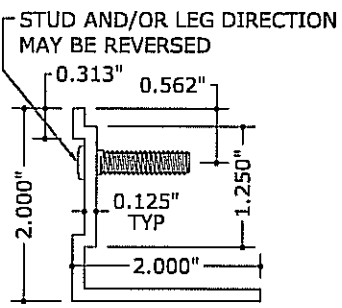


MOUNT WITH FASTENERS OR STUDS AT 6-1/2" O.C. MAX

1 FULL PANEL PROFILE
3" = 1'-0" (SEE GEN NOTE 7)

2 HALF PANEL PROFILE
3" = 1'-0" (SEE GEN NOTE 7)



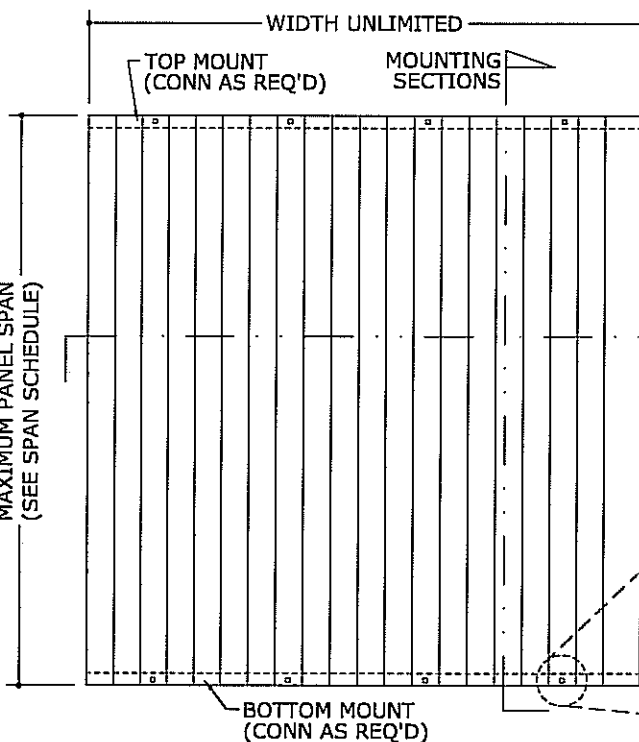
7 CLOSURE ANGLE
6" = 1'-0"

3 STUD ANGLE
6" = 1'-0"

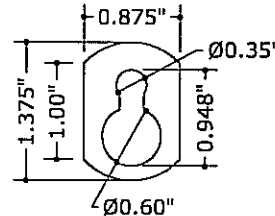
4 REVERSE 'F' ANGLE
6" = 1'-0"

5 BUILDOUT 'F' TRACK
6" = 1'-0"

6 'F' TRACK
6" = 1'-0"



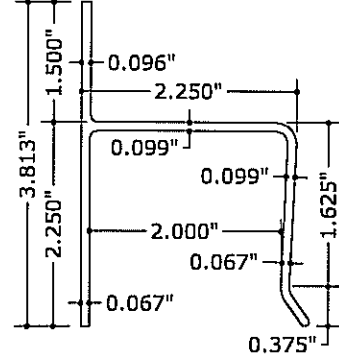
1 TYPICAL ELEVATION
1 N.T.S.



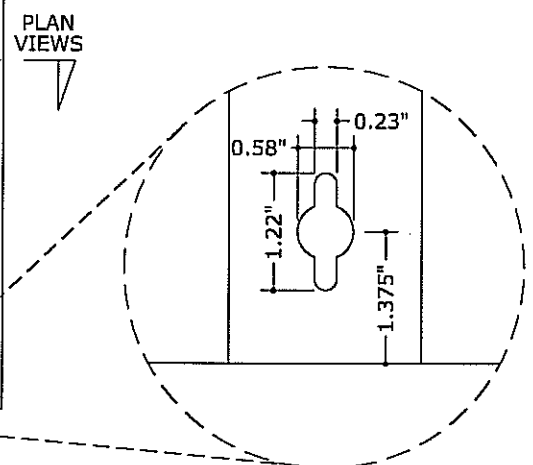
8 KEYHOLE WASHER
6" = 1'-0"



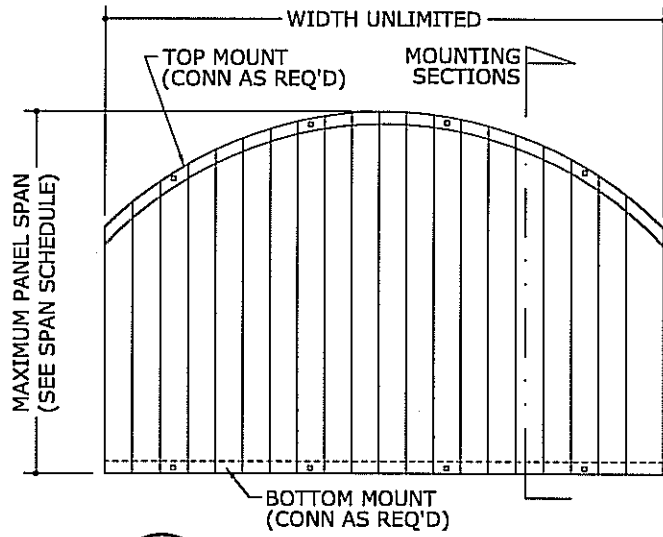
9 WASHERED WINGNUT
6" = 1'-0"



10 'H' HEADER
6" = 1'-0"



2 KEYHOLE DETAIL
1 N.T.S. ALT: FIELD DRILL Ø3/8" HOLE (OR Ø5/8" HOLE W/ KEYHOLE WASHER)



3 ALT. ARCH TOP*
1 N.T.S.

GENERAL NOTES:

- THIS SYSTEM HAS BEEN TESTED AND EVALUATED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2007 FLORIDA BUILDING CODE AND THE 2006 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 2006 IBC/IRC.
- TESTING HAS BEEN PERFORMED IN ACCORDANCE WITH THE ASTM E1996 STANDARD FOR USE IN HIGH VELOCITY WIND ZONES (WIND ZONE 4) WHERE THE BASIC WIND SPEED IS GREATER THAN 140 MPH.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT.
- POSITIVE AND NEGATIVE DESIGN PRESSURES TO BE USED WITH THESE DRAWINGS SHALL BE DETERMINED BY OTHERS FOR SPECIFIC JOBS IN ACCORDANCE WITH THE GOVERNING CODE. WHEN CALCULATING PRESSURES PER ASCE 7-05, USE OF DIRECTIONALITY FACTOR Kd=0.85 IS ALLOWED.
- 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.
- CLEAR POLYCARBONATE STORM PANELS (FULL, HALF, & DOUBLE-WIDE) MAY VARY IN "COVERAGE" WIDTH UP TO THE RESPECTIVE MAXIMA SHOWN HEREIN, PROVIDED THAT THE PANEL PROFILE HEIGHT BE MAINTAINED. PANELS SHALL BE MOUNTED WITH FASTENERS OR STUDS AT MAXIMUM SPACING SHOWN FOR EACH PROFILE.
- ALL POLYCARBONATE PANELS SHALL BE MANUFACTURED BY TRANSPARENT PROTECTION SYSTEMS, Inc.
- THIS PRODUCT APPROVAL IS FOR THE USE OF CLEAR POLYCARB PANELS ONLY. ALL POLYCARB PANELS SHALL BE EXTRUDED WITH THICKNESS t=0.100" (±0.010") AND SHALL BE MANUFACTURED FROM 100% SYNTHETIC THERMOPLASTIC POLYMER RESIN (UV STABILIZED). TYPICAL SYNTHETIC THERMOPLASTIC POLYMER TENSILE STRENGTH Fy=8.908 KSI, FLEXURAL STRENGTH Fby=12.90 KSI, & FLEXURAL MODULUS IS 328.7 KSI.
- ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.N.O.
- PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL CONTAINING THE FOLLOWING:
TRANSPARENT PROTECTION SYSTEMS, INC.
WEST PALM BEACH, FLORIDA

- NOTE: TEST STANDARDS AND PRODUCT APPROVAL NUMBERS SHALL BE INCLUDED IN PANEL LABELS.
- STORM PANELS HAVE BEEN DESIGNED AND TESTED TO THE MAXIMUM SPANS AND CORRESPONDING LOADS SHOWN HEREIN. REFERENCE CONSTRUCTION TESTING CORPORATION (CTC OF MIAMI, FL) TEST REPORTS #04-009-FE-ASTM & #04-009-LE-ASTM, AS WELL AS HURRICANE TEST LAB (HTL OF RIVIERA BEACH, FL) TEST REPORTS #0239-0107-05, #0239-1013-07, #0239-0312-06, #0239-0110-07 & #0239-0813-06.
 - TOP & BOTTOM MOUNTING SECTIONS MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY AS APPLICABLE.
 - USE OF KEYHOLE WASHERS IS OPTIONAL IN CONJUNCTION WITH ANY MOUNTING CONDITION. HOLES MAY BE FIELD DRILLED AT Ø3/8" (OR Ø5/8" WITH KEYHOLE WASHER) WITH ANY FASTENER TYPE. WASHERED WINGNUTS SHALL HAVE 0.865" MINIMUM WASHER DIAMETER.
 - ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.

*NOTE: FOR ALTERNATE ARCH TOP INSTALLATIONS, THE TOP TRACK OR U-HEADER SHALL BE CUT INTO 6" MINIMUM ADJACENT SEGMENTS. EACH SEGMENT SHALL HAVE ANCHORS SPACED PER THE ANCHOR SCHEDULE, WITH A MINIMUM OF (2) ANCHORS PER SEGMENT. ANCHORS SHALL BE 1-1/2" MIN FROM ENDS OF EACH SEGMENT AND SPACED 3" MINIMUM FROM ADJACENT ANCHORS. FOR STUDDED TRACKS ONLY, THERE SHALL BE A MINIMUM OF (1) STUD PER SEGMENT FASTENED TO THE STORM PANEL. STUDS SHALL BE LOCATED 2" MINIMUM FROM ENDS OF EACH SEGMENT.

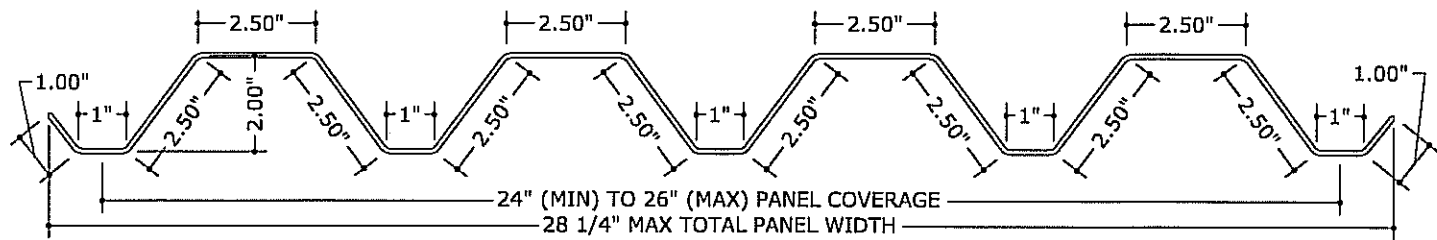
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TPS Transparent Protection Systems, Inc.
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West Palm Beach, FL 33407
CLEAR GUARD POLYCARBONATE STORM PANELS
FOR USE OUTSIDE THE HVHZ
FLORIDA STATEWIDE APPROVAL

DATE	DRWN	CHKD	REMARKS
8/17/04	CL	FLB	ORIG ISSUE
8/15/05	CL	FLB	2ND ISSUE
8/15/05	CL	FLB	2004 FBC
2/6/06	CL	FLB	ClearMAX PROFILE ADDED
12/29/08	IKL	CL	2007 FBC REVISION

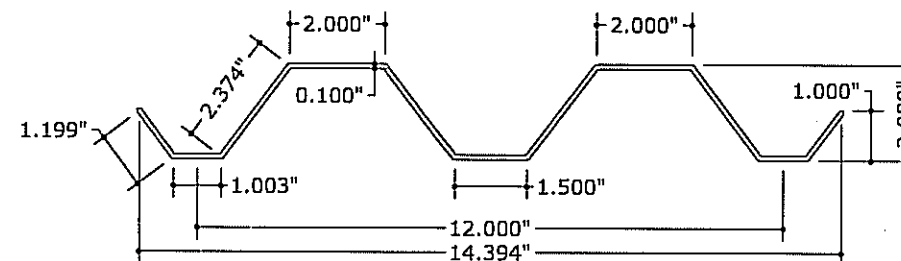
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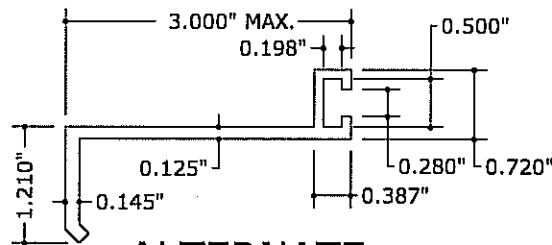
11 "CLEARMAX™" DOUBLE-WIDE PANEL PROFILE
 3" = 1'-0" (SEE GEN NOTE 6)

MOUNT WITH FASTENERS OR STUDS AT 13" O.C. MAX

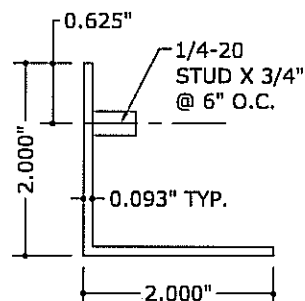


12 ALT. FULL PANEL PROFILE
 N.T.S. (SEE GEN NOTE 6)

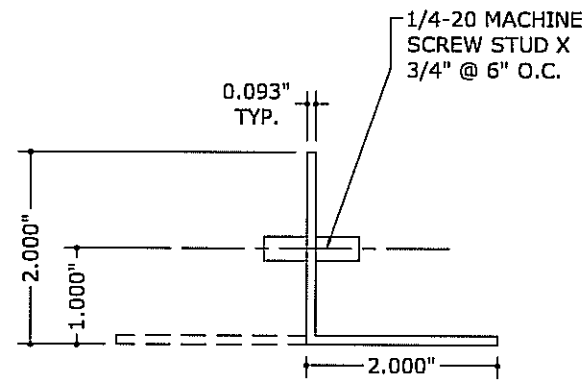
MOUNT WITH FASTENERS OR STUDS AT 13" O.C. MAX



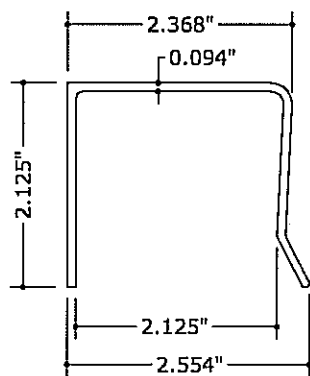
13 ALTERNATE B.O. 'F' TRACK
 6" = 1'-0"



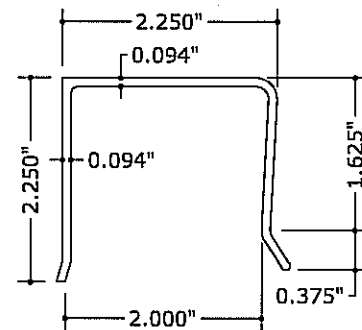
14 ALTERNATE STUD ANGLE
 6" = 1'-0"



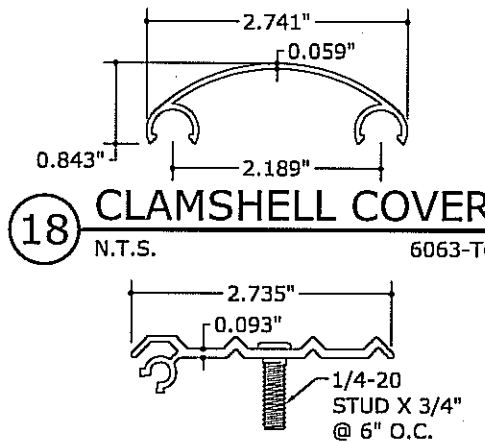
15 STUDED ANGLE
 6" = 1'-0"



16 U-HEADER
 N.T.S. 6063-T6



17 ALTERNATE U-HEADER
 N.T.S. 6063-T6



18 CLAMSHELL COVER
 N.T.S. 6063-T6

19 CLAMSHELL TRACK
 N.T.S. 6063-T6

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CLEARGUARD POLYCARBONATE STORM PANELS
 FOR USE OUTSIDE THE HVHZ
 FLORIDA STATEWIDE APPROVAL

REMARKS	DRWN	CHKD	DATE
ORIG ISSUE	CL	FLB	8/17/04
2ND ISSUE	CL	FLB	9/15/05
2004 FBC	CL	FLB	8/5/05
CLEARMAX PROFILE ADDED	CL	FLB	2/6/06
2007 FBC REVISION	KL	CL	12/29/08

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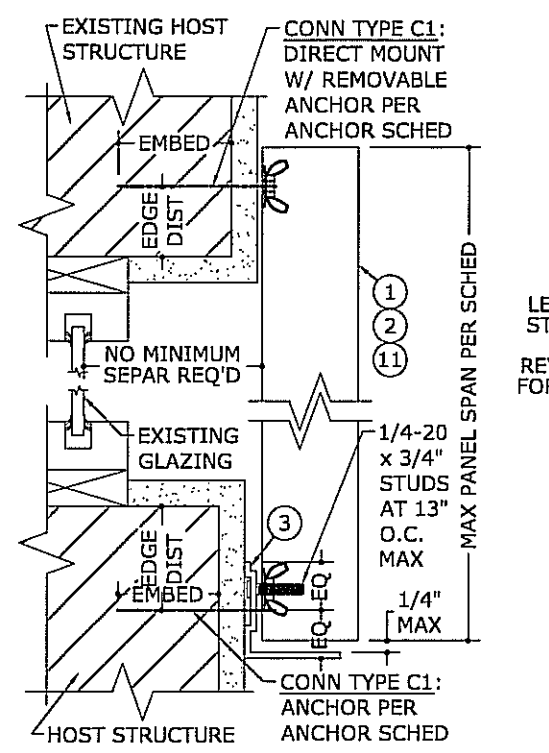
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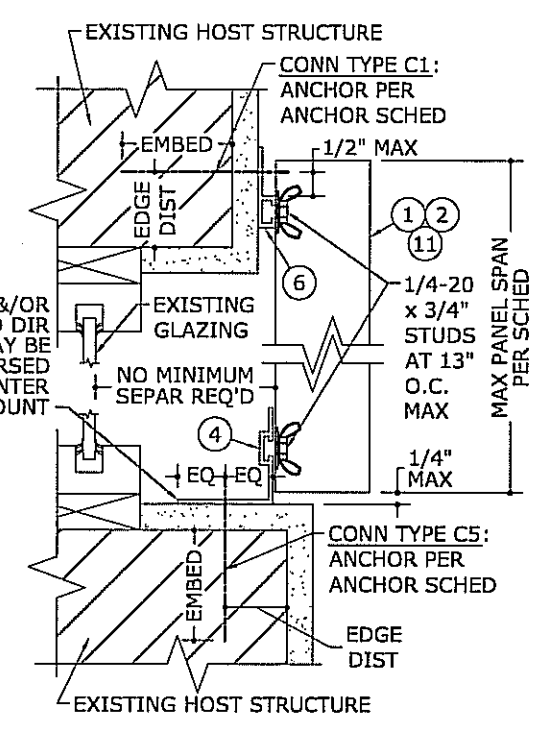
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12/31/2008 - 11:29am keith

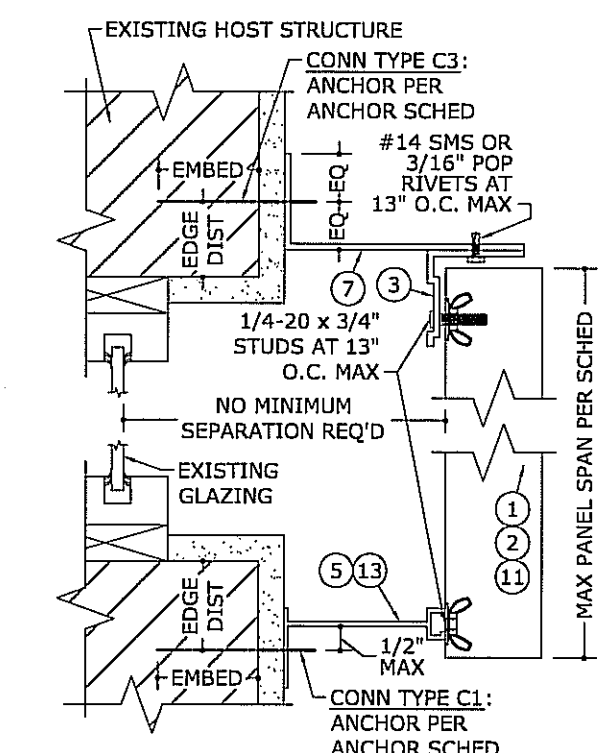
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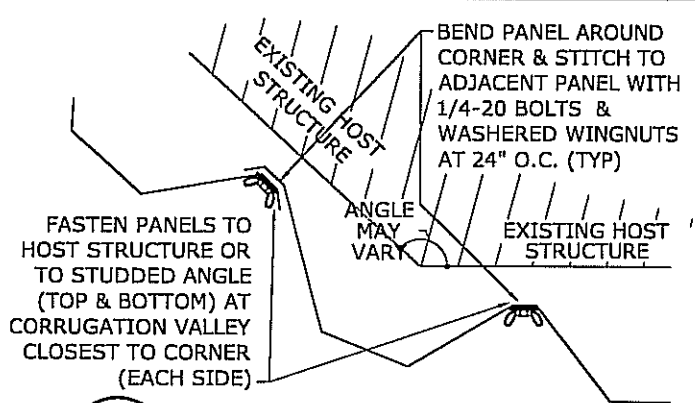
1 MOUNTING SECTION
3 3" = 1'-0" VERT SECTION



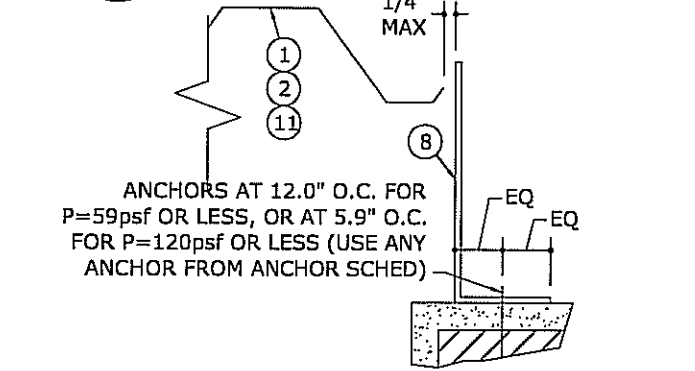
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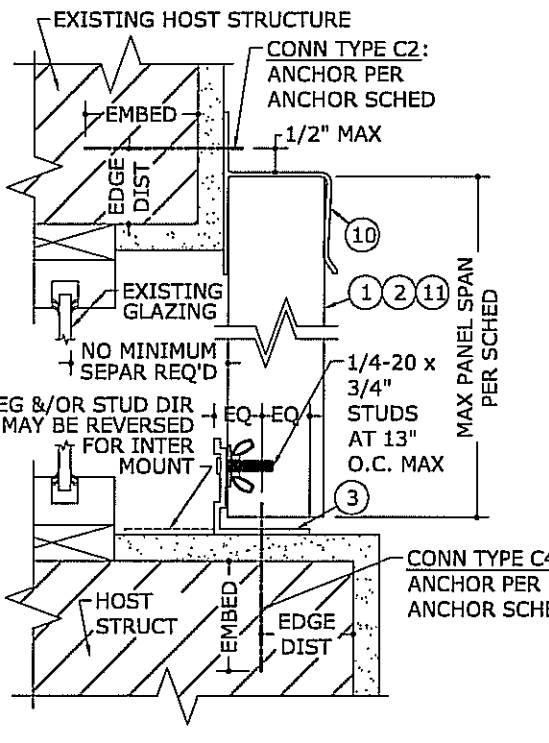
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3 3" = 1'-0" VERT SECTION



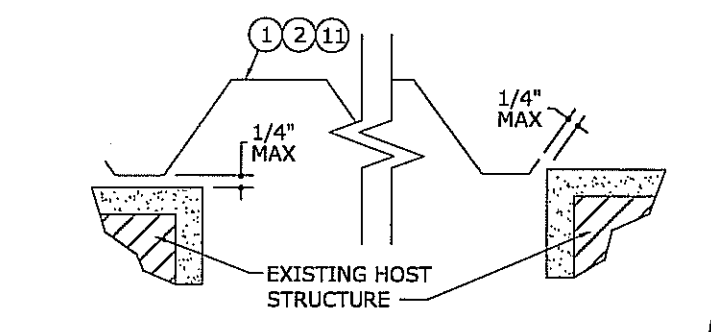
5 CORNER CLOSURE
3 N.T.S. PLAN VIEW



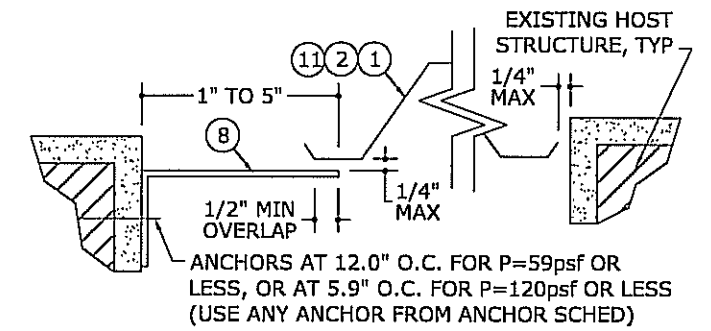
6 BUILD-OUT CLOSURE
3 3" = 1'-0" PLAN VIEW



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



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



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

MAXIMUM PANEL SPAN SCHEDULE (POSITIVE CONN.)

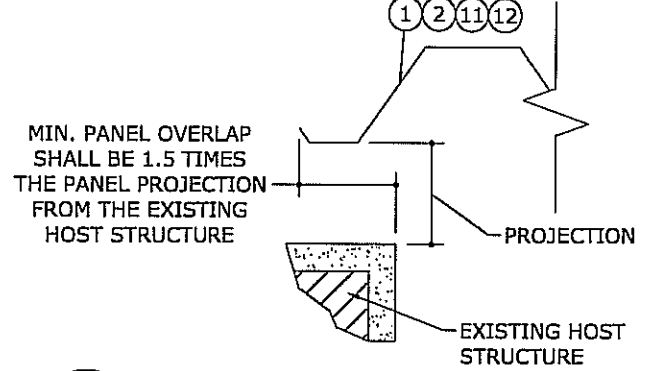
LOAD (psf)	MAX SPAN (ft)
25	11'-4"
30	10'-4"
35	9'-7"
40	8'-11"
45	8'-5"
50	8'-0"
55	7'-7"
60	7'-4"
65	7'-0"
70	6'-7"
75	6'-1"
80	5'-9"
90	5'-1"
100	4'-7"
110	4'-2"
120	3'-10"

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

LOAD (psf)	MAX SPAN (ft)
17.3	8'-7"
24.2	7'-9"
34.6	7'-0"
41.6	6'-0"
55.4	5'-0"
104	4'-0"

MAXIMUM PANEL SPAN SCHEDULE (W/ "U" HEADER)

MAX SPAN (ft)	MAX DESIGN PRESSURES	
	POSITIVE (psf)	NEGATIVE (psf)
6'-3"	35	38
5'-3"	48	48
4'-4"	78	80



9 PANEL OVERLAP
3 N.T.S. PLAN VIEW

MAXIMUM SPAN SCHEDULE NOTES:

1. SPANS SHOWN IN "MAX PANEL SPAN SCHEDULES" ARE MAXIMUM ALLOWABLE SPANS AT EACH RESPECTIVE DESIGN PRESSURE.
2. THE <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" OR "U" HEADER.
3. THE <WITH "H" HEADER> SPAN SCHEDULE SHALL BE USED FOR ALL INSTALLATIONS WHICH INCLUDE AN "H" HEADER.
4. THE <WITH "U" HEADER> SPAN SCHEDULE SHALL BE USED FOR ALL INSTALLATIONS WHICH INCLUDE A "U" HEADER.
4. TABLES ARE VALID FOR PANELS MOUNTED HORIZONTALLY OR VERTICALLY. SPAN DIRECTION IS ALWAYS PERPENDICULAR TO LINE OF ANCHORAGE.

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CLEARGUARD POLYCARBONATE STORM PANELS
FOR USE OUTSIDE THE HVHZ
FLORIDA STATEWIDE APPROVAL

DRWN	CHKD	DATE
CL	FLB	8/17/04
CL	FLB	9/15/05
CL	FLB	8/6/05
CL	FLB	2/6/06
CL	CL	12/29/08

REVISIONS: 1. MAX. PANEL SPAN SCHEDULES ARE VALID FOR PANELS MOUNTED HORIZONTALLY OR VERTICALLY. SPAN DIRECTION IS ALWAYS PERPENDICULAR TO LINE OF ANCHORAGE. 2. THIS DOCUMENT IS NOT PERMITTED TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. 3. ALL RIGHTS ARE RESERVED BY FRANK L. BENNARDO, P.E. AND HIS EMPLOYERS. 4. THIS DOCUMENT IS NOT PERMITTED TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

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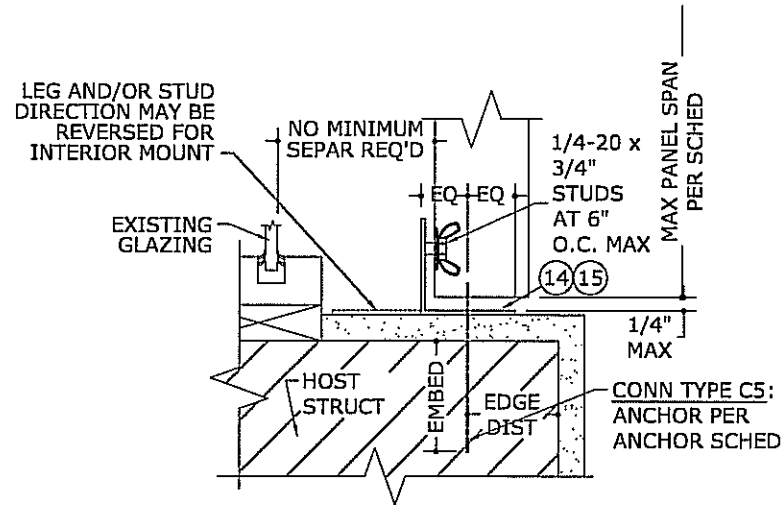
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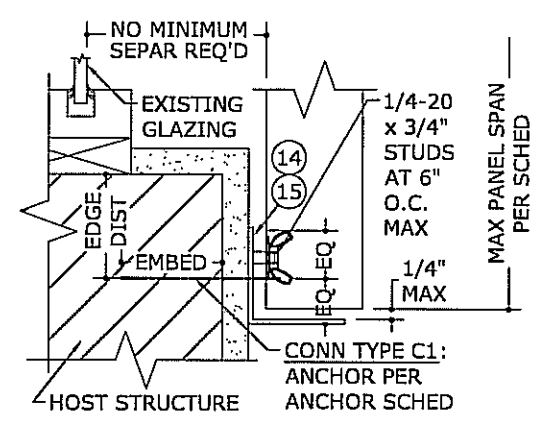
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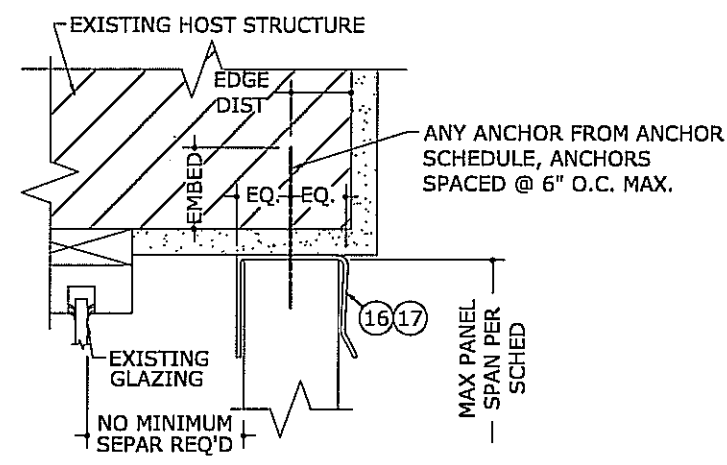
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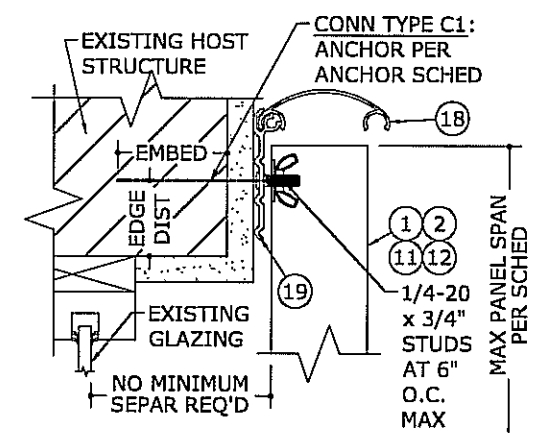
1 MOUNTING SECTION
 4 3" = 1'-0" VERT SECTION



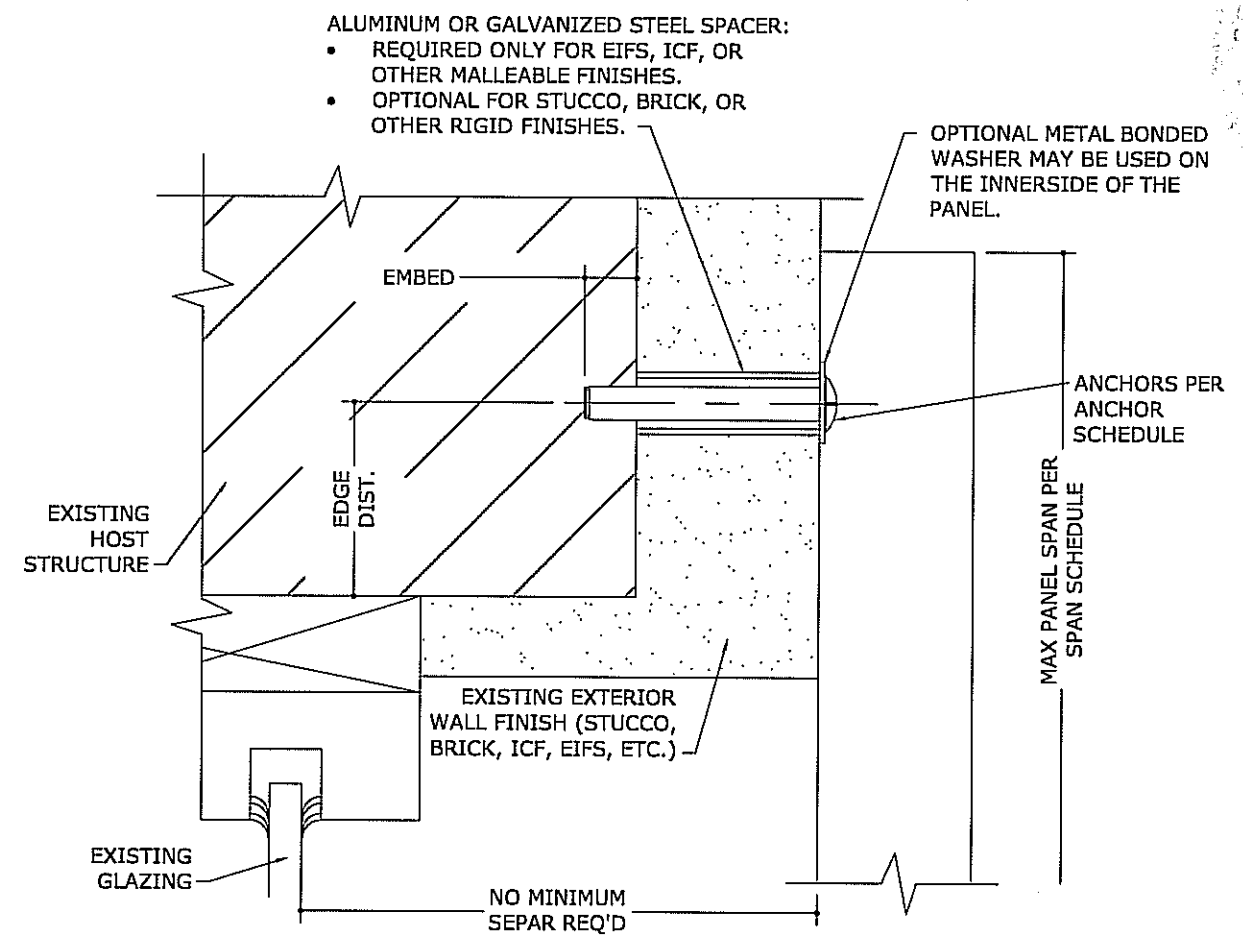
2 MOUNTING SECTION
 4 3" = 1'-0" VERT SECTION



3 MOUNTING SECTION
 4 N.T.S. VERT SECTION



4 MOUNTING SECTION
 4 N.T.S. VERT SECTION



5 MOUNTING SECTION THRU EXTERIOR WALL FINISH (BRICK, ICF, EIFS, ETC.)
 4 N.T.S. VERT SECTION

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

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

OPTIONAL METAL BONDED WASHER MAY BE USED ON THE INNERSIDE OF THE PANEL.

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ClearMAX PROFILE ADDED	CL	FLB	2/6/06
2007 FBC REVISION	KL	CL	12/29/06

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