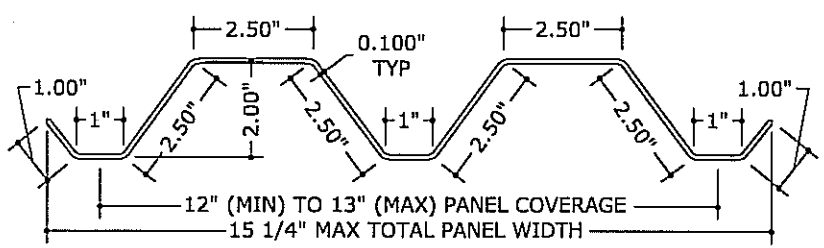




# POLYCARBONATE STORM PANELS (HVHZ)

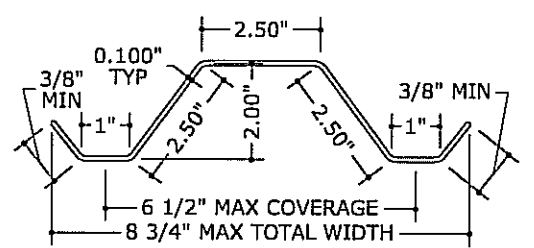
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# PE0046549

12/31/2008



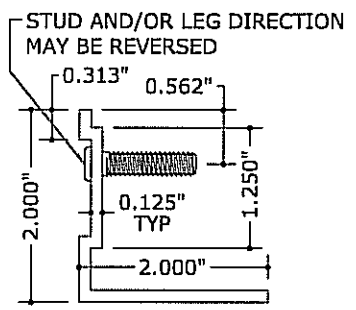
**1 FULL PANEL PROFILE**  
3" = 1'-0" (SEE GEN NOTE 6)

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

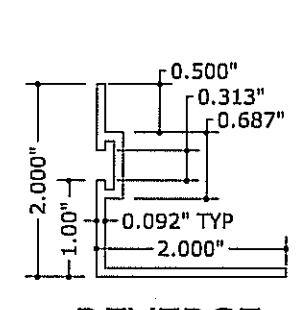


**2 HALF PANEL PROFILE**  
3" = 1'-0" (SEE GEN NOTE 6)

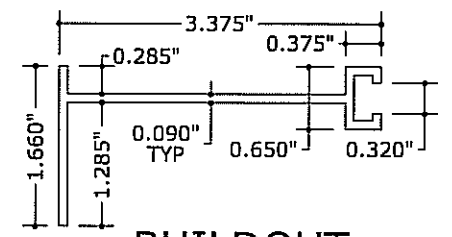
MOUNT WITH FASTENERS OR STUDS AT 6-1/2" O.C. MAX



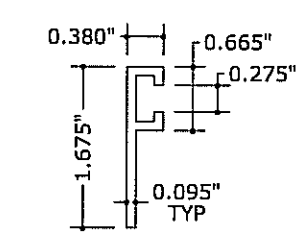
**3 STUD ANGLE**  
6" = 1'-0"



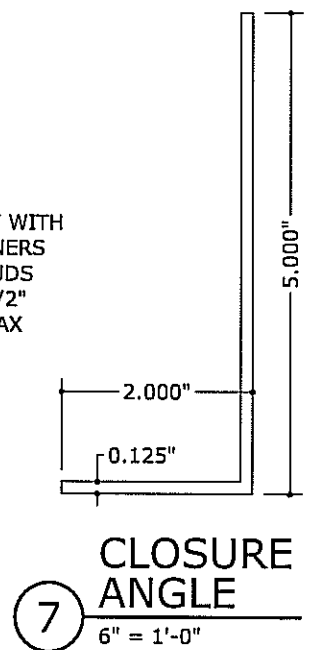
**4 REVERSE 'F' ANGLE**  
6" = 1'-0"



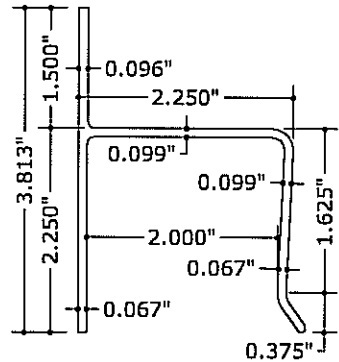
**5 BUILDOUT 'F' TRACK**  
6" = 1'-0"



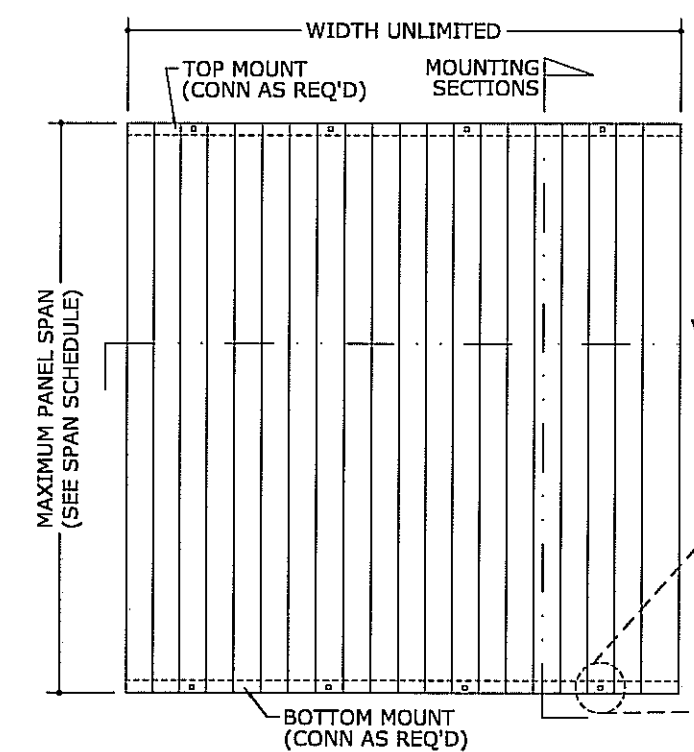
**6 'F' TRACK**  
6" = 1'-0"



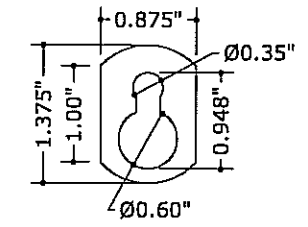
**7 CLOSURE ANGLE**  
6" = 1'-0"



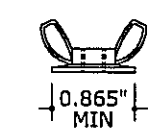
**10 'H' HEADER**  
6" = 1'-0"



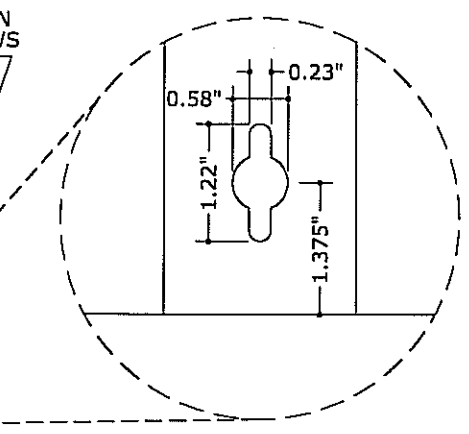
**1 TYPICAL ELEVATION**  
1 N.T.S.



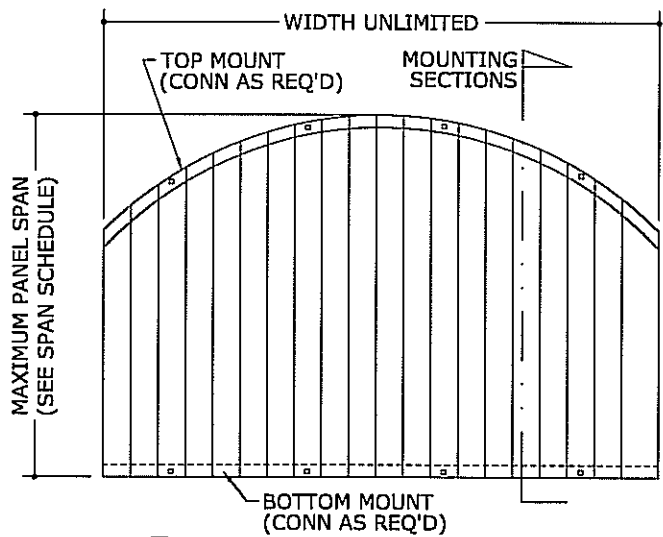
**8 KEYHOLE WASHER**  
6" = 1'-0"



**9 WASHERED WINGNUT**  
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 PER TAS 201, 202, & 203 TEST PROTOCOLS. PANELS ARE APPROVED FOR USE THROUGHOUT THE STATE OF FLORIDA, INCLUDING WITHIN THE HIGH VELOCITY HURRICANE ZONE (HVHZ) COMPRISED OF MIAMI-DADE & BROWARD COUNTIES.
- 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  $K_d=0.85$  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.
- PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND NEW SUPERIMPOSED LOADS.
- 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 POLYCARBONATE PANELS ONLY. ALL POLYCARBONATE PANELS SHALL BE EXTRUDED WITH THICKNESS  $t=0.100$ " ( $\pm 0.010$ ") AND SHALL BE MANUFACTURED FROM 100% SYNTHETIC THERMOPLASTIC POLYMER RESIN (UV STABILIZED). ANY PLASTIC MATERIAL TO BE USED IN THE HVHZ MUST DEMONSTRATE COMPLIANCE WITH SECTION 2612 OF THE BUILDING CODE SPECIFIED ABOVE. TYPICAL TENSILE STRENGTH  $F_y=8.908$  KSI, FLEXURAL STRENGTH  $F_{by}=12.90$  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-FBC & #04-009-LE-FBC, AS WELL AS HURRICANE TEST LAB (HTL OF RIVIERA BEACH, FL) TEST REPORTS #0239-0107-05, #0239-1013-07, & #0239-0312-06.
  - 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 IN PANELS 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.

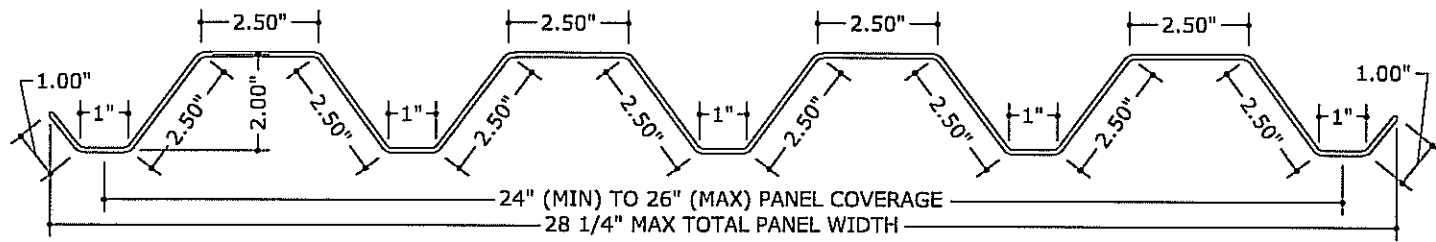
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6643 42nd Terrace North  
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CLEAR GUARD POLYCARBONATE STORM PANELS  
FOR USE WITHIN AND OUTSIDE THE HVHZ  
FLORIDA STATEWIDE APPROVAL

REMARKS	DRWN	CHKD	DATE
ORIG ISSUE	CL	FLB	8/17/04
2ND ISSUE	CL	FLB	8/15/05
2004 FBC	CL	FLB	8/6/05
ClearMAX PROFILE ADDED	CL	FLB	2/6/06
2007 FBC	CL	FLB	12/23/08

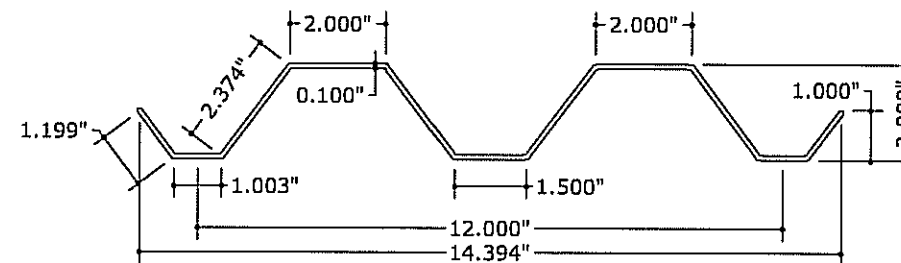
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OF 5  
**1**

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12/31/2008 - 1:30pm  
kelih



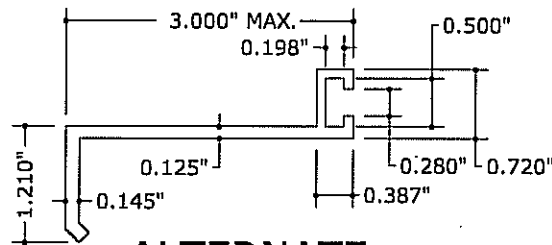
**11 "CLEARMAX"™ DOUBLE-WIDE PANEL PROFILE**  
 3" = 1'-0" (SEE GEN NOTE 6)

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

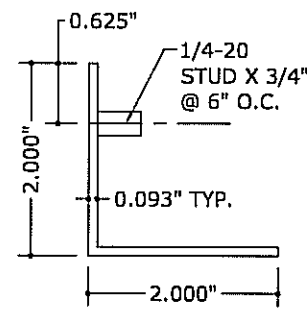


**12 ALT. FULL PANEL PROFILE**  
 N.T.S. (SEE GEN NOTE 6)

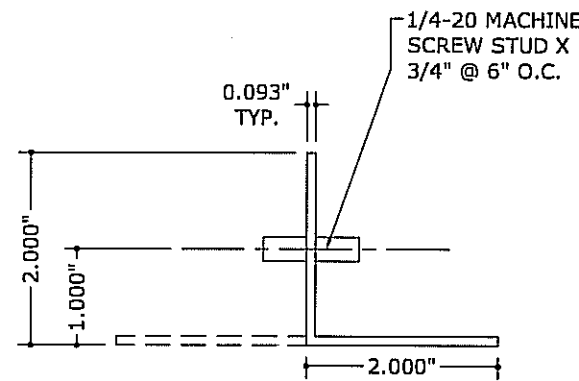
MOUNT WITH FASTENERS OR STUDS AT 13" O.C. MAX



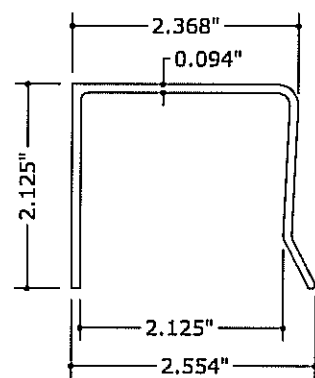
**13 ALTERNATE B.O. 'F' TRACK**  
 6" = 1'-0"



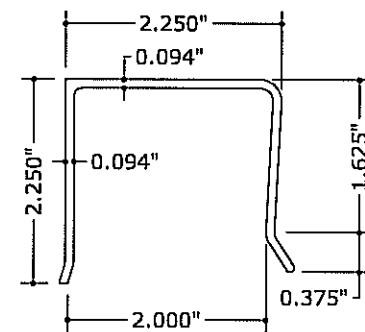
**14 ALTERNATE STUD ANGLE**  
 6" = 1'-0"



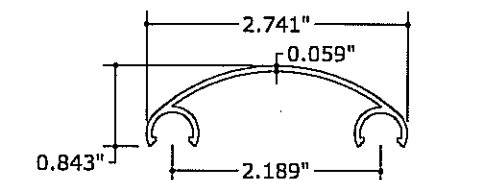
**15 STUDED ANGLE**  
 6" = 1'-0"



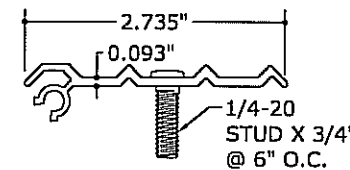
**16 U-HEADER**  
 N.T.S. 6063-T6



**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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12/31/2008

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6643 42nd Terrace North  
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CLEARGUARD POLYCARBONATE STORM PANELS  
 FOR USE WITHIN AND 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	KL	CL	12/23/08

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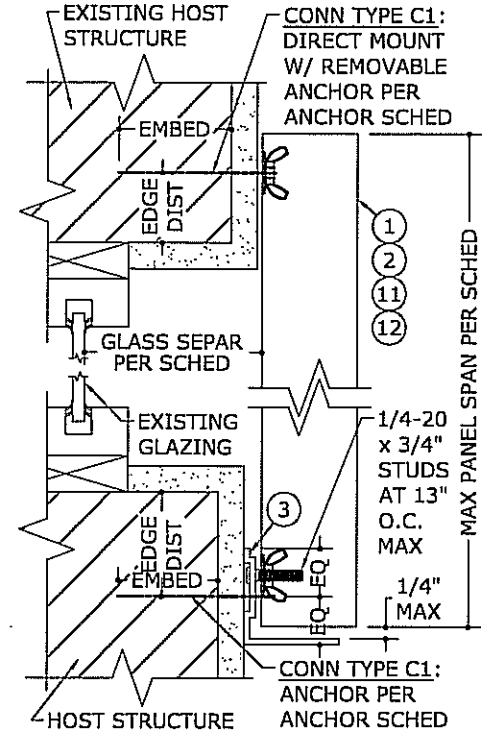
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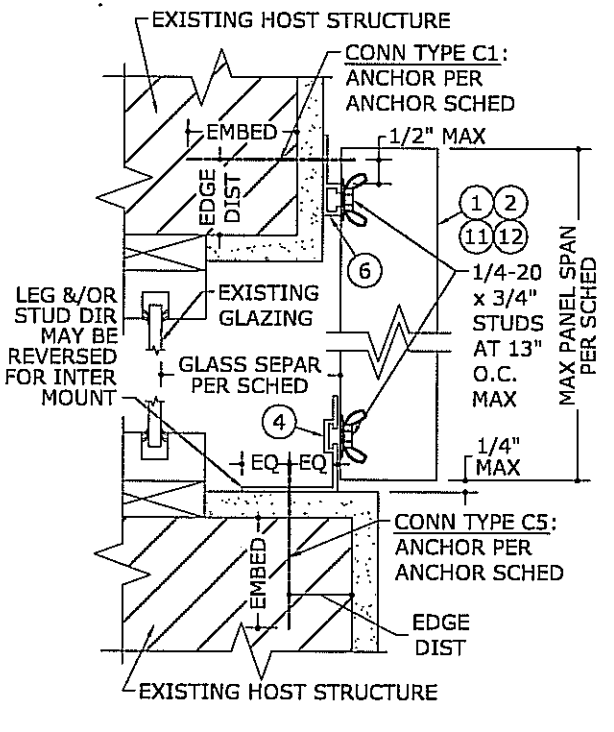
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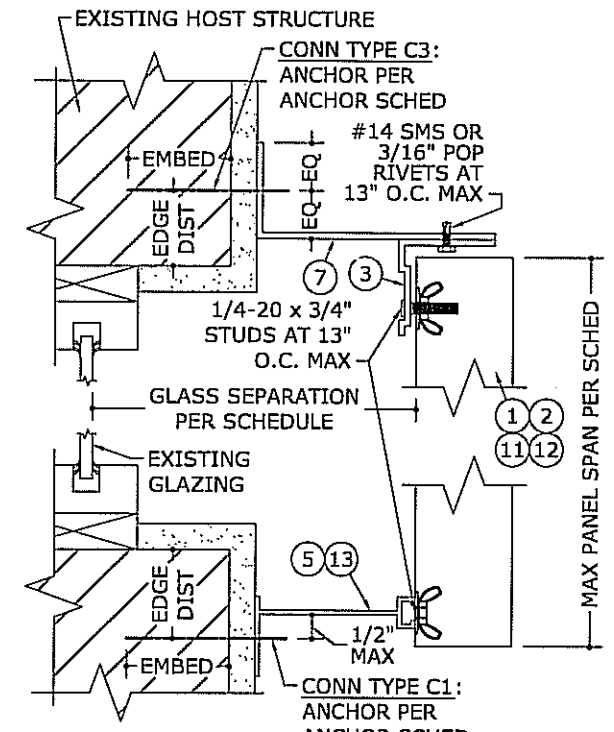
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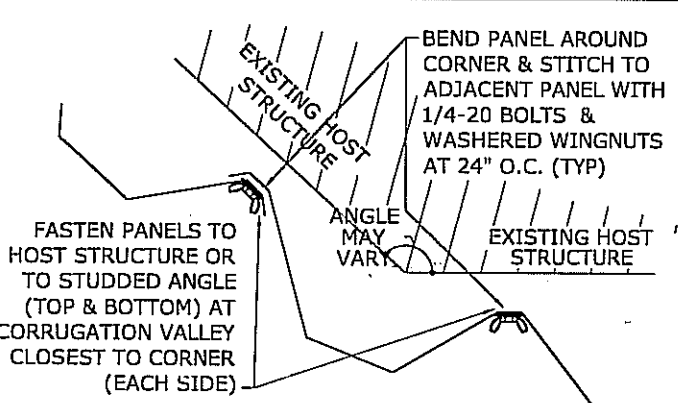
**1 MOUNTING SECTION**  
3 3" = 1'-0" VERT SECTION



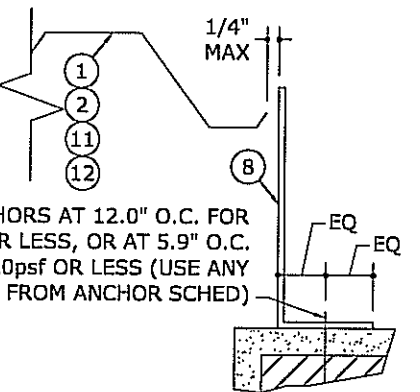
**2 MOUNTING SECTION**  
3 3" = 1'-0" VERT SECTION



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

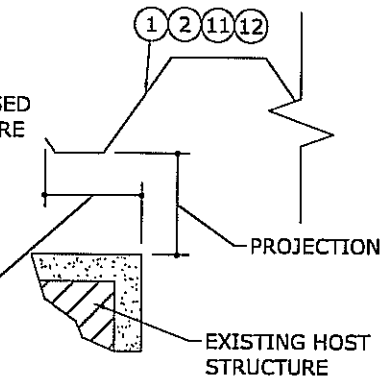


**5 CORNER CLOSURE**  
3 N.T.S. PLAN VIEW

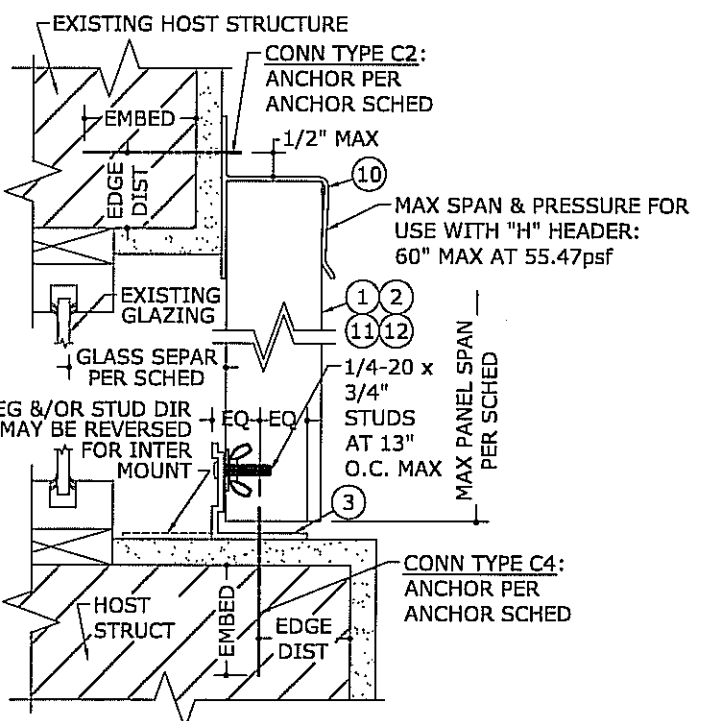


**6 BUILD-OUT CLOSURE**  
3 3" = 1'-0" PLAN VIEW

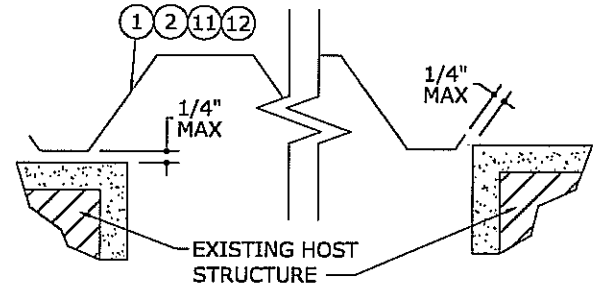
NOTE: DETAIL 9/3 MAY BE USED AS AN ALTERNATE TO CLOSURE DETAILS 7/3 AND 6/3.



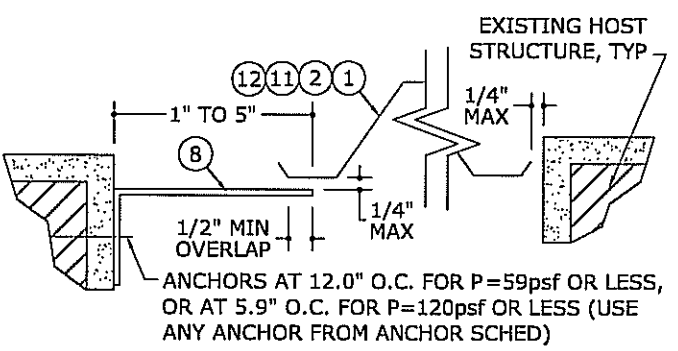
**9 PANEL OVERLAP**  
3 N.T.S. PLAN VIEW



**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	7'-6"
30	7'-1"
32	6'-11"
35	6'-9"
40	6'-5"
45	6'-2"
50	6'-0"
55	5'-9"
60	5'-7"
65	5'-5"
70	5'-3"
75	5'-1"
80	4'-11"
90	4'-7"
100	4'-5"
110	4'-1"
120	3'-9"

**MAXIMUM SPAN SCHEDULE NOTES:**

1. SPANS SHOWN IN "MAX PANEL SPAN SCHEDULE" ABOVE ARE MAXIMUM ALLOWABLE SPANS AT EACH RESPECTIVE DESIGN PRESSURE.
2. THIS 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. WHERE THE "H" HEADER IS USED, THE MAXIMUM ALLOWABLE SPAN IS 5'-0" (60") AND THE MAXIMUM ALLOWABLE PRESSURE IS 55.47psf.
4. WHERE "U" HEADER IS USED, THE MAXIMUM ALLOWABLE SPAN IS 4'-4" (52") AND THE MAXIMUM ALLOWABLE PRESSURE IS +78/-80 PSF.
5. TABLE ABOVE IS VALID FOR PANELS MOUNTED HORIZONTALLY OR VERTICALLY. SPAN DIRECTION IS ALWAYS PERPENDICULAR TO LINE OF ANCHORAGE.

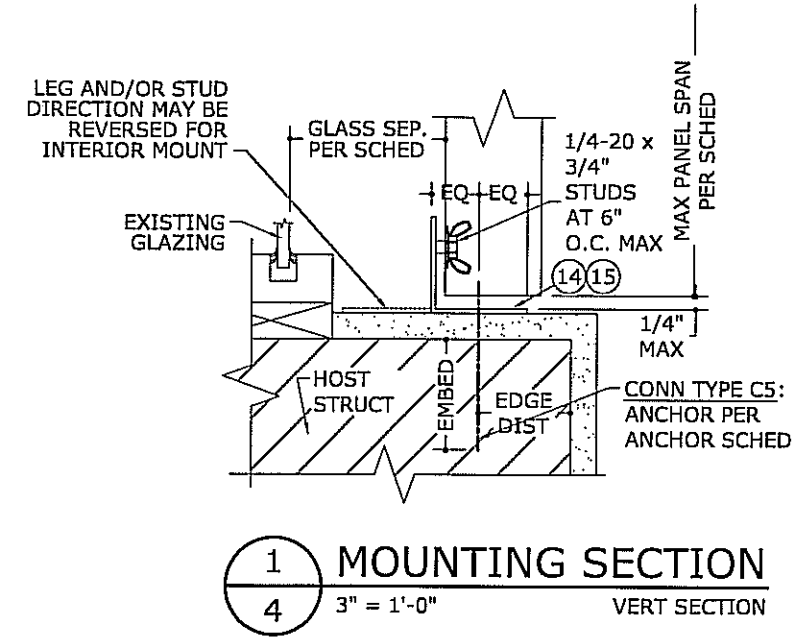
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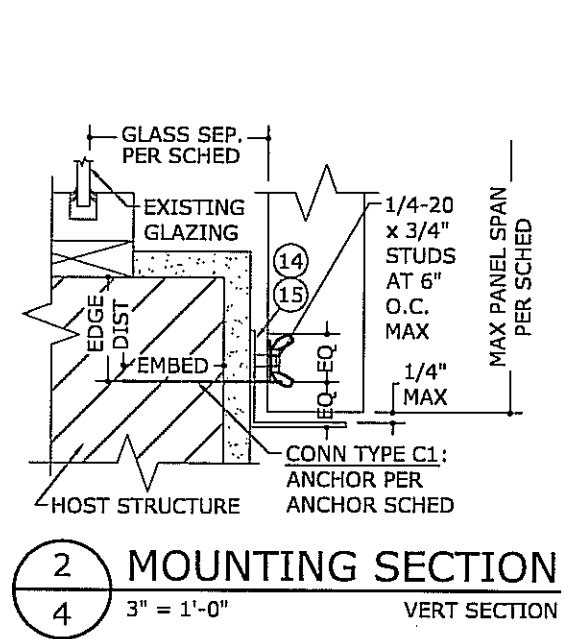
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ClearMAX PROFILE ADDED	CL	FLB	2/6/06
2007 FBC	CL	CL	12/23/08

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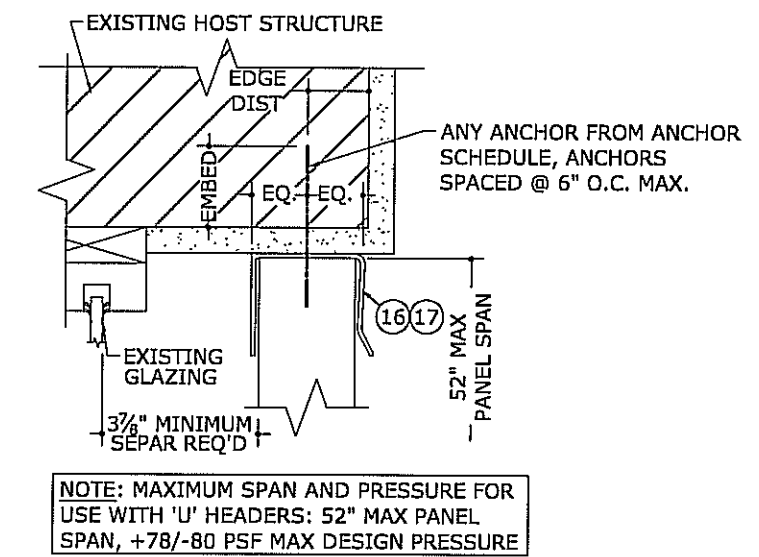
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**1 MOUNTING SECTION**  
 4 3" = 1'-0" VERT SECTION

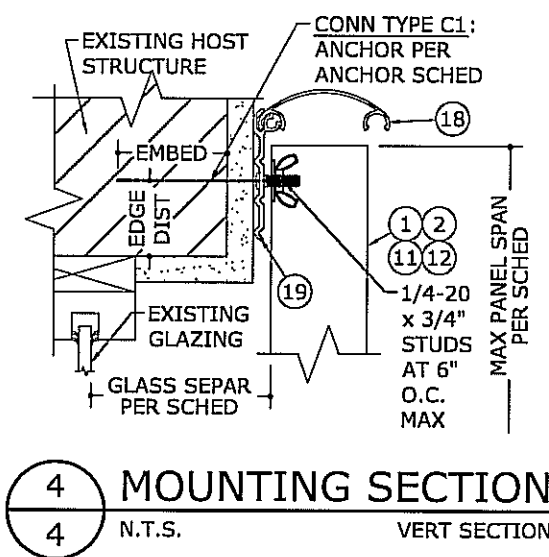


**2 MOUNTING SECTION**  
 4 3" = 1'-0" VERT SECTION

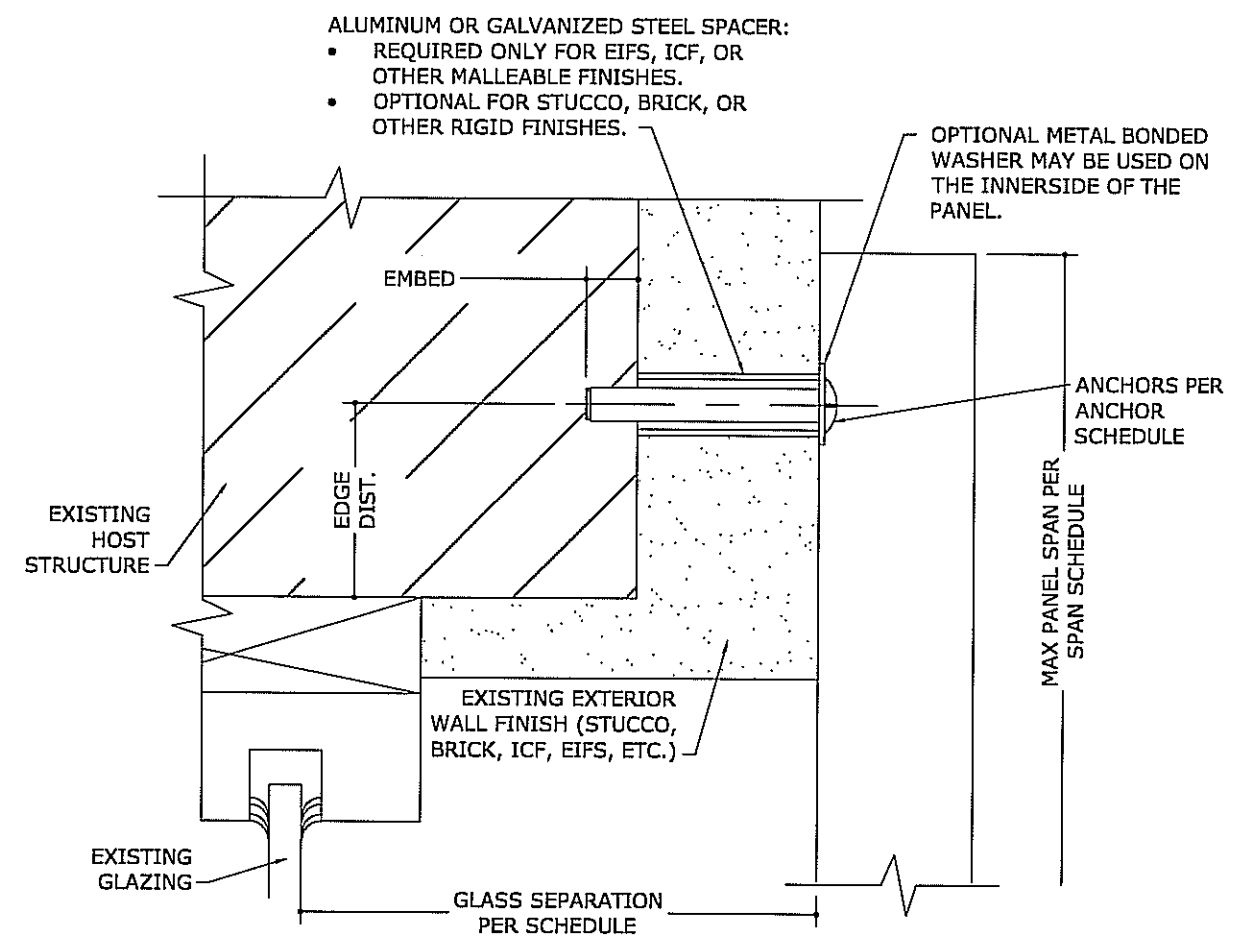


**3 MOUNTING SECTION**  
 4 N.T.S. VERT SECTION

NOTE: MAXIMUM SPAN AND PRESSURE FOR USE WITH 'U' HEADERS: 52" MAX PANEL SPAN, +78/-80 PSF MAX DESIGN PRESSURE



**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.

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12/31/2008

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ClearMAX PROFILE ADDED	CL	FLB	2/6/06
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