

**1 STORM PANEL**  
SCALE: 3" = 1'-0"

**1a HALF STORM PANEL**  
SCALE: 3" = 1'-0"

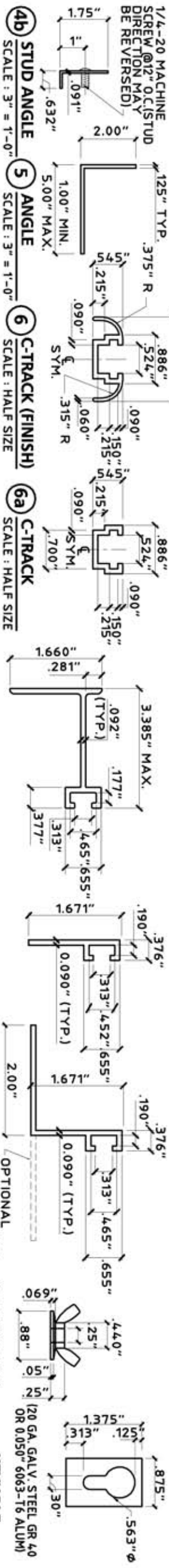
**2 "h" HEADER**  
SCALE: 3" = 1'-0"

**3 "u" HEADER**  
SCALE: 3" = 1'-0"

**3a BUILD-OUT "u" HEADER**  
SCALE: 3" = 1'-0"

**4 STUD ANGLE**  
SCALE: 3" = 1'-0"

**4a STUD ANGLE**  
SCALE: 3" = 1'-0"



**4b STUD ANGLE**  
SCALE: 3" = 1'-0"

**5 ANGLE**  
SCALE: 3" = 1'-0"

**6 C-TRACK (FINISH)**  
SCALE: HALF SIZE

**6a C-TRACK**  
SCALE: HALF SIZE

**7 BUILD-OUT F-TRACK**  
SCALE: HALF SIZE

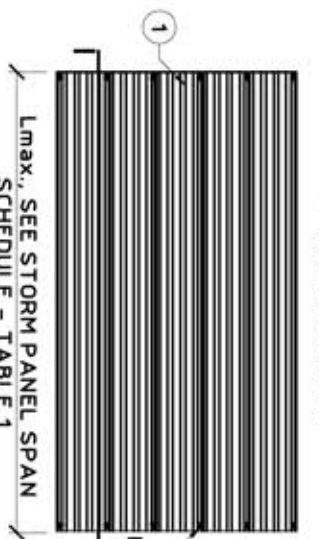
**8 "f" TRACK**  
SCALE: HALF SIZE

**8a "f" ANGLE - TRACK**  
SCALE: HALF SIZE

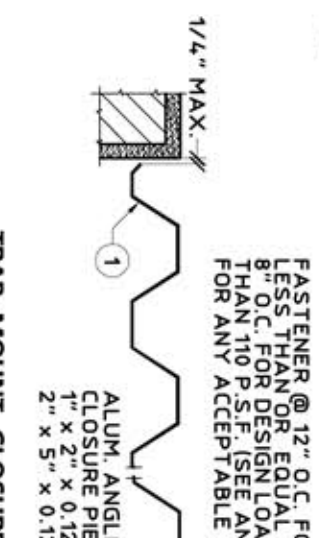
**9 WING NUT**  
SCALE: HALF SIZE

**10 KEYHOLE WASHER**  
SCALE: HALF SIZE

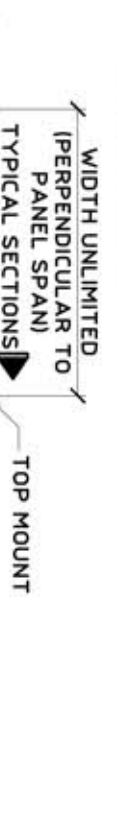
- GENERAL NOTES:**
- THIS PRODUCT EVALUATION DOCUMENT REPRESENTS A SHUTTER SYSTEM DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE. THIS PRODUCT IS SUITABLE FOR INSTALLATION IN AREAS OF THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
  - THIS SHUTTER SYSTEM HAS BEEN TESTED FOR LARGE MISSILE IMPACT LOAD AND UNIFORM STATIC AIR PRESSURE IN CONFORMANCE WITH FLORIDA BUILDING CODE TAS 201, 202 AND 203.
  - NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WIND LOAD DURATION FACTOR OF 1.6 WAS USED FOR LAG SCREW DESIGN IN WOOD.
  - DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY.
  - THESE PRODUCT EVALUATION DOCUMENTS ARE PREPARED BY THE PRODUCT ENGINEER AND ARE GENERIC. THEY DO NOT INCLUDE INFORMATION PREPARED FOR A SPECIFIC SITE.
  - USE OF THESE PRODUCT EVALUATION DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15-23 OF THE FLORIDA ADMINISTRATIVE CODE.
  - THESE PRODUCT EVALUATION DOCUMENTS ARE INTENDED FOR USE ONLY BY A LICENSED CONTRACTOR, PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT AND ARE SUITABLE TO BE APPLIED BY THE CONTRACTOR PROVIDED THE CONTRACTOR DOES NOT DEVIATE FROM THE CONDITIONS DETAILED HEREIN AND THE CONTRACTOR VERIFIES THAT THE EXISTING STRUCTURE DOES NOT DEVIATE IN EITHER FORM OR MATERIAL FROM THE STRUCTURAL SUBSTRATES DETAILED HEREIN. CONTRACTOR SHALL VERIFY EXISTING STRUCTURE CAN WITHSTAND SUPERIMPOSED LOAD OF SHUTTER.
  - ALTERATIONS OR ADDITIONS TO THIS DOCUMENT ARE NOT PERMITTED.
  - WHEN THE SITE CONDITIONS DEVIATE FROM THESE PRODUCT EVALUATION DOCUMENTS, SITE SPECIFIC DOCUMENTS SHALL BE PREPARED BY A LICENSED AND REGISTERED DELEGATED ENGINEER OR ARCHITECT. SAID DOCUMENTS SHALL BEAR THE DATE, SIGNATURE AND EMBOSSED SEAL OF THE DELEGATED ENGINEER OR ARCHITECT AND SHALL BE SUBMITTED TO THE PRODUCT ENGINEER FOR REVIEW AS A CONDITION TO THE BUILDING OFFICIAL GRANTING HIS/HER APPROVAL.
  - EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED WITHIN 12" OF ONE END EACH PANEL AS FOLLOWS:  
**TOWN & COUNTRY INDUSTRIES**  
FT. LAUDERDALE, FL  
TAS 201, 202 & 203  
9 LB. LARGE MISSILE  
FBC APPROVED
  - STORM PANELS SHALL BE 3004-H34 OR 5052-H34 OR EQUAL ALUMINUM ALLOY WITH THE FOLLOWING MINIMUM THICKNESS AND MECHANICAL PROPERTIES: NOMINAL 0.050" MINIMUM Fy = 25.0 K.S.I.
  - ALL BOLTS AND WASHERS SHALL BE GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 K.S.I.
  - ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N.
  - MATERIAL SPECIFICATIONS NOTED HEREIN ARE THE MANUFACTURER'S REPRESENTATION OF MATERIALS USED IN PRODUCT TESTING.
  - TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE. H & U HEADERS MAY NOT BE USED FOR HORIZONTAL MOUNTING CONDITIONS.
  - IF PANEL OVERLAPS OPENING BY 1.5 TIMES THE GAP BETWEEN WALL AND PANEL, NO SIDE CLOSURE ARE REQUIRED.



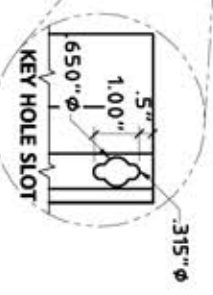
**TYPICAL HORIZONTAL ELEVATION**  
SCALE: 1/4" = 1'-0"



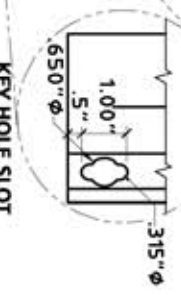
**TYPICAL VERTICAL ELEVATION**  
SCALE: 1/4" = 1'-0"



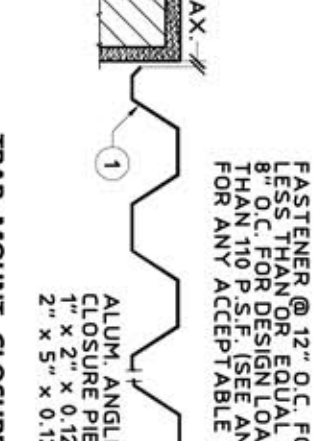
**TYPICAL HORIZONTAL ELEVATION (PERPENDICULAR TO PANEL SPAN)**  
SCALE: 1/4" = 1'-0"



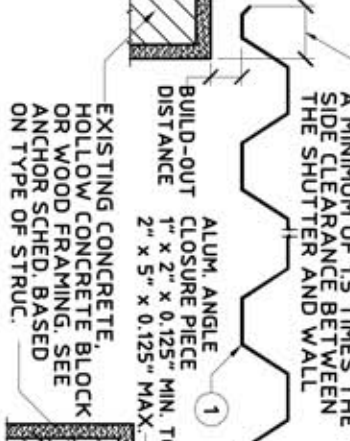
**KEY HOLE SLOT**



**KEY HOLE SLOT**



**TRAP MOUNT CLOSURE DETAIL**



**BUILD-OUT MOUNT CLOSURE DETAIL**



**WALL MOUNT CLOSURE DETAIL (PLAN)**

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**0.050" ALUMINUM STORM PANEL**

**Town & Country INDUSTRIES**

Wholesale Aluminum and Building Products  
A Division of ABC SUPPLY, INC.  
400 WEST McNAB ROAD • FORT LAUDERDALE, FL 33309  
PHONE 954.970.9999 • FAX 954.970.9988

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**eyewall Armor**

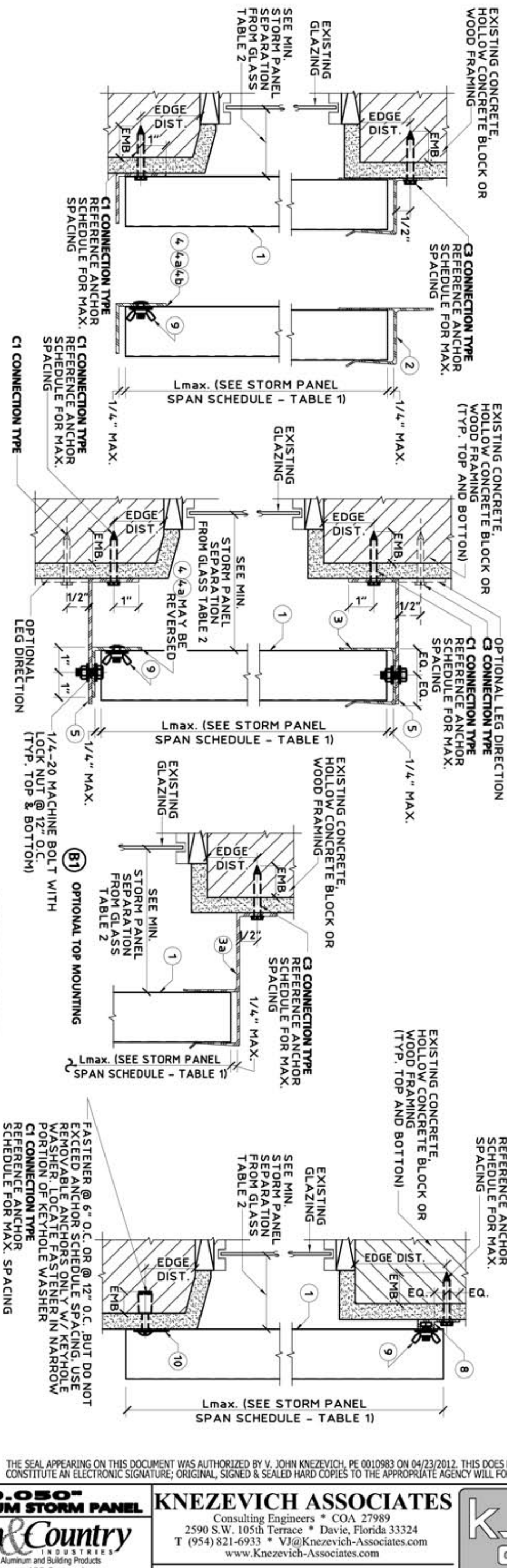
HURRICANE PROTECTION

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**A WALL MOUNT SECTION**  
SCALE: 3" = 1'-0"

**B BUILD-OUT MOUNT SECTION**  
SCALE: 3" = 1'-0"

**C TRACK/DIRECT MOUNT SECTION**  
SCALE: 3" = 1'-0"

**D CEILING/FLOOR MOUNT SECTION**  
SCALE: 3" = 1'-0"

**E "PASS THRU" SECTION**  
SCALE: 3" = 1'-0"

**F CEILING MOUNT / BUILD OUT SECTION**  
SCALE: 3" = 1'-0"

DETAIL (E) ("PASS THRU" SEC.) ANCHOR SCHEDULE		
1/4" φ ITW TAPCON W/ 1-3/4" MIN. (CONC.) OR 1-1/4" MIN. (BLOCK) EMBEDMENT	1/4" φ POWERS CALK-IN W/ 7/8" EMBEDMENT & 1-3/4" EMBEDMENT STEEL MACHINE SCREW	1/4" φ x MIN. 2-1/2" LONG WOOD LAG SCREW W/ MINIMUM 1-3/4" EMBEDMENT OR PERPENDICULAR TO WOOD GRAIN
12"	4"	WOOD
HOLLOW CONC. (3.35 KSI) CMU BLOCK		
7"		
WOOD		
12"		

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**0.050" ALUMINUM STORM PANEL**

**Town & Country INDUSTRIES**

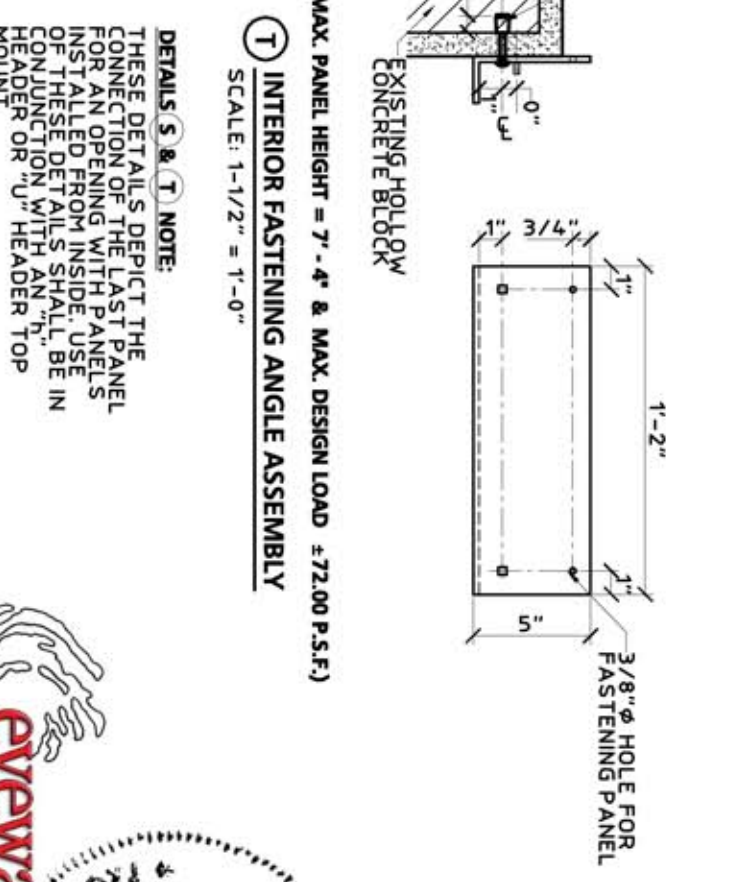
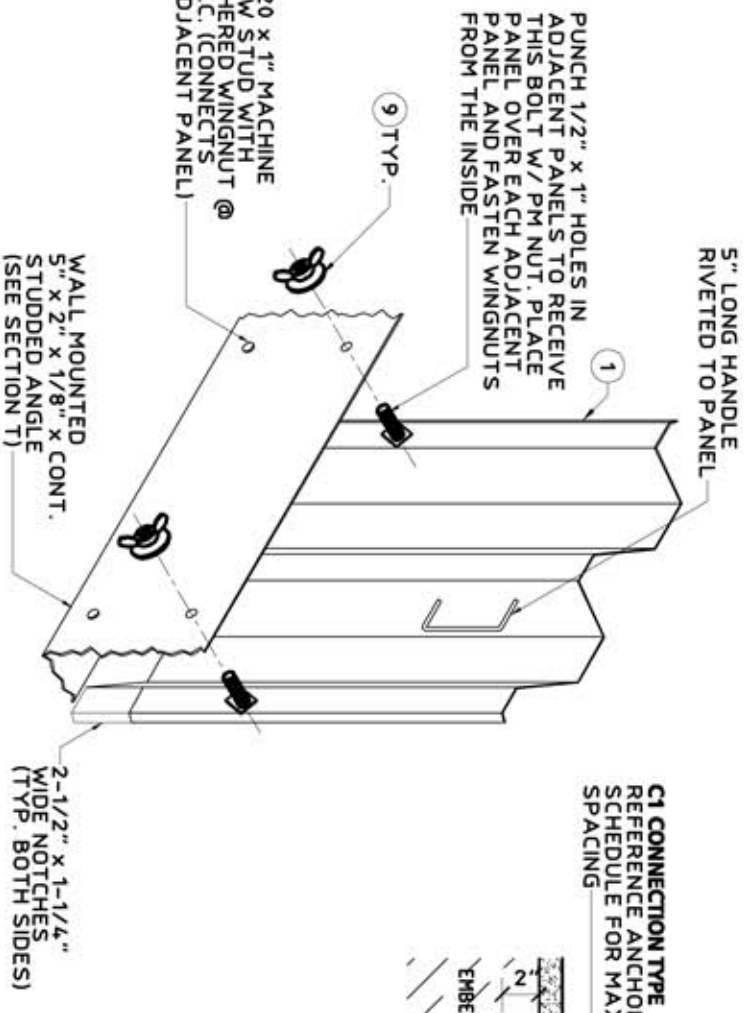
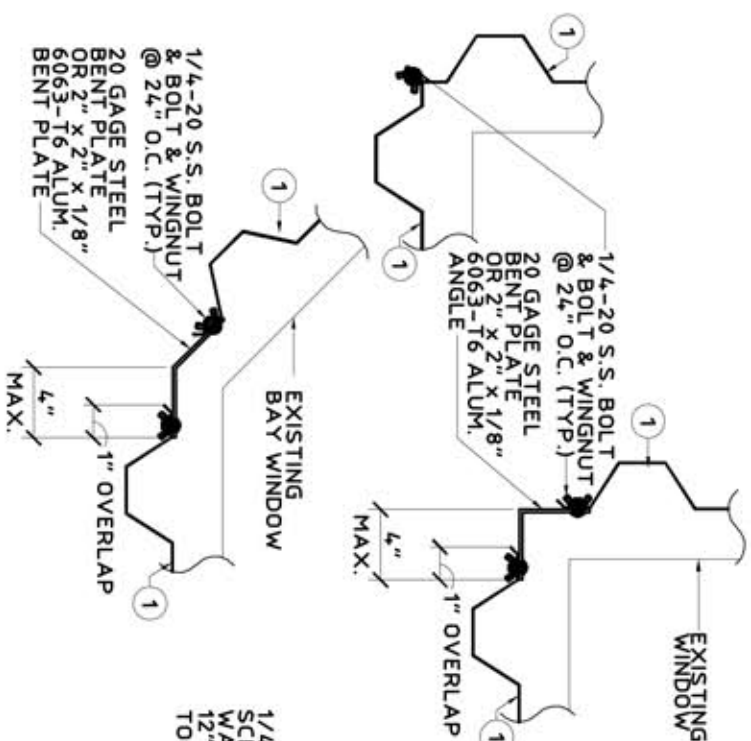
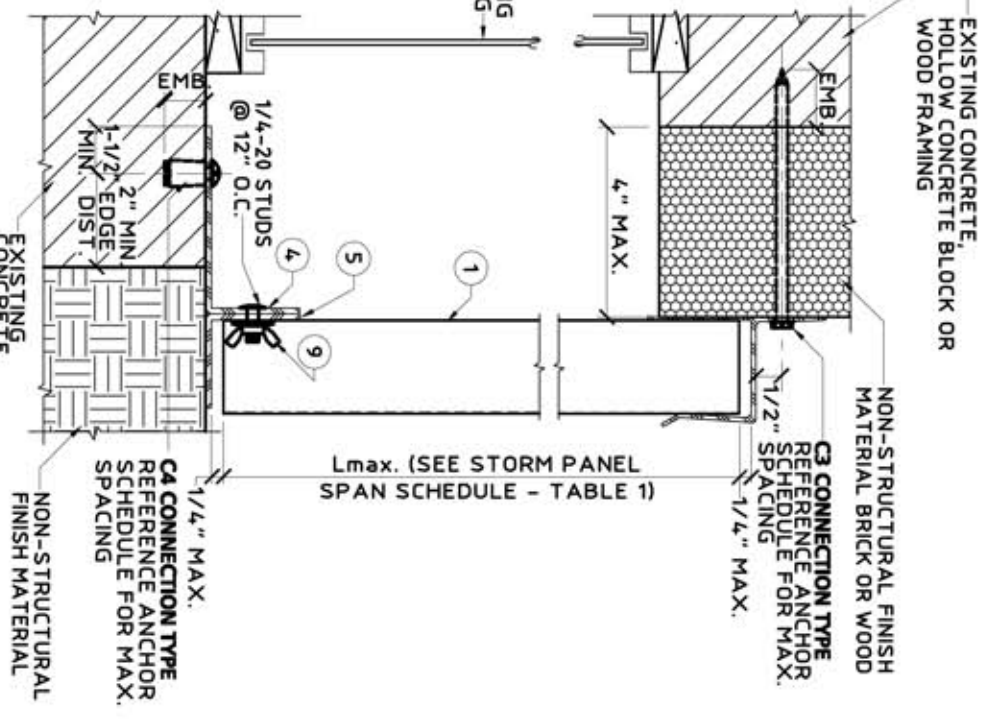
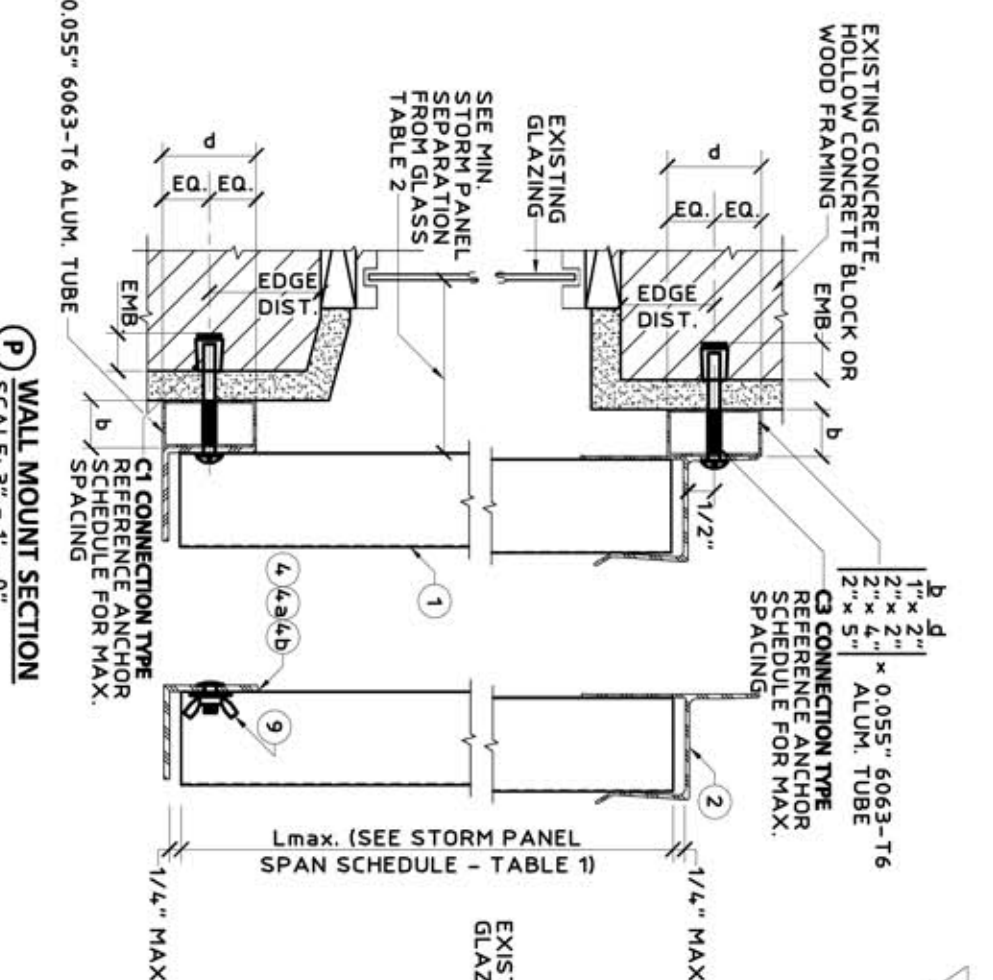
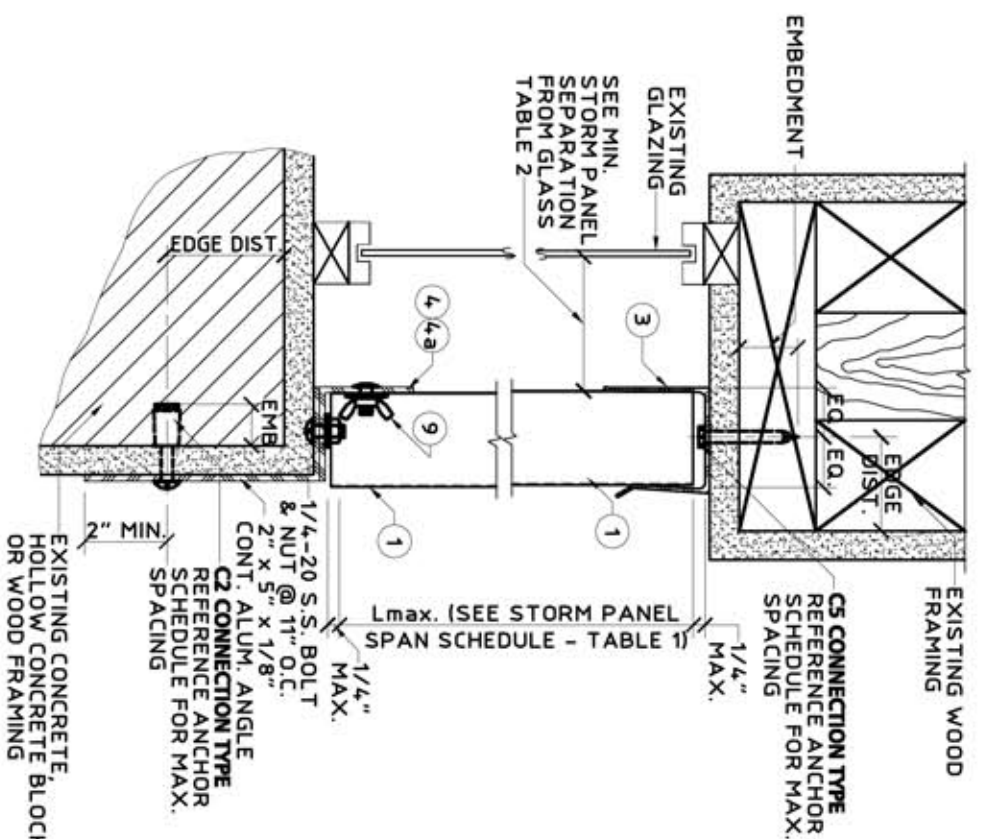
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**DETAILS S & T NOTE:**  
THESE DETAILS DEPICT THE CONNECTION OF THE LAST PANEL FOR AN OPENING WITH PANELS INSTALLED FROM INSIDE. USE OF THESE DETAILS SHALL BE IN CONJUNCTION WITH AN "h" HEADER OR "U" HEADER TOP MOUNT.

(MAX. PANEL HEIGHT = 7'-4" & MAX. DESIGN LOAD ± 72.00 P.S.F.)

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**eyewall**  
ARMOR  
HURRICANE PROTECTION

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**Town & Country**  
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TABLE A B L E 2	MINIMUM STORM PANEL SEPARATION FROM GLASS			
	POSITIVE DESIGN LOAD (W) (P.S.F.)	ACTUAL SPAN (L) (FT - IN)	MIN. SEP. FOR ALL INSTALLATIONS LESS THAN 30' ABOVE GRADE (INCHES)	MIN. SEP. FOR ALL INSTALLATIONS GREATER THAN 30' ABOVE GRADE (INCHES)
40.0	8-8	3	2-1/4	
	10-6	5	3-3/8	
50.0	8-8	3	2-1/2	
	9-10	5	3-1/4	
60.0	8-8	3	2-3/4	
	9-5	5	3-1/4	
	4-0	3	1-1/2	
70.0	8-8	3	3	
	9-0	5	3-1/4	
	4-0	3	1-1/2	
80.0	8-4	3	3	
	4-0	3	1-1/2	
90.0	7-9	3	2-3/4	
	4-0	3	1-1/2	
100.0	7-3	3	2-1/2	
	4-0	3	1-1/2	
110.0	6-9	3	2-3/8	
	3-0	3	1-1/2	
120.0	6-4	3	2-1/4	

TABLE 1 NOTES:

1. DETERMINE BOTH THE POSITIVE AND THE NEGATIVE WIND LOADS. CHECK THEIR RESPECTIVE SPANS AND USE THE LESSER VALUE OF THE TWO.
2. FOR DESIGN LOADS BETWEEN TABULATED VALUES USE NEXT HIGHER LOAD OR LINEAR INTERPOLATION MAY BE USED TO DETERMINE ALLOWABLE SPANS.

TABLE 2 NOTE:

1. ENTER TABLE 2 WITH POSITIVE DESIGN LOAD TO DETERMINE MIN. STORM SHUTTER SEPARATION FROM GLASS.

TABLE A B L E 1	MAX. ALLOWABLE STORM PANEL SPAN SCHEDULE		
	POSITIVE OR NEGATIVE DESIGN LOAD (P.S.F.)	SPAN FOR NEG PRESSURE (FT - IN)	SPAN FOR POS PRESSURE (FT - IN)
40.0	12'-0"	10'-4"	
45.0	11'-3"	10'-1"	
50.0	10'-8"	9'-9"	
55.0	10'-2"	9'-6"	
60.0	9'-9"	9'-3"	
62.0	9'-7"	9'-1"	
65.0	9'-4"	8'-11"	
70.0	9'-0"	8'-7"	
72.0	8'-11"	8'-4"	
75.0	8'-8"	8'-0"	
80.0	8'-3"	7'-6"	
90.0	7'-4"	6'-8"	
100.0	6'-7"	6'-0"	
110.0	6'-0"	5'-5"	
120.0	5'-6"	5'-0"	
130.0	5'-1"	4'-7"	
140.0	4'-8"	4'-3"	
150.0	4'-4"	4'-0"	

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