

**GENERAL NOTES:**

1. STORM PANEL SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2020 (7th EDITION) OF THE FLORIDA BUILDING CODE.

DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODE, FOR A WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THESE SHUTTERS WILL BE INSTALLED AND FOR A DIRECTIONALITY FACTOR  $K_d=0.85$ . USING ASCE 7-16 SHALL NOT EXCEED THE MAXIMUM (A.S.D) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 9 THRU 15.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-16 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO COMPARE THESE W/ MAX. (A.S.D) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 9 THRU 15.

IN ORDER TO VERIFY THAT COMPONENTS AND ANCHORS ON THIS P.E.D. AS TESTED WERE NOT OVER STRESSED, A 33% INCREASE ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. A DURATION FACTOR  $CD=1.60$  WAS USED FOR VERIFICATION OF FASTENERS IN WOOD.

STORM PANEL'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 OF THE ABOVE MENTIONED CODE AS PER AMERICAN TEST LAB REPORTS # 1022.01-96 # 0221.01-01 AND # 0616.02-05 PER PROTOCOLS TAS-201, TAS-202 AND TAS-203

2. ALL ALUMINUM SHEET METAL PANELS SHALL HAVE 5052-H32 OR 3004-H34 ALLOY.

3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY & TEMPER UNLESS OTHERWISE NOTED. ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2015 ALUMINUM DESIGN MANUAL.

4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018 W/ 50 ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH & SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.

5. BOLTS TO BE ASTM A-307 GALVANIZED STEEL OR AISI 304 SERIES STAINLESS STEEL, WITH 35 ksi MINIMUM YIELD STRENGTH.

6. ANCHORS TO WALL SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):

(A) TO EXISTING POURED CONCRETE:

- 1/4"  $\phi$  TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX. (REGULAR OR 410 S.S.)
- 1/4"  $\phi$  CRETE-FLEX SS4 ANCHORS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
- 1/4"  $\phi$  CF TAP-GRIP ANCHORS (BERTHA STUD-CON), AS MANUFACTURED BY TRU-FAST CORPORATION.
- 1/4"  $\phi$  ZAMAC NAILIN ANCHORS AS MANUFACTURED BY DEWALT, INC.
- 1/4"  $\phi$  x 7/8" CALK-IN ANCHORS OR ELCO male & female "PANELMATE" AS MANUFACTURED BY DEWALT, INC AND ELCO CONSTRUCTION PRODUCTS, RESPECTIVELY.
- 1/4"  $\phi$  x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.

NOTES:

- A.1) MINIMUM EMBEDMENT INTO POURED CONCRETE OF TAPCON ANCHORS OR CRETE-FLEX SS4 IS 1 3/4"; FOR ZAMAC NAILIN ANCHORS IS 1 3/8"; FOR ELCO PANELMATE ANCHORS IS 1 3/4", AND FOR CF TAP-GRIP ANCHORS IS 1 1/4".
- A.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4"  $\phi$ -20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.
- A.3) MINIMUM EMBEDMENT OF 1/4"  $\phi$  x 3/4" ALL POINTS SOLID-SET ANCHORS SHALL BE 7/8" INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4"  $\phi$ -20 S.S. MACHINE SCREW USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.
- A.4) IN CASE THAT PRECAST STONE, PRECAST CONCRETE PANELS, OR PAVERS BE FOUND ON THE EXISTING WALL OR FLOOR, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS, ANCHORAGE SHALL BE AS INDICATED ON NOTES A.1) & A.2) ABOVE.

(B) TO EXISTING CONCRETE BLOCK WALL:

- 1/4"  $\phi$  TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX. (REGULAR OR 410 S.S.)
- 1/4"  $\phi$  CRETE-FLEX SS4 ANCHORS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
- 1/4"  $\phi$  CF TAP-GRIP ANCHORS (BERTHA STUD-CON), AS MANUFACTURED BY TRU-FAST CORPORATION.
- 1/4"  $\phi$  ZAMAC NAILIN ANCHORS AS MANUFACTURED BY DEWALT, INC.
- 1/4"  $\phi$  x 7/8" CALK-IN ANCHORS OR ELCO male & female "PANELMATE" AS MANUFACTURED BY DEWALT, INC. AND ELCO CONSTRUCTION PRODUCTS, RESPECTIVELY.
- 1/4"  $\phi$  x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.

NOTES:

- B.1) MINIMUM EMBEDMENT OF TAPCON, ELCO PANELMATE, CF TAP-GRIP AND CRETE-FLEX SS4 ANCHORS INTO CONCRETE BLOCK UNIT SHALL BE 1 1/4"; 1 3/8" FOR ZAMAC NAILIN ANCHORS.
- B.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE CONCRETE BLOCK UNIT. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4"  $\phi$ -20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.
- B.3) MINIMUM EMBEDMENT OF 1/4"  $\phi$  x 3/4" ALL POINTS SOLID-SET ANCHORS SHALL BE 7/8" INTO THE CONCRETE BLOCK. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4"  $\phi$ -20 S.S. MACHINE SCREW USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.
- B.4) IN CASE THAT PRECAST STONE OR PRECAST CONCRETE PANELS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES IN B.1) AND B.2) ABOVE.

(C) ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.

7. PANELS MAY ALSO BE INSTALLED HORIZONTALLY FOLLOWING INSTALLATION DETAILS SHOWN ON SECTIONS 1 THRU 16 (SHEET 3 & 7 OF 15) EXCEPT THAT HEADERS 2, 3 & 4 SHALL NOT BE USED.

8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. THIS SHUTTER SHALL ONLY BE ATTACHED TO CONCRETE, BLOCK OR WOOD FRAME BUILDINGS.

9. THE INSTALLATION CONTRACTOR IS TO SEAL/CAULK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION. CAULK AND SEAL SHUTTER TRACKS ALL AROUND FULL LENGTH.

10. STORM PANEL INSTALLATION SHALL COMPLY WITH SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.

11. (a) THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.

(b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT BASED ON THIS P.E.D. PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.

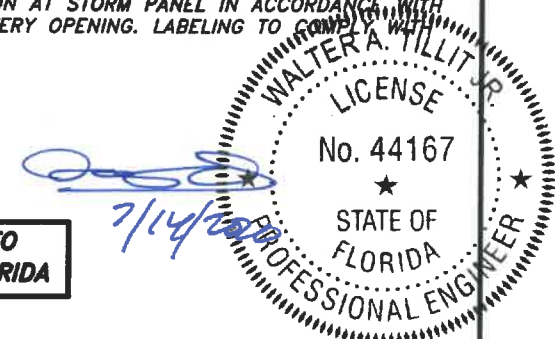
(c) THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.

(d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

(e) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

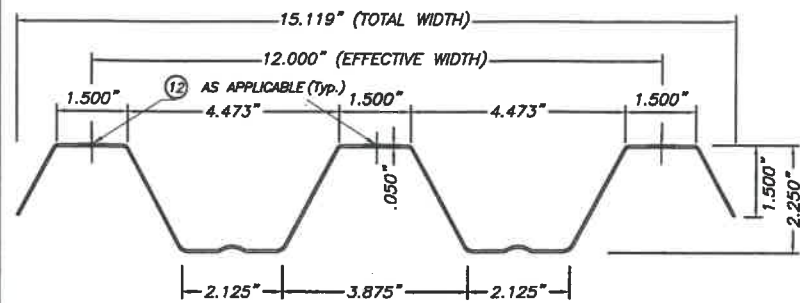
12. SHUTTER MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT STORM PANEL IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABELING TO COMPLY WITH SECTION 1709.9.2 OF THE FLORIDA BUILDING CODE.

**THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS IN THE STATE OF FLORIDA**

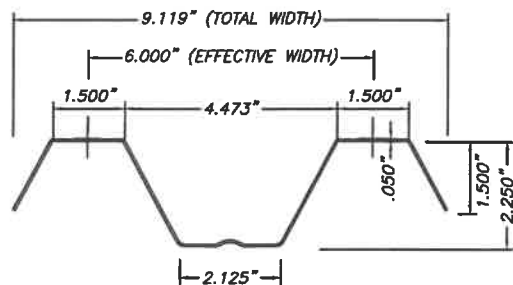


**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

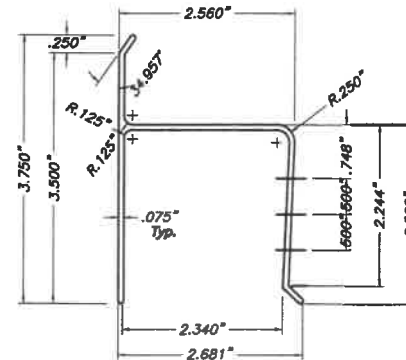
© 2020 TILTECO, INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)		M.P.	
 TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167		EASTERN METAL SUPPLY, INC		7/9/2020	
		4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)533-6061 FAX: (561)588-4780		DATE:	
		20-186		DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		
				SHEET 1 OF 15	



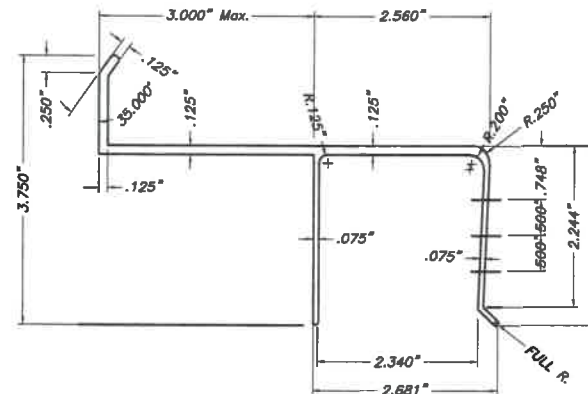
**1 ALUMINUM PANEL**  
SCALE: 1/4" = 1"



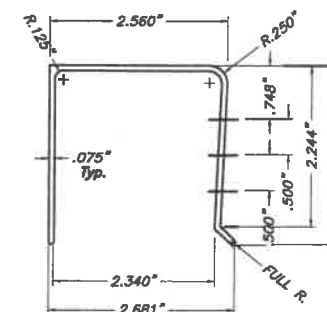
**1A ALUMINUM HALF PANEL**  
SCALE: 1/4" = 1"



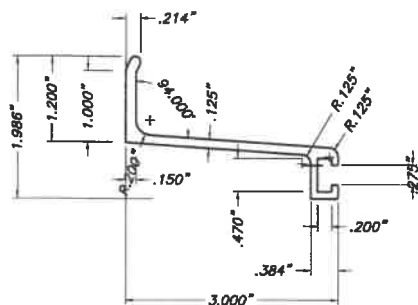
**2 "h" HEADER**  
SCALE: 3/8" = 1"



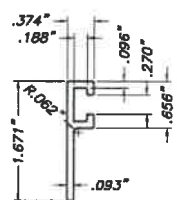
**3 3" Max. "U" BUILD OUT**  
SCALE: 3/8" = 1"



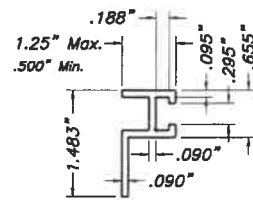
**4 "U" HEADER**  
SCALE: 3/8" = 1"



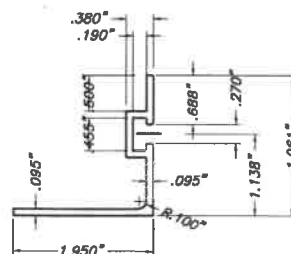
**5 3" ANGLE BUILD OUT BRACKET**  
SCALE: 3/8" = 1"



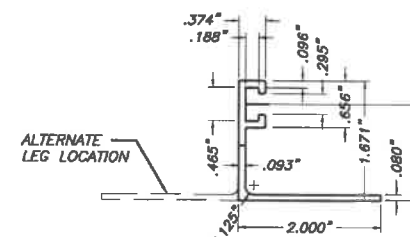
**6 "F" TRACK**  
SCALE: 3/8" = 1"



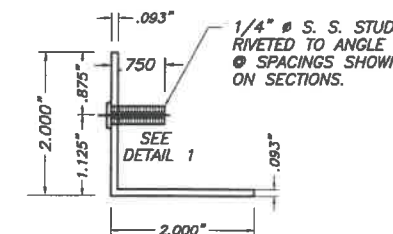
**6A 1 1/4" MAX. B. O. "F" TRACK**  
SCALE: 3/8" = 1"



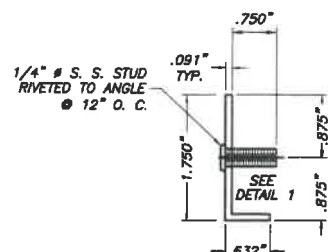
**7 REVERSED "F" ANGLE TRACK**  
SCALE: 3/8" = 1"



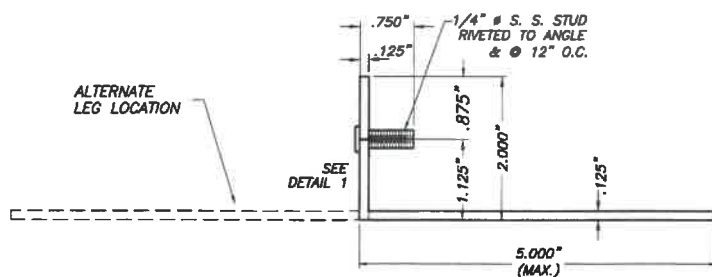
**8 "F" TRACK ANGLE**  
SCALE: 3/8" = 1"



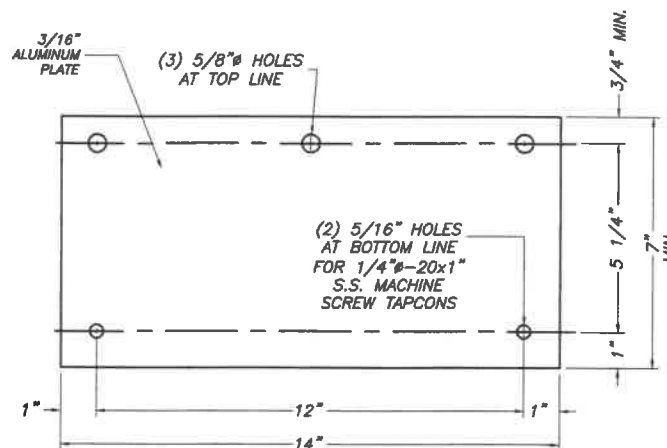
**9 STUDDED ANGLE**  
6063-T5 Alum. ALLOY  
SCALE: 3/8" = 1"



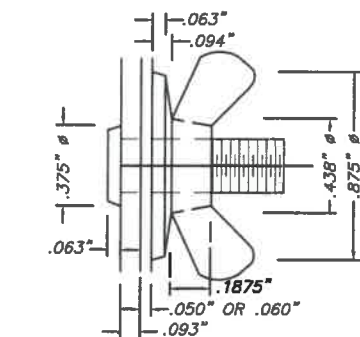
**9A MINI WALL 1.75"x0.632" ANGLE WITH STUD**  
SCALE: 1/2" = 1"



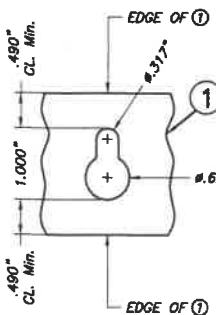
**10 2"x5"(MAX.)x1/8" ANGLE WITH STUD**  
SCALE: 3/8" = 1"



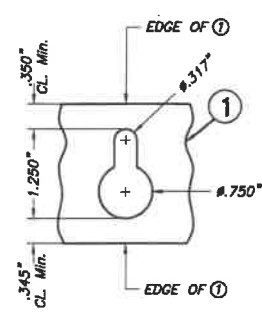
**11 3/16"x7"x14" LONG WALL PLATE**  
SCALE: 3/16" = 1"



**DETAIL 1: STUD W/ DIE CAST ZINC NICKEL PLATED WING NUT**

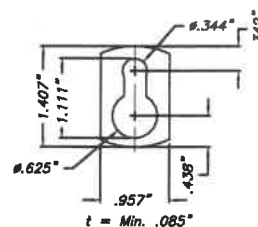


**OPTION 1**



**OPTION 2**

**12A ROUND HOLE AT PANEL (OPTION TO 12)**



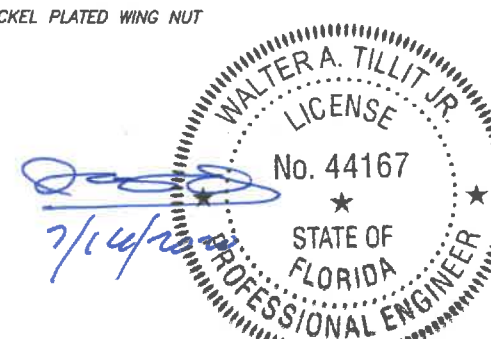
**13 KEY HOLE WASHER**  
3105-H154 Alum. ALLOY  
SCALE: 3/8" = 1"

**12 KEY HOLE AT PANEL**

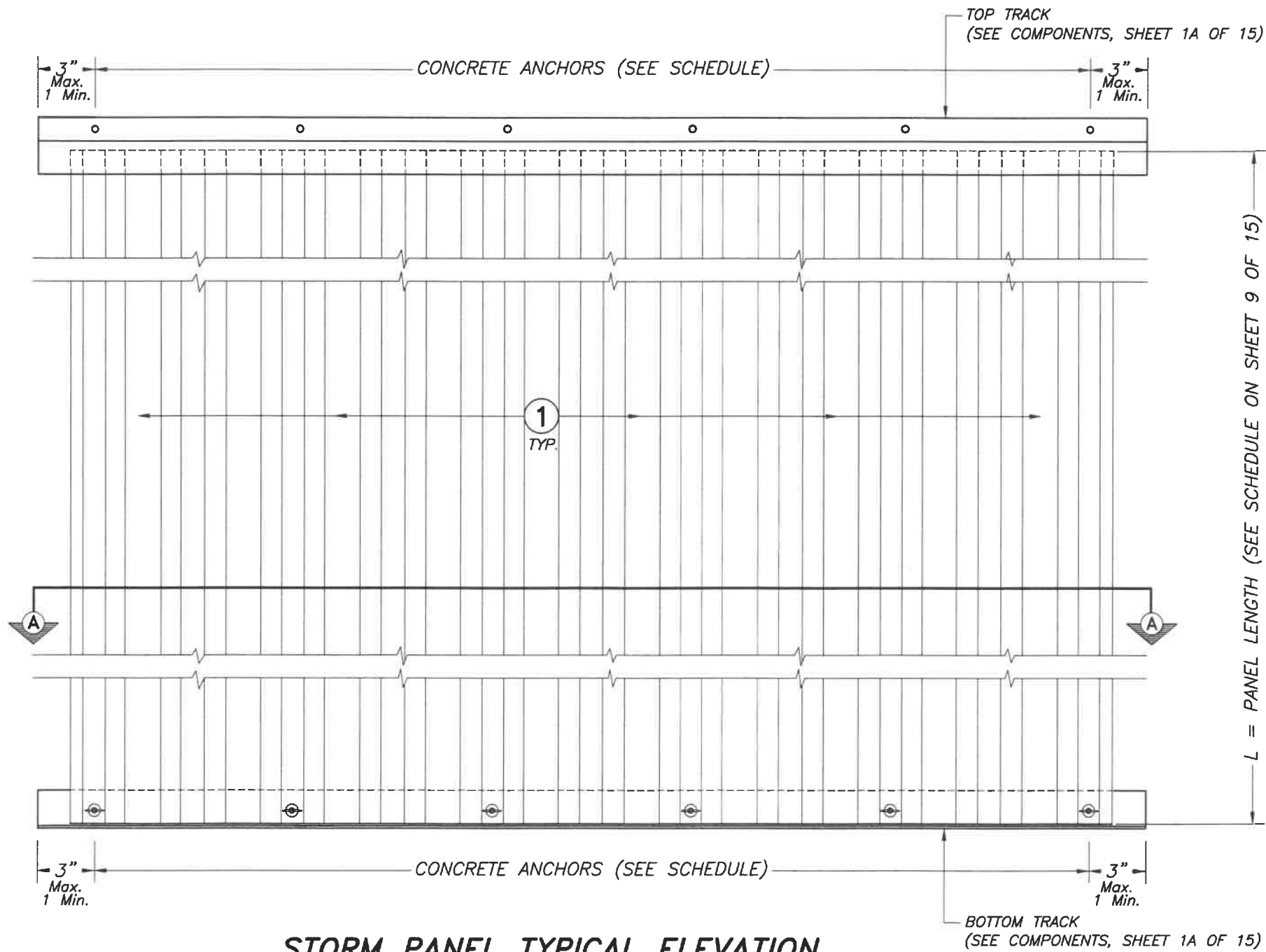
**COMPONENTS**

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

<p>TILTECO INC. TILLIT TESTING &amp; ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167</p>		<p>0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)</p> <p><b>EASTERN METAL SUPPLY, INC</b> 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)533-6061 FAX: (561)588-4780</p>		<p>M.P. DRAWN BY:</p>	
		<p>7/9/2020 DATE:</p>			
		<p><b>20-186</b> DRAWING No</p>			
		<p>SHEET 1A OF 15</p>			
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		

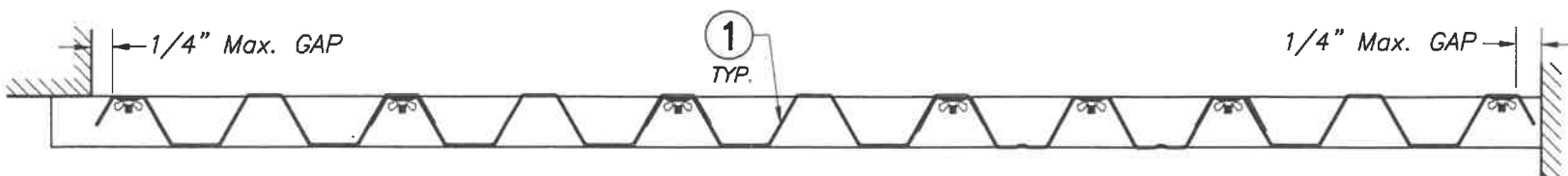






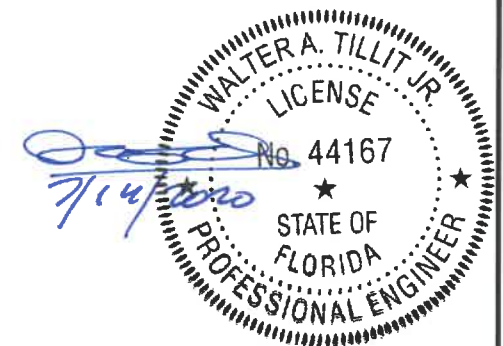
**STORM PANEL TYPICAL ELEVATION**

SCALE : 1/8" = 1"



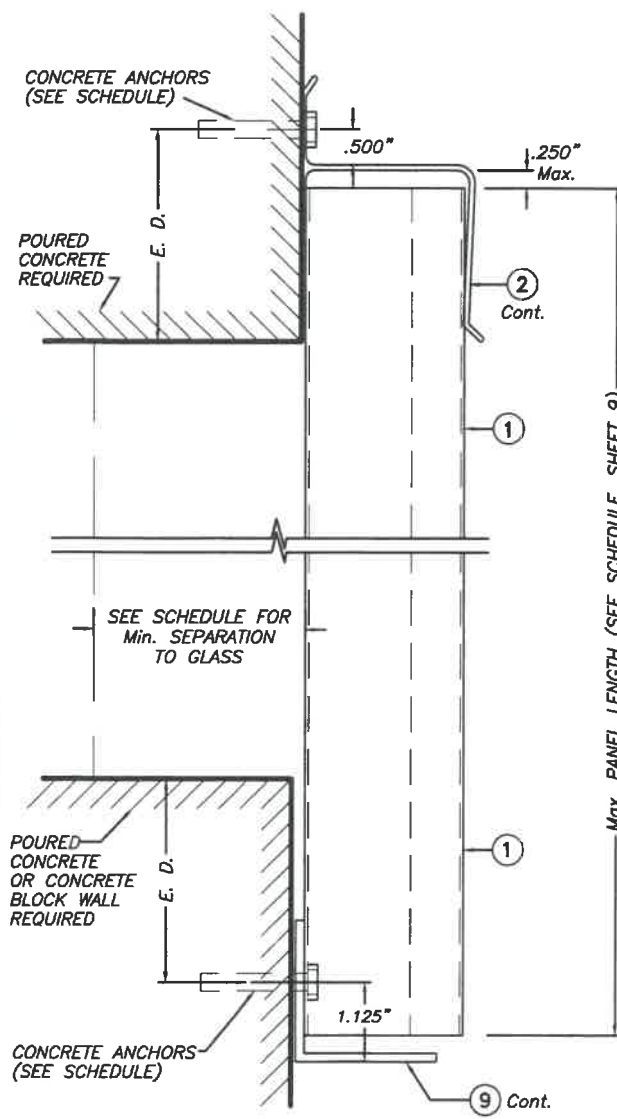
**SECTION A-A**

SCALE : 1/8" = 1"

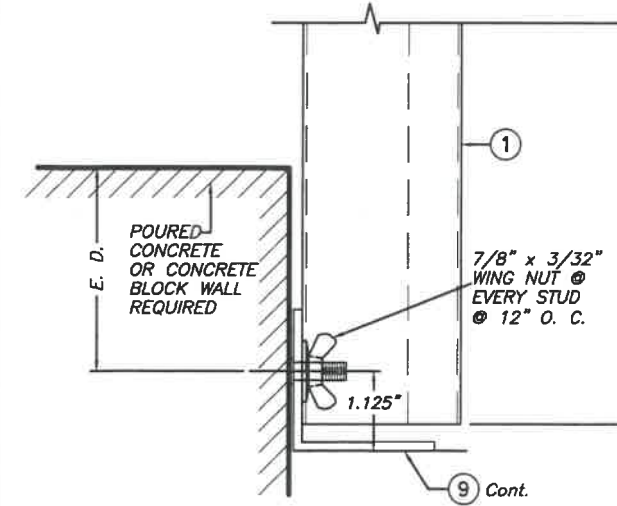


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© 2020 TILTECO, INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)		M.P.	
 <small>TILLIT TESTING &amp; ENGINEERING COMPANY          6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, FL 33166          Phone : (305)871-1530 . Fax : (305)871-1531          CA-0006719          WALTER A. TILLIT Jr. P.E.          FLORIDA Lic. # 44167</small>		EASTERN METAL SUPPLY, INC		DRAWN BY:	
		<small>4268 WEST ROADS DRIVE          WEST PALM BEACH, FL 33407          PHONE: (561)533-6061          FAX: (561)588-4780</small>		7/9/2020	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		
20-186					
DRAWING No					
SHEET 2 OF 15					



SECTION @ ANCHOR

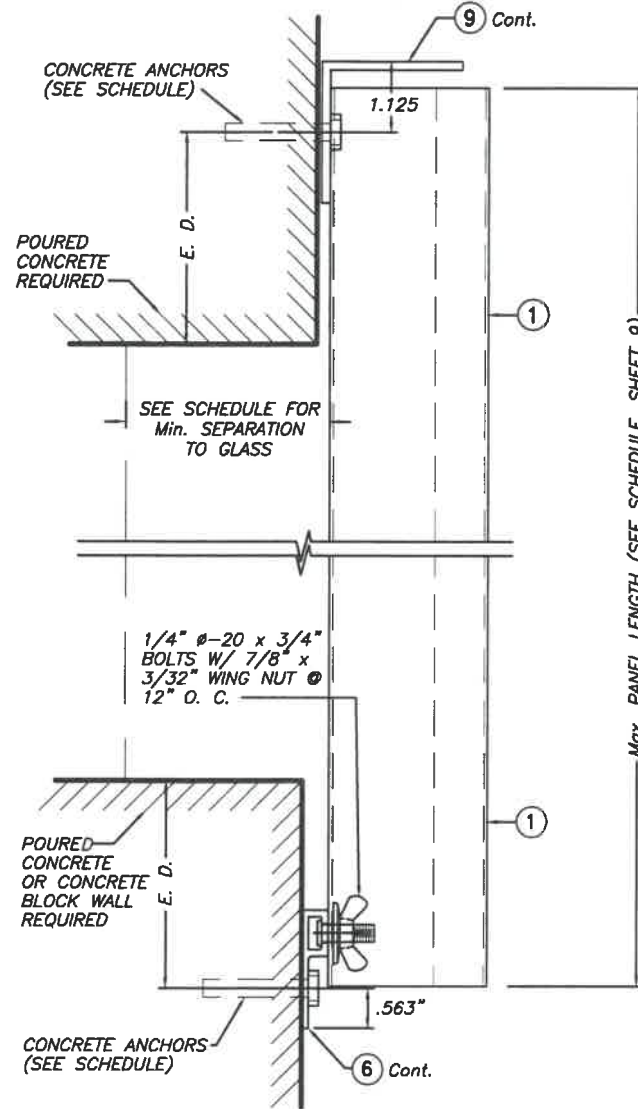


SECTION @ STUD

**WALL MOUNTING INSTALLATION**  
**SECTION 1**

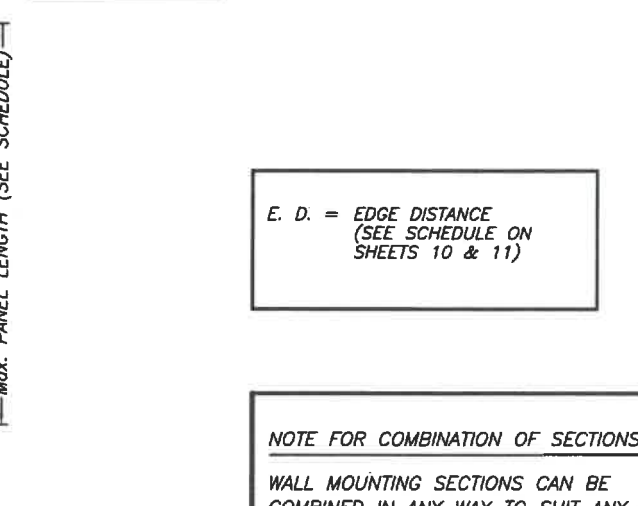
SCALE : 3/8" = 1"

NOTE : DETAIL OF SECTION @ STUD VALID ALSO FOR WALL MOUNTING INSTALLATION - SECTION 2 (TOP)



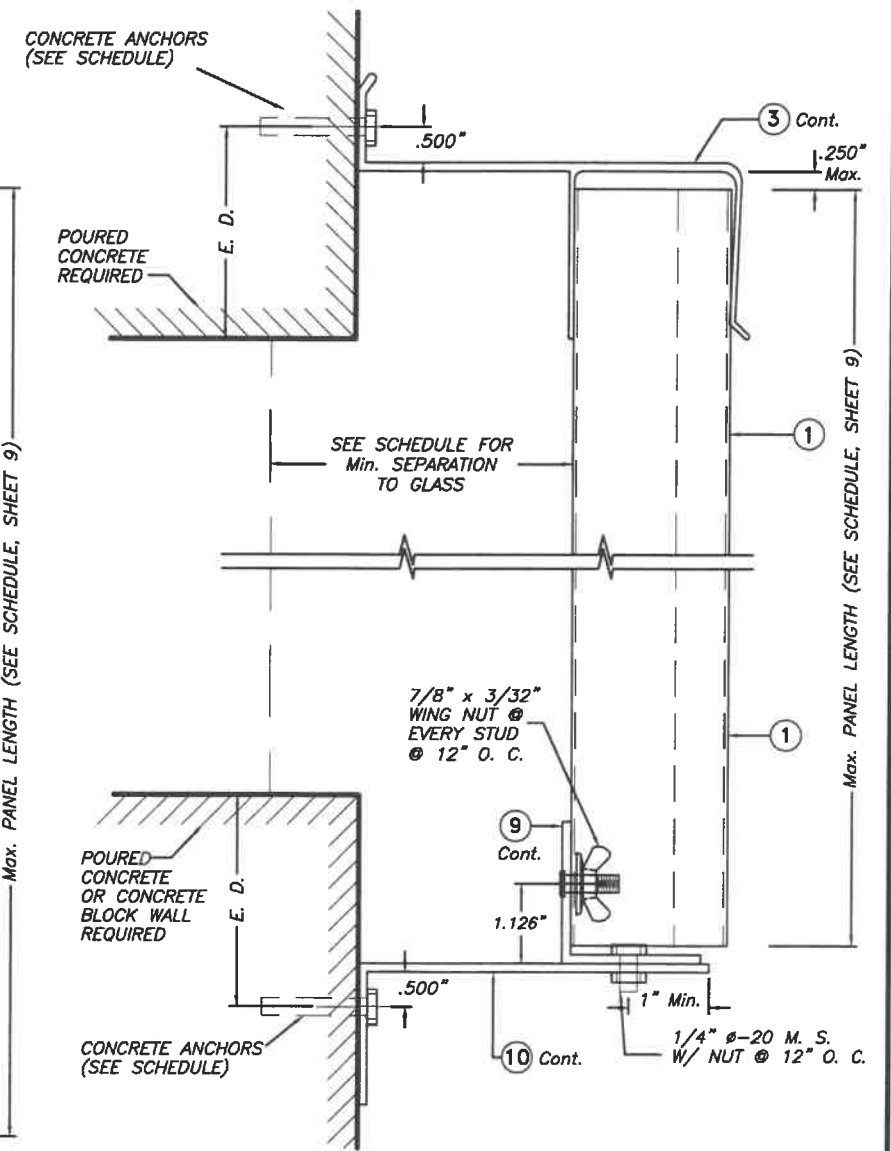
**WALL MOUNTING INSTALLATION**  
**SECTION 2**

SCALE : 3/8" = 1"



**BUILD OUT INSTALLATION**  
**SECTION 3**

SCALE : 3/8" = 1"

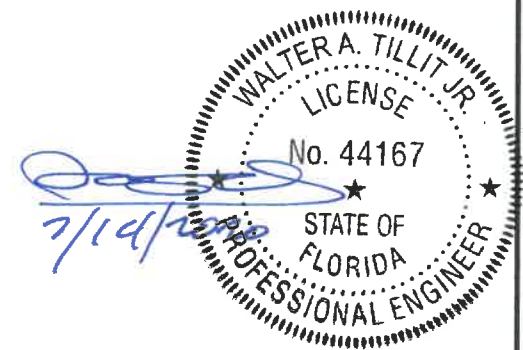


**BUILD OUT INSTALLATION**  
**SECTION 4**

SCALE : 3/8" = 1"

E. D. = EDGE DISTANCE  
(SEE SCHEDULE ON SHEETS 10 & 11)

NOTE FOR COMBINATION OF SECTIONS :  
WALL MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



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**TILTECO INC.**

TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone : (305)871-1530 Fax : (305)871-1531  
CA-0006719  
WALTER A. TILLIT Jr. P.E.  
FLORIDA Lic. # 44167

**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

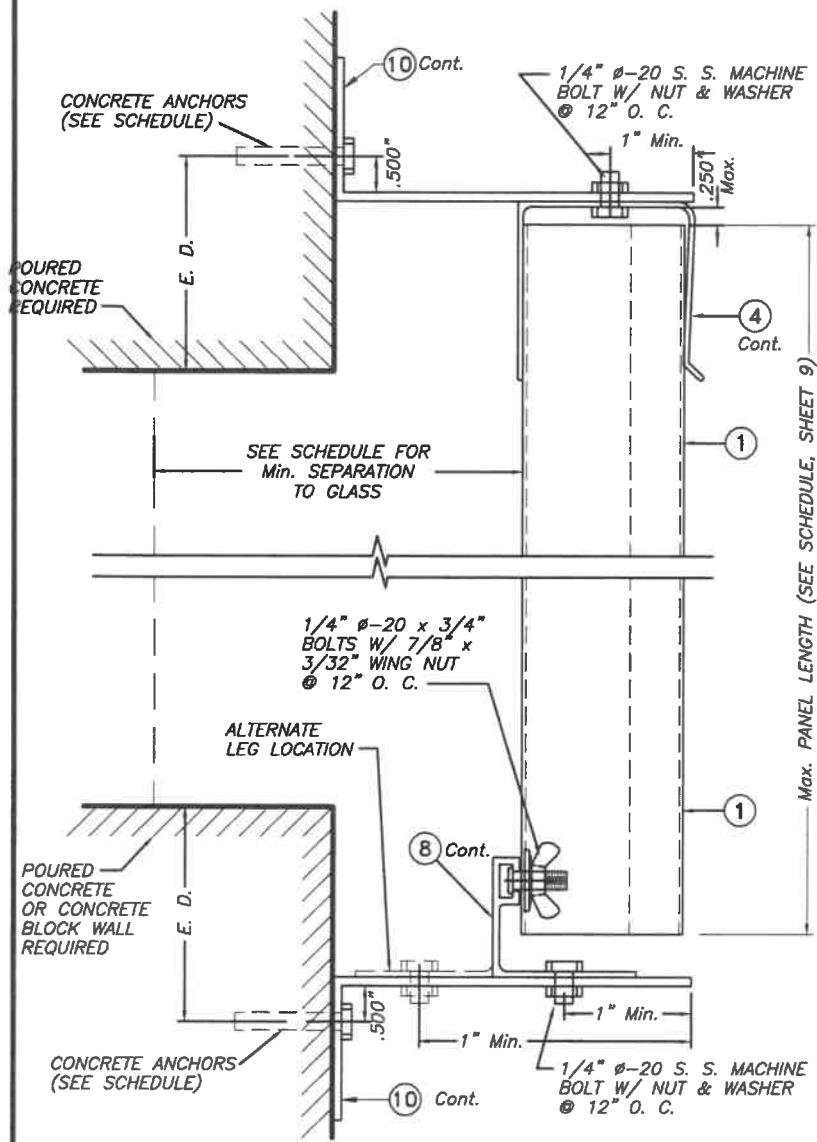
0.050" BERTHA ALUMINUM STORM PANEL  
(2.25" DEEP)

**EASTERN METAL SUPPLY, INC**  
4268 WEST ROADS DRIVE  
WEST PALM BEACH, FL 33407  
PHONE: (561)533-6061  
FAX: (561)588-4780

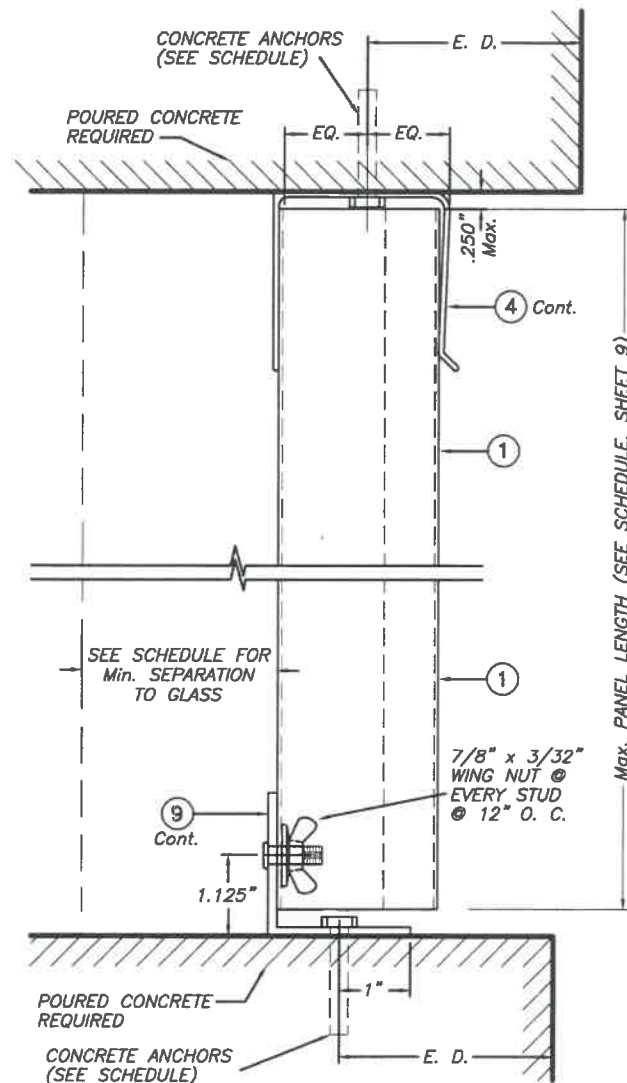
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		

M.P.  
DRAWN BY:  
7/9/2020  
DATE:  
**20-186**  
DRAWING No  
SHEET 3 OF 15



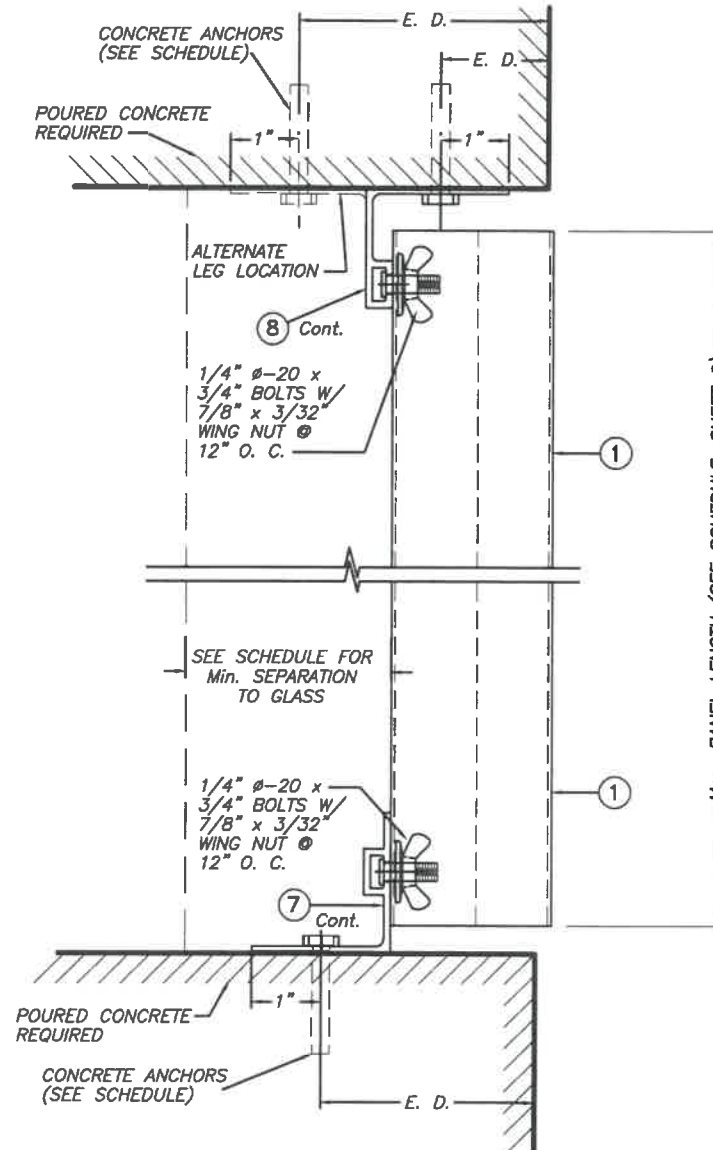


**BUILD OUT INSTALLATION**  
**- SECTION 5** SCALE : 3/8" = 1"



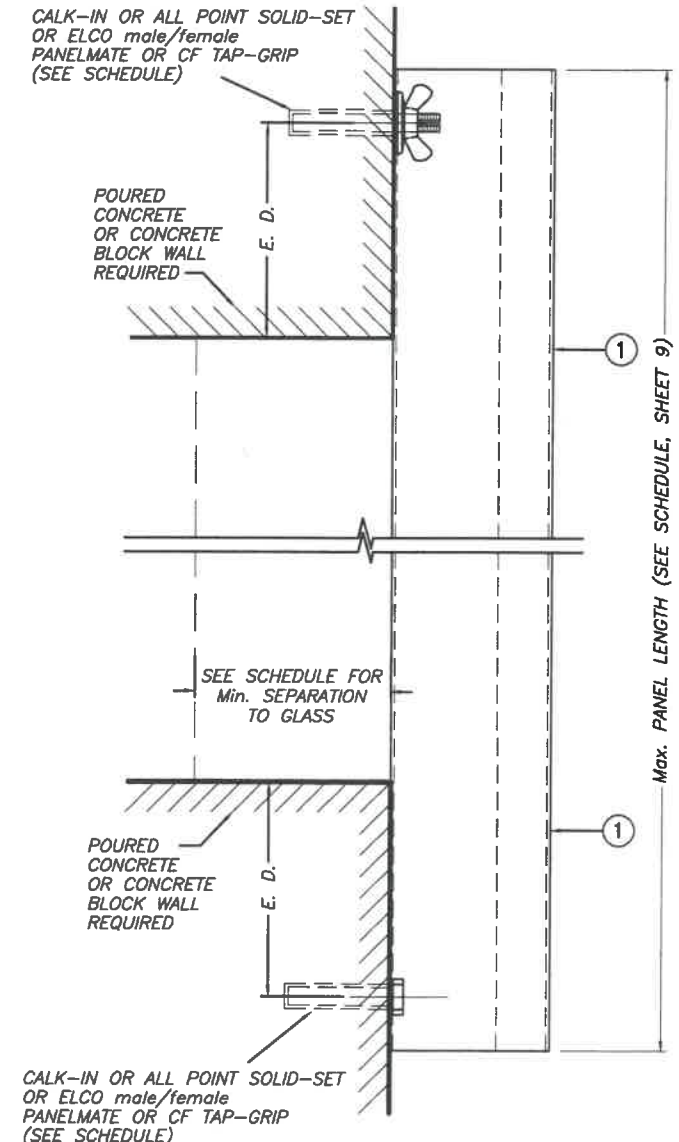
**CEILING & FLOOR MOUNTING**  
**INSTALLATION - SECTION 6**

SCALE : 3/8" = 1"



**CEILING & FLOOR MOUNTING**  
**INSTALLATION - SECTION 7**

SCALE : 3/8" = 1"

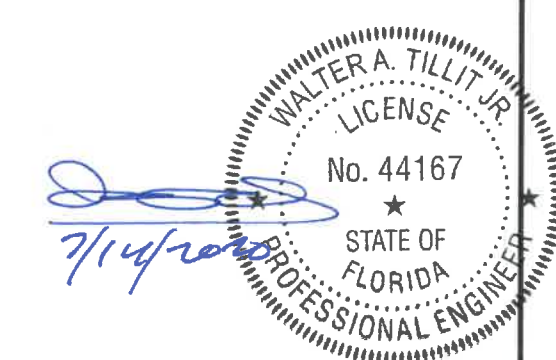


**WALL MOUNTING INSTALLATION (D. M.)**  
**- SECTION 8** SCALE : 3/8" = 1"

E. D. = EDGE DISTANCE  
 (SEE SCHEDULE ON  
 SHEETS 10 & 11 OF 15)

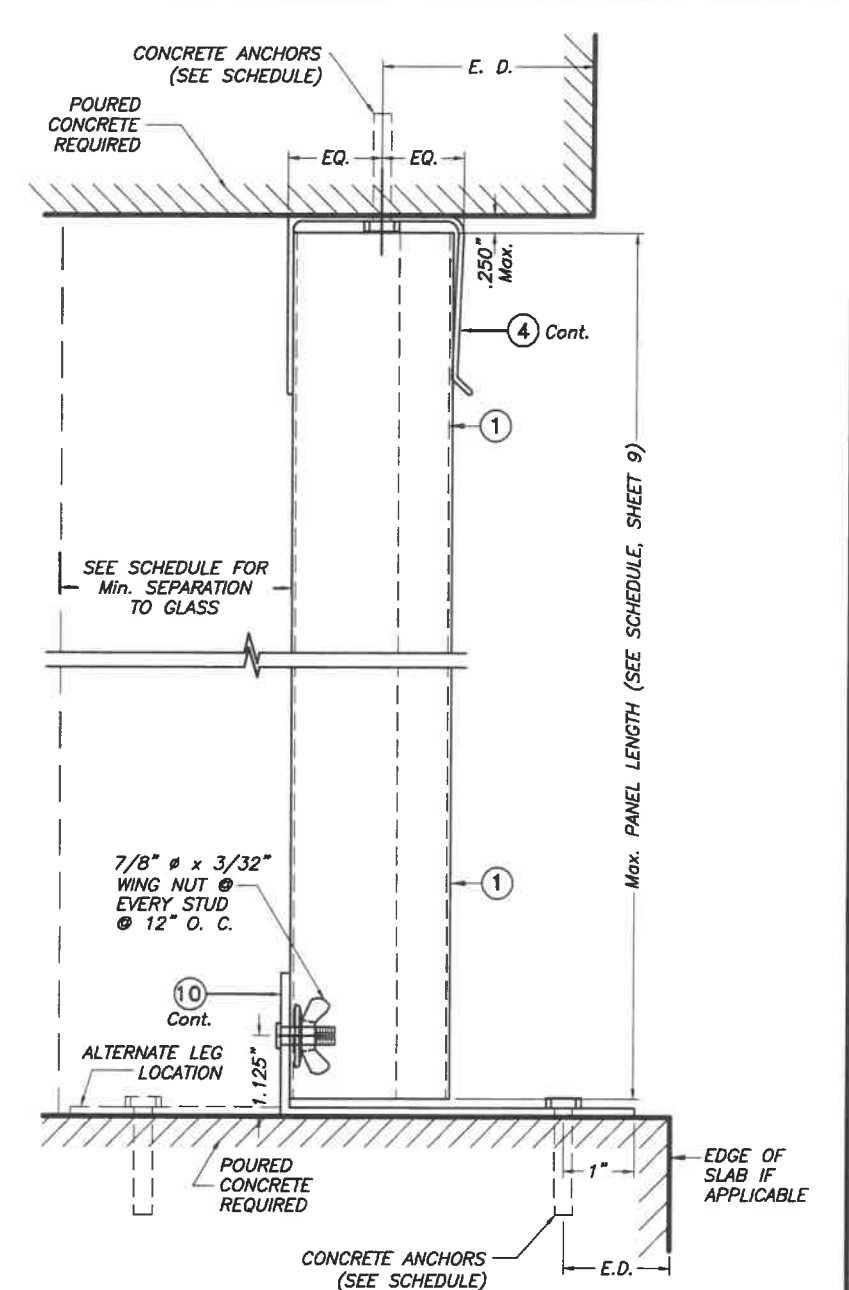
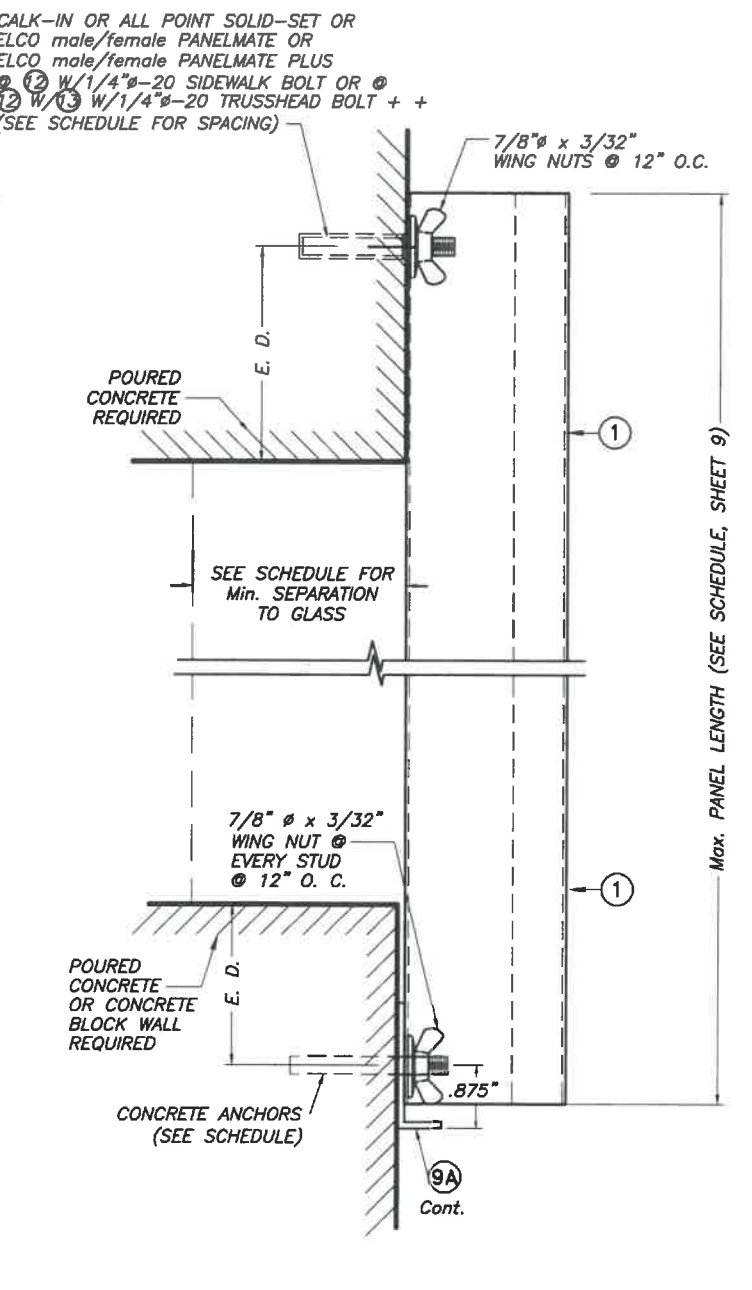
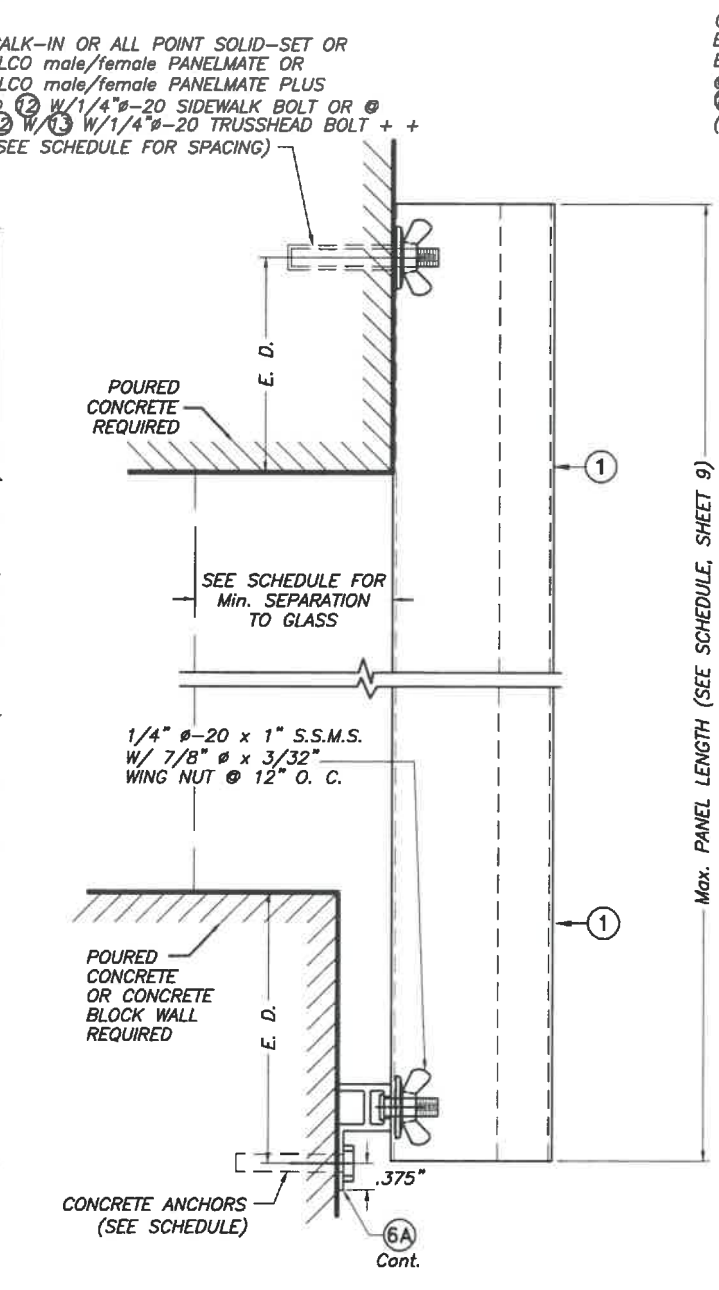
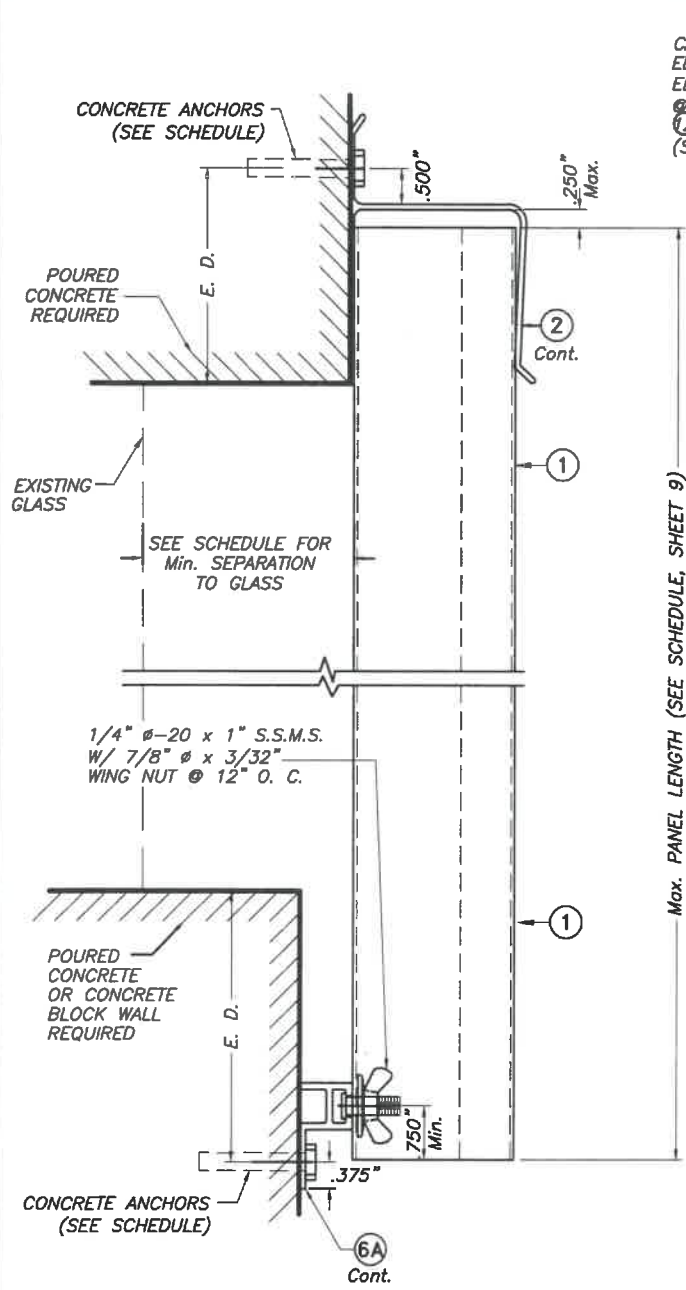
NOTE FOR COMBINATION OF SECTIONS :

WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE  
 COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

© 2020 TILTECO, INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)		M.P. DRAWN BY:	
 TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167		EASTERN METAL SUPPLY, INC		7/9/2020 DATE:	
		4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)533-6061 FAX: (561)588-4780		20-186 DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		
SHEET 4 OF 15					



**WALL MOUNTING INSTALLATION**  
**SECTION 9**  
 SCALE : 3/8" = 1"

**WALL MOUNTING INSTALLATION**  
**SECTION 10**  
 SCALE : 3/8" = 1"

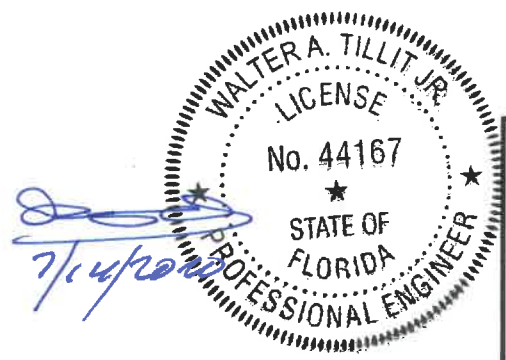
**WALL MOUNTING INSTALLATION**  
**SECTION 11**  
 SCALE : 3/8" = 1"

**CEILING & FLOOR MOUNTING**  
**INSTALLATION SECTION 12**  
 SCALE : 3/8" = 1"

E. D. = EDGE DISTANCE  
 (SEE SCHEDULE ON  
 SHEETS 10 & 11 OF 15)

NOTE FOR COMBINATION OF SECTIONS :  
 WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE  
 COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

++  
 SIDE WALK BOLTS ARE 3/4" x 3/32" THICK  
 HEAD MACHINE SCREW W/LENGTH  
 AS PER NOTES A.2 & B.2 (SHEET 1)  
 ++  
 TRUSS HEAD BOLTS ARE 1/2" x 1/8" THICK  
 HEAD MACHINE SCREW W/LENGTH  
 AS PER NOTES A.2 & B.2 (SHEET 1)



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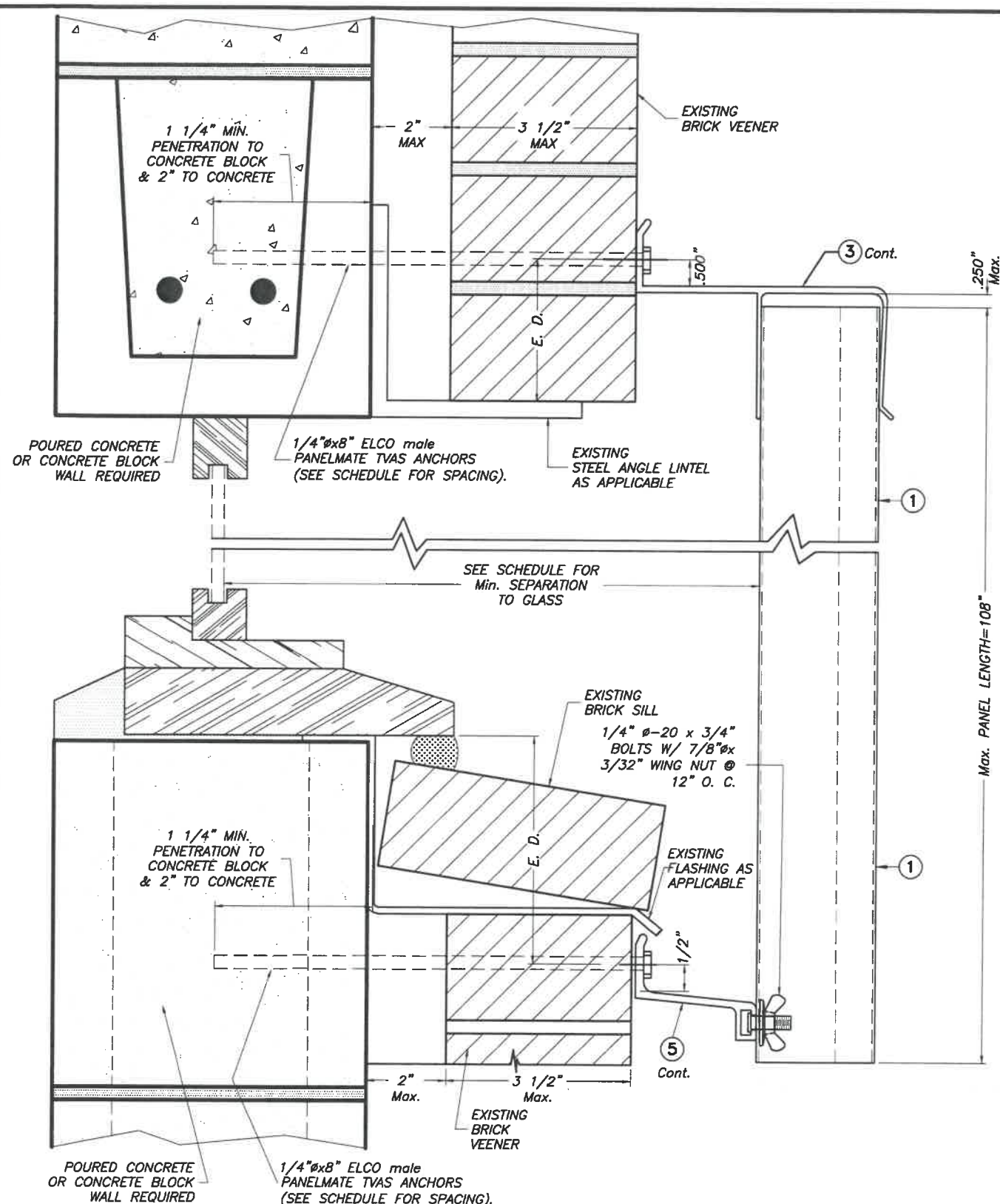
TILLIT TESTING & ENGINEERING COMPANY  
 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
 Phone : (305)871-1530 . Fax : (305)871-1531  
 CA-0006719  
 WALTER A. TILLIT Jr. P.E.  
 FLORIDA Lic. # 44167

**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)		M.P.
EASTERN METAL SUPPLY, INC		DRAWN BY:
4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)533-6061 FAX: (561)588-4780		7/9/2020 DATE:
		<b>20-186</b> DRAWING No
REV. NO	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020
2		

SHEET 5 OF 15

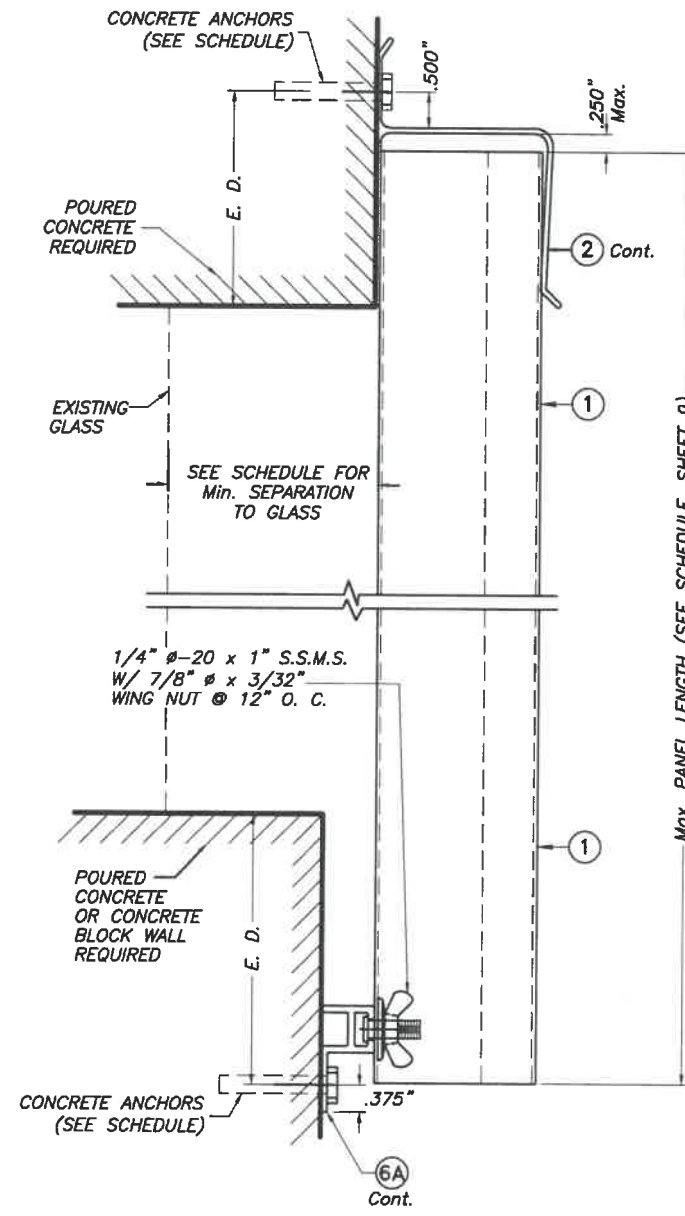




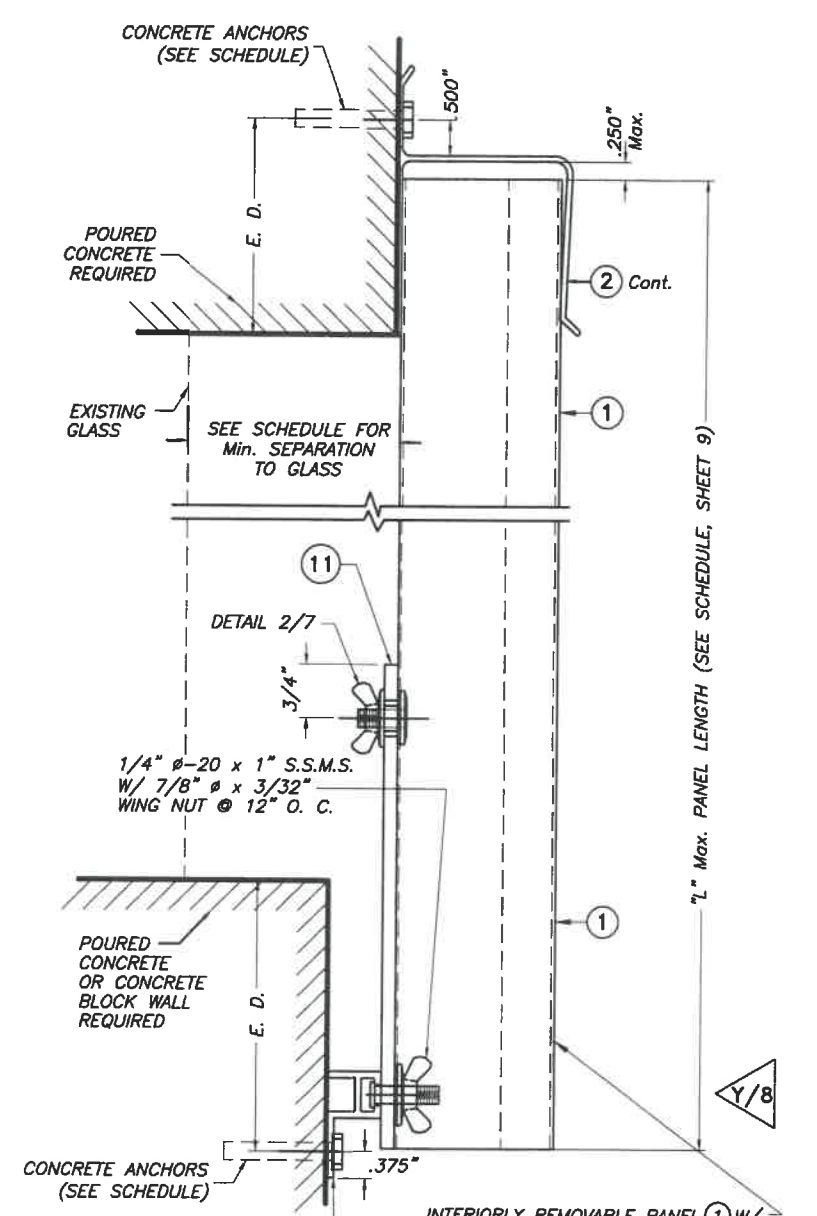
**BUILD OUT INSTALLATION**  
**SECTION 13**  
 SCALE : 3/8" = 1"

E. D. = EDGE DISTANCE  
 (SEE SCHEDULE ON  
 SHEETS 10 & 11 OF 15)

NOTE FOR COMBINATION OF SECTIONS :  
 WALL MOUNTING SECTIONS CAN BE  
 COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



**SECTION 14A**  
**WALL MOUNTING INSTALLATIONS**  
**SECTIONS 14**  
 SCALE : 3/8" = 1"



**SECTION 14B**  
 INTERIORLY REMOVABLE PANEL (1) W/  
 SIDEWALK BOLTS (SEE DETAIL 2)  
 CONNECTED TO (1) THRU 5/8" Ø  
 HOLES AT (1) @ 6" O.C. & FASTENED  
 AT REAR W/ 7/8" Ø x 3/32" WING NUT  
 @ EVERY SIDEWALK BOLT.

**INSTALLATIONS VALID FOR PANELS (1) USED JOINTLY  
 WITH INTERIORLY REMOVABLE PANELS (1)**



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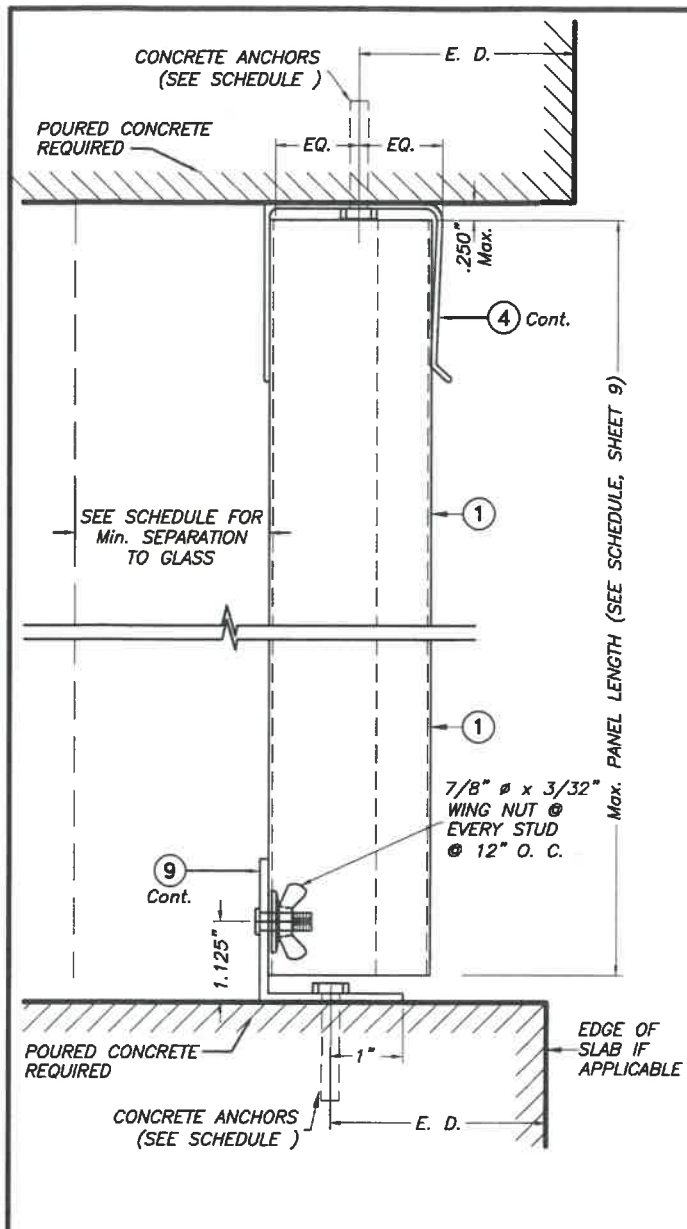
**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

0.050" BERTHA ALUMINUM STORM PANEL  
 (2.25" DEEP)

**EASTERN METAL SUPPLY, INC**  
 4268 WEST ROADS DRIVE  
 WEST PALM BEACH, FL 33407  
 PHONE: (561)533-6061  
 FAX: (561)588-4780

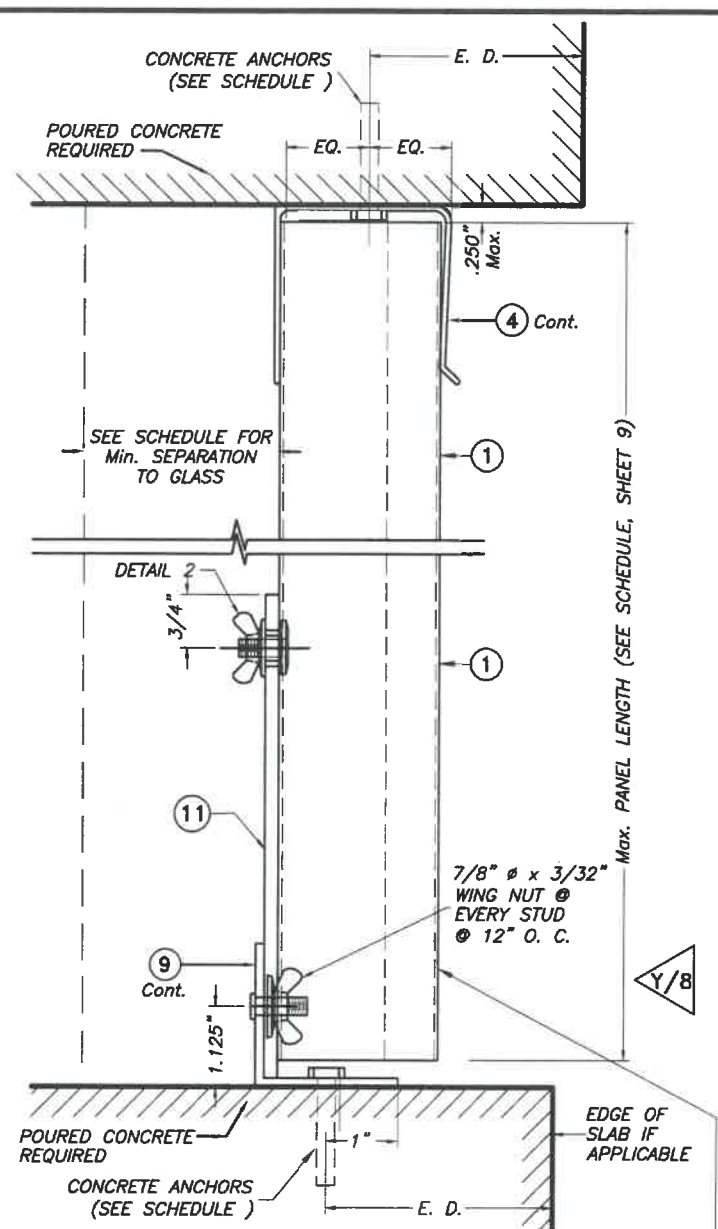
M.P.  
 DRAWN BY:  
 7/9/2020  
 DATE:  
**20-186**  
 DRAWING No  
 SHEET 6 OF 15

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		

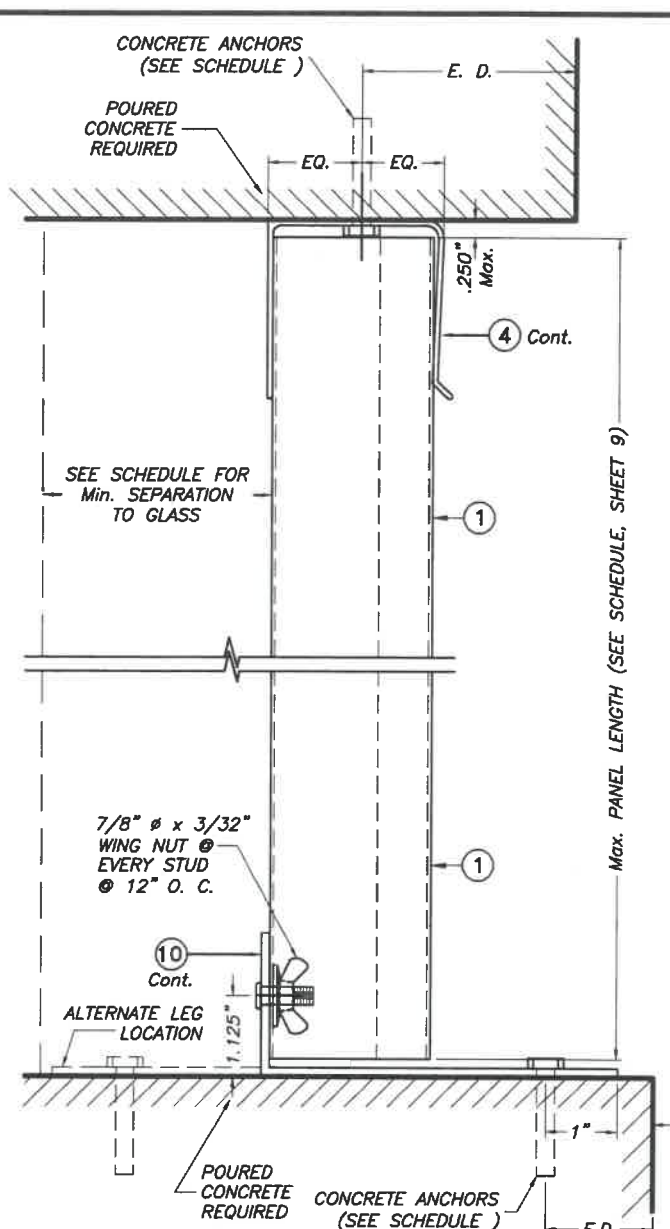


**SECTION 15A**  
**CEILING & FLOOR MOUNTING INSTALLATIONS**

**SECTIONS 15**  
SCALE : 3/8" = 1"

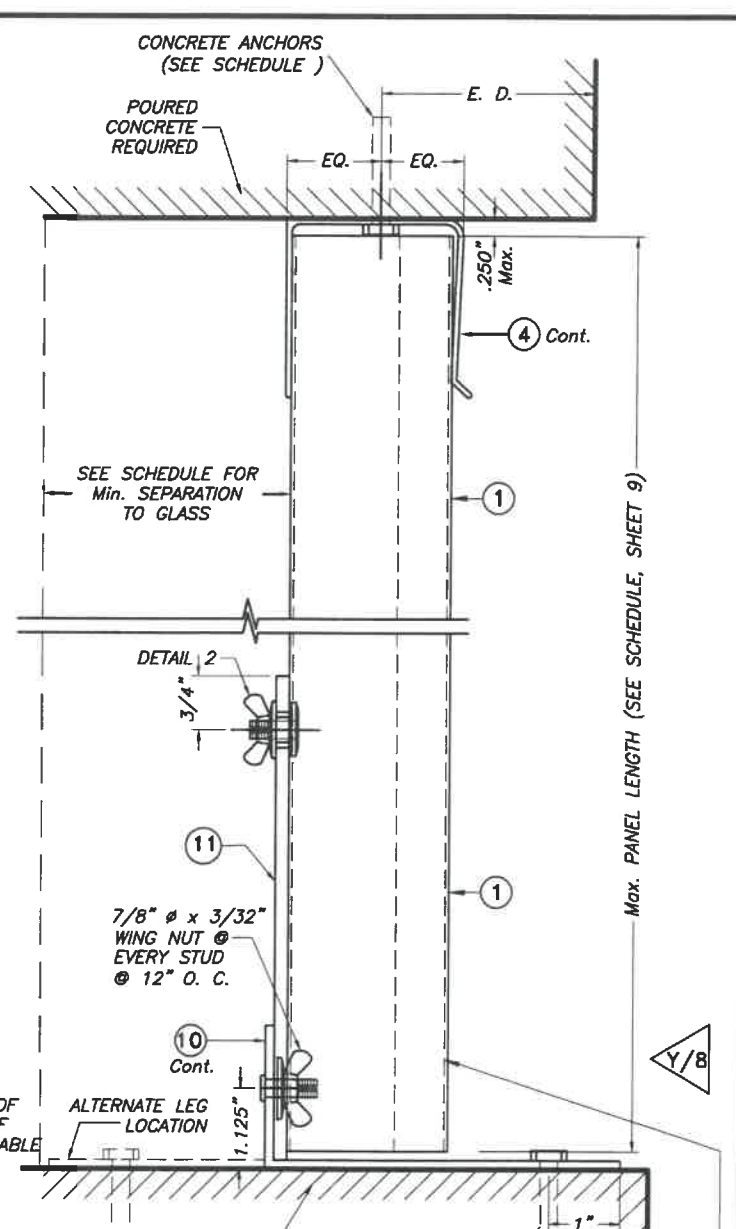


**SECTION 15B**  
**CEILING & FLOOR MOUNTING INSTALLATIONS**  
INTERIORLY REMOVABLE PANEL (1) W/  
SIDEWALK BOLTS (SEE DETAIL 2)  
CONNECTED TO (1) THRU 5/8\"/>

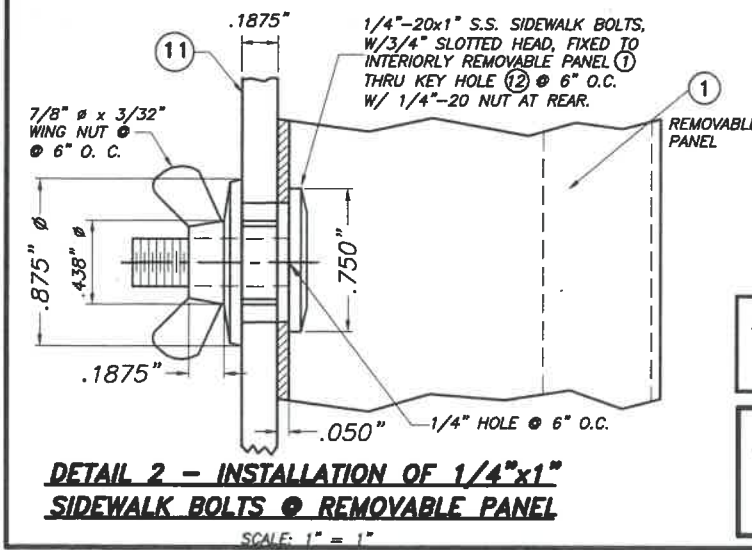


**SECTION 16A**  
**CEILING & FLOOR MOUNTING INSTALLATIONS**

**SECTIONS 16**  
SCALE : 3/8" = 1"



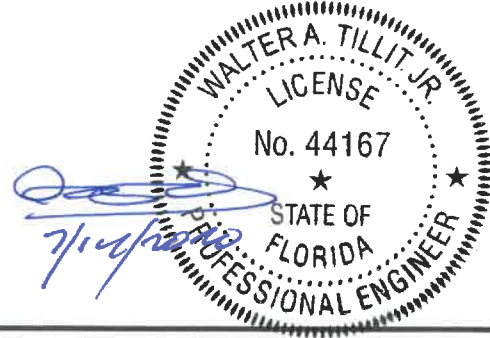
**SECTION 16B**  
**CEILING & FLOOR MOUNTING INSTALLATIONS**  
INTERIORLY REMOVABLE PANEL (1) W/  
SIDEWALK BOLTS (SEE DETAIL 2)  
CONNECTED TO (1) THRU 5/8\"/>



**INSTALLATIONS VALID FOR PANELS (1) USED JOINTLY  
WITH INTERIORLY REMOVABLE PANELS (1)**

E. D. = EDGE DISTANCE  
(SEE SCHEDULE ON  
SHEET 10 & 11 OF 15)

NOTE FOR COMBINATION OF SECTIONS :  
FLOOR/CEILING MOUNTING SECTIONS CAN BE  
COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



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CA-0006719  
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**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

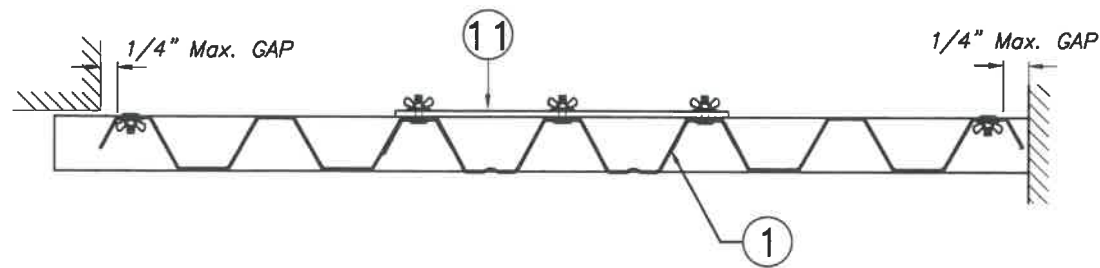
0.050" BERTHA ALUMINUM STORM PANEL  
(2.25" DEEP)

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4268 WEST ROADS DRIVE  
WEST PALM BEACH, FL 33407  
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M.P  
DRAWN BY:  
7/9/2020  
DATE:  
**20-186**  
DRAWING No  
SHEET 7 OF 15

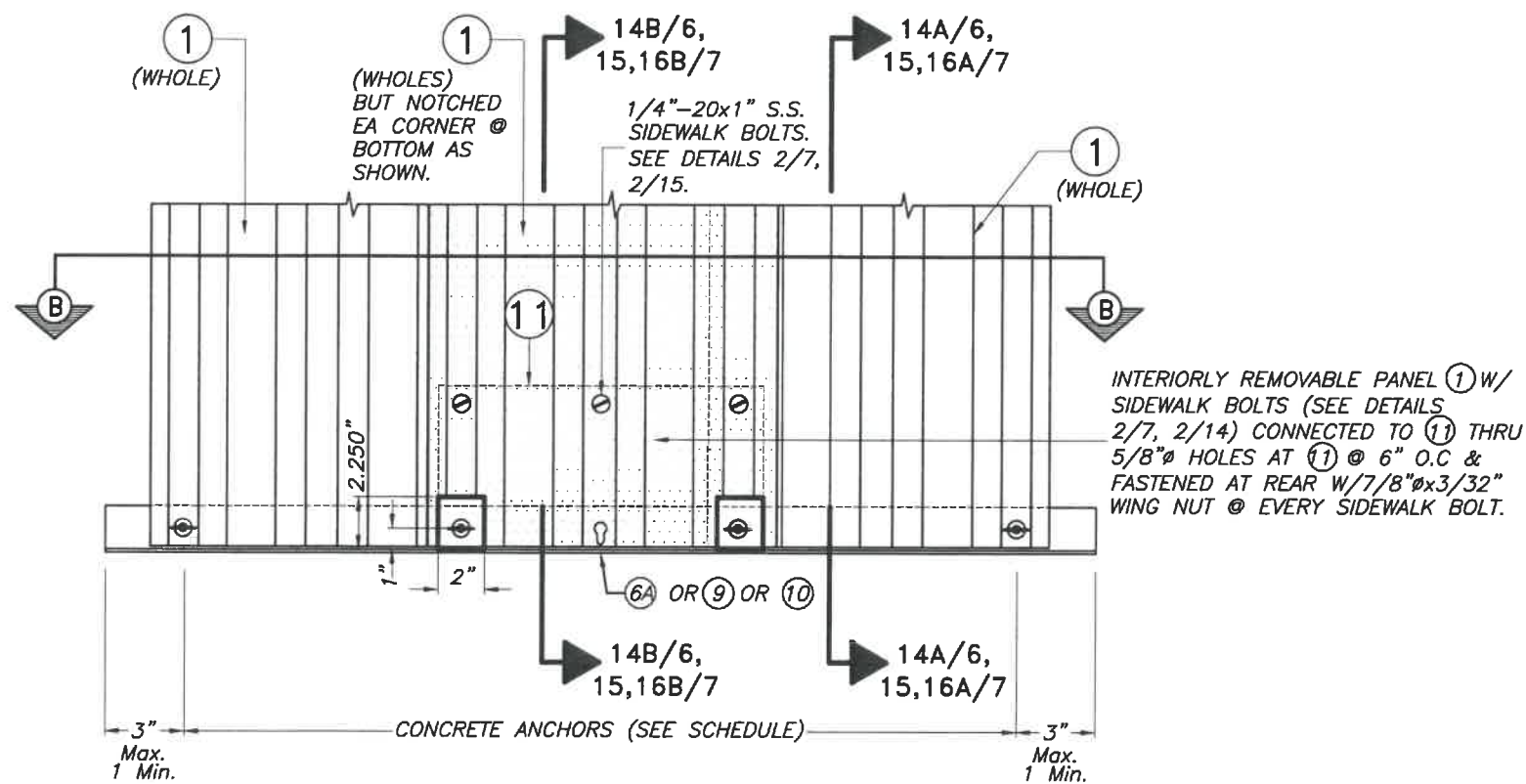
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		





**SECTION B-B**

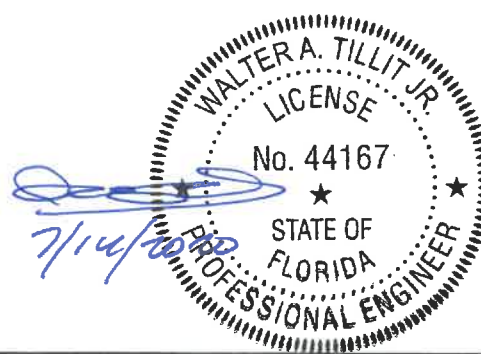
SCALE : 1/8" = 1"



INTERIORLY REMOVABLE PANEL ① W/  
SIDEWALK BOLTS (SEE DETAILS  
2/7, 2/14) CONNECTED TO ① THRU  
5/8" Ø HOLES AT ① @ 6" O.C &  
FASTENED AT REAR W/7/8" Ø x 3/32"  
WING NUT @ EVERY SIDEWALK BOLT.

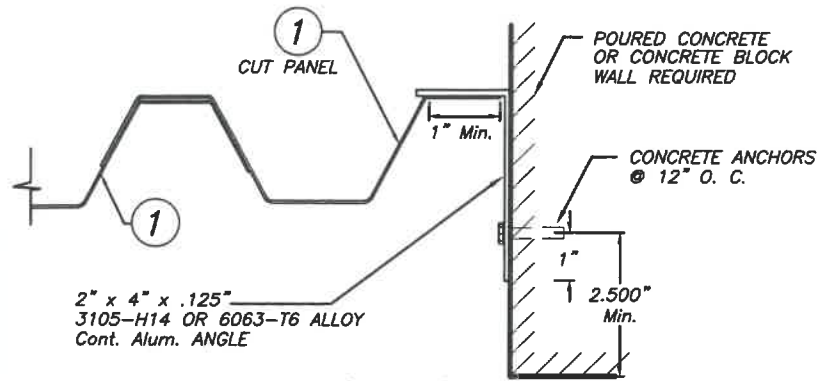
**INTERIORLY REMOVABLE STORM PANEL  
PARTIAL ELEVATION Y**

SCALE : 1/8" = 1"



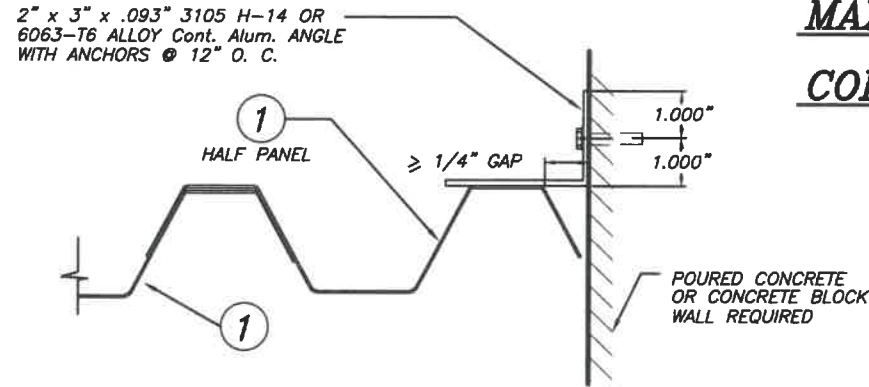
**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

© 2020 TILTECO, INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)		M.P. DRAWN BY:																
 TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167		EASTERN METAL SUPPLY, INC 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)533-6061 FAX: (561)588-4780		7/9/2020 DATE:																
		<table border="1"> <thead> <tr> <th>REV. NO</th> <th>DESCRIPTION</th> <th>DATE</th> <th>REV. No</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>OLD 17-100</td> <td>7/9/2020</td> <td>3</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>4</td> <td></td> <td></td> </tr> </tbody> </table>		REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	1	OLD 17-100	7/9/2020	3			2			4	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE															
1	OLD 17-100	7/9/2020	3																	
2			4																	
				SHEET 8 OF 15																



**CASE A (Plan)**

SCALE: 1/4" = 1"

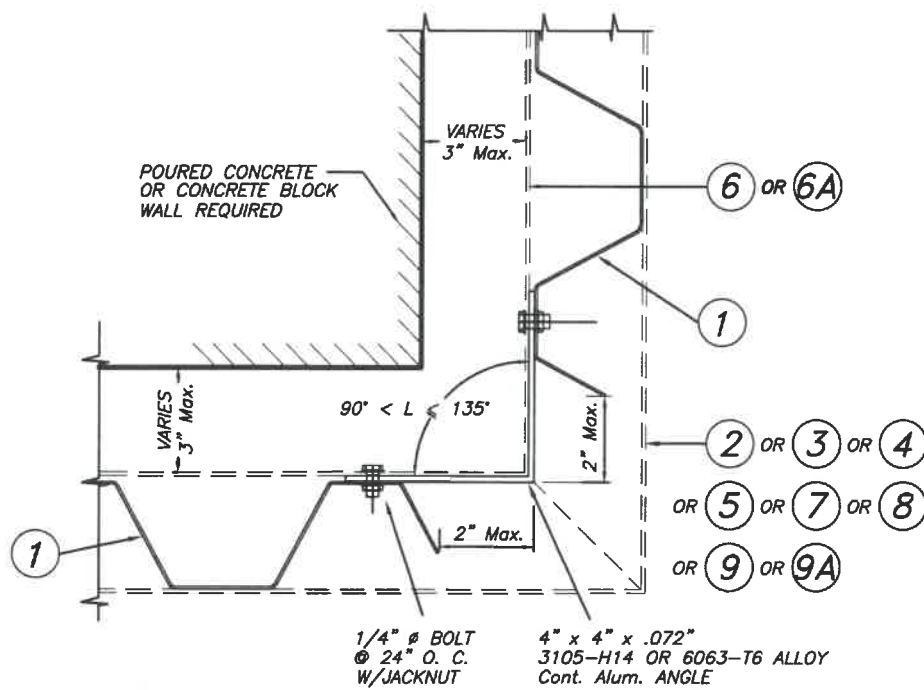


**CASE D (Plan)**

SCALE: 1/4" = 1"

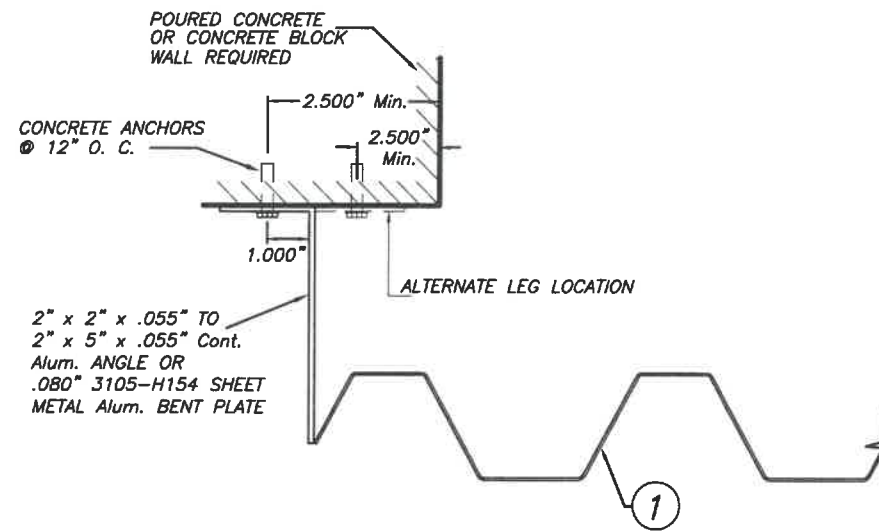
**MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM PANEL LENGTH "L" SCHEDULE**

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	Max. PANEL LENGTH L (ft.) (SEE SECTIONS)	MINIMUM SEPARATION TO GLASS	APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM
+65.0, -77.0	8'-0" OR LESS	2 1/4"	1 THRU 8
+65.0, -77.0	9'-0" OR LESS	3 11/16"	1 THRU 8
+65.0, -72.0	9'-0" OR LESS	3 1/2"	11
+62.0, -73.3	10'-0" OR LESS	3 7/8"	2, 6, 7 & 8
+63.5, -63.5	9'-0" OR LESS	3 1/2"	9, 14, 10
+65.0, -65.0	9'-0" OR LESS	3 1/2"	12, 15, 16
+63.5, -63.5	9'-0" OR LESS	3 3/4"	13



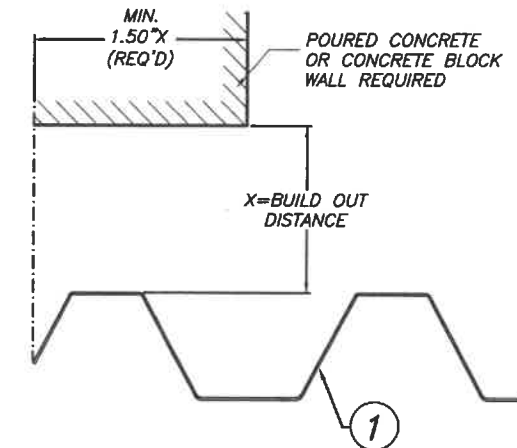
**CASE B (Plan)**

SCALE: 1/4" = 1"



**CASE C (Plan)**

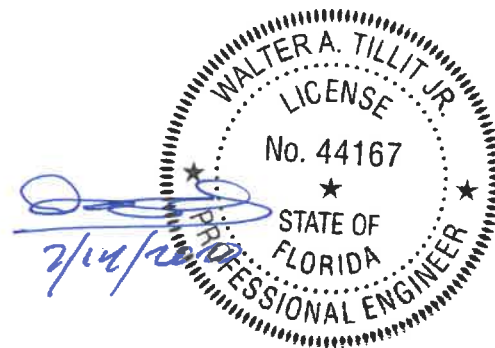
SCALE: 1/4" = 1"



**CASE D (Plan)**

SCALE: 1/4" = 1"

**END CLOSURES DETAILS**



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0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)

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 WEST PALM BEACH, FL 33407  
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 FAX: (561)588-4780

M.P.  
 DRAWN BY:  
 7/9/2020  
 DATE:  
**20-186**  
 DRAWING No

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		



**MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS IN CONCRETE AND CONCRETE BLOCK STRUCTURES**

MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" \*

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" *																		APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS		CRETE-FLEX SS4		ZAMAC NAILIN		CALK-IN		SOLID-SET		CF TAP-GRIP		PANELMATES		PANELMATE PLUS		410 S.S. TAPCON			
	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK		
+63.5, -63.5	8"	N/A	N/A	N/A	4"	N/A	8"	N/A	N/A	N/A	5"	N/A	3 1/2"	N/A	N/A	N/A	N/A	N/A	1 (TOP)	
	12"	4"	N/A	N/A	10"	7 1/2"	12"	7"	N/A	N/A	12"	6"	11"	8"	12"	7 1/2"	N/A	N/A	1 (BOTTOM)	
	12"	N/A	N/A	N/A	10"	N/A	12"	N/A	N/A	N/A	12"	N/A	11"	N/A	N/A	N/A	N/A	N/A	2 (TOP)	
	12"	4"	N/A	N/A	10"	7 1/2"	12"	7"	N/A	N/A	12"	6"	11"	8"	12"	7 1/2"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	N/A	N/A	10"	N/A	12"	N/A	N/A	N/A	12"	N/A	11"	N/A	N/A	N/A	N/A	N/A	3 (TOP)	
	12"	4"	N/A	N/A	10"	7 1/2"	12"	7"	N/A	N/A	12"	6"	11"	8"	12"	7 1/2"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	N/A	N/A	10"	N/A	12"	N/A	N/A	N/A	12"	N/A	11"	N/A	N/A	N/A	N/A	N/A	4 (TOP)	
	12"	4"	N/A	N/A	10"	7 1/2"	12"	7"	N/A	N/A	12"	6"	11"	8"	12"	7 1/2"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	N/A	N/A	10"	N/A	12"	N/A	N/A	N/A	12"	N/A	11"	N/A	N/A	N/A	N/A	N/A	5 (TOP)	
	12"	4"	N/A	N/A	10"	7 1/2"	12"	7"	N/A	N/A	12"	6"	11"	6"	12"	7 1/2"	N/A	N/A	5 (BOTTOM)	
	8 1/2"	N/A	12"	N/A	5 1/2"	N/A	7 1/2"	N/A	N/A	N/A	8 1/2"	N/A	11 1/2"	N/A	11"	N/A	9 1/2"	N/A	6 (TOP)	
	8 1/2"	N/A	12"	N/A	5 1/2"	N/A	7 1/2"	N/A	10 1/2"	N/A	8 1/2"	N/A	11 1/2"	N/A	11"	N/A	9 1/2"	N/A	6 (BOTTOM)	
	7 1/2"	N/A	11 1/2"	N/A	5"	N/A	7"	N/A	10 1/2"	N/A	7"	N/A	10 1/2"	N/A	10"	N/A	8 1/2"	N/A	7 (TOP/BOTTOM)	
	N/A	N/A	N/A	N/A	N/A	N/A	12"	7"	12"	12"	12"	6"	6"	6"	12"	12"	N/A	N/A	8 (TOP/BOTTOM) *	
	12"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	9 (TOP)	
	12"	4"	12"	10"	N/A	N/A	12"	9"	N/A	N/A	N/A	N/A	12"	8"	12"	7 1/2"	12"	6"	9 (BOTTOM)	
	N/A	N/A	N/A	N/A	N/A	N/A	12"	6"	12"	12"	N/A	N/A	12"	8"	12"	6"	N/A	N/A	10 (TOP)	
	12"	4"	12"	10"	N/A	N/A	12"	9"	N/A	N/A	N/A	N/A	12"	8"	12"	7 1/2"	12"	6"	11 (TOP/BOTTOM) *	
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12"	9"	N/A	N/A	N/A	N/A	13 (TOP)	
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12"	8"	N/A	N/A	N/A	N/A	13 (BOTTOM)	
	12"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	14 (TOP)	
	12"	4"	12"	10"	N/A	N/A	12"	9"	N/A	N/A	N/A	N/A	12"	8"	12"	7 1/2"	12"	6"	14A (BOTTOM)	
	12"	N/A	12"	7"	N/A	N/A	12"	6 1/2"	N/A	N/A	N/A	N/A	12"	6"	12"	5 1/2"	12"	4"	14B (BOTTOM)	
	11 1/2"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12 (TOP)	
	8 1/2"	N/A	12"	N/A	N/A	N/A	7 1/2"	N/A	10 1/2"	N/A	N/A	N/A	11 1/2"	N/A	11"	N/A	9 1/2"	N/A	12 (BOTTOM)	
	11 1/2"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	15 (TOP)	
	8 1/2"	N/A	12"	N/A	N/A	N/A	7 1/2"	N/A	N/A	N/A	N/A	N/A	11 1/2"	N/A	11"	N/A	9 1/2"	N/A	15A (BOTTOM)	
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3"	N/A	3"	N/A	3"	N/A	15B (BOTTOM)	
11 1/2"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	16 (TOP)		
8 1/2"	N/A	12"	N/A	N/A	N/A	7 1/2"	N/A	N/A	N/A	N/A	N/A	11 1/2"	N/A	11"	N/A	9 1/2"	N/A	16A (BOTTOM)		
3" **	N/A	N/A	N/A	N/A	N/A	3"	N/A	N/A	N/A	N/A	N/A	4"	N/A	4"	N/A	4"	N/A	16B (BOTTOM)		
+65.0, -65.0	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	N/A	N/A	N/A	N/A	2 (TOP)	
	6"	4"	N/A	N/A	6"	6"	6"	6"	N/A	N/A	6"	5"	6"	6"	N/A	N/A	N/A	N/A	2 (BOTTOM)	
	6"	N/A	N/A	N/A	4 1/2"	N/A	6"	N/A	N/A	N/A	6"	N/A	5 1/2"	N/A	N/A	N/A	N/A	N/A	6 (TOP)	
	6"	N/A	N/A	N/A	4 1/2"	N/A	6"	N/A	9 1/2"	N/A	6"	N/A	5 1/2"	N/A	N/A	N/A	N/A	N/A	6 (BOTTOM)	
	6"	N/A	N/A	N/A	4"	N/A	6"	N/A	9 1/2"	N/A	6"	N/A	4 1/2"	N/A	N/A	N/A	N/A	N/A	7 (TOP/BOTTOM)	
N/A	N/A	N/A	N/A	N/A	N/A	6"	6"	12"	11"	6"	5"	6"	5"	N/A	N/A	N/A	N/A	8 (TOP/BOTTOM) *		

E. D. = EDGE DISTANCE

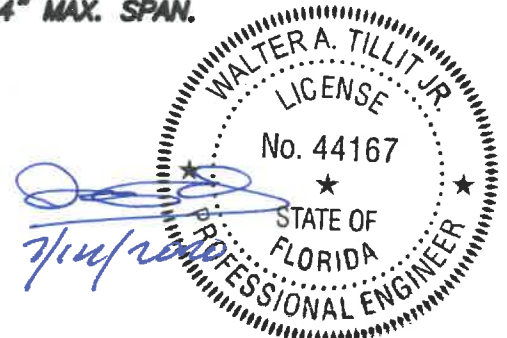
**ANCHORS LEGEND**

ANCHOR TYPE	Min. ANCHOR SPACING
ZAMAC NAILING, CF TAP-GRIP, PANELMATE OR PANELMATE PLUS.	3.0"
CALK-IN	2.5"
SOLID-SET	3.5"
CRETE FLEX SS4	6.0"
REGULAR & 410.S.S TAPCON IN BLOCK	4.0"
REGULAR & 410.S.S TAPCON IN CONCRETE	3.0"

\* MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN 3 1/2", REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. (NOTE: Min. E. D. FOR CALK-IN ANCHORS IS 2 1/2")  
 FOR THIS OPERATION TO BE POSSIBLE, REDUCED SPACING OBTAINED USING FACTOR SHALL NOT BE LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT ANCHORS LEGEND.

ACTUAL E. D.	FACTOR				
	REGULAR TAPCON & 410 S.S. TAPCON	ZAMAC NAILIN, CRETE-FLEX SS4 & PANELMATE OR PANELMATE PLUS.	CALK-IN	SOLID-SET	CF TAP-GRIP
3"	-	.86	.75	.78	1.00
2 1/2"	-	.71	.50	-	.80
2"	-	.50	-	-	-
1 1/2"	0.35	-	-	-	-

\*\* LIMITED TO 5'-4" MAX. SPAN.



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**TILTECO inc.**  
 TILLIT TESTING & ENGINEERING COMPANY  
 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
 Phone : (305)871-1530 Fax : (305)871-1531  
 CA-0006719  
 WALTER A. TILLIT JR. P.E.  
 FLORIDA Lic. # 44167

**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)  
**EASTERN METAL SUPPLY, INC**  
 4268 WEST ROADS DRIVE  
 WEST PALM BEACH, FL 33407  
 PHONE: (561)533-6061  
 FAX: (561)588-4780

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		

M.P. DRAWN BY:  
 7/9/2020 DATE:  
**20-186** DRAWING No  
 SHEET 10 OF 15



**MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS INTO CONCRETE AND CONCRETE BLOCK STRUCTURES**

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" *																		APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS		CRETE-FLEX SS4		ZAMAC NAILIN		CALK-IN		SOLID-SET		CF TAP-GRIP		PANELMATES		PANELMATE PLUS		410 S.S. TAPCON			
	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK	TO CONCRETE	TO BLOCK		
+65.0, -77.0	6"	N/A	N/A	N/A	3"	N/A	6"	N/A	N/A	N/A	3 1/2"	N/A	2 1/2"	N/A	N/A	N/A	N/A	N/A	1 (TOP)	
	12"	4"	N/A	N/A	10"	6"	12"	6"	N/A	N/A	12"	4"	9 1/2"	7"	N/A	N/A	N/A	N/A	1 (BOTTOM)	
	12"	N/A	N/A	N/A	10"	N/A	12"	N/A	N/A	N/A	12"	N/A	9 1/2"	N/A	N/A	N/A	N/A	N/A	2 (TOP)	
	12"	4"	N/A	N/A	10"	6"	12"	6"	N/A	N/A	12"	4"	9 1/2"	7"	N/A	N/A	N/A	N/A	2 (BOTTOM)	
	12"	N/A	N/A	N/A	10"	N/A	12"	N/A	N/A	N/A	12"	N/A	9 1/2"	N/A	N/A	N/A	N/A	N/A	3 (TOP)	
	12"	4"	N/A	N/A	8"	6"	12"	6"	N/A	N/A	12"	4"	9 1/2"	7"	N/A	N/A	N/A	N/A	3 (BOTTOM)	
	12"	N/A	N/A	N/A	10"	N/A	12"	N/A	N/A	N/A	12"	N/A	9 1/2"	N/A	N/A	N/A	N/A	N/A	4 (TOP)	
	12"	4"	N/A	N/A	8"	6"	12"	6"	N/A	N/A	12"	4"	9 1/2"	7"	N/A	N/A	N/A	N/A	4 (BOTTOM)	
	12"	N/A	N/A	N/A	8"	N/A	12"	N/A	N/A	N/A	12"	N/A	9 1/2"	N/A	N/A	N/A	N/A	N/A	5 (TOP)	
	12"	N/A	N/A	N/A	7"	5"	12"	5"	N/A	N/A	10"	4"	7 1/2"	4"	N/A	N/A	N/A	N/A	5 (BOTTOM)	
	7"	N/A	N/A	N/A	4 1/2"	N/A	6"	N/A	N/A	N/A	7"	N/A	5"	N/A	N/A	N/A	N/A	N/A	6 (TOP)	
	7"	N/A	N/A	N/A	4 1/2"	N/A	6"	N/A	9"	N/A	7"	N/A	5"	N/A	N/A	N/A	N/A	N/A	6 (BOTTOM)	
	6"	N/A	N/A	N/A	4"	N/A	5 1/2"	N/A	9"	N/A	6"	N/A	4 1/2"	N/A	N/A	N/A	N/A	N/A	7 (TOP/BOTTOM)	
	N/A	N/A	N/A	N/A	N/A	N/A	12"	6"	12"	10"	12"	4"	6"	4"	N/A	N/A	N/A	N/A	8 (TOP/BOTTOM)	
+65.0, -72.0	6 1/2"	N/A	12"	N/A	N/A	N/A	6"	N/A	9 1/2"	N/A	N/A	N/A	9"	N/A	9"	N/A	7 1/2"	N/A	7 (TOP/BOTTOM)	
	N/A	N/A	N/A	N/A	N/A	N/A	12"	6"	12"	11"	N/A	N/A	12"	6"	12"	6"	N/A	N/A	11 (TOP)	
	12"	4"	12"	9"	N/A	N/A	12"	8"	12"	11"	N/A	N/A	12"	7"	12"	6 1/2"	12"	5"	11 (BOTTOM)	
+62.0, -73.3	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	12"	10"	6"	N/A	6"	N/A	N/A	N/A	N/A	N/A	2 (TOP)	
	6"	N/A	N/A	N/A	6"	5 1/2"	6"	5"	N/A	N/A	6"	4"	6"	6"	N/A	N/A	N/A	N/A	2 (BOTTOM)	
	6"	N/A	N/A	N/A	4"	N/A	6"	N/A	N/A	N/A	6"	N/A	5"	N/A	N/A	N/A	N/A	N/A	6 (TOP)	
	6"	N/A	N/A	N/A	4"	N/A	6"	N/A	8"	N/A	6"	N/A	5"	N/A	N/A	N/A	N/A	N/A	6 (BOTTOM)	
	6"	N/A	N/A	N/A	5"	N/A	6"	N/A	8"	N/A	5 1/2"	N/A	4"	N/A	N/A	N/A	N/A	N/A	7 (TOP/BOTTOM)	
	N/A	N/A	N/A	N/A	N/A	N/A	6"	5"	12"	10"	6"	4"	6"	4"	N/A	N/A	N/A	N/A	8 (TOP/BOTTOM) *	
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12"	10"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 (BOTTOM) 10 (TOP) 11 (TOP/BOTTOM)	

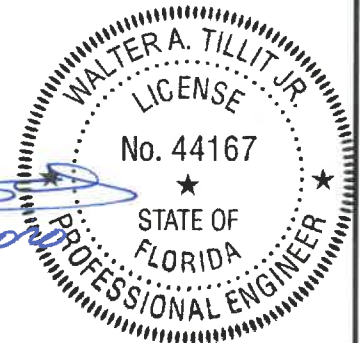
E. D. = EDGE DISTANCE

**ANCHORS LEGEND**

ANCHOR TYPE	Min. ANCHOR SPACING
ZAMAC NAILING, CF TAP-GRIP, PANELMATE OR PANELMATE PLUS.	3.0"
CALK-IN	2.5"
SOLID-SET	3.5"
CRETE FLEX SS4	6.0"
REGULAR & 410 S.S. TAPCON IN BLOCK	4.0"
REGULAR & 410 S.S. TAPCON IN CONCRETE	3.0"

\* MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN 3 1/2", REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. (NOTE: Min. E. D. FOR CALK-IN ANCHORS IS 2 1/2") FOR THIS OPERATION TO BE POSSIBLE, REDUCED SPACING OBTAINED USING FACTOR SHALL NOT BE LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT ANCHORS LEGEND.

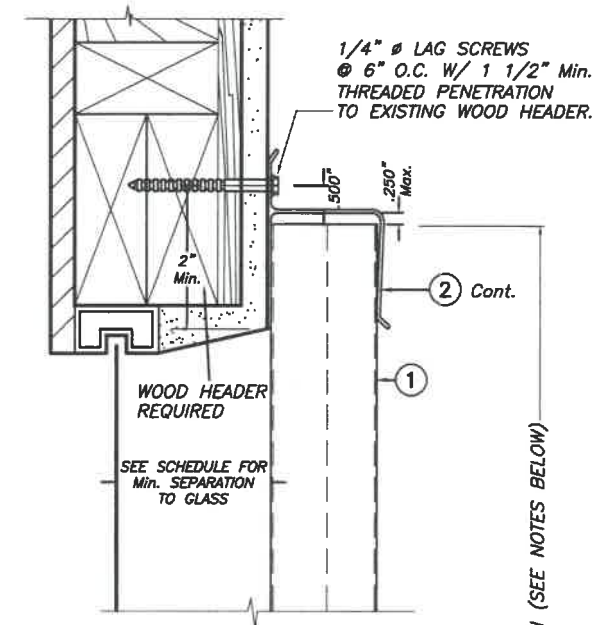
ACTUAL E. D.	FACTOR					
	REGULAR TAPCON & 410 S.S. TAPCON	ZAMAC NAILIN, CRETE-FLEX SS4 & PANELMATE OR PANELMATE PLUS.	CALK-IN	SOLID-SET	CF TAP-GRIP	
3"	-	.86	.75	.78	1.00	
2 1/2"	-	.71	.50	-	.80	
2"	-	.50	-	-	-	
1 1/2"	0.35	-	-	-	-	



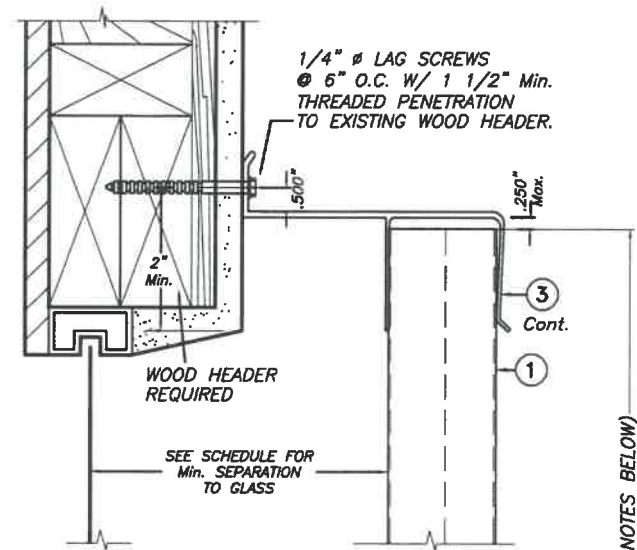
**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

 TILTECO Inc. TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167		0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP) <b>EASTERN METAL SUPPLY, INC</b> 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)533-6061 FAX: (561)588-4780		M.P. DRAWN BY: 7/9/2020 DATE: <b>20-186</b> DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		

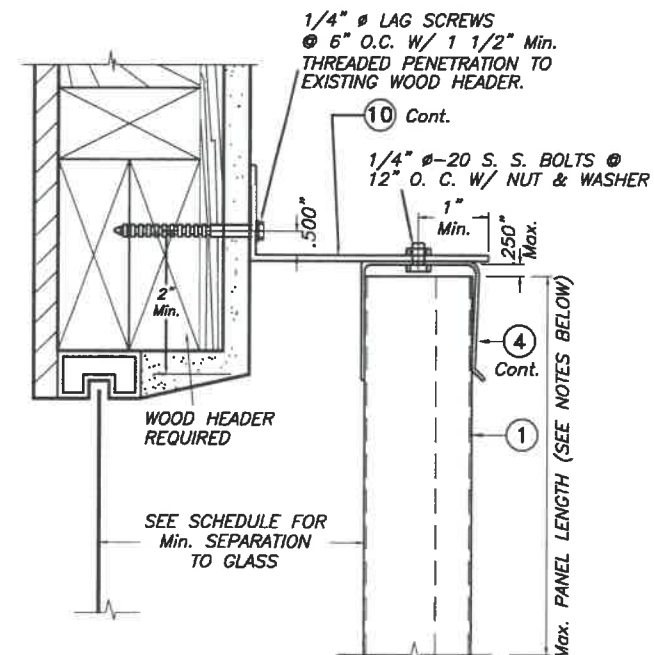




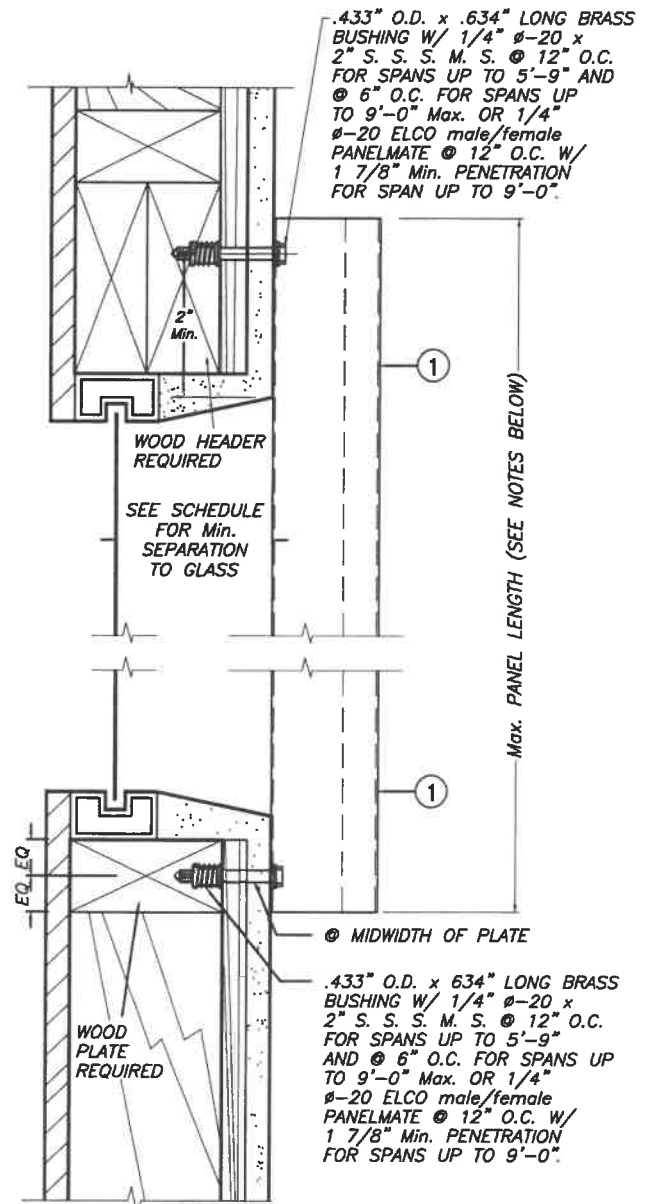
**ALTERNATIVE 1**



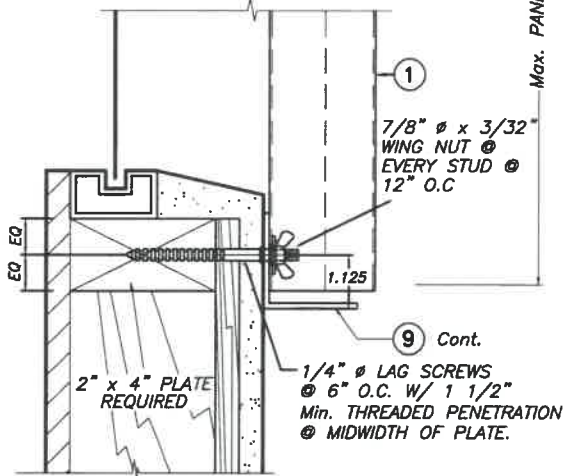
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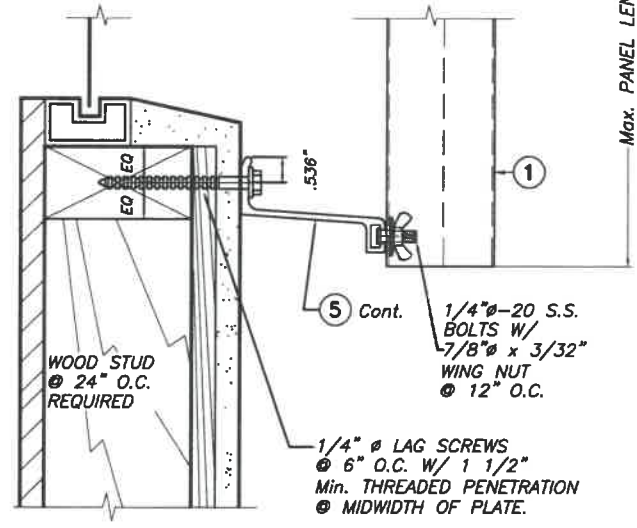
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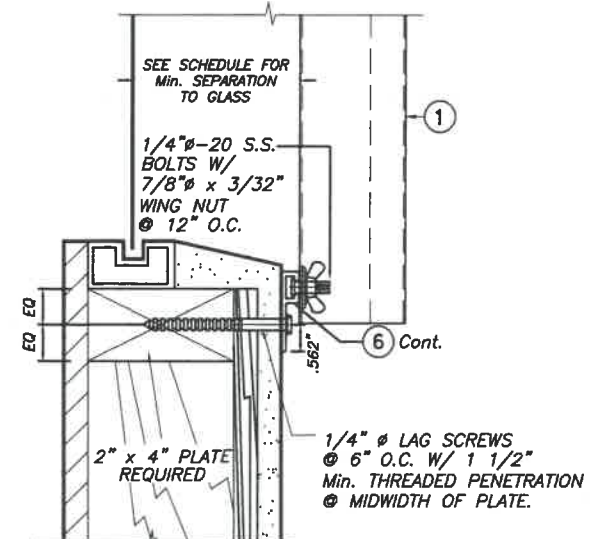
**ALTERNATIVE 8**



**ALTERNATIVE 2**



**ALTERNATIVE 6**



**ALTERNATIVE 3**

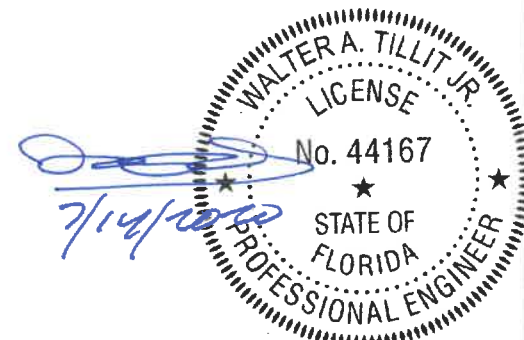
**WALL MOUNTING INSTALLATIONS**

**SECTIONS A** SCALE : 1/4" = 1"

**INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS**

**NOTE FOR COMBINATION OF SECTIONS:**  
WALL MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

**NOTES:**  
1. INSTALLATIONS ARE ONLY VALID FOR A.S.D. DESIGN PRESSURE RATING UP TO +65.0, -72.0 psf AND PANEL'S LENGTHS UP TO 9'-0", EXCEPT AS NOTED.  
2. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.



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**TILTECO INC.**

TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone : (305)871-1530 Fax : (305)871-1531  
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WALTER A. TILLIT Jr. P.E.  
FLORIDA Lic. # 44167

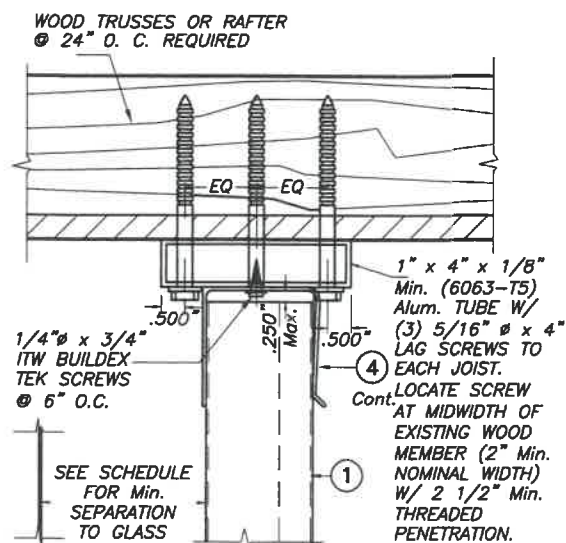
**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)

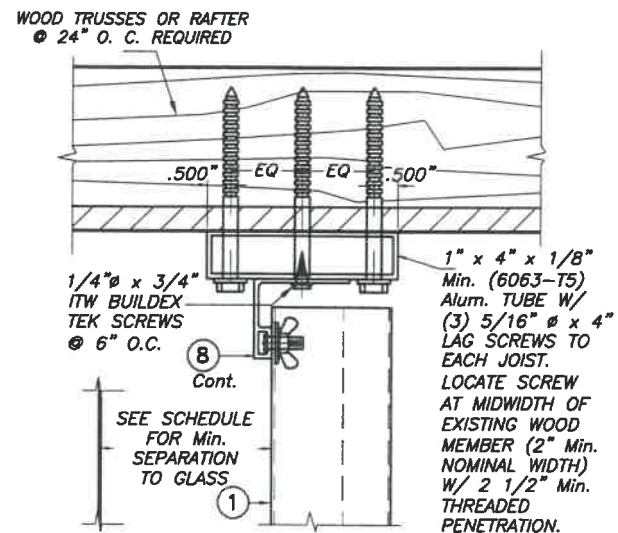
**EASTERN METAL SUPPLY, INC**  
4268 WEST ROADS DRIVE  
WEST PALM BEACH, FL 33407  
PHONE: (561)533-6061  
FAX: (561)588-4780

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		

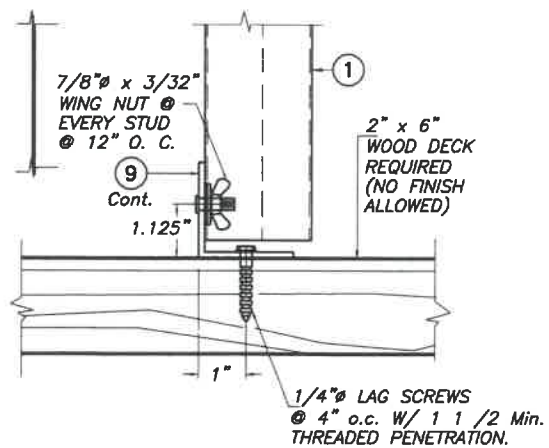
M.P. DRAWN BY:  
7/9/2020 DATE:  
**20-186** DRAWING No  
SHEET 12 OF 15



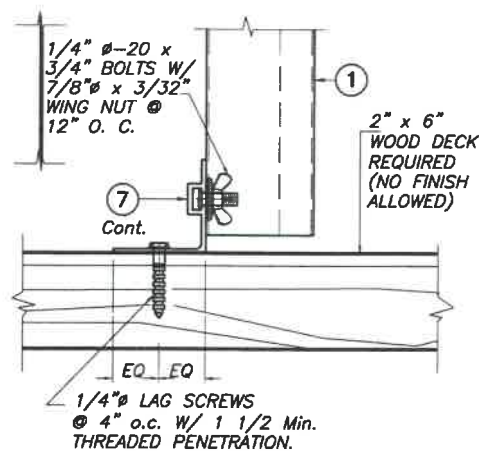
**ALTERNATIVE 9A**



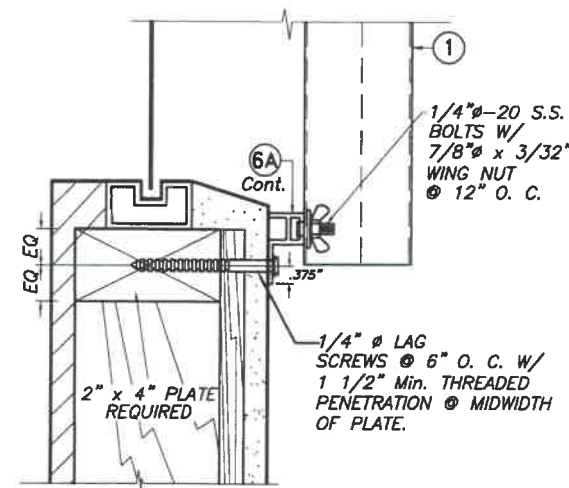
**ALTERNATIVE 10**



**ALTERNATIVE 9**

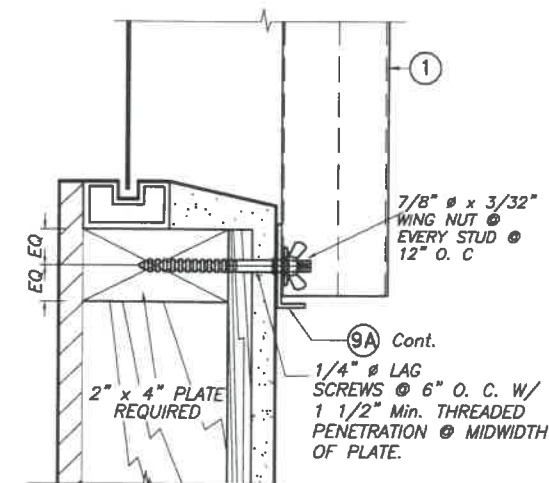


**ALTERNATIVE 11**



**ALTERNATIVE 12 \***

\* VALID FOR Max. +63.5, -63.5 psf.



**ALTERNATIVE 14**

**CEILING & FLOOR MOUNTING INSTALLATIONS**

SCALE : 1/4" = 1"

**WALL MOUNTING INSTALLATION**

SCALE : 1/4" = 1"

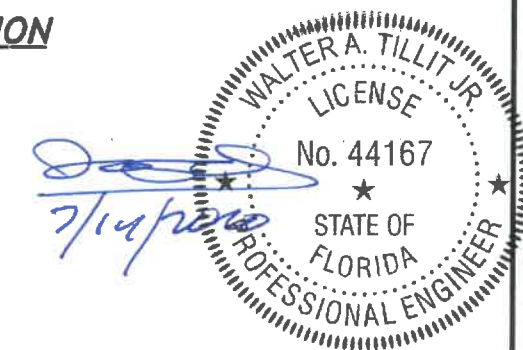
NOTE FOR COMBINATION OF SECTIONS:

WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

**INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS**

NOTES:

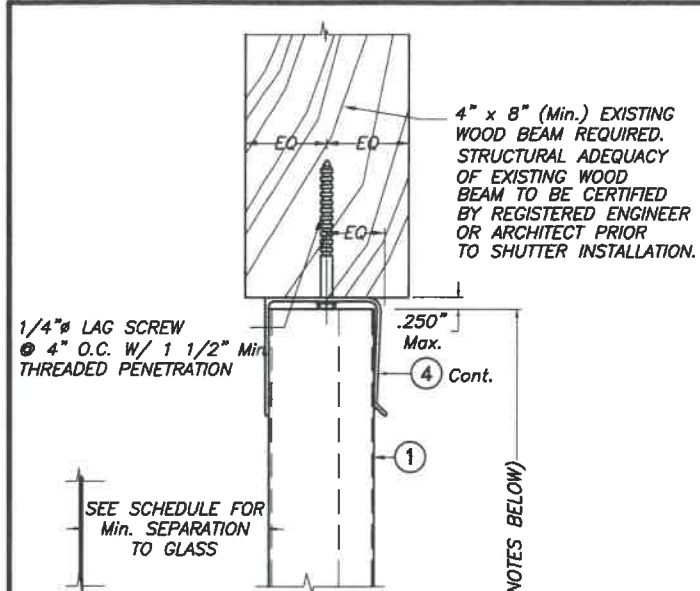
- INSTALLATIONS ARE ONLY VALID FOR A.S.D. DESIGN PRESSURE RATING UP TO +65.0, -72.0 psf AND PANEL'S LENGTHS UP TO 9'-0", EXCEPT AS NOTED.
- FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.



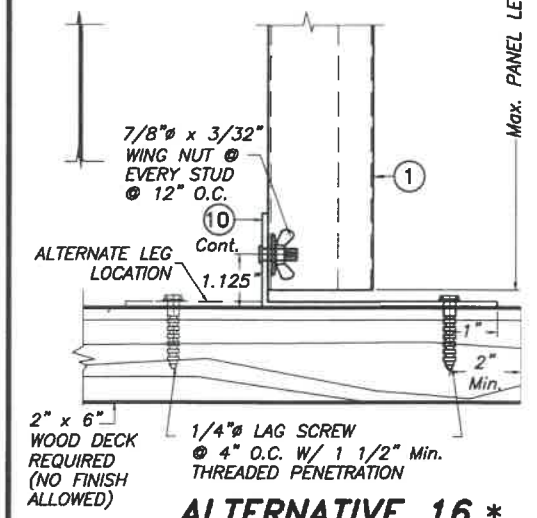
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

© 2020 TILTECO, INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)		M.P. DRAWN BY:	
<p>TILLIT TESTING &amp; ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167</p>		<p><b>EASTERN METAL SUPPLY, INC</b> 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)533-6061 FAX: (561)588-4780</p>		7/9/2020 DATE:	
				20-186 DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020	3		
2			4		

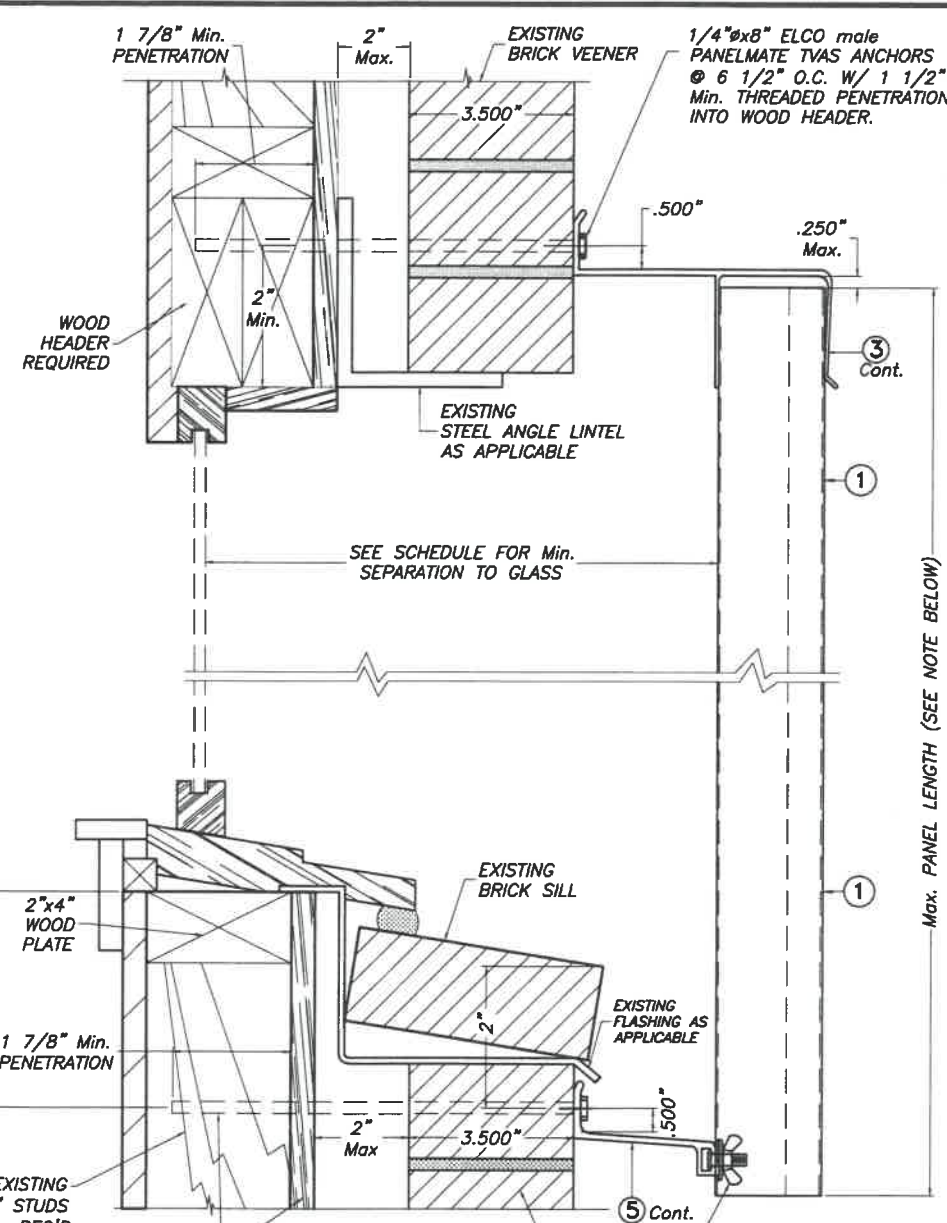




**ALTERNATIVE 15**



**ALTERNATIVE 16 \***

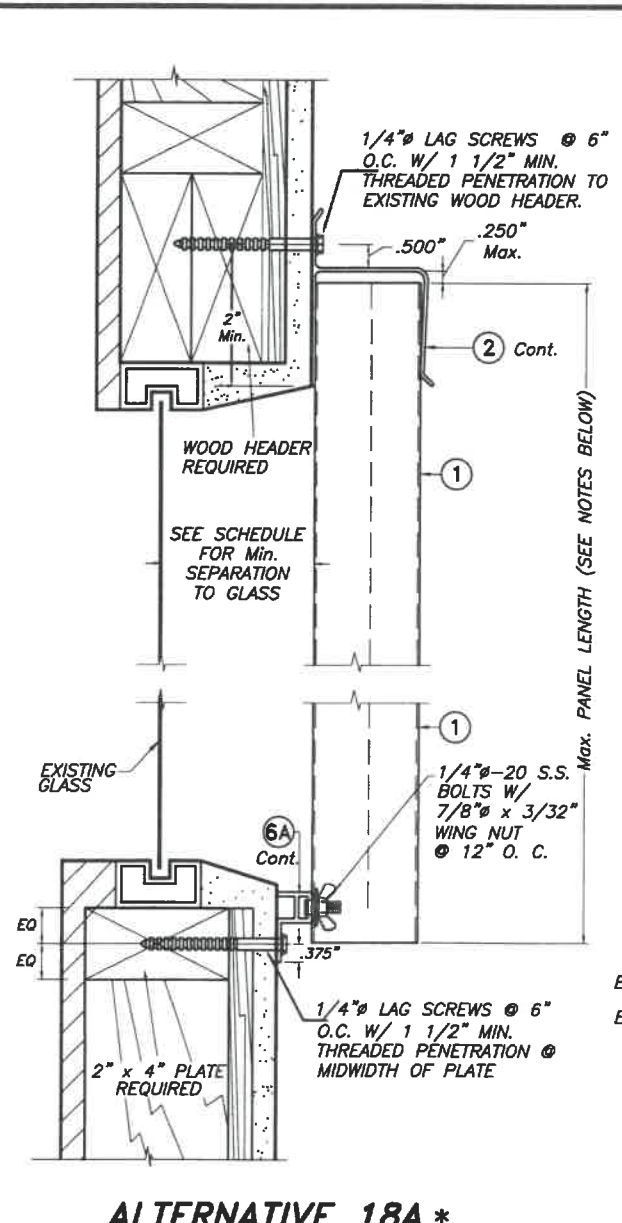


**ALTERNATIVE 17 \***

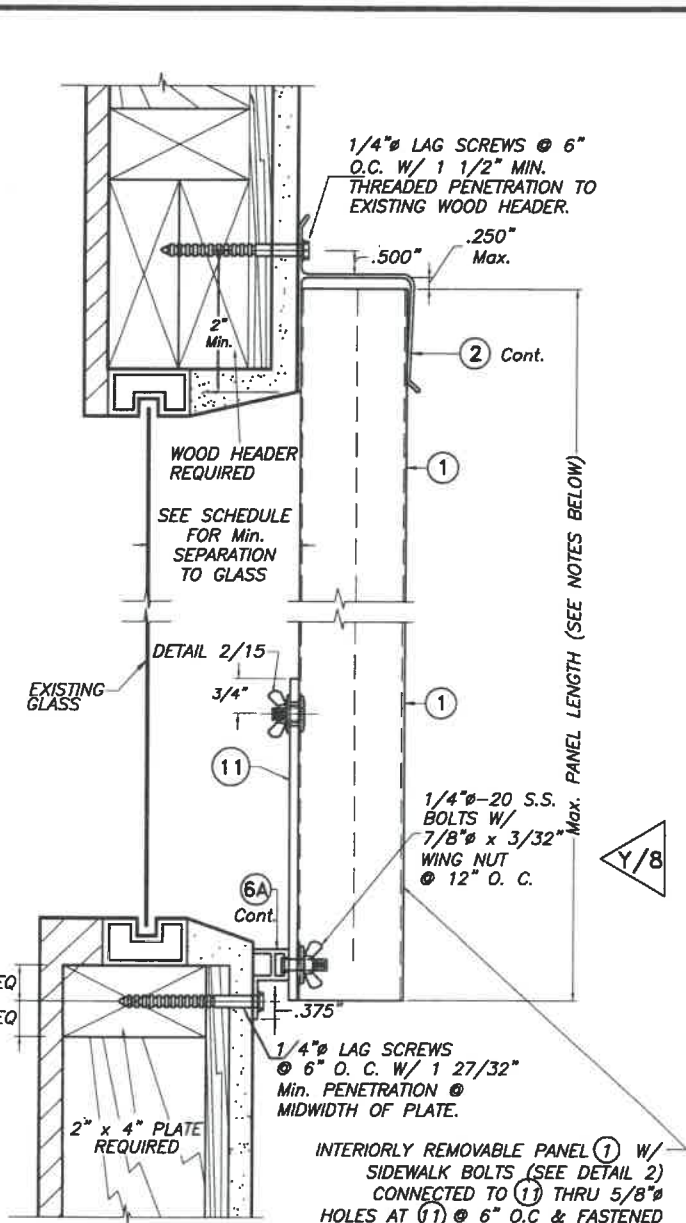
\* VALID FOR Max. +63.5, -63.5 psf. A.S.D. DESIGN PRESSURE RATING.

**BUILD-OUT INSTALLATION**

SCALE : 1/4" = 1"



**ALTERNATIVE 18A \***



**ALTERNATIVE 18B \***

**WALL MOUNTING INSTALLATIONS**

**SECTIONS 18**

SCALE : 1/4" = 1"

\* VALID FOR Max. +63.5, -63.5 psf. A.S.D. DESIGN PRESSURE RATING.

**INSTALLATIONS VALID FOR PANELS 1 USED JOINTLY WITH INTERIORLY REMOVABLE PANELS 1**

**CEILING & FLOOR MOUNTING INSTALLATIONS**

SCALE : 1/4" = 1"

NOTE FOR COMBINATION OF SECTIONS:  
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

NOTES:  
1. INSTALLATIONS ARE ONLY VALID FOR A.S.D. DESIGN PRESSURE RATING UP TO +65.0, -72.0 psf AND PANEL'S LENGTHS UP TO 9'-0", EXCEPT AS NOTED.  
2. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

**INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS**



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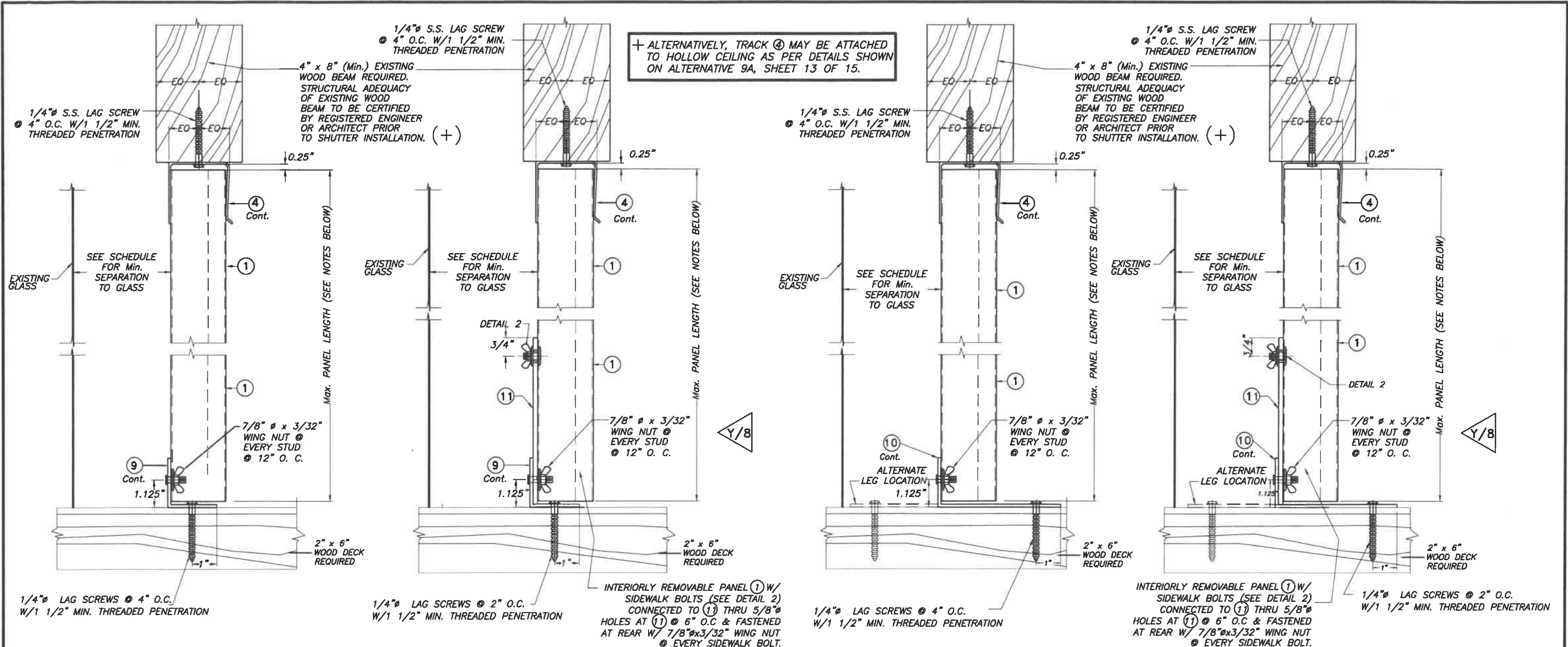
**TILTECO INC.**

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6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone : (305)871-1530 Fax : (305)871-1531  
CA-0006719  
WALTER A. TILLIT JR. P.E.  
FLORIDA Lic. # 44167

**FLORIDA BUILDING CODE (High Velocity Hurricane Zone)**

0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)		M.P. DRAWN BY:
<b>EASTERN METAL SUPPLY, INC</b> 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)533-6061 FAX: (561)588-4780		7/9/2020 DATE:
		<b>20-186</b> DRAWING No
REV. NO	DESCRIPTION	DATE
1	OLD 17-100	7/9/2020
2		
		SHEET 14 OF 15





**ALTERNATIVE 19A**

**CEILING & FLOOR MOUNTING INSTALLATIONS**

**SECTIONS 19**  
SCALE: 1/4" = 1"

**ALTERNATIVE 19B**

**ALTERNATIVE 20A**

**CEILING & FLOOR MOUNTING INSTALLATIONS**

**SECTIONS 20**  
SCALE: 1/4" = 1"

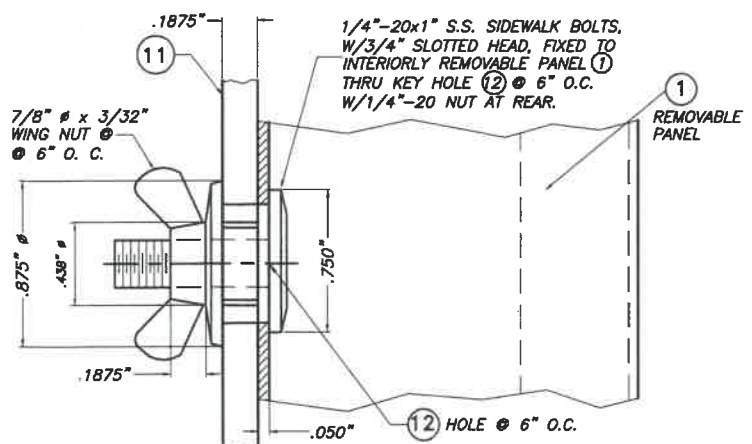
**ALTERNATIVE 20B**

**NOTE FOR COMBINATION OF SECTIONS:**  
FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

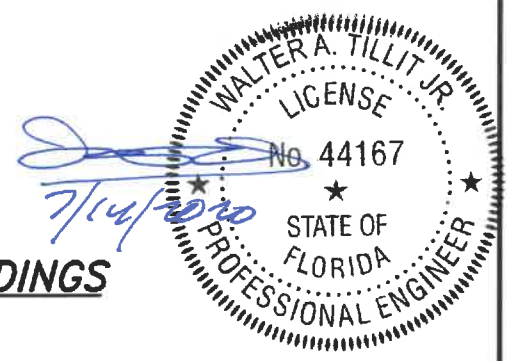
**INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS**

**NOTES:**

- INSTALLATIONS ARE ONLY VALID FOR A.S.D. DESIGN PRESSURE RATING UP TO +65.0, -65.0 psf AND PANEL'S LENGTHS UP TO 9'-0".
- FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.



**DETAIL 2 - INSTALLATION OF 1/4"x1" SIDEWALK BOLTS @ REMOVABLE PANEL**  
SCALE: 1" = 1"



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**TILTECO INC.**

TILLIT TESTING & ENGINEERING COMPANY  
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1	OLD 17-100	7/9/2020 3
2		4

SHEET 15 OF 15