

GENERAL NOTES:

1. STORM PANEL SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2017 (6th 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 7-10 FOR INSTALLATIONS UNDER 2017 FBC AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 4 THRU 9.
 IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-10 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 4 THRU 9.

IN ORDER TO VERIFY THAT COMPONENTS AND ANCHORS ON THIS P.E.D. AS TESTED WERE NOT OVER STRESSED, A 33% INCREASE IN 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 # 0425.01-00 AND # 0616.01-05, PER PROTOCOLS TAS-201, TAS-202 AND TAS-203.

2. ALL STEEL SHEET METAL PANELS SHALL HAVE STRUCTURAL QUALITY ASTM A653 SQ. GRADE 40, WITH G-90 GALVANIZED STEEL DESIGNATION & $F_y=52.3$ ksi. (AFTER ROLLED)

3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY & TEMPER UNLESS OTHERWISE NOTED.

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 36 ksi MINIMUM YIELD STRENGTH.

6. ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED).
 (A) TO EXISTING POURED CONCRETE ($f'c=3$ ksi):
 - 1/4" ϕ TAPCONS & MAXI-SET TAPCONS AS MANUFACTURED BY I.T.W./BUILDEX.
 - 1/4" ϕ CRETE-FLEX SS4 ANCHORS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
 - 1/4" ϕ x 7/8" CALK-IN ANCHORS, 1/4" ϕ ELCO male & female "PANELMATE" OR 1/4" ϕ ELCO male "PANELMATE PLUS" AS MANUFACTURED BY POWER FASTENERS, INC. AND ELCO CONSTRUCTION PRODUCTS, RESPECTIVELY.
 - 1/4" ϕ 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 ANCHOR OR CRETE-FLEX SS4 ANCHORS IS 1 3/4", FOR ELCO PANELMATES IS 2", FOR ELCO male "PANELMATE PLUS" IS 2".

A.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" ϕ -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" ϕ 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" ϕ -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 (ASTM C-90):
 - 1/4" ϕ TAPCONS & MAXI-SET TAPCONS AS MANUFACTURED BY I.T.W./BUILDEX.
 - 1/4" ϕ CRETE-FLEX SS4 ANCHORS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
 - 1/4" ϕ x 7/8" CALK-IN ANCHORS OR 1/4" ϕ ELCO male & female "PANELMATE" OR 1/4" ϕ ELCO male "PANELMATE PLUS" AS MANUFACTURED BY POWER FASTENERS, INC. AND ELCO CONSTRUCTION PRODUCTS, RESPECTIVELY.
 - 3/8" ϕ RED HEAD DYNABOLT SLEEVE ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX.
 - 1/4" ϕ x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.

NOTES:
 B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS, ELCO PANELMATE, ELCO male "PANELMATE PLUS", RED HEAD DYNABOLT AND CRETE-FLEX SS4, INTO THE CONCRETE BLOCK UNIT SHALL BE 1 1/4".
 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" ϕ -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" ϕ 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" ϕ -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) & 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 8 (SHEET 2 & 3 OF 9) 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. (d) 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)

0.030" THICK GALVANIZED BERTHA STEEL 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



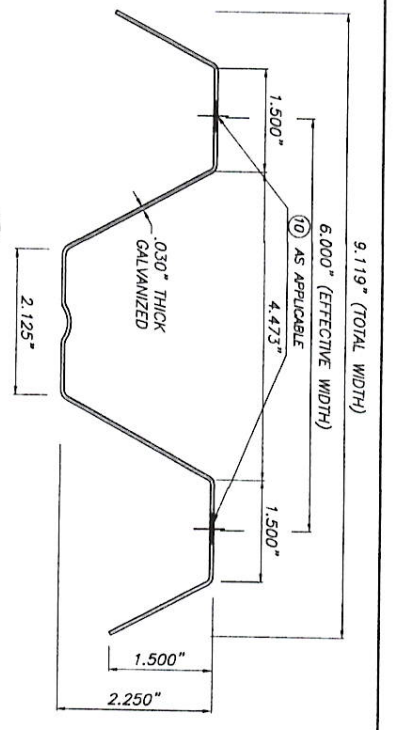
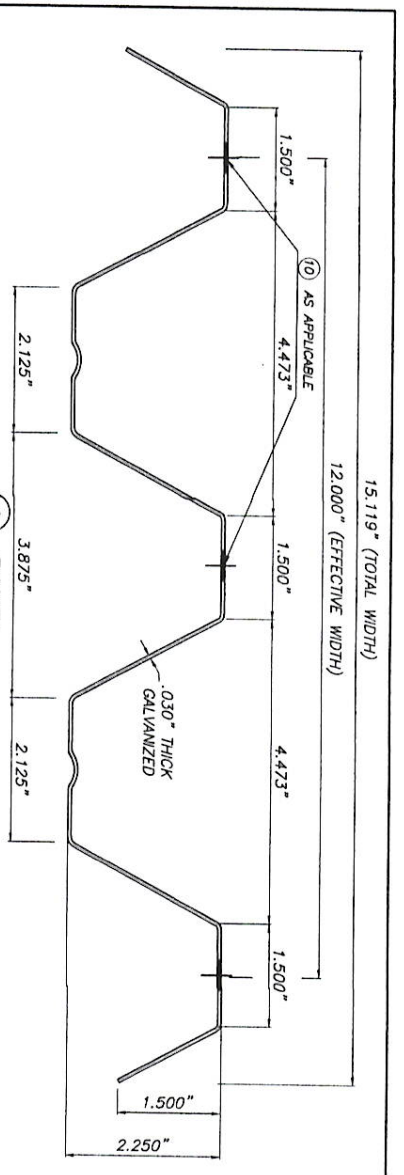
TILIT TESTING & ENGINEERING COMPANY 6355 N.W. 35th St., Ste. 205, VIRGINIA GARDENS, FL 32186 Phone: (205)971-1530, Fax: (205)971-1531 EB-0006719 WALTER A. TILIT Jr., P.E. FLORIDA Lic # 44167

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 15-048	07/28/17	3		
2			4		

17-099

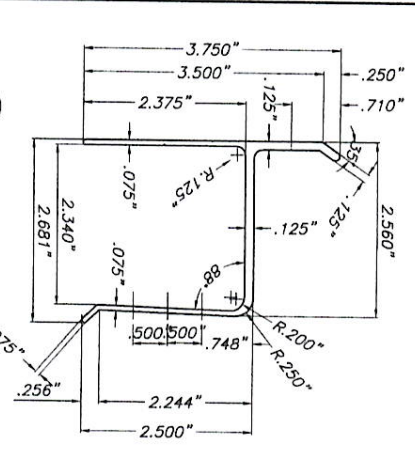
DRAWING No

SHEET 1 OF 9

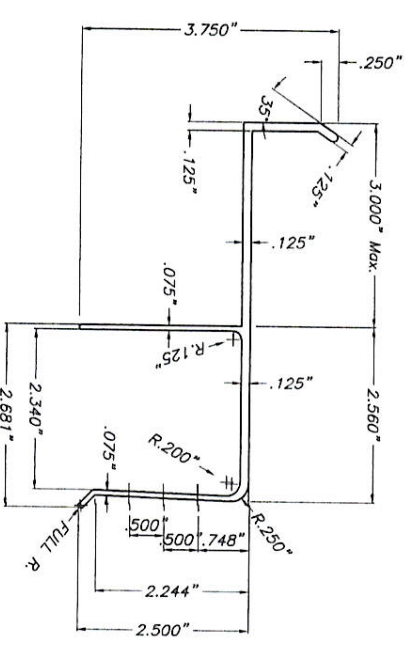


1 PANEL
SCALE: 3/8" = 1"

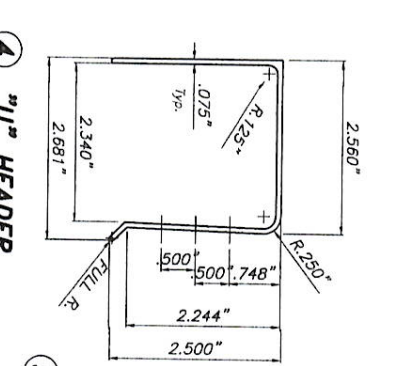
1A HALF PANEL
SCALE: 3/8" = 1"



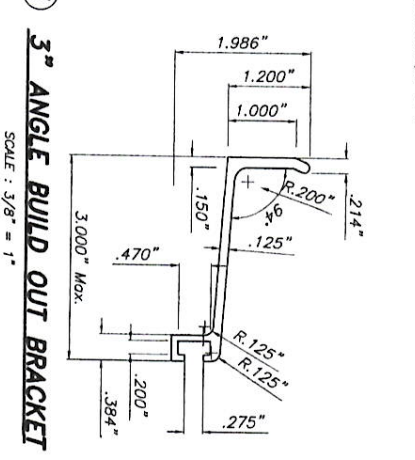
2 h" HEADER
SCALE: 3/8" = 1"



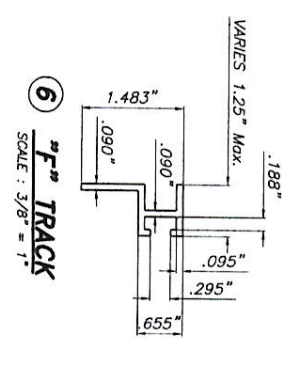
3 3" Max. "U" BUILD OUT
SCALE: 3/8" = 1"



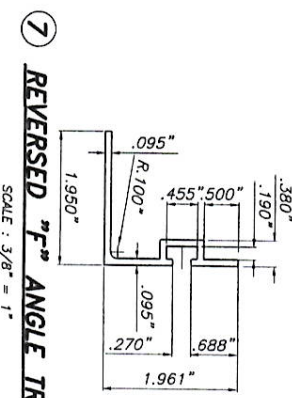
4 "U" HEADER
SCALE: 3/8" = 1"



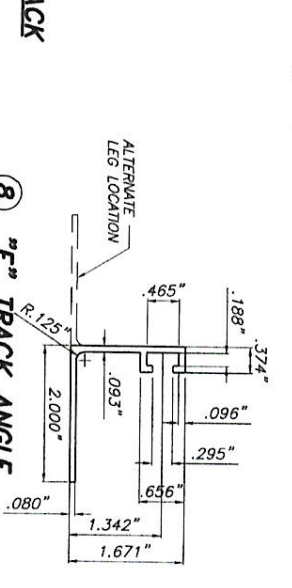
5 3" ANGLE BUILD OUT BRACKET
SCALE: 3/8" = 1"



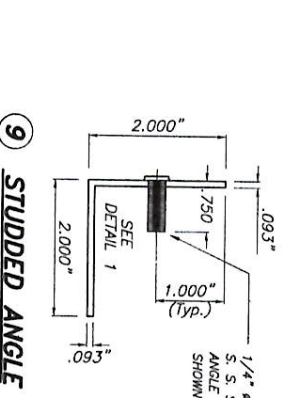
6 "F" TRACK
SCALE: 3/8" = 1"



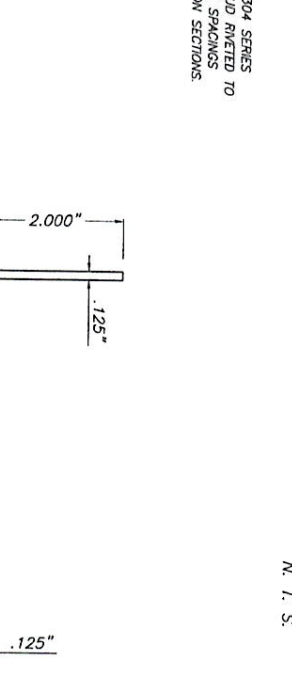
7 REVERSED "F" ANGLE TRACK
SCALE: 3/8" = 1"



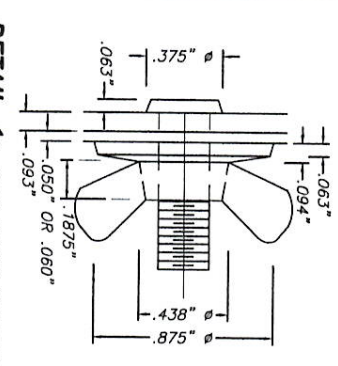
8 "F" TRACK ANGLE
SCALE: 3/8" = 1"



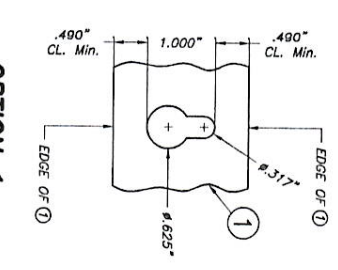
9 STUDDED ANGLE
SCALE: 3/8" = 1"



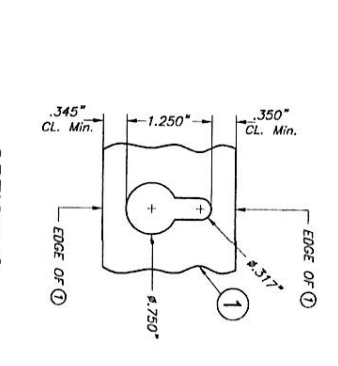
12 2" X 5" (Max.) X .125" ANGLE
SCALE: 3/8" = 1"



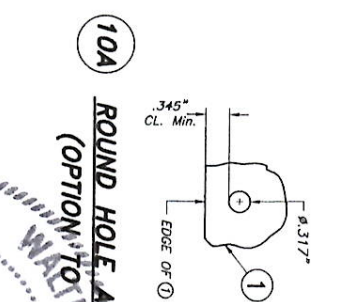
DETAIL 1: STUD W/ DIE CAST ZINC NICKEL PLATED WING NUT



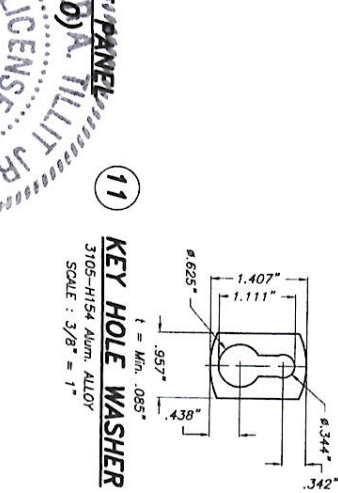
OPTION 1 KEY HOLE AT PANEL



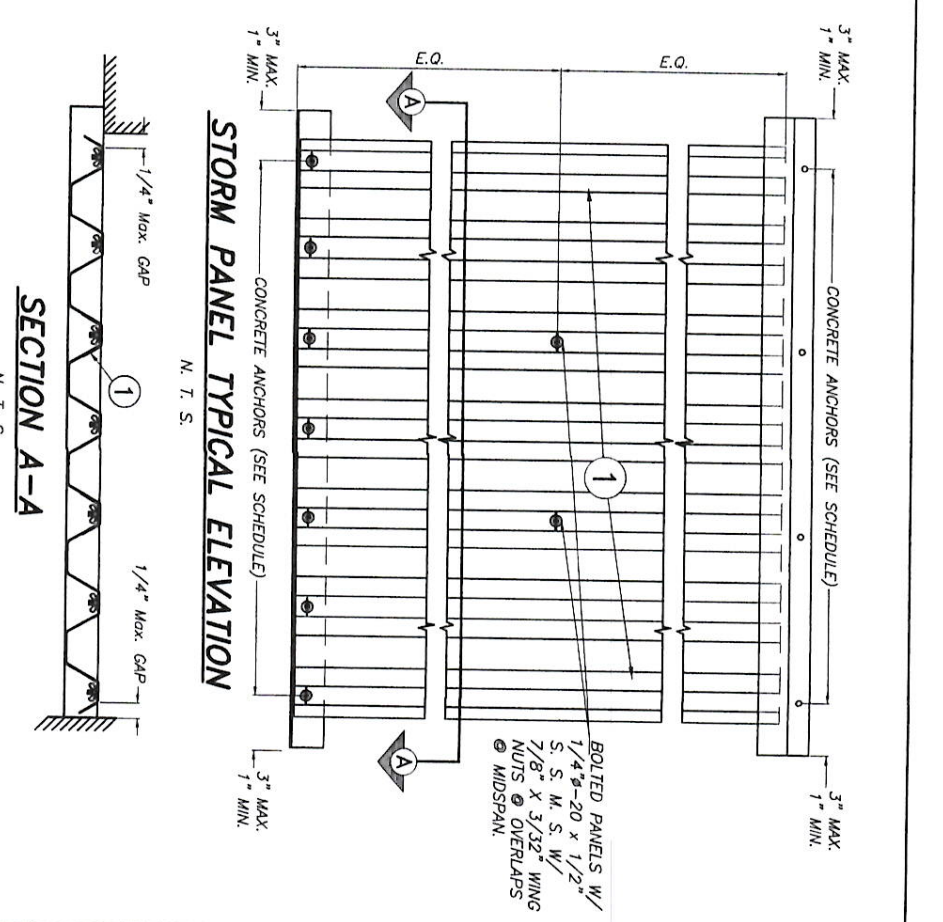
OPTION 2 KEY HOLE AT PANEL



10A ROUND HOLE AT PANEL (OPTION 10A)



11 KEY HOLE WASHER



SECTION A-A
N. T. S.

COMPONENTS



TILECO inc.
© 2017 TILECO, INC.
TILIT TESTING & ENGINEERING COMPANY
6555 N.W. 36th, Ste. 305, VIRGINIA GARDENS, FL 33166
Phone: (305)971-1530, Fax: (305)971-1531
EB-0006719
WALTER A. TILIT JR., P.E.
FLORIDA Lic. # 44167

EASTERN METAL SUPPLY, INC
4268 WEST ROADS DRIVE
WEST PALM BEACH, FL 33407
PHONE: (361)553-6061, FAX: (361)588-4780

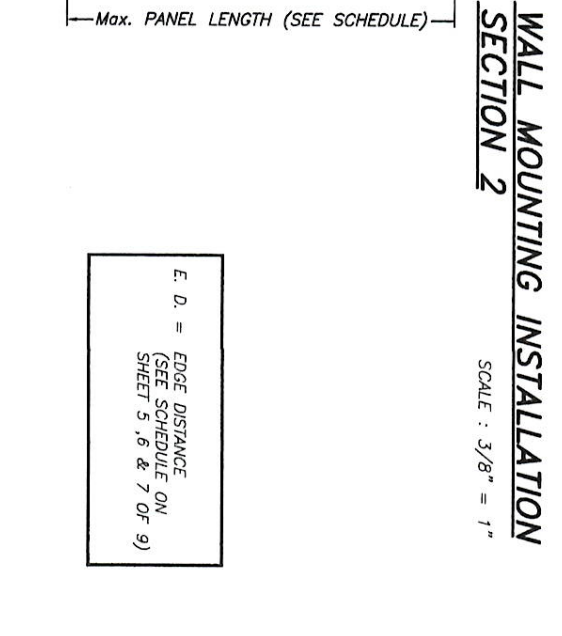
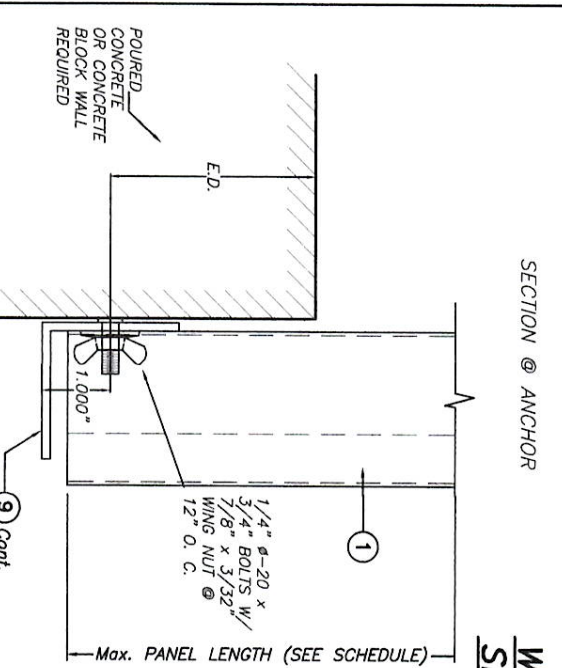
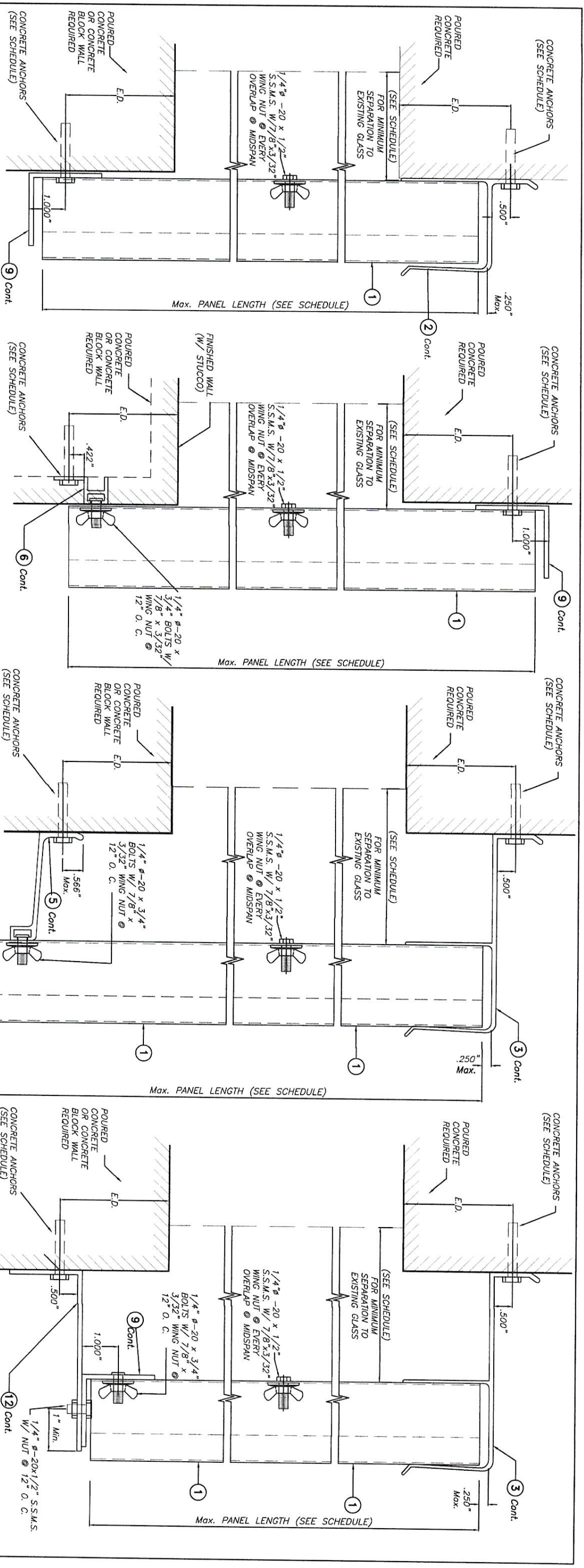
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)
0.030" THICK GALVANIZED BERTHA STEEL
STORM PANEL (2.25" DEEP)

L.C.
DRAWN BY:
DATE: 07/26/17

17-099
DRAWING No

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	QAD 15-048	07/26/17	3		
2			4		

SHEET 1A OF 9



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

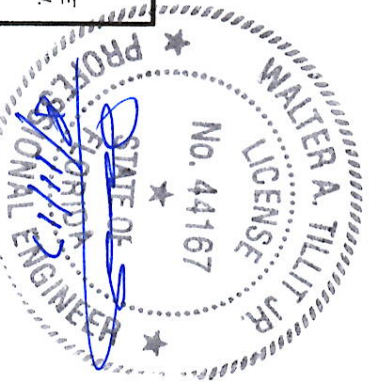
SCALE : 3/8" = 1"

BUILD OUT INSTALLATION
SECTION 4

SCALE : 3/8" = 1"

E. D. = EDGE DISTANCE
(SEE SCHEDULE ON SHEET 5, 6 & 7 OF 9)

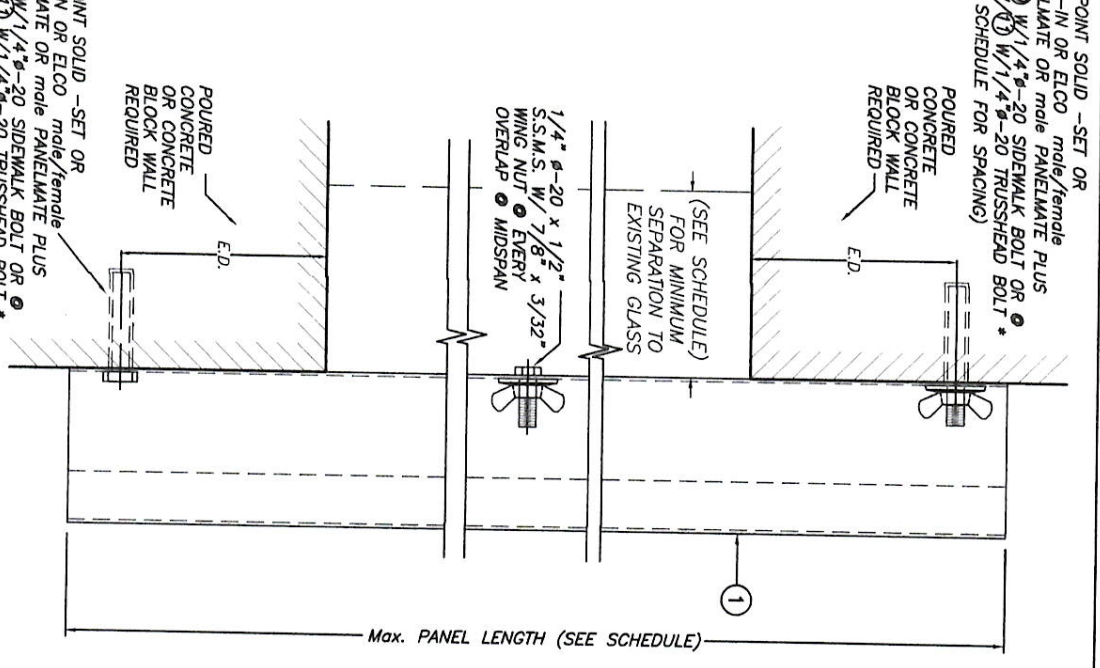
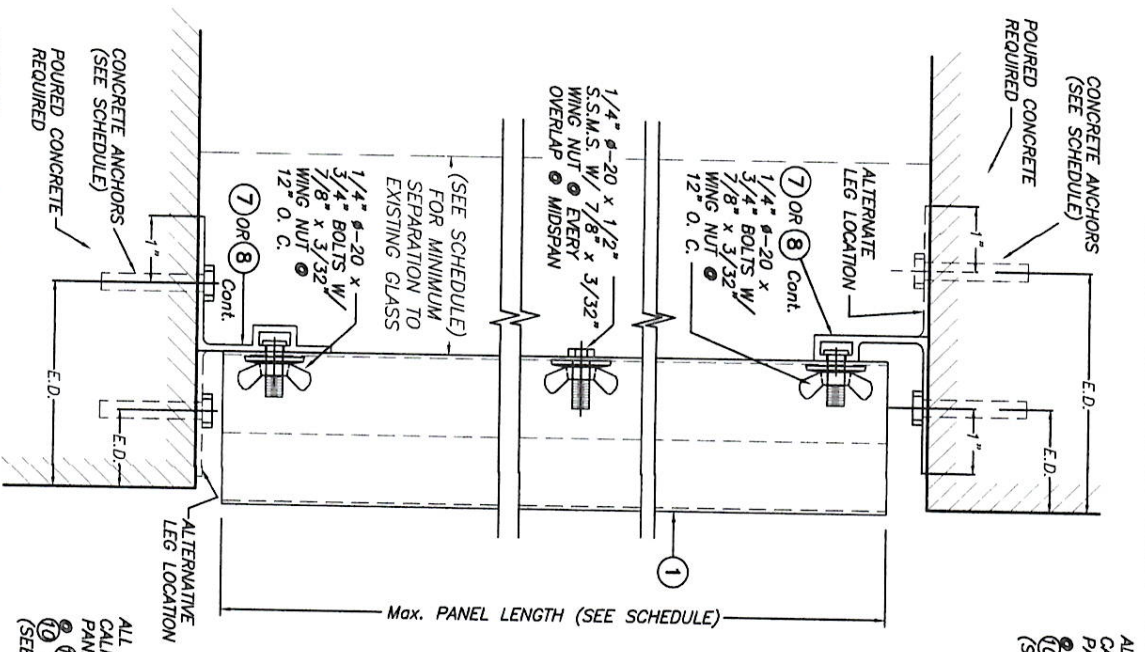
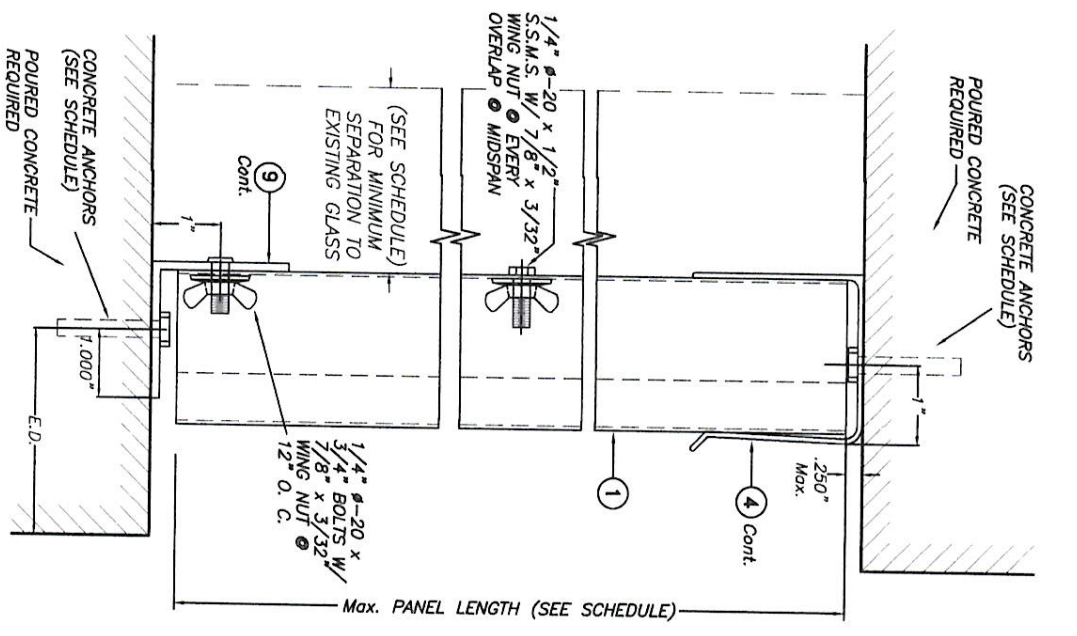
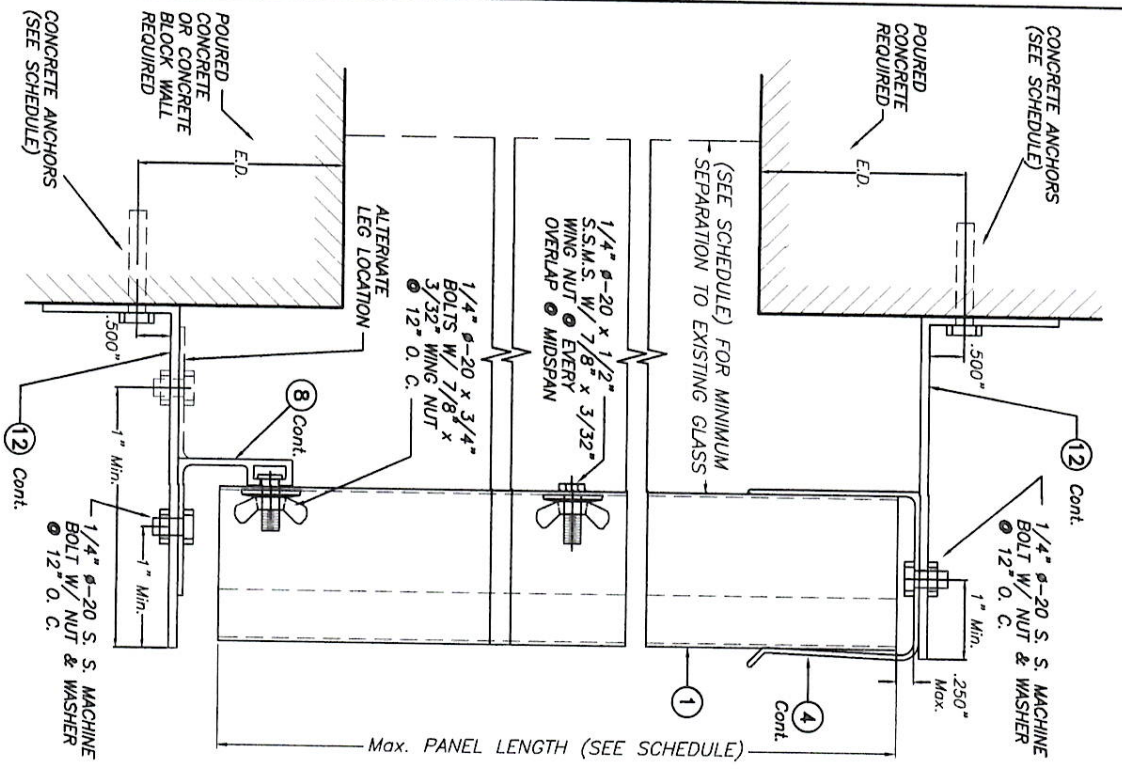
NOTE FOR COMBINATION OF SECTIONS :
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



©2017 TILTECO, INC.
TILTECO INC.
TILIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, Virginia Gardens, Ft. Lauderdale, FL 33166
Phone : (305)971-1530, Fax : (305)971-1531
EB-0006719
WALTER A. TILIT Jr., P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)
0.030" THICK GALVANIZED BERTHA STEEL
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
DRAWN BY: L.C.
DATE: 07/26/17
17-099
DRAWING No.
SHEET 2 OF 9

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 15-048	07/26/17	3		
2			4		



ALL POINT SOLID — SET OR CALK-IN OR ELCO mole/Temple PANELMATE OR mole PANELMATE PLUS
 ① W/ 1/4" Ø-20 SIDEWALK BOLT OR
 ② W/ 1/4" Ø-20 TRUSSHEAD BOLT
 (SEE SCHEDULE FOR SPACING)

ALL POINT SOLID — SET OR CALK-IN OR ELCO mole/Temple PANELMATE OR mole PANELMATE PLUS
 ① W/ 1/4" Ø-20 SIDEWALK BOLT OR
 ② W/ 1/4" Ø-20 TRUSSHEAD BOLT
 (SEE SCHEDULE FOR SPACING)

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

E. D. = EDGE DISTANCE (SEE SCHEDULE ON SHEET 5, 6 & 7 OF 9)

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



© 2017 TILTECO, INC.

TILTECO inc.

TILTIT TESTING & ENGINEERING COMPANY
 6555 N.W. 36th, Ste. 305, VIRGINIA GARDENS, FL 33166
 Phone: (305) 971-1530, Fax: (305) 971-1531
 EB-0006719
 WALTER A. TILTIT JR., P.E.
 FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL
 STORM PANEL (2.25" DEEP)

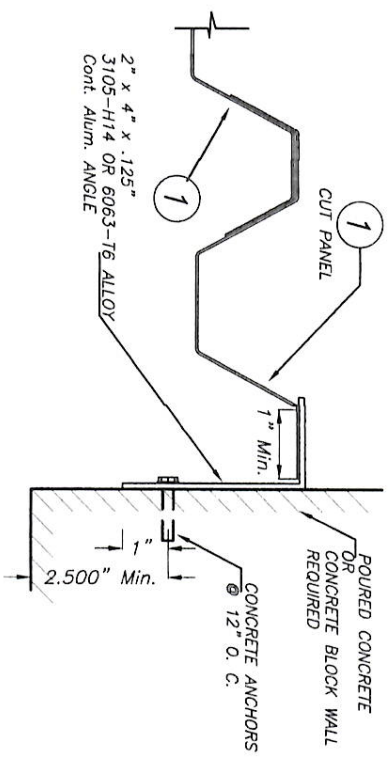
4288 WEST ROADS DRIVE
EASTERN METAL SUPPLY, INC
 WEST PALM BEACH, FL 33407
 PHONE: (561) 533-6061, FAX: (561) 588-4780

17-099
 DATE: 07/26/17

L.C.
 DRAWN BY:
 DATE:

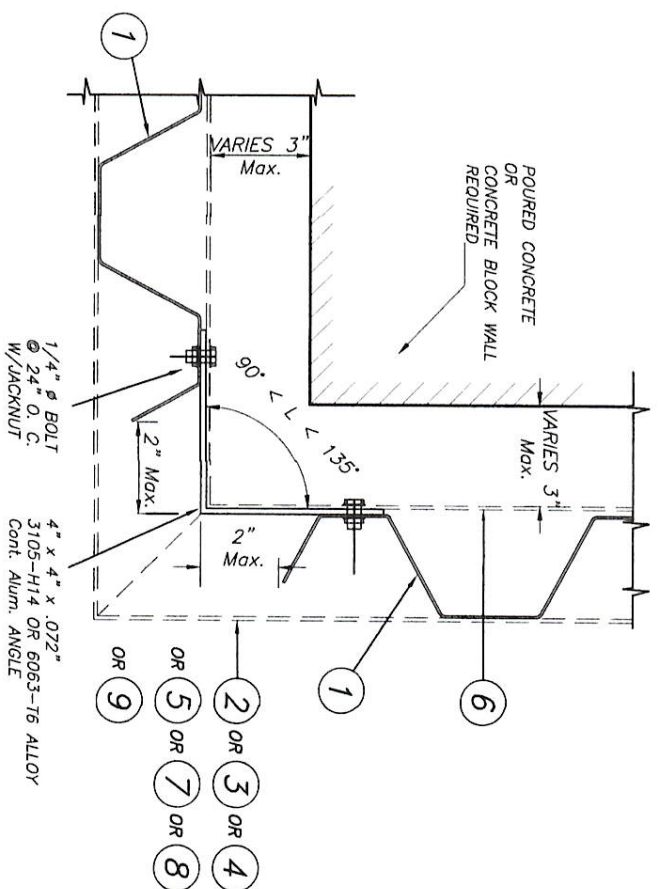
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 15-048	07/26/17	3		
2			4		

DRAWING NO
 SHEET 3 OF 9



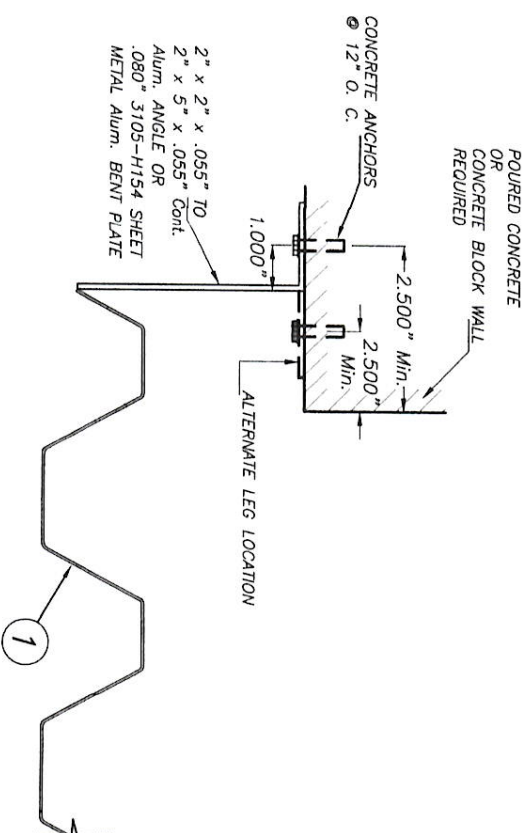
CASE A (Plan)

SCALE: 1/4" = 1"



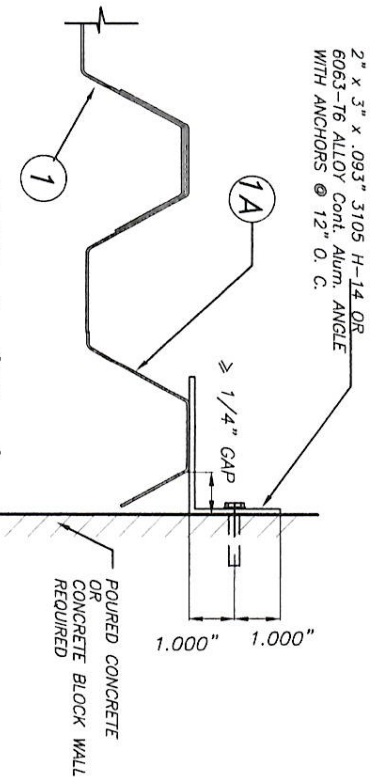
CASE B (Plan)

SCALE: 1/4" = 1"



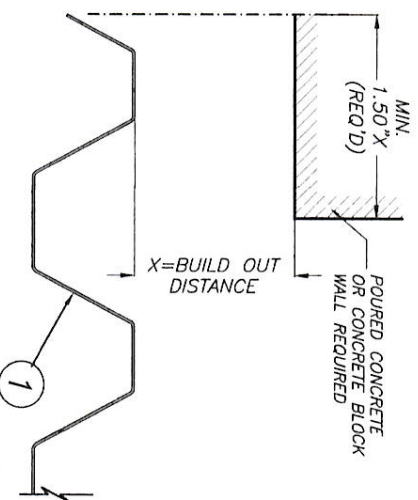
CASE C (Plan)

SCALE: 1/4" = 1"



CASE D (Plan)

SCALE: 1/4" = 1"



CASE E (Plan)

SCALE: 1/4" = 1"

END CLOSURES DETAILS

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
+66.0, -76.0	7'-6" OR LESS	3"	1,2,3,4,5 & 8
+60.0, -70.0	>7'-6" TO 8'-6"	3"	1,2,3,4,5 & 8
+66.0, -76.0	7'-6" OR LESS	3 3/4"	6 & 7
+60.0, -70.0	>7'-6" TO 8'-6"	3 3/4"	6 & 7



©2017 TILTECO, INC.

TILTECO INC.

TILIT TESTING & ENGINEERING COMPANY
6555 NW 36th St., Suite 1505, Virginia Gardens, FL 33186
Phone: (850)971-1531 FAX: (850)971-1531
WALTER A. TILIT Jr. P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL (2.25" DEEP)	L.C. DRAWN BY:
EASTERN METAL SUPPLY, INC	DATE: 07/26/17
4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)533-6061, FAX: (561)588-4780	DRAWING No 17-099
REV. NO. 1 DESCRIPTION: OLD 15-048 DATE: 07/26/17	SHEET 4 OF 9

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **													
	LITW. BUILDER			CRETE-FLEX SS4			EEO CONSTRUCTION PRODUCTS			POWER FASTENERS				
	TAPCONS/MAX-SET TAPCONS TO CONCRETE	RED HD SLEEVE TO BLOCK	RED HD SLEEVE TO BLOCK	CRETE-FLEX SS4 TO CONCRETE	TO BLOCK	MALE/FEMALE PANELMATE TO CONCRETE	TO BLOCK	MALE PANELMATE PLUS TO CONCRETE	TO BLOCK	POWER FASTENERS CALK-IN TO CONCRETE	TO BLOCK	ALL POINTS SOLID-SET TO BLOCK	APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L' (ft.)
+60.0, -61.5	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	1 (TOP)	6'-0" OR LESS
	12"	7"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	1 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	2 (TOP)	
	12"	7"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	2 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	3 (TOP)	
	12"	7"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	3 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	4 (TOP)	
	12"	7"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	4 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	5 (TOP)	
	12"	7"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	5 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	6 (TOP)	
	12"	7"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	6 (BOTTOM)	
12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	7 (TOP/BOTTOM)		
12"	7"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	7 (TOP/BOTTOM)		
12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	8 (TOP/BOTTOM)		

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **													
	LITW. BUILDER			CRETE-FLEX SS4			EEO CONSTRUCTION PRODUCTS			POWER FASTENERS				
	TAPCONS/MAX-SET TAPCONS TO CONCRETE	RED HD SLEEVE TO BLOCK	RED HD SLEEVE TO BLOCK	CRETE-FLEX SS4 TO CONCRETE	TO BLOCK	MALE/FEMALE PANELMATE TO CONCRETE	TO BLOCK	MALE PANELMATE PLUS TO CONCRETE	TO BLOCK	POWER FASTENERS CALK-IN TO CONCRETE	TO BLOCK	ALL POINTS SOLID-SET TO BLOCK	APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L' (ft.)
+60.0, -72.0	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	1 (TOP)	6'-0" OR LESS
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	1 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	2 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	2 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	3 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	3 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	4 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	4 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	5 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	5 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	6 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	6 (BOTTOM)	
12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	7 (TOP/BOTTOM)		
12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	7 (TOP/BOTTOM)		
12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	8 (TOP/BOTTOM)		

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **													
	LITW. BUILDER			CRETE-FLEX SS4			EEO CONSTRUCTION PRODUCTS			POWER FASTENERS				
	TAPCONS/MAX-SET TAPCONS TO CONCRETE	RED HD SLEEVE TO BLOCK	RED HD SLEEVE TO BLOCK	CRETE-FLEX SS4 TO CONCRETE	TO BLOCK	MALE/FEMALE PANELMATE TO CONCRETE	TO BLOCK	MALE PANELMATE PLUS TO CONCRETE	TO BLOCK	POWER FASTENERS CALK-IN TO CONCRETE	TO BLOCK	ALL POINTS SOLID-SET TO BLOCK	APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L' (ft.)
+60.0, -61.5	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	1 (TOP)	>6'-0" TO 7'-6"
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	1 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	2 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	2 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	3 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	3 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	4 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	4 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	5 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	5 (BOTTOM)	
	12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	6 (TOP)	
	12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	6 (BOTTOM)	
12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	7 (TOP/BOTTOM)		
12"	6"	N/A	12"	12"	12"	12"	11"	12"	12"	N/A	12"	7 (TOP/BOTTOM)		
12"	N/A	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	8 (TOP/BOTTOM)		

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 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			
	TAPCON/CRETE-FLEX SS4/PANELMATES	CALK-IN	SOLID-SET	RED HD. SLEEVE
3"	-	.75	.78	1.00
2 1/2"	-	.50	-	1.00
2"	-	-	-	0.88
1 1/2"	.35	-	-	-

ANCHORS LEGEND

ANCHORS TYPE	ANCHOR MIN. SPACING
TAPCON/PANELMATES	4.0"
CALK-IN	2.5"
SOLID-SET	3.5"
3/8" Ø RED HD. DYNABOLT SLEEVE	4.5"
CRETE FLEX SS4	6.0"

E. D. = EDGE DISTANCE

*SEE NOTES ON SHEET 8 & 9 OF 9 FOR ANCHOR TYPES & SPACING FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS.



FLORIDA BUILDING CODE (High Velocity Hurricane Zone) 0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL (2.25" DEEP)

EASTERN METAL SUPPLY, INC

TILECO INC. TILE TESTING & ENGINEERING COMPANY

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 15-048	07/26/17	3		
2			4		

17-099

SHEET 5 OF 9

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 _p (ft.)	
	L.T.W. BUILDER			ECO CONSTRUCTION PRODUCTS			POWER FASTENERS			ALL POINTS					
TAPCON/MAH-SET TAPCONS TO CONCRETE	RED HD SLEEVE TO BLOCK	CRETE-FLEX SS4 TO CONCRETE	MALE/FEMALE PANELMATE TO CONCRETE	MALE PANELMATE PLUS TO CONCRETE	POWER FASTENERS CALK-IN TO BLOCK	SOLID-SET TO BLOCK	TAPCON/MAH-SET TAPCONS TO CONCRETE	RED HD SLEEVE TO BLOCK	CRETE-FLEX SS4 TO CONCRETE	MALE/FEMALE PANELMATE TO CONCRETE	MALE PANELMATE PLUS TO CONCRETE	POWER FASTENERS CALK-IN TO BLOCK	SOLID-SET TO BLOCK	APPLICABLE TO SECTIONS & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L _p (ft.)
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	1 (TOP)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	1 (BOTTOM)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	2 (TOP)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	2 (BOTTOM)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	3 (TOP)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	3 (BOTTOM)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	4 (TOP)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	4 (BOTTOM)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	5 (TOP)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	5 (BOTTOM)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	6 (TOP)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	6 (BOTTOM)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	7 (TOP)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	7 (BOTTOM)	>6'-0" TO 7'-6"
12"	N/A	N/A	12"	12"	12"	N/A	12"	N/A	12"	12"	12"	12"	N/A	8 (TOP/BOTTOM)	>6'-0" TO 7'-6"

** 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.

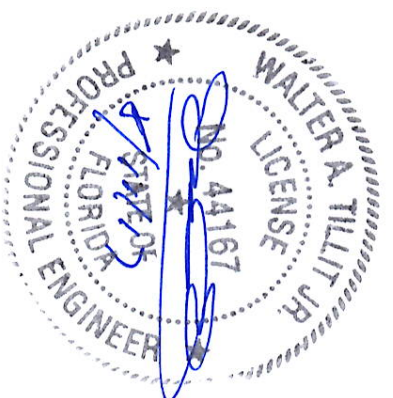
ACTUAL E. D.	FACTOR		
TAPCON/CRETE-FLEX SS4/PANELMATES	CALK-IN	SOLID-SET	RED HD. SLEEVE
3"	.75	.78	1.00
2 1/2"	-.50	-.50	1.00
2"	-.35	-.35	0.88
1 1/2"	-.35	-.35	0.88

ANCHORS LEGEND

ANCHORS TYPE	ANCHOR MIN. SPACING
TAPCON/PANELMATES	4.0"
CALK-IN	2.5"
SOLID-SET	3.5"
3/8"Ø RED HD. DYNABOLT SLEEVE	4.5"
CRETE FLEX SS4	6.0"

E. D. = EDGE DISTANCE

*SEE NOTES ON SHEET 8 & 9 OF 9 FOR ANCHOR TYPES & SPACING FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS.



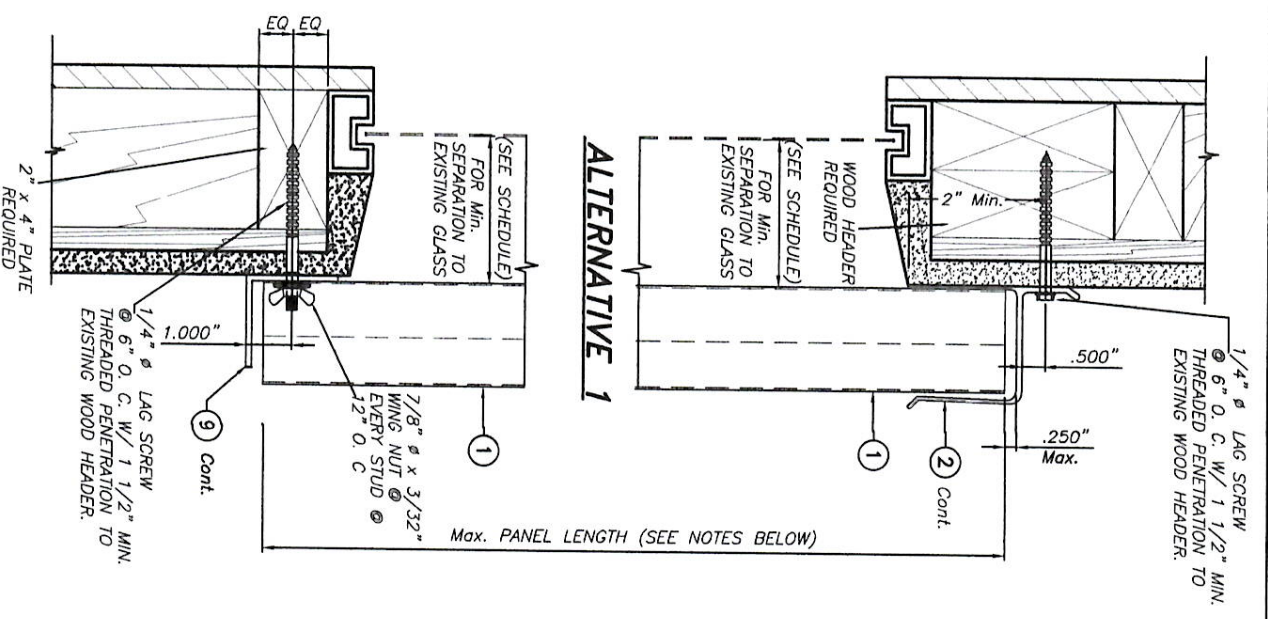
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)
0.030" THICK GALVANIZED BERTHA STEEL
STORM PANEL (2.25" DEEP)

L.C.
DRAWN BY:
DATE: 07/26/17

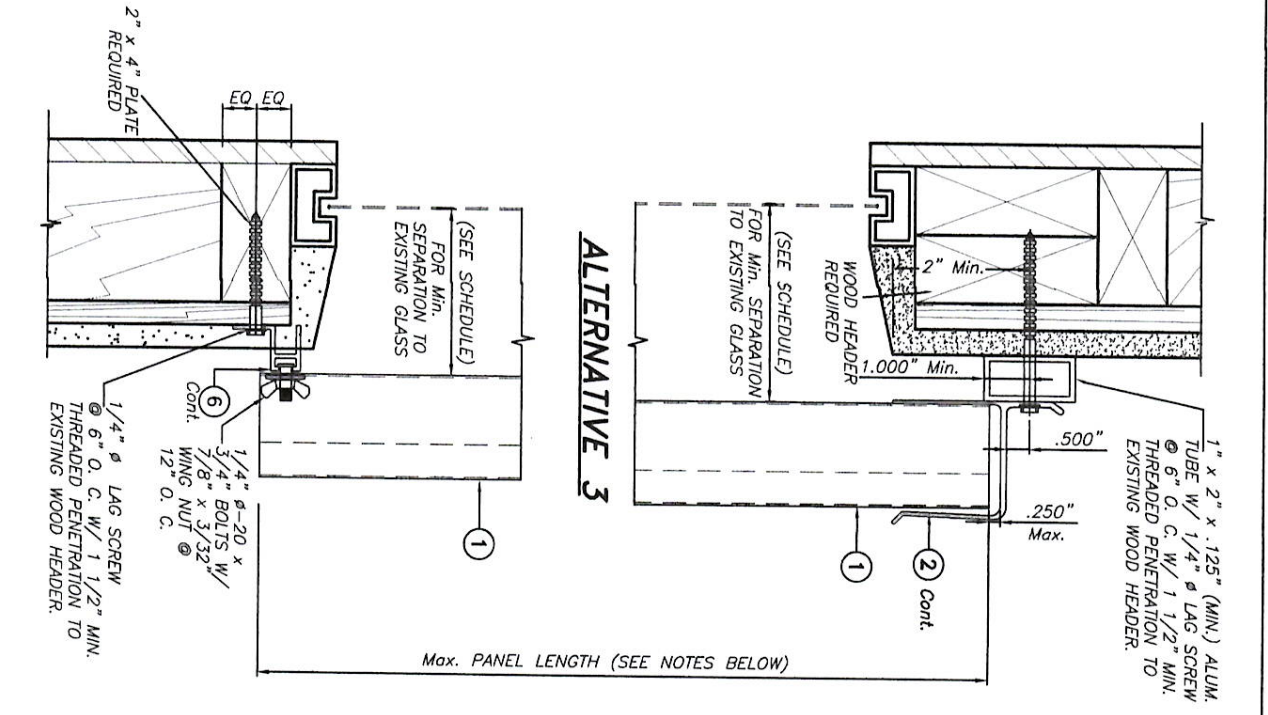
EASTERN METAL SUPPLY, INC
4268 WEST ROADS DRIVE
WEST PALM BEACH, FL. 33407
PHONE: (561)533-6061, FAX: (561)588-4780

17-099
DRAWING NO
SHEET 6 OF 9

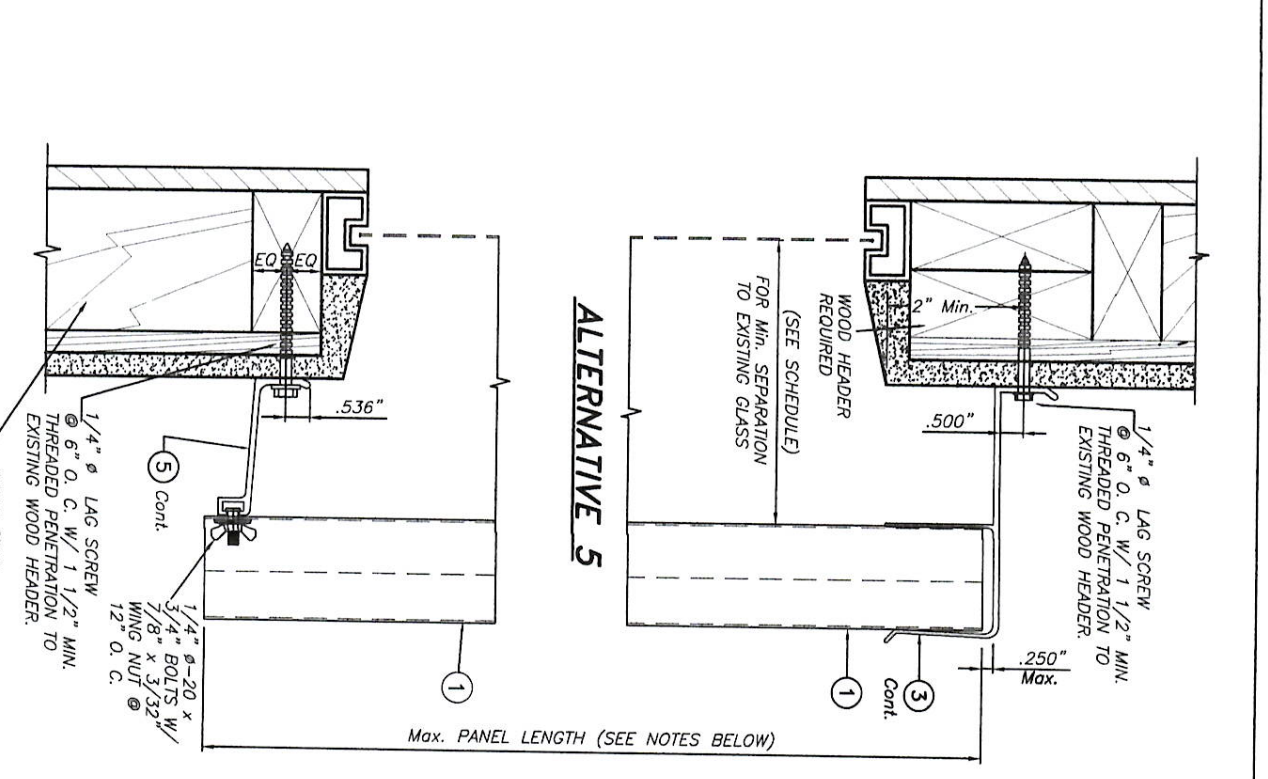
TILECO INC.
© 2017 TILECO, INC.
TILIT TESTING & ENGINEERING COMPANY
6355 N.W. 38th St., Suite 3376
Tampa, FL 33634
Phone: (813)971-1530 Fax: (813)971-1531
WALTER A. TILIT JR. P.E.
FLORIDA Lic. # 44167



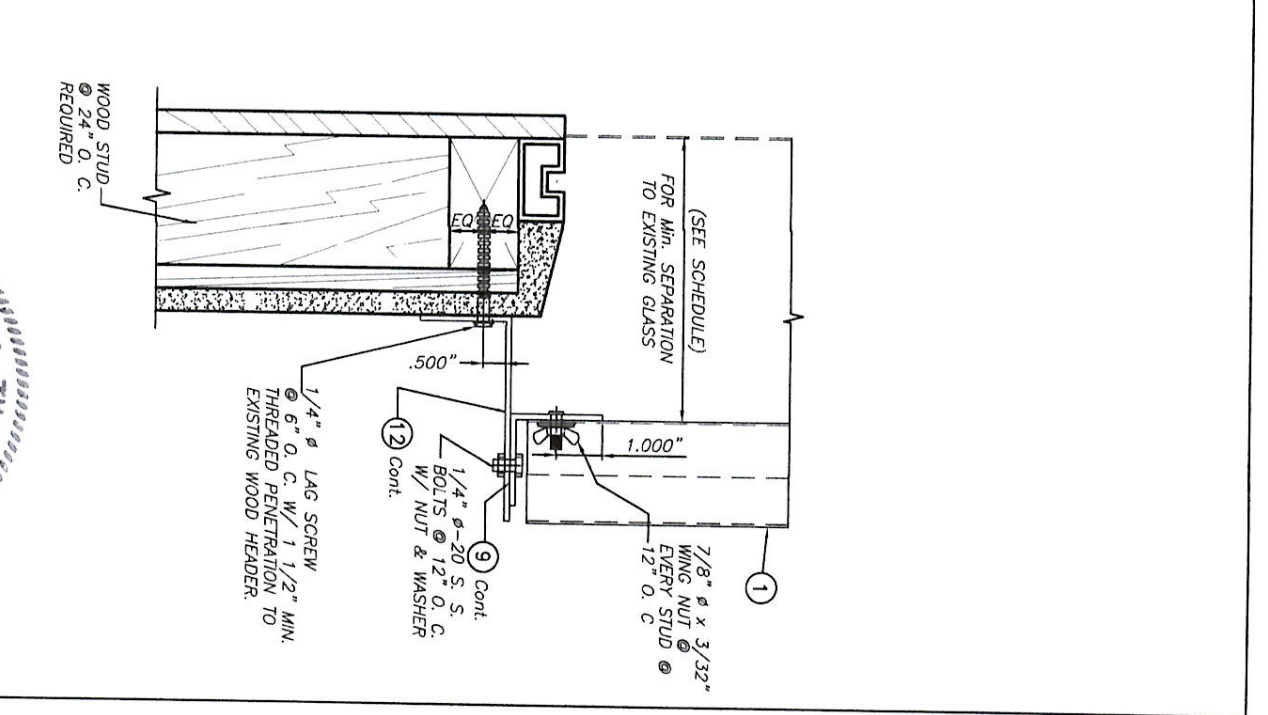
ALTERNATIVE 1



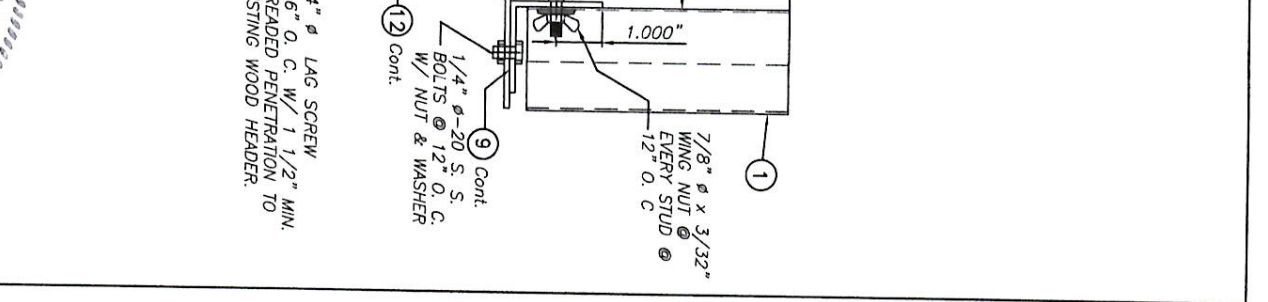
ALTERNATIVE 2



ALTERNATIVE 3



ALTERNATIVE 4



ALTERNATIVE 5



ALTERNATIVE 6

ALTERNATIVE 7

WALL MOUNTING INSTALLATIONS

SECTIONS A

SCALE : 1/4" = 1"

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL
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	QAD 15-048	07/26/17	3		
2			4		

L.C.
DRAWN BY:

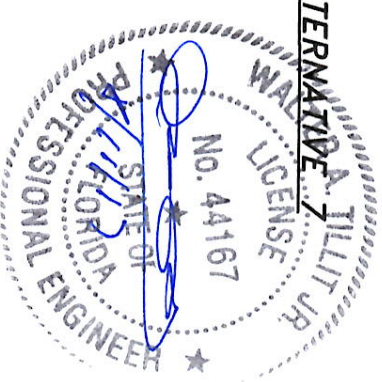
07/26/17
DATE:

17-099
DRAWING NO

SHEET 8 OF 9

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

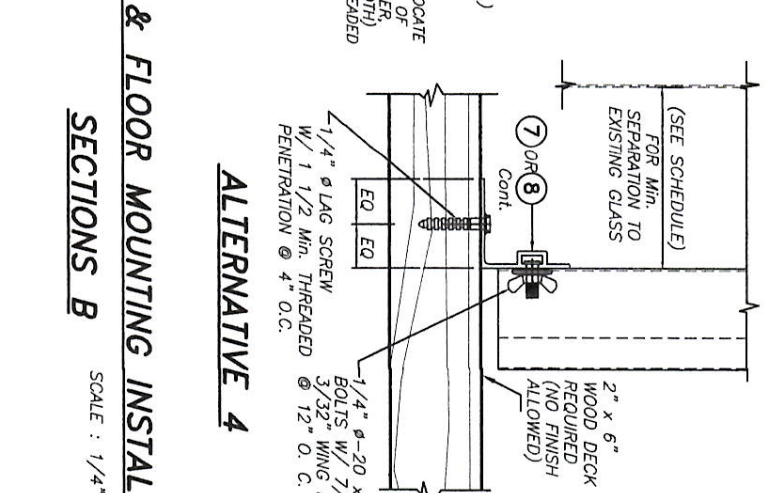
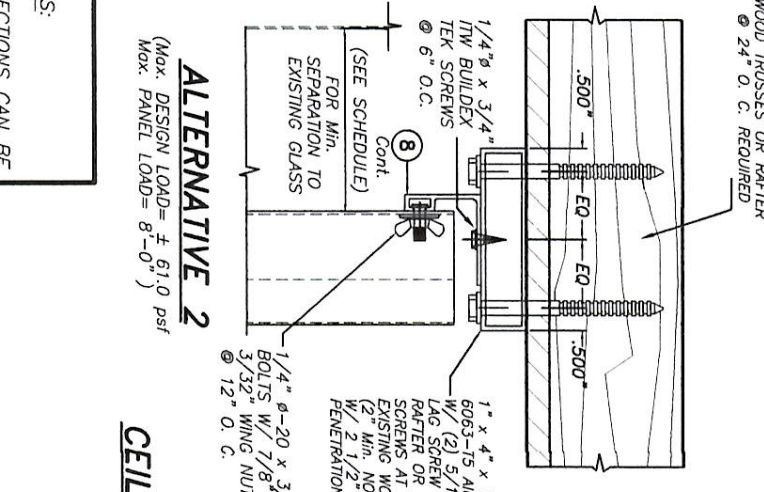
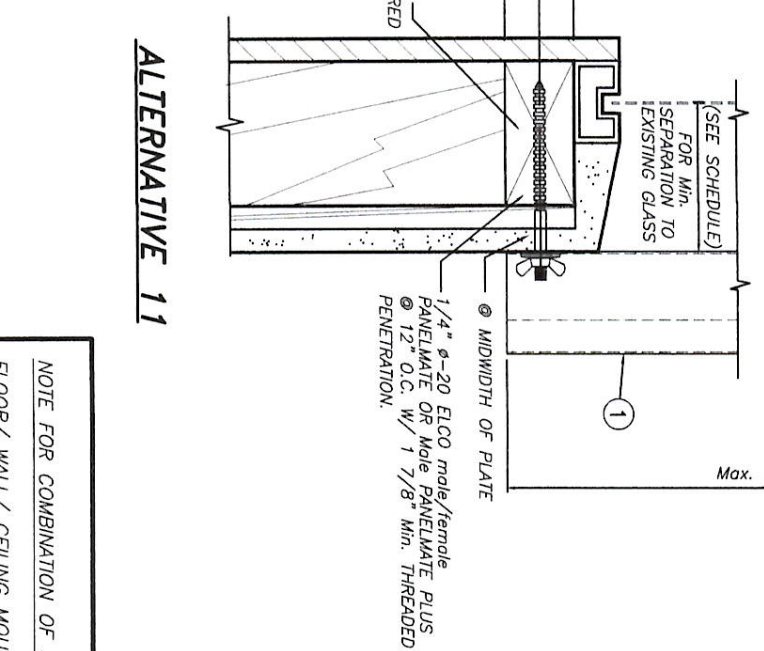
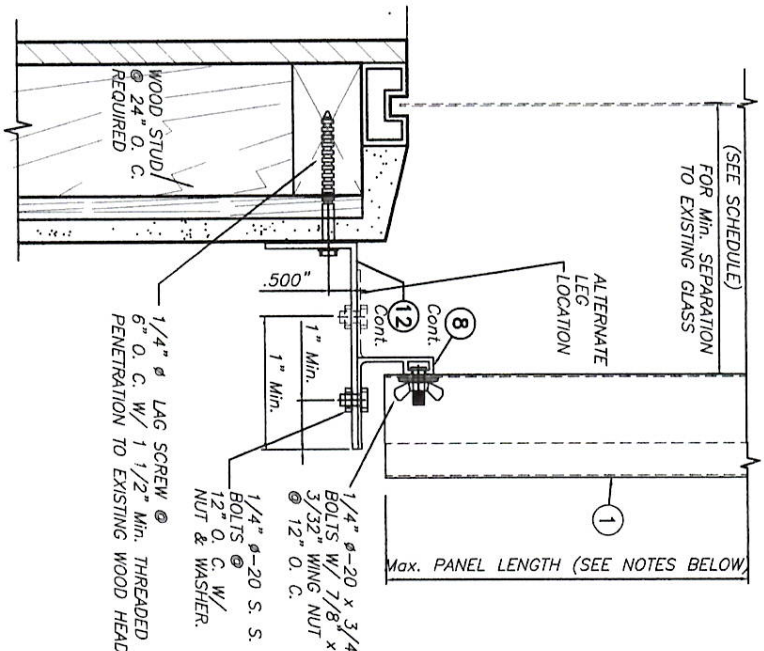
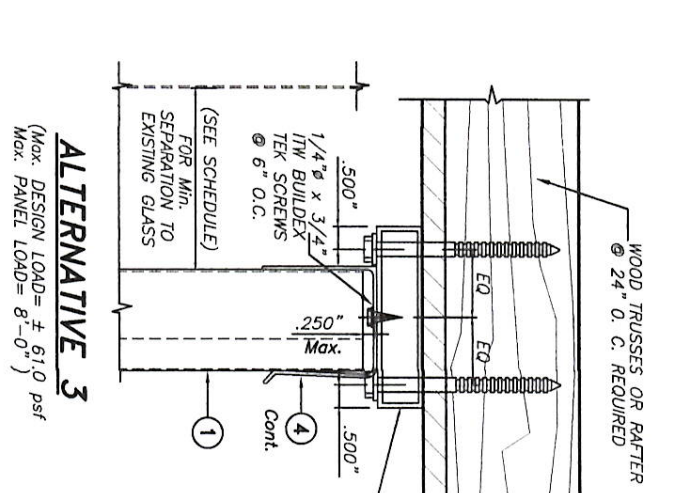
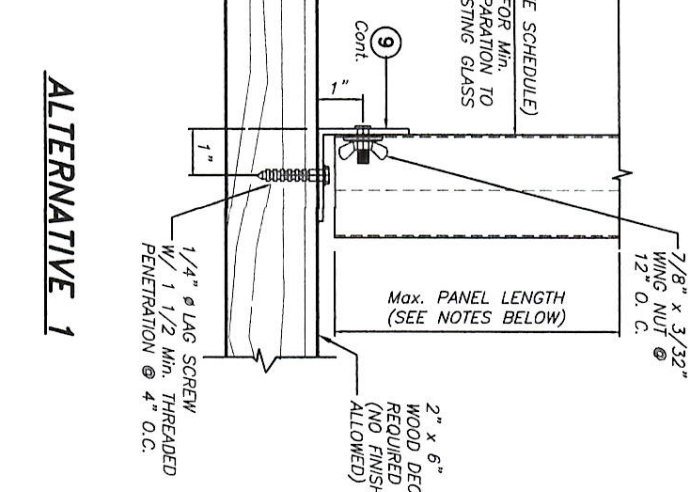
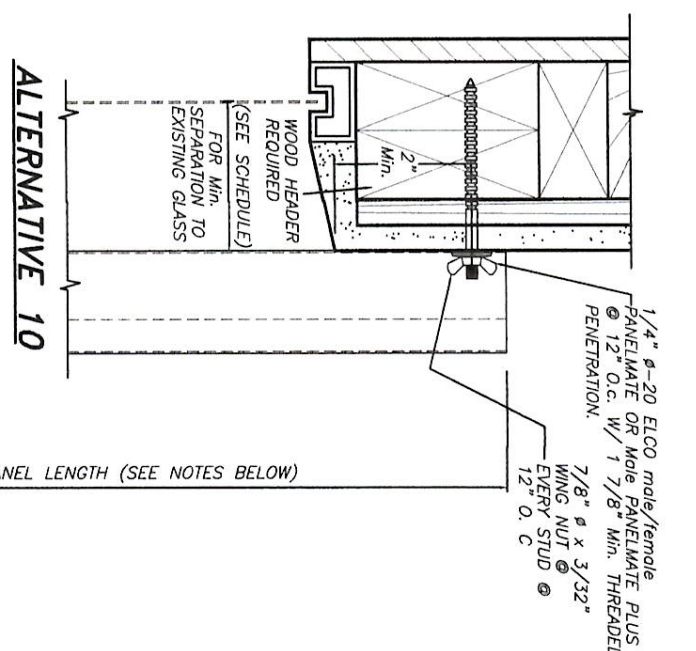
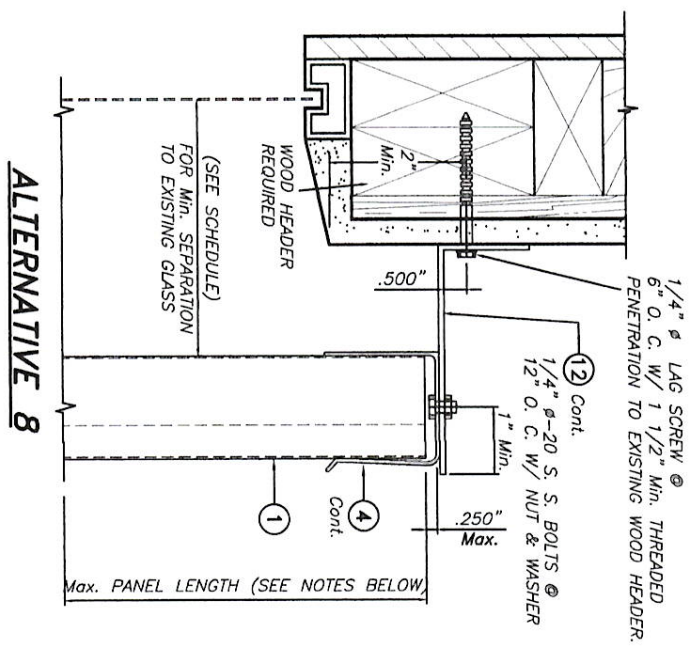
- NOTES:
1. INSTALLATIONS ARE ONLY VALID FOR MAX. A.S.D. DESIGN PRESSURE RATING AND MAX. PANEL LENGTHS AS PER SCHEDULE ON SHEET 4 OF 9
 2. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE NO. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.



© 2017 TILTECO, INC.

TILTECO INC.

TILIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th, St. 5th, 305 VIRGINIA GARDENS, Ft. 33166
Phone : (305)971-1530, Fax : (305)971-1531
EB-0006719
WALTER A. TILIT JR., P.E.
FLORIDA LIC. # 44167



ALTERNATIVE 9

ALTERNATIVE 10

ALTERNATIVE 1

ALTERNATIVE 3

ALTERNATIVE 8

ALTERNATIVE 11

ALTERNATIVE 2

ALTERNATIVE 4

WALL MOUNTING INSTALLATIONS

CEILING & FLOOR MOUNTING INSTALLATIONS

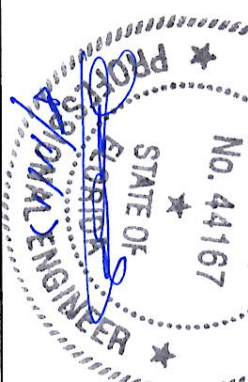
SECTIONS A

SECTIONS B

SCALE: 1/4" = 1"

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

NOTES:
1. INSTALLATIONS ARE ONLY VALID FOR MAX. A.S.D. DESIGN PRESSURE RATING AND MAX. PANEL LENGTHS AS PER SCHEDULE ON SHEET 4 OF 9, EXCEPT THAT FOR ALTERNATIVES 2 AND 3 A MAX. PANEL LENGTH OF 8'-0" AND A MAX. DESIGN LOAD OF ± 61.0 PSF SHALL BE USED.
2. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.



TILECO INC.
© 2017 TILECO, INC.
TILIT TESTING & ENGINEERING COMPANY
6555 N.W. 36th St., Ste. 305, Virginia Gardens, FL 33166
Phone: (305) 871-1530, Fax: (305) 871-1531
EB-0008719
WALTER A. TILIT JR., P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)
0.030" THICK GALVANIZED BERTHA STEEL
STORM PANEL (2.25" DEEP)
L.C.
DRAWN BY:
07/26/17
DATE:
4268 WEST ROADS DRIVE
WEST PALM BEACH, FL 33407
PHONE: (561) 533-6061, FAX: (561) 588-4780
17-099
DRAWING No.
SHEET 9 OF 9