

GENERAL NOTES:

1. STORM PANEL SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2007 EDITION OF THE FLORIDA BUILDING CODE. THIS STORM PANEL SHALL NOT BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES (MAA-DADE / BROWARD COUNTIES). DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE ABOVE MENTIONED CODE. FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THE STORM PANEL WILL BE INSTALLED AND FOR A DIRECTIONALITY FACTOR K_d=0.85, IN ACCORDANCE WITH ASCE 7-05 STANDARD. IN ORDER TO VERIFY THAT COMPONENTS AND ANCHORS ON THIS P.E.D. AS TESTED WERE NOT OVER STRESSED, A 13% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. A DERATION FACTOR CD=1.80 WAS USED FOR VERIFICATION OF FASTENERS IN WOOD.

STORM PANEL'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1609.1.2 OF THE ABOVE MENTIONED CODE AS PER AIT REPORTS # 0121.01-99R, # 029.01-00, # 0550.01-00 AND #0512.01-03 AND #061702-04, AS PER STD 12-99 STANDARD.

2. ALL ALUMINUM SHEET METAL PANELS SHALL HAVE 5052-H32 OR 3004-H34 ALLOY.
3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6061-T6 ALLOY & TEMPER UNLESS OTHERWISE NOTED. STORM PANEL COMPONENTS (14) STUDDED PLATE AND (15) SWAP CAP ARE PATENT PENDING.
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.
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" Ø TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDER.
 - 1/4" Ø CF TAP-GRIP ANCHORS (BERTHA STUD-CON), AS MANUFACTURED BY TRU-FAST CORPORATION.
 - 1/4" Ø ZAMAC NAILIN ANCHORS AS MANUFACTURED BY POWER FASTENERS, INC.
 - 1/4" Ø x 7/8" CALK-IN ANCHORS OR ELOCO male & female PANELMATE™ AS MANUFACTURED BY POWER FASTENERS, INC. AND ELOCO FASTENING SYSTEMS LLC, RESPECTIVELY.
 - 1/4" Ø 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 IS 1 3/4" FOR ZAMAC NAILIN ANCHORS IS 1 3/8"; FOR ELOCO 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" Ø-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" Ø 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" Ø-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" Ø TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDER.
- 1/4" Ø CF TAP-GRIP ANCHORS (BERTHA STUD-CON), AS MANUFACTURED BY TRU-FAST CORPORATION.
- 1/4" Ø ZAMAC NAILIN ANCHORS AS MANUFACTURED BY POWER FASTENERS, INC.
- 1/4" Ø x 7/8" CALK-IN ANCHORS OR ELOCO male & female PANELMATE™ AS MANUFACTURED BY POWER FASTENERS, INC. AND ELOCO FASTENING SYSTEMS LLC, RESPECTIVELY.
- 1/4" Ø x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.
- 1/4" Ø RED HEAD DYNAMBOLT SLEEVE ANCHORS AS MANUFACTURED BY I.T.W. BUILDER.

NOTES:

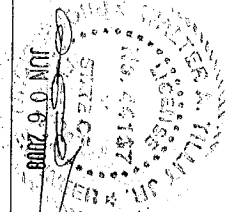
- B.1) MINIMUM EMBEDMENT OF TAPCON, ELOCO PANELMATE, AND CF TAP-GRIP ANCHORS INTO CONCRETE BLOCK UNIT SHALL BE 1 1/4", 1 3/8" FOR ZAMAC NAILIN ANCHORS AND 1 1/8" FOR RED HEAD DYNAMBOLT SLEEVE ANCHORS
- B.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE CONCRETE BLOCK UNIT. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" Ø-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.3) MINIMUM EMBEDMENT OF 1/4" Ø 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" Ø-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 ANCHORS MANUFACTURERS.

7. PANELS MAY ALSO BE INSTALLED HORIZONTALLY FOLLOWING INSTALLATION DETAILS SHOWN ON SECTIONS 1 THRU 8 (SHEET 3 & 4 OF 9) EXCEPT THAT HEADERS 3, 4 & 5 SHALL NOT BE USED.
8. IF 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 BUILINGS.
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. (a) THIS 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.
- (c) THIS P.E.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (EOR) 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.

11. SHUTTER MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT STORM PANEL IN ACCORDANCE WITH SECTION 1714.8.3 OF FLORIDA BUILDING CODE ONE LABEL SHALL BE PLACED FOR EVERY OPENING.
12. LABELING TO COMPLY WITH SECTION 1714.8.2 OF THE FLORIDA BUILDING CODE.



TILECO INC.
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EASTERN METAL SUPPLY, INC

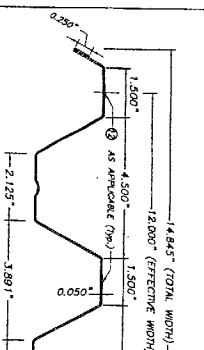
F.B.C. (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL
(2.25" DEEP)

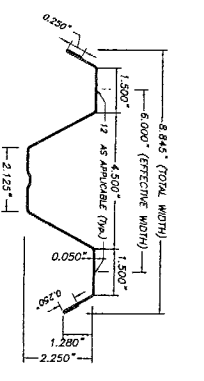
4568 WEST POND DRIVE
 WEST PALM BEACH, FL 33407
 PHONE: (561)208-8233 FAX: (561)941-1716

REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
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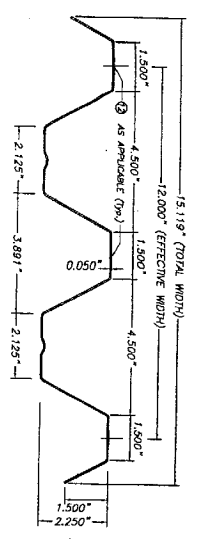
08-141
DATE: 02/12/08
DRAWING BY:
SHEET 1 OF 9



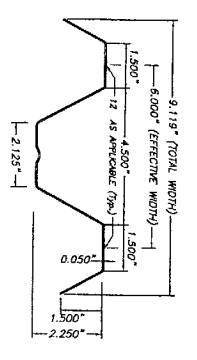
1 FULL ALUMINUM PANEL W/ HEMMED EDGES



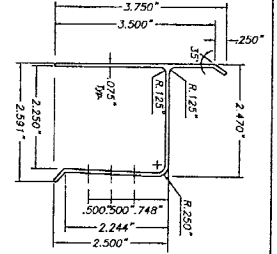
1A HALF ALUMINUM PANEL W/ HEMMED EDGES



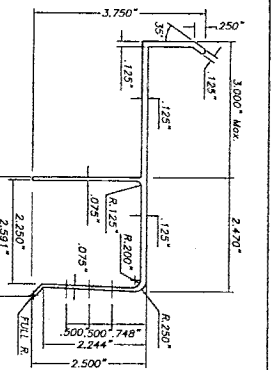
1 FULL ALUMINUM PANEL W/O HEMMED EDGES



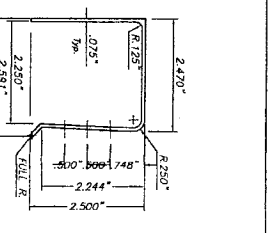
1A HALF ALUMINUM PANEL W/O HEMMED EDGES



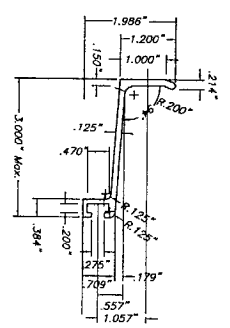
3 3/4" HEADER



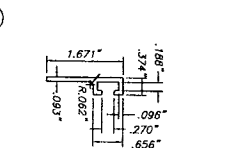
4 3" Max. "U" BUILD OUT



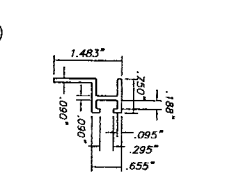
5 "U" HEADER



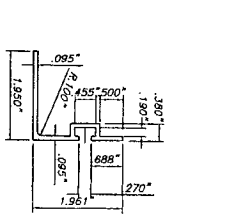
6 3" ANGLE BUILD OUT BRACKET



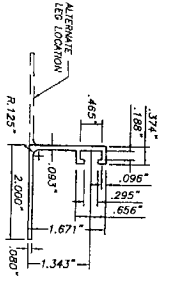
7 3/8" B.O. F" TRACK



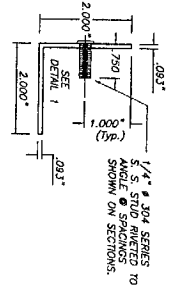
7A 3/4" B.O. F" TRACK



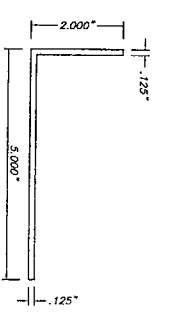
8 REVERSED "F" ANGLE TRACK



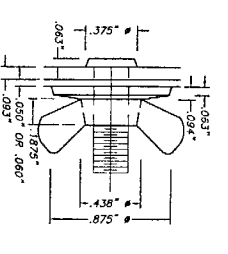
9 "F" TRACK ANGLE



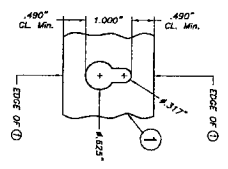
10 STUDED ANGLE



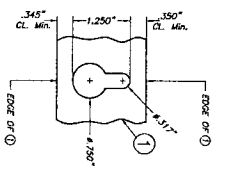
11 2" x 5" (Max.) x .125" ANGLE



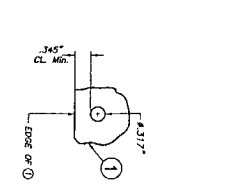
DETAIL 1: STUD W/ DIE CAST ZINC NICKEL PLATED WING NUT



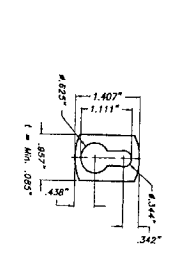
OPTION 1



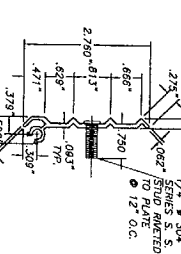
OPTION 2



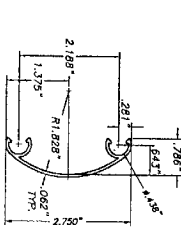
OPTION 12A ROUND HOLE AT PANEL (OPTION TO 12)



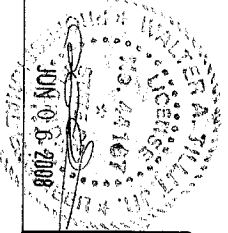
13 KEY HOLE WASHER



14 STUDED PLATE

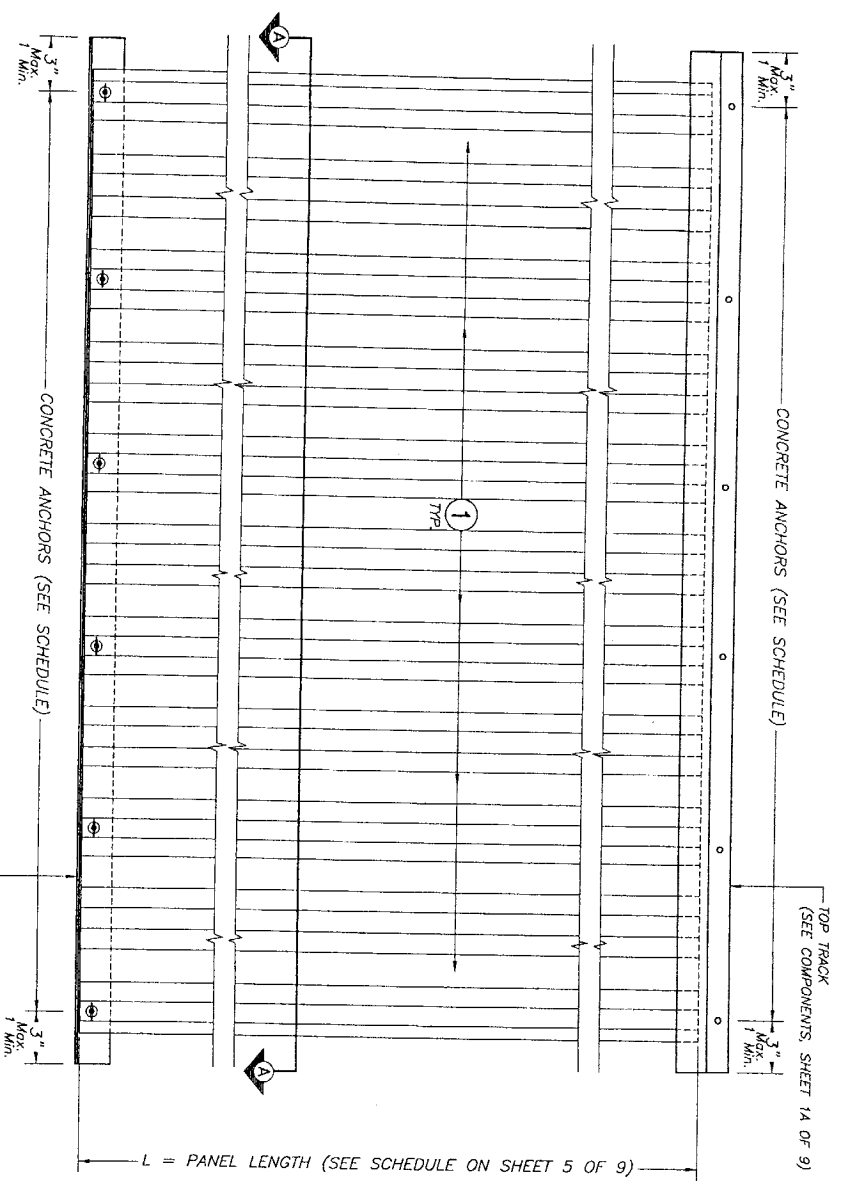


15 SNAP CAP



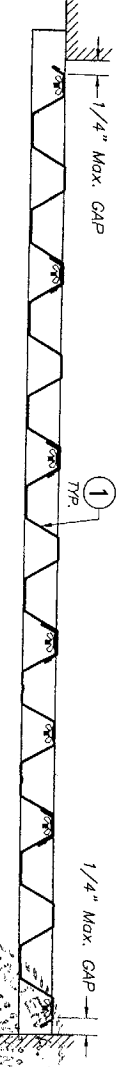
TILTECO INC.
 TILITE TESTING & ENGINEERING COMPANY
 6335 N.W. 50th St., Suite 205
 Miramar, Florida 33181
 Phone: (305) 871-1500 Fax: (305) 871-1531
 Walter A. TILITE Jr., P.E.
 Florida Lic. # 44187

F.B.C. (Non High Velocity Hurricane Zone)
 0.050" BERTHA ALUMINUM STORM PANEL
 (2.25" DEEP)
 EASTERN METAL SUPPLY, INC.
 4288 WEST PALMS DRIVE
 WEST PALM BEACH, FL 33407
 PHONE: (561) 209-8263 FAX: (561) 241-1716
 DATE: 05/12/08
 DRAWING BY: L.G./R.E.
 DRAWING NO: 08-141
 SHEET 1A OF 9



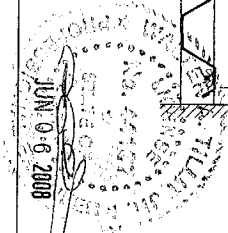
STORM PANEL TYPICAL ELEVATION

SCALE : 1/8" = 1"



SECTION A-A

SCALE : 1/8" = 1"



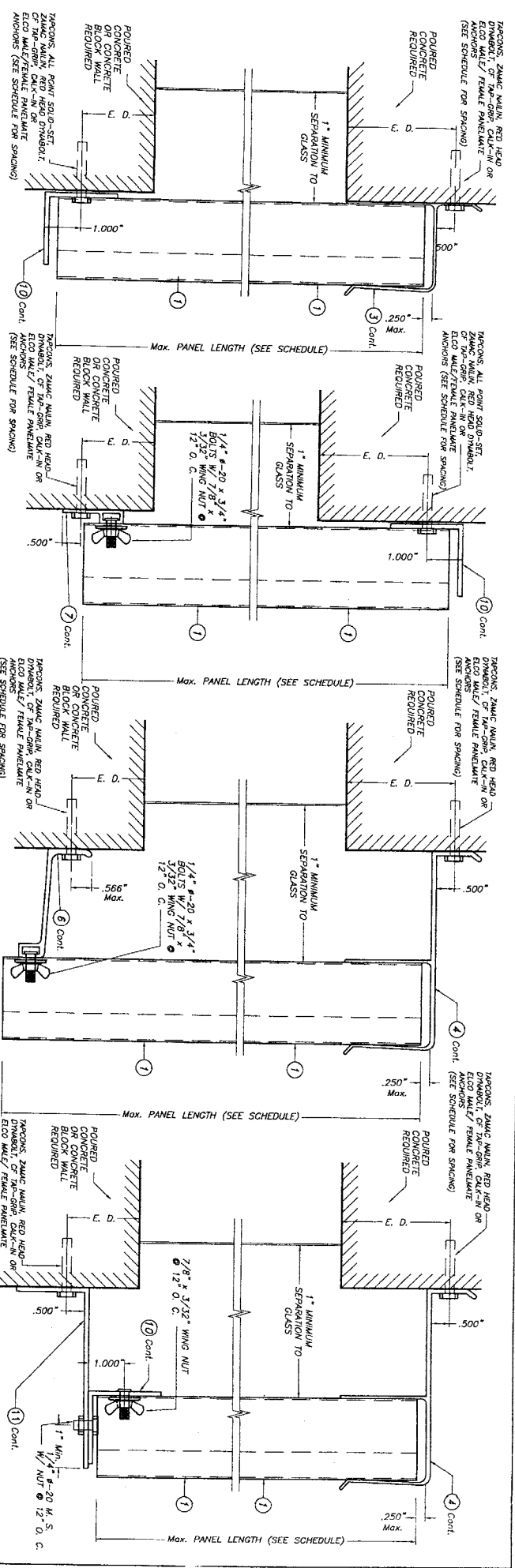
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TILTECO INC.
 TILLIT TESTING & ENGINEERING COMPANY
 4355 N.W. 34th St., Ste. 402, Pompano Beach, FL 33068
 Phone : (561) 729-4283 Fax : (561) 729-4283
 WALTER A. TILLIT, Jr., P.E.
 FLORIDA Lic. # 44187

F.B.C. (Non High Velocity Hurricane Zone)
 0.050" BERTHA ALUMINUM STORM PANEL
 (2.25" DEEP)

EASTERN METAL SUPPLY, INC
 4988 WEST BOUND DRIVE
 WEST PALM BEACH, FL 33407
 PHONE: (561) 209-4283, FAX: (561) 941-1716

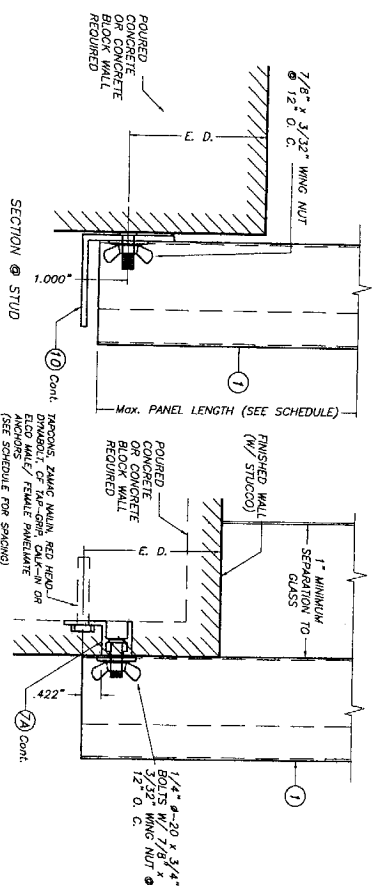
REV.	NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1		ISSUED FOR PERMIT	04/05/08	1		
2						

08/11/08 L.C./R.E.
 DRAWN BY:
 08-141 DATE:
 DRAWING NO.
 SHEET 2 OF 9



SECTION 3
SCALE: 3/8" = 1"

SECTION 4
SCALE: 3/8" = 1"

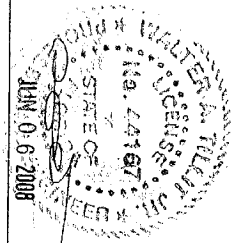


SECTION 1
SCALE: 3/8" = 1"

SECTION 2
SCALE: 3/8" = 1"

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

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



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TITTECO TESTING & ENGINEERING COMPANY
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Walter A. Tilleco, P.E.
Florida Lic. # 14187

F.B.C. (Non High Velocity Hurricane Zone)
0.050" BERTHA ALUMINUM STORM PANEL
(2.25" DEEP)
EASTERN METAL SUPPLY, INC.
1489 WEST PALMS DRIVE
WEST PALM BEACH, FL 33411
PHONE: (561) 299-8283 FAX: (561) 941-1716
DATE: 08-141
DRAWING NO: SHEET 3 OF 9

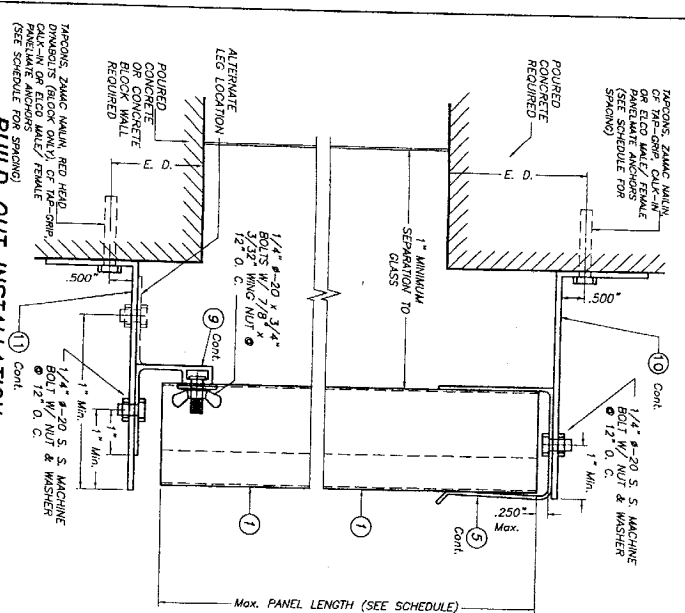
WALL MOUNTING INSTALLATION
SECTION 1
SCALE: 3/8" = 1"

WALL MOUNTING INSTALLATION
SECTION 2
SCALE: 3/8" = 1"

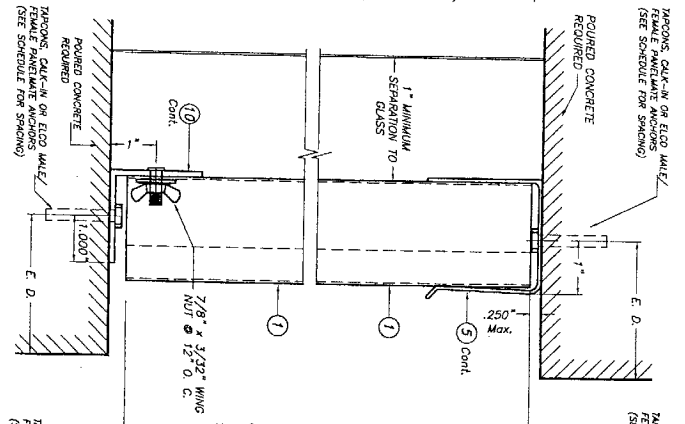
BUILD OUT INSTALLATION
SECTION 3
SCALE: 3/8" = 1"

BUILD OUT INSTALLATION
SECTION 4
SCALE: 3/8" = 1"

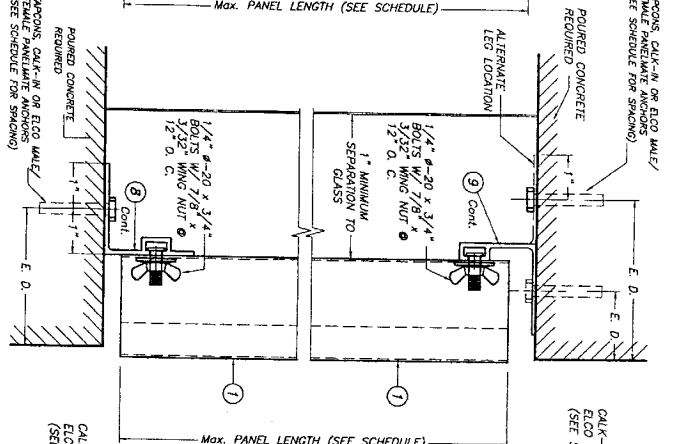
NOTE: DETAIL OF SECTION 3 STUD WALL ALSO FOR
WALL MOUNTING INSTALLATION - SECTION 2 (TOP)



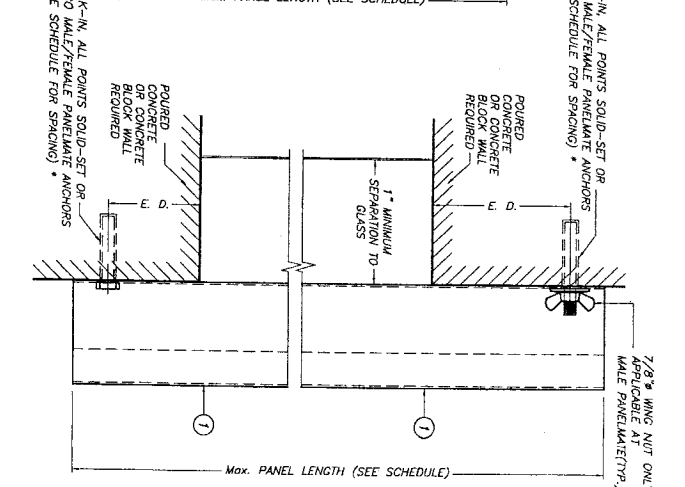
SECTION 5
SCALE : 3/8" = 1"



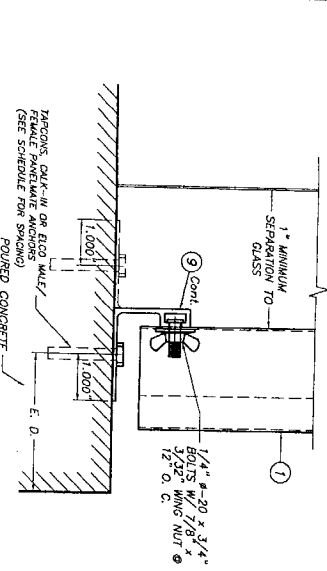
SECTION 6
SCALE : 3/8" = 1"



SECTION 7
SCALE : 3/8" = 1"



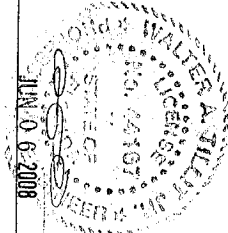
SECTION 8
SCALE : 3/8" = 1"



SECTION 5A
SCALE : 3/8" = 1"

E. D. = EDGE DISTANCE ON SHEET 6 & 7 OF 9)

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

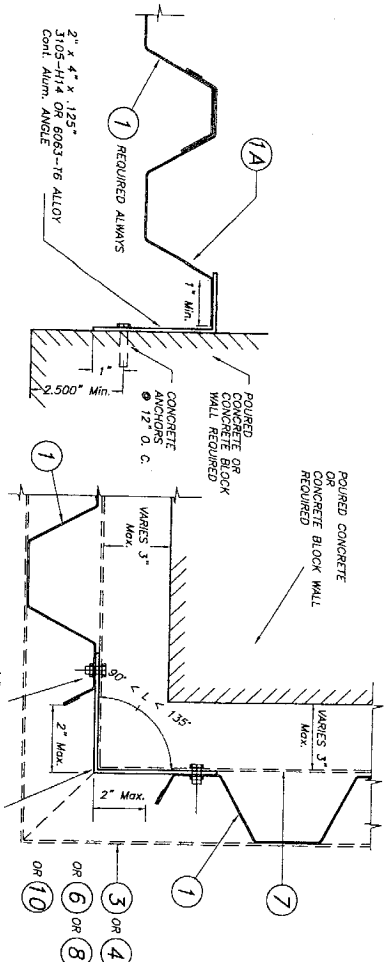


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TITELCO INC.
TILLET TESTING & ENGINEERING COMPANY
6535 NW 36th St., 5th. Fl., Fort Lauderdale, FL 33309
Phone : (561)209-4823, Fax : (561)941-1317
WALTER A. TILLET, INC. P.E.
FLORIDA LIC. # 24167

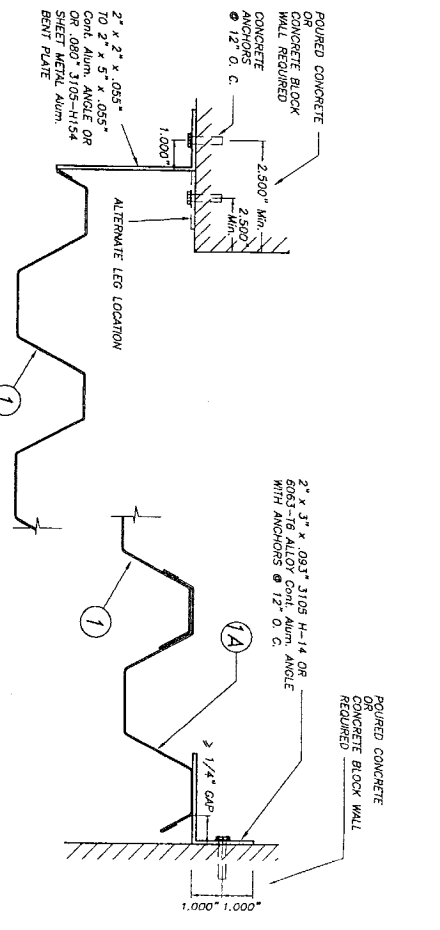
EASTERN METAL SUPPLY, INC
4288 WEST BOUND DRIVE
WEST PALM BEACH, FL 33417
PHONE: (561)209-4823, FAX: (561)941-1716
DATE: 08/12/08
DRAWING NO: 08-141
SHEET 4 OF 8

- * SCREWS USED AT ANCHORS MAY BE 1/4"-20 SIDE WALL BOLT W/ ② OR 1/4"-20 TRUSS HEAD BOLT W/ ③ & ④.
- * SIDE WALL BOLTS ARE 3/4"x3/12 THICK HEAD MACHINE SCREW W/ LENGTH AS PER NOTES A.2 & B.2 (SHEET 1).
- * TRUSS HEAD BOLTS ARE 1/2"x1/8" THICK HEAD MACHINE SCREW W/ LENGTH AS PER NOTES A.2 & B.2 (SHEET 1).

F.B.C. (Non High Velocity Hurricane Zone)
0.050" BERTHA ALUMINUM STORM PANEL
(2.25" DEEP)



CASE A (Plan)
SCALE: 1/4" = 1"

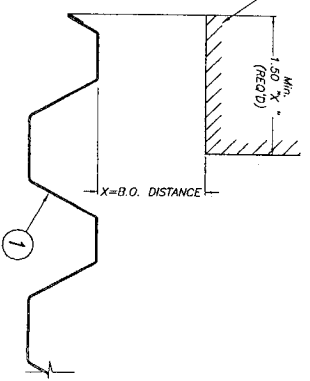


CASE B (Plan)
SCALE: 1/4" = 1"

END CLOSURES DETAILS

CASE C (Plan)
SCALE: 1/4" = 1"

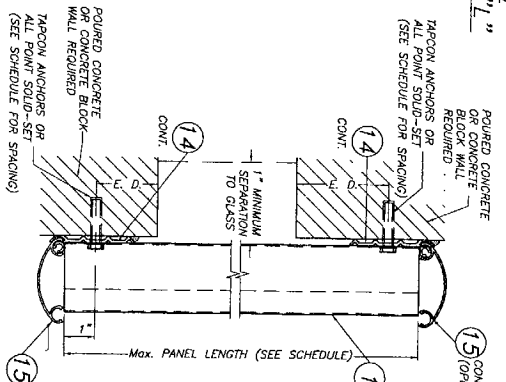
CASE D (Plan)
SCALE: 1/4" = 1"



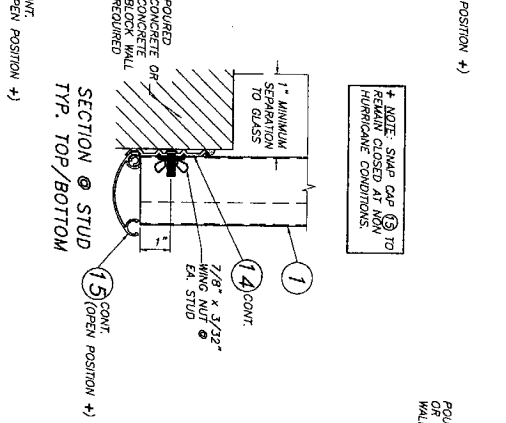
CASE E (Plan)
SCALE: 1/4" = 1"

MAXIMUM DESIGN PRESSURE RATING W (p.s.f.)	Max. PANEL LENGTH L (ft.)		
	MOUNTING W/O. 3/8" HEADER (3)	3/4" HEADER (3)	WALL MOUNTING W/ COMPONENT (10) & (5)
+30.0, -30.0	12'-11"	12'-11"	12'-11"
+30.0, -35.0	12'-11"	12'-11"	12'-11"
+35.0, -40.0	12'-0"	12'-0"	12'-0"
+40.0, -45.0	11'-2"	11'-2"	11'-2"
+45.0, -50.0	10'-7"	10'-4"	10'-7"
+50.0, -55.0	10'-0"	9'-4"	10'-0"
+55.0, -60.0	9'-7"	8'-6"	9'-7"
+60.0, -65.0	9'-2"	7'-9"	9'-2"
+65.0, -70.0	8'-9"	7'-2"	8'-9"
+70.0, -75.0	8'-6"	6'-8"	8'-6"
+75.0, -80.0	8'-2"	6'-3"	8'-2"

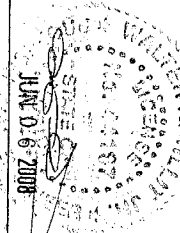
NOTE: MINIMUM PANEL LENGTH IS 3'-0"



SECTION 9
SCALE: 3/8" = 1"



SECTION 9
SCALE: 3/8" = 1"



TILTECO INC.
 4200 TILTECO, INC.
 TILTLE TESTING & ENGINEERING COMPANY
 4505 N.W. 35th, 5th, 505 VENNIA GARDENS, F. 33166
 Phone: (561)987-1530 Fax: (561)987-1531
 WALTER A. TILTE, P.E.
 FLORIDA Lic. # 44187

EASTERN METAL SUPPLY, INC.
 4298 WEST BRIDGE DRIVE
 WEST PALM BEACH, FL 33410
 PHONE: (561)209-8533 Fax: (561)941-1716

0.050" BERTHA ALUMINUM STORM PANEL
 (2.25" DEEP)

F.B.C. (Non High Velocity Hurricane Zone)

05/12/08
 L.G./R.E.
 DATE: 08-14-11
 DRAWING NO. SHEET 5 OF 9

THIS SCHEDULE ANCHORS REQUIRED ANCHOR SPACING HIGHER THAN THAT SHOWN ON SHEET 4 OR 8. HOWEVER, MAXIMUM PANEL LENGTH DESIGN LOAD MUST BE VERIFIED AS PER SCHEDULE

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

E. D. = EDGE DISTANCE

MAXIMUM DESIGN LOAD W (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **												APPLICABLE TO SECTIONS & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH (ft.)		
	TARCONS		ZMJC NAILIN/ REB. HD. DYWIDAG		CALK-IN		SOLID-SET		PANELMATS		CF TAP-GRIP					
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+35.0, -40.0 OR LESS	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	1 (TOP)	8'-0" TO 12'-11"
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	1, 9" (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	2, 9" (TOP)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	2 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	24 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	3 & 4 (TOP)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	3 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	4 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	5 (TOP)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	5 (BOTTOM)	
+35.0, -40.0 OR LESS	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	1 (TOP)	8 (TOP/BOTTOM)
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	1, 9" (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	2, 9" (TOP)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	2 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	24 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	3 & 4 (TOP)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	3 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	4 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	5 (TOP)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	5 (BOTTOM)	

MAXIMUM DESIGN LOAD W (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **												APPLICABLE TO SECTIONS & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH (ft.)		
	TARCONS		ZMJC NAILIN/ REB. HD. DYWIDAG		CALK-IN		SOLID-SET		PANELMATS		CF TAP-GRIP					
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+35.0, -40.0 OR LESS	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	1 (TOP)	8 (TOP/BOTTOM)
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	1, 9" (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	2, 9" (TOP)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	2 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	24 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	3 & 4 (TOP)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	3 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	4 (BOTTOM)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	5 (TOP)	
	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	10"	5 (BOTTOM)	

* ONLY TAPCON ANCHORS OR ALL POINT SOLID-SET ALLOWED FOR MOUNTING SECTION 9.
 ** ANCHORS SPACING ONLY VALID FOR ZMJC NAILIN.
 *** SEE SHEET 8 & 9 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS.
 **** MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN 3 1/2". REDUCE ANCHOR SPACING BY MULTIPLYING SPACINGS SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. (Min. E. D. FOR CALK-IN ANCHORS & ELCO PANELMATS IS 2 1/2" AND 3 1/2" FOR SOLID-SET ANCHORS).

ACTUAL E. D.	FACTOR			
	TARCON	ZMJC NAILIN / PANELMATS	CALK-IN	SOLID-SET
3"	-	.86	.75	.78
2 1/2"	-	.71	.50	.80
2"	-	.50	-	-

TILECO, INC.

TILE TESTING & ENGINEERING COMPANY
 4298 WESS ROAD, PINE HURST, N.C. 28134
 PHONE: (919) 971-1550 FAX: (919) 971-1511
 WALTER A. TILLEY, P.E.
 FLORIDA LIC. # 44167

EASTERN METAL SUPPLY, INC.

4298 WESS ROAD, PINE HURST, N.C. 28134
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 WALTER A. TILLEY, P.E.
 FLORIDA LIC. # 44167

F.B.C. (Non High Velocity Hurricane Zone)
 0.050" BERTHA ALUMINUM STORM PANEL
 (2.25" DEEP)

L.G./R.E.
 DRAWN BY:
 DATE: 06/12/08
 08-141
 DRAWING NO.
 SHEET 6 OF 9



THIS SCHEDULE INDICATES REQUIRED ANCHOR SPACING FOR MAXIMUM DESIGN WIND AND PANEL LENGTH. ANCHOR SPACING MUST BE VERIFIED AS PER SCHEDULE ON SHEET 4 OF 9.

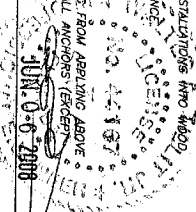
MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS INTO CONCRETE AND CONCRETE BLOCK STRUCTURES *

E. D. = EDGE DISTANCE

MAXIMUM DESIGN LOAD W (p.s.f.)	MAXIMUM ANCHOR SPACING FOR E. D. = 3 1/2" **												APPLICABLE TO SECTIONS # & LENGTH OF THEM	MAXIMUM ANCHOR SPACING FOR E. D. = 3 1/2" **		
	TIE-INS TO CONCRETE	TIE-INS TO MASONRY	Z-MISC. ANCHORS / DYNABOLT	CLK-IN TO CONCRETE	SOLID-SET TO CONCRETE	PANELS/TIES TO CONCRETE	CF TAP-GRIP TO CONCRETE	ANY COMBINATION	1" (TL)	2" (TL)	3" (TL)	4" (TL)				
>+350.0 -400.0 TO	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1 (TOP)	8'-0" OR LESS
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1, 9" (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	2, 9" (TOP)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	2 (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	2A (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	3 & 4 (TOP)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	3 (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	4 (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	5 (TOP)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	5 (BOTTOM)	
>+350.0 -800.0 TO	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	3 & 4 (TOP)	8'-0" TO 12'-0"
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	3 (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	4 (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	5 (TOP)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	5 (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	6 (TOP)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	6 (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	7 (TOP)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	7 (BOTTOM)	
	12"	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	

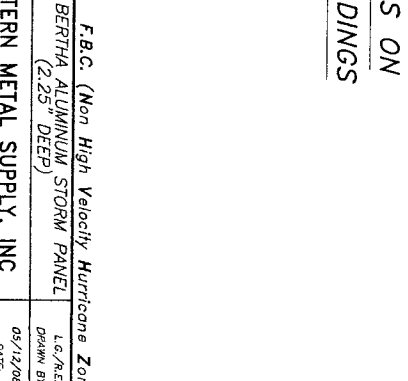
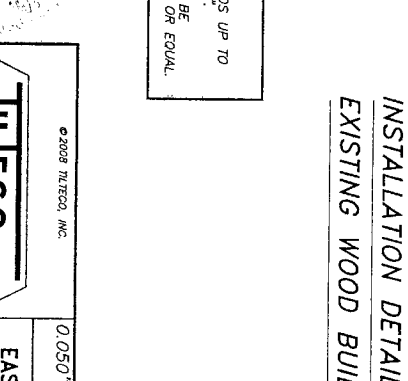
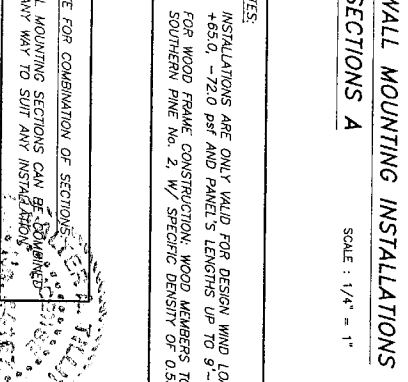
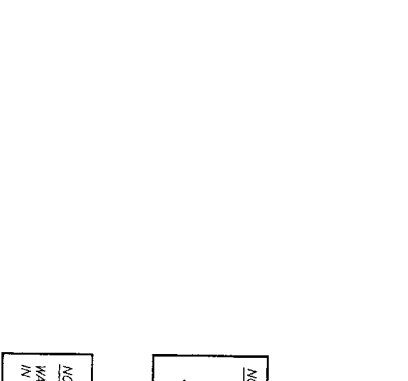
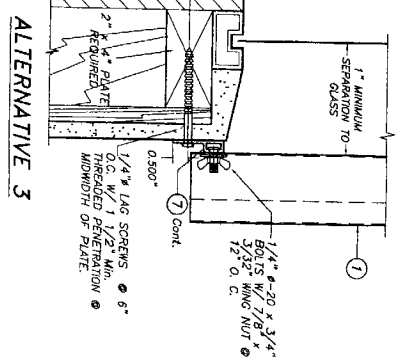
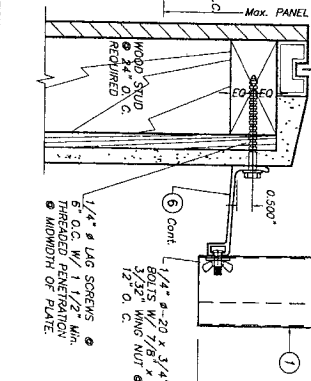
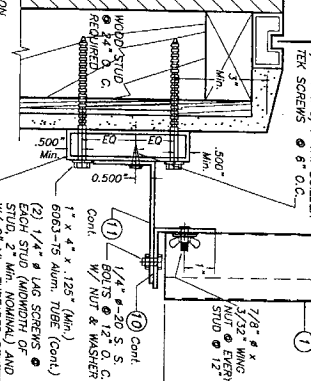
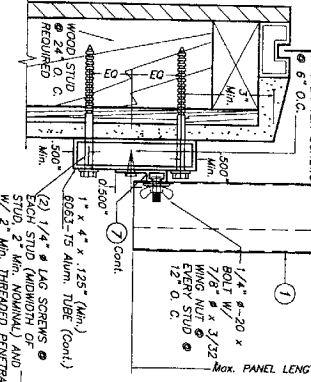
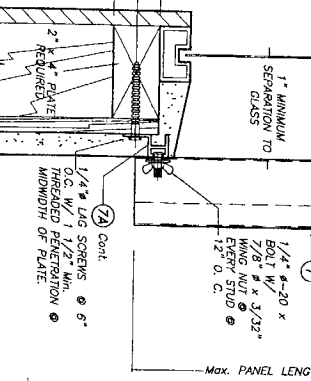
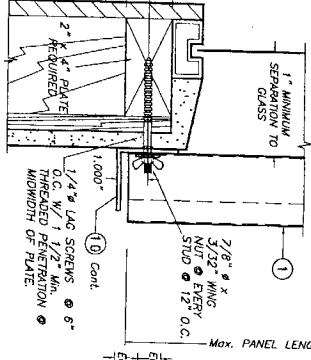
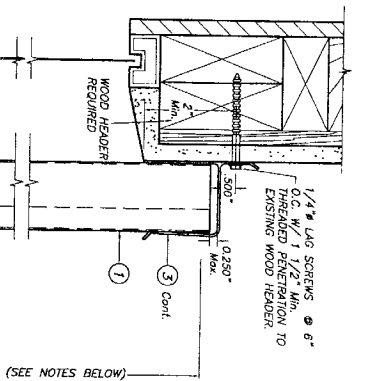
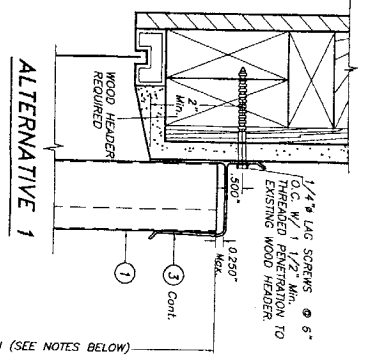
ACTUAL E. D.	FACTOR	Z-MISC. ANCHORS / DYNABOLT PANELS/TIES	CLK-IN SOLID-SET	CF TAP-GRIP
3"	.86	.75	.78	1.00
2 1/2"	.71	.50	.80	.80
2"	.50	.50	.80	.80
1 1/2"	.35	.50	.80	.80

ONLY TIE-INS ALLOWED FOR MOUNTING SECTION 9.
 ** SEE SHEET 7 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS INTO CONCRETE AND CONCRETE BLOCK STRUCTURES.
 MAXIMUM ANCHOR SPACING ARE VALID FOR 3 1/2" EDGE DISTANCE.
 FOR E. D. LESS THAN 3 1/2" REDUCE ANCHOR SPACING BY THE FOLLOWING FACTORS: (Min. E. D. FOR CLK-IN ANCHORS & ELCO PANELS IS 2 1/2" AND 3 1/2" FOR SOLID-SET ANCHORS).
 FOR THIS OPERATION TO BE MADE REDUCE SPACING RESULTING FROM APPLYING ABOVE FACTORS SHALL NOT RESULT ON SPACINGS LESS THAN 3" FOR ALL ANCHORS (EXCEPT 4.5" FOR RED HD DYNABOLT ANCHORS).



6200 TILTECO, INC.
 TILTECO INC.
 TILTE TESTING & ENGINEERING COMPANY
 4255 N.W. 36th St., Ft. Lauderdale, FL 33309
 Phone: (561) 551-1200, Fax: (561) 551-1201
 Walter A. Tillet, Jr., P.E.
 Florida Lic. # 44165

F.B.G. (Non High Velocity Hurricane Zone)
 0.050" BERTH ALUMINUM STORM PANEL
 (2.25" DEEP)
EASTERN METAL SUPPLY, INC
 4288 WEST BOUNDS DRIVE #2
 WEST PALM BEACH, FL 33411
 PHONE: (561) 209-8253, FAX: (561) 241-1716
 DATE: 06-14-11
 DRAWING NO: SHEET 7 OF 9

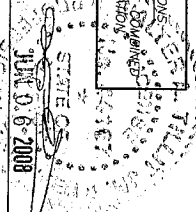


WALL MOUNTING INSTALLATIONS
SECTIONS A

INSTALLATION DETAILS ON
EXISTING WOOD BUILDINGS

- NOTES:**
1. INSTALLATIONS ARE ONLY VALID FOR DESIGN WIND LOADS UP TO +65.0, -72.0 psf AND PANELS LENGTHS UP TO 9'-0".
 2. FOR WOOD FRAME CONSTRUCTION, WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

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



TILECO INC.
4288 WEST POND DRIVE
WEST PALM BEACH, FL 33407
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EASTERN METAL SUPPLY, INC.
4288 WEST POND DRIVE
WEST PALM BEACH, FL 33407
PHONE: (561) 208-8255 FAX: (561) 941-1716

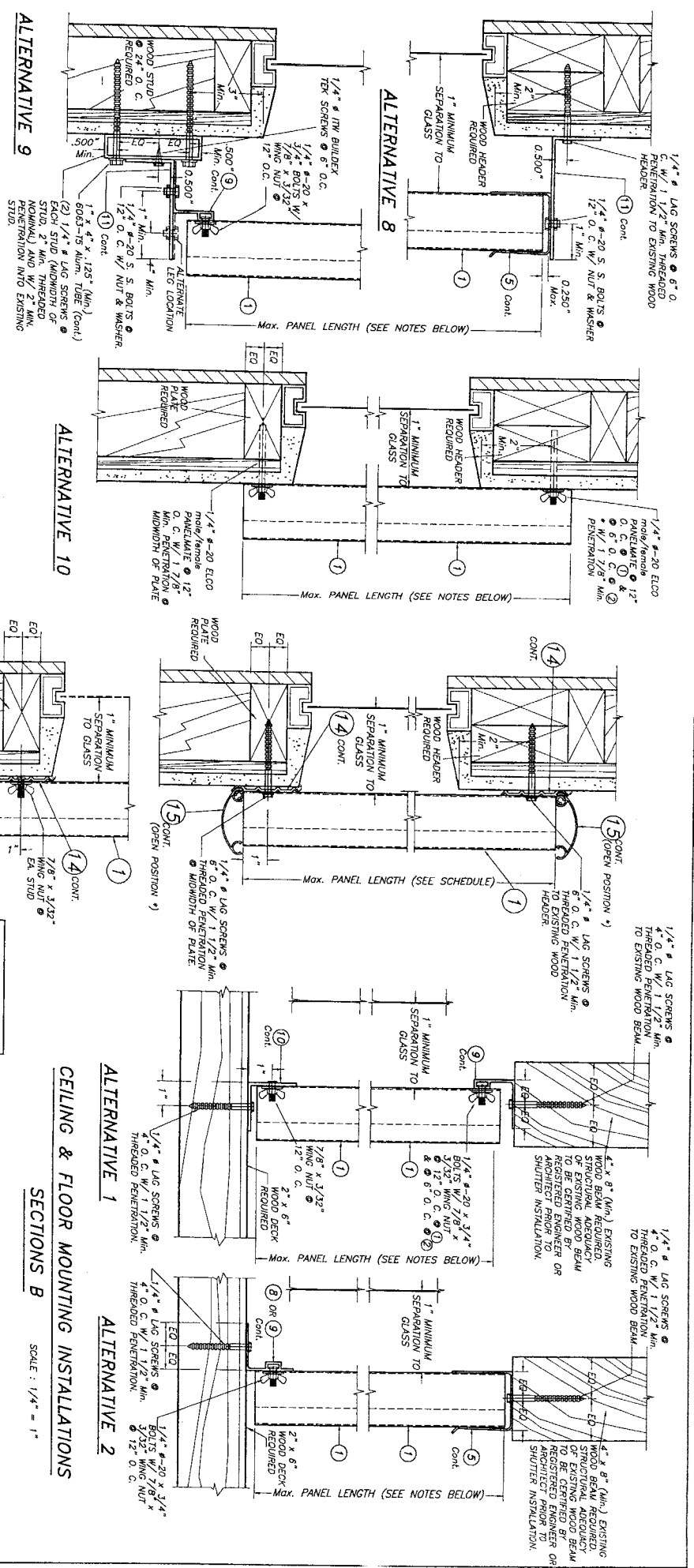
REV. No.	DESCRIPTION	DATE	REV. No.	DESCRIPTION	DATE
1		05/12/08	1		

03-141
DRAWING No.
SHEET 8 OF 9

F.B.C. (Non High Velocity Hurricane Zone)
0.050" BERTHA ALUMINUM STORM PANEL
(2.25" DEEP)

L.C./R.E.
D.R./M.B.

05/12/08
DATE



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

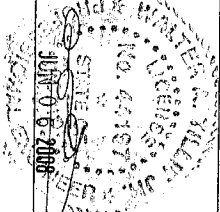
NOTES:
 1. INSTALLATIONS ARE ONLY VALID FOR DESIGN WIND LOADS UP TO +65.0,
 -72.0 psf AND PANEL'S LENGTHS UP TO 9'-0".
 2. FOR WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN
 PINE NO. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

WALL MOUNTING INSTALLATIONS
 SECTIONS A SCALE: 1/4" = 1"

SECTION @ STUD TYP. TOP/BOTTOM
 ALTERNATIVE 11

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS

CEILING & FLOOR MOUNTING INSTALLATIONS
 SECTIONS B SCALE: 1/4" = 1"



TILTECO INC.
 #206 TILTECO, INC.
 TILLIT TESTING & ENGINEERING COMPANY
 6335 N.W. 36th St., Ste. 205, Miramar, Florida, 33186
 Phone: (305) 486-0000, Fax: (305) 486-1531
 WALTER A. TILLIT, P.E. #44187
 FLORIDA LIC. #44187

EASTERN METAL SUPPLY, INC.
 4368 WEST POND DRIVE
 WEST PALM BEACH, FL 33407
 PHONE: (561) 208-8283, FAX: (561) 841-1716

REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1			1		

08-141
 DATE: 05/12/08
 DRAWING NO. 08-141
 SHEET 9 OF 9

F.B.C. (Non High Velocity Hurricane Zone)
 0.050" BERTHA ALUMINUM STORM PANEL
 (2.25" DEEP)