



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY
AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208

Miami, Florida 33175-2474

T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/building

NOTICE OF ACCEPTANCE (NOA)

Eastern Metal Supply, Inc.
4268 Westroads Dr.
West Palm Beach, Florida 33407

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: 0.030" Galvanized Steel Storm Panels Shutter

APPROVAL DOCUMENT: Drawing No. 11-116, titled "0.030" Thick Galvanized Bertha Steel Storm Panel", sheets 1 through 9 of 9, and 1A of 9, prepared by Tilteco, Inc., last revision #1 dated November 15, 2011, signed and sealed by Walter A. Tillit Jr., P.E. on November 23, 2011, bearing Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state, the following statement: "Miami-Dade County Product Control Approved", and NOA number, per TAS-201, TAS-202, and TAS-203, unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA # 09-0330.04 and consists of this page 1, evidence submitted pages E-1, E-2, and E-3 as well as approval document mentioned above.

The submitted documentation was reviewed by Helmy A. Makar, P.E., M.S.



Helmy A. Makar
05/17/2012

NOA No. 12-0209.07
Expiration Date: 06/07/2014
Approval Date: 05/17/2012
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #00-0919.10

A. DRAWINGS

1. *Drawing No. 00-252, titled "24 Gage Galvanized Bertha Steel Storm Panels", prepared by Tilteco, Inc., dated July 10, 2000, last revision #1 dated April 3, 2001, sheets 1 through 9 of 9, signed and sealed by Walter A. Tillit Jr., P.E.*

B. TESTS

1. *Test report on Large Missile Impact Test, Cyclic Wind Pressure Test and Uniform Static Air Pressure Test of Galvanized Steel Storm Panels, prepared by American Test Lab of South Florida, Report No. ATL 0425.01-00, dated August 22, 2000, signed and sealed by Henry Hattem, P.E. and William R. Mehner, P.E.*

C. CALCULATIONS

1. *Storm panel shutter Calculations, sheets 1 through 78 by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E., dated 09/11/2000.*

D. MATERIAL CERTIFICATIONS

1. *Mill Certified Inspection Report, dated 05/97, for Hot Dipped Galvanized coating G-60 Steel, ASTM A653 Grade 40 (ASTM 446GR-C) by Robert O'Neil of R & R Metals, Inc., with chemical composition and physical properties.*
2. *Tensile Test Reports from Hurricane Engineering & Testing Inc., Job No. HETI-97-T48 dated July 17, 1997 for 20 ga. Galvanized Steel, tested per ASTM E8-93, signed and sealed by Hector M. Medina, P.E.*

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #02-0809.04

A. DRAWINGS

1. *Drawing No. 02-446, titled " 24 gage Galvanized Bertha Steel Storm Panel ", sheets 1 through 9 of 9, prepared by Tilteco, Inc., dated September 05, 2002, signed and sealed by Walter A. Tillit Jr., P.E.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. MATERIAL CERTIFICATIONS

1. *None.*



Helmy A. Makar, P.E., M.S.
PERA, Product Control Unit Supervisor
NOA No. 12-0209.07
Expiration Date: 06/07/2014
Approval Date: 05/17/2012

Eastern Metal Supply, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 04-0517.01

A. DRAWINGS

1. *Drawing No. 02-446, titled " 24 gage Galvanized Bertha Steel Storm Panel ", sheets 1 through 9 of 9, prepared by Tilteco, Inc., dated September 05, 2002, signed and sealed by Walter A. Tillit Jr., P.E.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *None.*

4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 05-0926.02

A. DRAWINGS

1. *Drawing No. 05-073, titled " 0.030" Thick Galvanized Bertha Steel Storm Panel", sheets 1 through 9 of 9, and 1A of 9, prepared by Tilteco, Inc., dated 04/25/2005, last revision #1 dated 04/25/2005 signed and sealed by Walter A. Tillit Jr., P.E. on 09/15/2005*

B. TESTS

1. *Test report on Large Missile Impact Test and Cyclic Wind Pressure Test of Galvanized Steel Storm Panels, prepared by American Test Lab of South Florida, Report No. ATLSF 0616.01-05, dated September 15, 2005, signed and sealed by William R. Mehner, P.E.*

C. CALCULATIONS

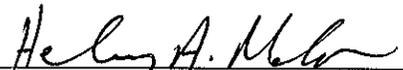
1. *Storm panel shutter Calculations, sheets 1 through 91 by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E. on 09/13/2005.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *Tensile Test Report from QC Metallurgical, Inc., Job No. 51M-926, dated September 20, 2005, tested per ASTM E8-93, signed and sealed by Frank Grate, P.E.*



Henry A. Makar, P.E., M.S.
PERA, Product Control Unit Supervisor
NOA No. 12-0209.07
Expiration Date: 06/07/2014
Approval Date: 05/17/2012

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 09-0330.04

A. DRAWINGS

1. *Drawing No. 09-013, titled "0.030" Thick Galvanized Bertha Steel Storm Panel", sheets 1 through 9 of 9, and 1A of 9, prepared by Tilteco, Inc., dated 02/04/2009, last revision #1 dated 02/04/2009 signed and sealed by Walter A. Tillit Jr., P.E. on 02/18/2009.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *Storm panel shutter Calculations, sheets 1 through 91 by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E. on 02/18/2009.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *None.*

5. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 11-116, titled "0.030" Thick Galvanized Bertha Steel Storm Panel", sheets 1 through 9 of 9, and 1A of 9, prepared by Tilteco, Inc., last revision #1 dated November 15, 2011, signed and sealed by Walter A. Tillit Jr., P.E. on November 23, 2011.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. QUALITY ASSURANCE

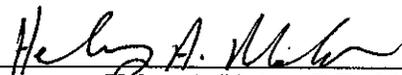
1. *By Miami-Dade County Department of Permitting, Environment, and Regulatory Affairs (PERA).*

E. MATERIAL CERTIFICATIONS

1. *None.*

F. OTHERS

1. *Florida Building Code, 2010 edition, compliance letter issued by Tilteco, Inc., dated January 13, 2012, signed and sealed by Walter A. Tillit Jr., P.E.*



Helmy A. Makar, P.E., M.S.

PERA, Product Control Unit Supervisor

NOA No. 12-0209.07

Expiration Date: 06/07/2014

Approval Date: 05/17/2012

GENERAL NOTES:

1. STORM PANEL SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2007 & 2010 EDITIONS OF THE FLORIDA BUILDING CODE. STORM PANEL MAY BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODES, DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODES, USING ASCE 7-05 STANDARD FOR INSTALLATIONS UNDER 2007 FBC & ASCE 7-10 FOR INSTALLATIONS UNDER 2010 FBC AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 4, 5, 6, 7 & 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, 5, 6, 7 & 9.

IN ORDER TO VERIFY THAT COMPONENTS AND ANCHORS ON THIS P.A.D. AS TESTED WERE NOT OVER STRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. FASTENERS SPACING TO WOOD HAS BEEN DETERMINED IN ACCORDANCE WITH N.D.S. 2005 STORM PANEL'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 OF THE ABOVE MENTIONED CODES AS PER ATL REPORTS # 2425.01-00 AND # 0616.01-05, AS PROTOCOLS TAS-201, TAS-202 AND TAS-203.

2. ALL STEEL SHEET METAL PANELS SHALL HAVE STRUCTURAL QUALITY ASTM A-653 SQ, GRADE 40, WITH G-90 GALVANIZED STEEL DESIGNATION & Fy= 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 AND SHALL COMPLY W/ FBC 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:

(A) TO EXISTING POURED CONCRETE MINIMUM EDGE DISTANCE (E.D.), AS PER SHEETS 5 THRU 7:

- 1/4"Ø TAPCONS & MAXI-SET TAPCONS ANCHORS AS MANUFACTURED BY I.T.W./BUILDEX, INC (Min. f'c=3192 psi)
- 1/4"Ø CRETE-FLEX SS4 ANCHORS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS (Min. f'c=3350 psi)
- 1/4"Ø x 7/8" CALK-IN ANCHORS AS MANUFACTURED BY POWER FASTENERS, INC. (Min. f'c=3000 psi)
- 1/4"Ø "PANELMATE FEMALE ID" OR 1/4"Ø "PANELMATE PLUS" ANCHORS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS (Min. f'c=3350 psi)
- 1/4"Ø x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY CO. (Min. f'c=3000 psi)

NOTES:

- A.1) MINIMUM EMBEDMENT INTO POURED CONCRETE OF TAPCON ANCHOR OR CRETE-FLEX SS4 IS 1 3/4", AND 2" FOR "PANELMATE FEMALE ID" AND "PANELMATE PLUS".
- A.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO 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 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) & A.3) ABOVE.

(B) TO EXISTING CONCRETE BLOCK ASTM C-90:

- 1/4"Ø TAPCONS & MAXI-SET TAPCONS ANCHORS AS MANUFACTURED BY I.T.W./BUILDEX, INC.
- 1/4"Ø CRETE-FLEX SS4 ANCHORS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS
- 1/4"Ø x 7/8" CALK-IN ANCHORS AS MANUFACTURED BY POWER FASTENERS, INC. (Min. f'm=1500 psi)
- 1/4"Ø "PANELMATE FEMALE ID" OR 1/4"Ø "PANELMATE PLUS" ANCHORS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS (Min. f'm=2071 psi)
- 1/4"Ø x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY CO. (Min. f'm=1800 psi)

NOTES:

- B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS, "PANELMATE FEMALE ID" ANCHORS, "PANELMATE PLUS" ANCHORS AND CRETE-FLEX SS4 ANCHORS, 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" Ø-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"Ø x 3/4" ALL POINTS SOLID-SET ANCHORS SHALL BE 7/8" 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.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) & B.3) ABOVE.

(C) TO EXISTING WOOD (MIN. SPECIFIC GRAVITY, G = 0.55 MIN.): MINIMUM EDGE DISTANCE (E.D.) AS PER SHEETS 8 AND 9.

- 1/4"Ø "PANELMATE PLUS" AND "PANELMATE FEMALE ID" ANCHORS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
- 1/4"Ø LAG SCREWS PER N.D.S.

NOTES:

- C.1) MINIMUM THREADED PENETRATION INTO WOOD OF "PANELMATE PLUS" ANCHORS AND female PANELMATES SHALL BE 1 7/8".
- C.2) MINIMUM THREADED PENETRATION OF LAG SCREWS, INTO THE WOOD FRAME UNIT SHALL BE 1 1/2" NO THREADED PENETRATION INTO STUCCO SHALL BE CONSIDERED AS PART OF THE REQUIRED THREADED PENETRATION (EXCEPT AS NOTED).
- C.3) IN CASE THAT PRECAST STONE, OR PRECAST CONCRETE PANELS, STUCCO OR WOOD BANS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS MENTIONED IN C.1) AND C.2).

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

PANELS MAY BE ALSO INSTALLED HORIZONTALLY FOLLOWING INSTALLATION DETAILS SHOWN ON SECTIONS 1 THRU 8 (SHEETS 2 & 3 OF 9) AND SECTIONS A AND B (SHEETS 8 AND 9) EXCEPT THAT HEADERS ②, ③ & ④ SHALL NOT BE USED.

8. AT LEAST ONE WARNING LABEL PER OPENING SHALL BE PLACED IN A CONSPICUOUS LOCATION ON ANY OF THE COMPONENTS OF THE STORM PANELS SYSTEM ADVISING THE HOME OWNER OR TENANT THAT STORM PANELS WILL NOT OFFER HURRICANE PROTECTION UNLESS ALL REINFORCING BOLTS ARE PROPERLY INSTALLED WHEN REQUIRED.

9. 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.

10. THE INSTALLATION CONTRACTOR IS TO SEAL/CAULK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION.

11. 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.

12. (a) THIS PRODUCT APPROVAL DOCUMENT (P.A.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.A.D.

(b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT BASED ON THIS P.A.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 APPROVAL 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.A.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.A.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

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

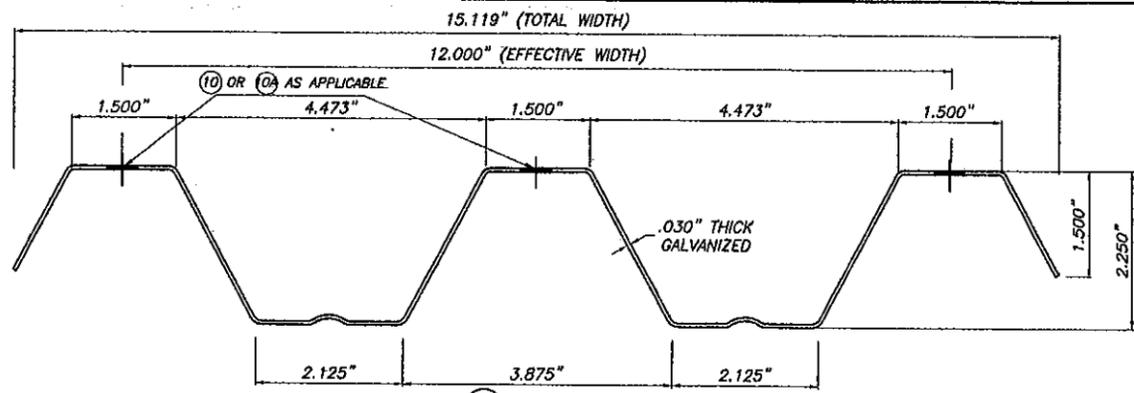
13. SHUTTER MANUFACTURER'S LABEL SHALL BE PLACED ON A READILY AND VISIBLE LOCATION AT PANEL ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABEL SHALL READ AS FOLLOWS:
EASTERN METAL SUPPLY, INC.
WEST PALM BEACH, FL.
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.

MIAMI-DADE COUNTY

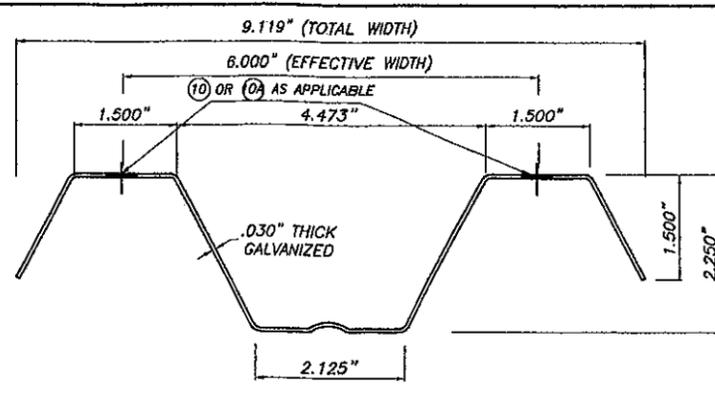
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0209.07
Expiration Date 06/07/2014
By *Walter A. Tillit Jr.*
Miami Dade Product Control

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

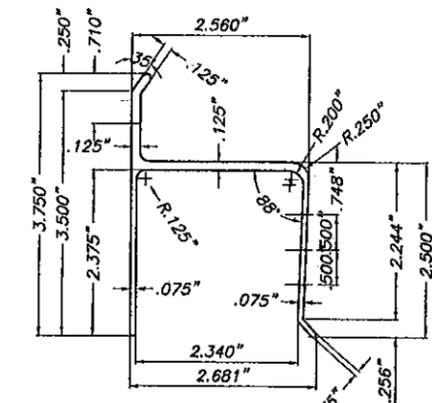
	©2009 TILTECO, INC.  TILLIT TESTING & ENGINEERING COMPANY 8385 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 EB-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167	0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL	M.C.V./A.G. DRAWN BY:																	
		EASTERN METAL SUPPLY, INC. 4268 WESTROADS DR. WEST PALM BEACH, FL 33407	11/15/11 DATE																	
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REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE															
1	OLD 09-013	11/15/11	3	-	-															
2	-	-	4	-	-															
			SHEET 1 OF 9																	



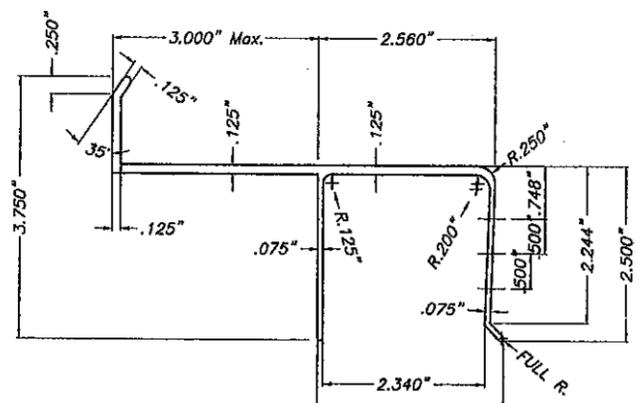
1 PANEL
SCALE: 3/8" = 1"



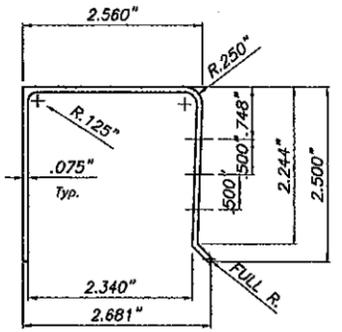
1A HALF PANEL
SCALE: 3/8" = 1"



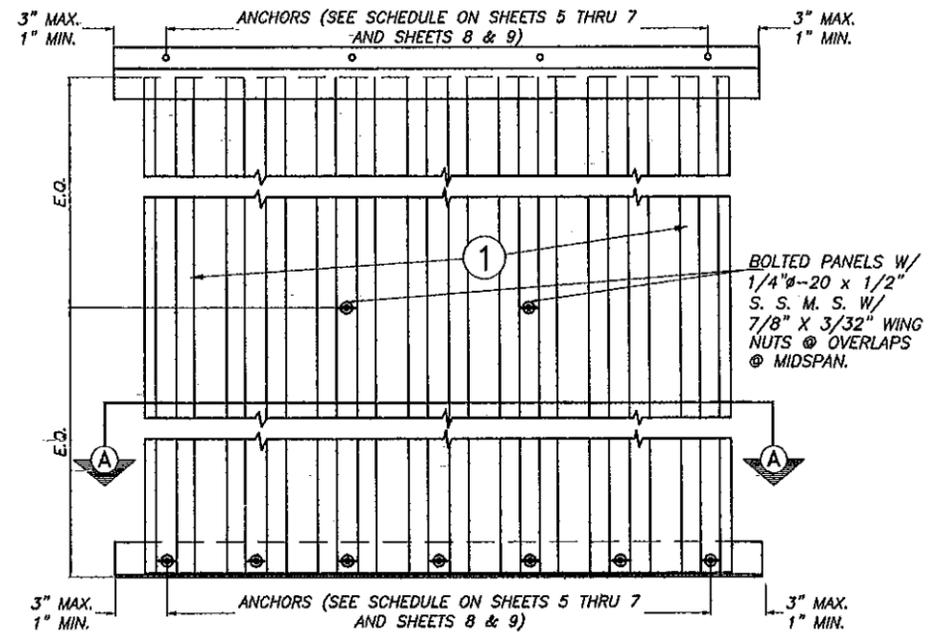
2 "h" HEADER
SCALE: 3/8" = 1"



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

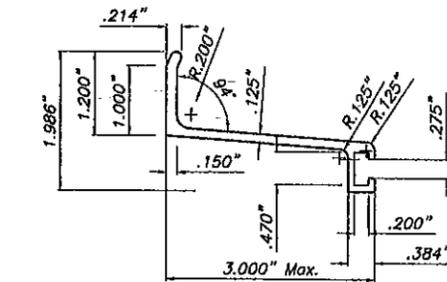


4 "U" HEADER
SCALE: 3/8" = 1"

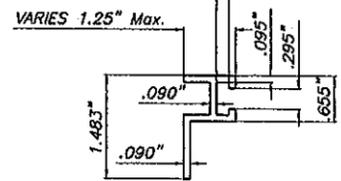


STORM PANEL TYPICAL ELEVATION
N. T. S.

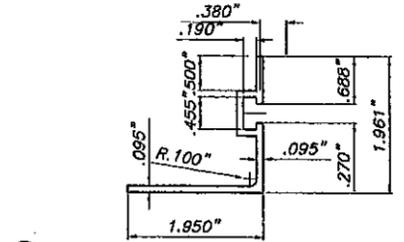
SECTION A-A
N. T. S.



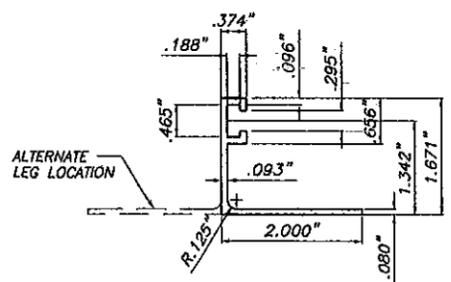
5 3" ANGLE BUILD OUT BRACKET
SCALE: 3/8" = 1"



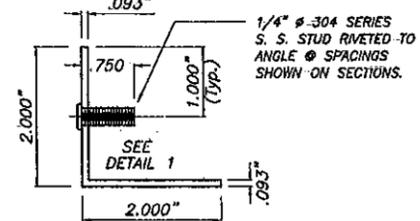
6 "F" TRACK
SCALE: 3/8" = 1"



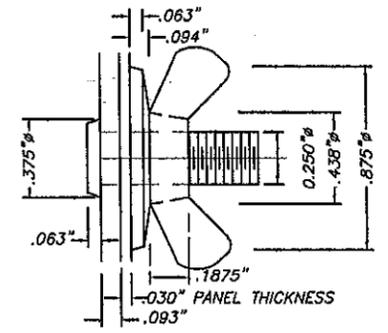
7 REVERSED "F" ANGLE TRACK
SCALE: 3/8" = 1"



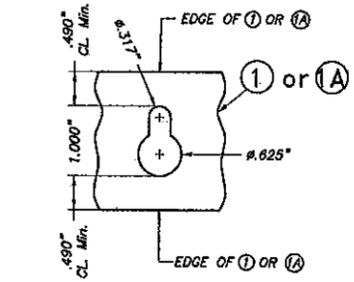
8 "F" TRACK ANGLE
SCALE: 3/8" = 1"



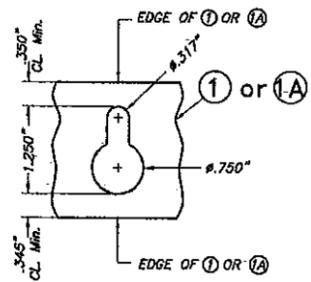
9 STUDDED ANGLE
SCALE: 3/8" = 1"



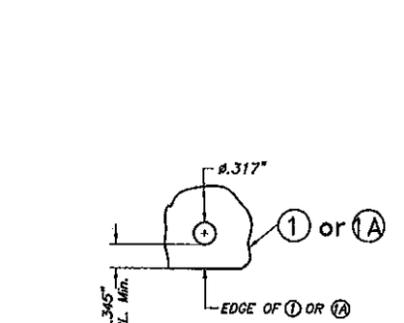
DETAIL 1: S.S. STUD W/ ZAMAC NICKEL PLATED WASHERED WING NUT



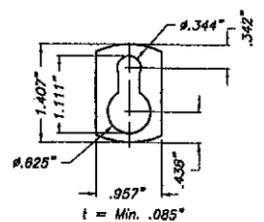
OPTION 1



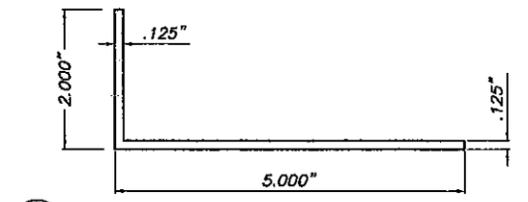
OPTION 2



10A ROUND HOLE AT PANEL (OPTION TO 10)



11 KEY HOLE WASHER
3105-H154 Alum. Alloy
SCALE: 3/8" = 1"



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

COMPONENTS

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No 12-0209.07
Expiration Date 06/07/2014
By *Walter A. Tillit Jr.*
Miami Dade Product Control

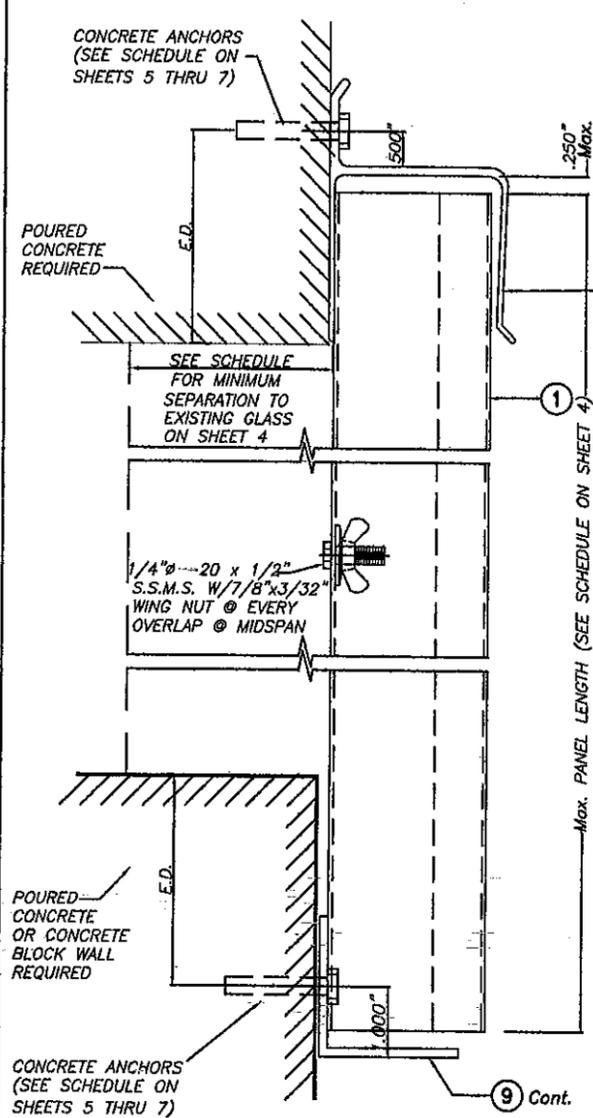
MIAMI-DADE COUNTY

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL		M.C.V./A.G. DRAWN BY:
EASTERN METAL SUPPLY, INC.		11/15/11 DATE
4268 WESTROADS DR. WEST PALM BEACH, FL 33407		11-116 DRAWING No
REV. NO	DESCRIPTION	DATE
1	OLD 09-013	11/15/11
2		

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Signature/Date

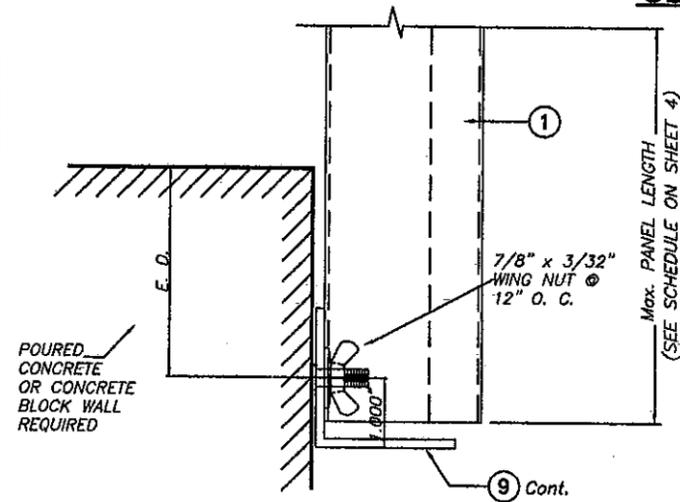
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TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166
Phone: (305)871-1530, Fax: (305)871-1531
EB-0006719
WALTER A. TILLIT JR. P.E.
FLORIDA Lic. # 44167



SECTION @ ANCHOR

WALL MOUNTING INSTALLATION SECTION 2

SCALE : 3/8" = 1"

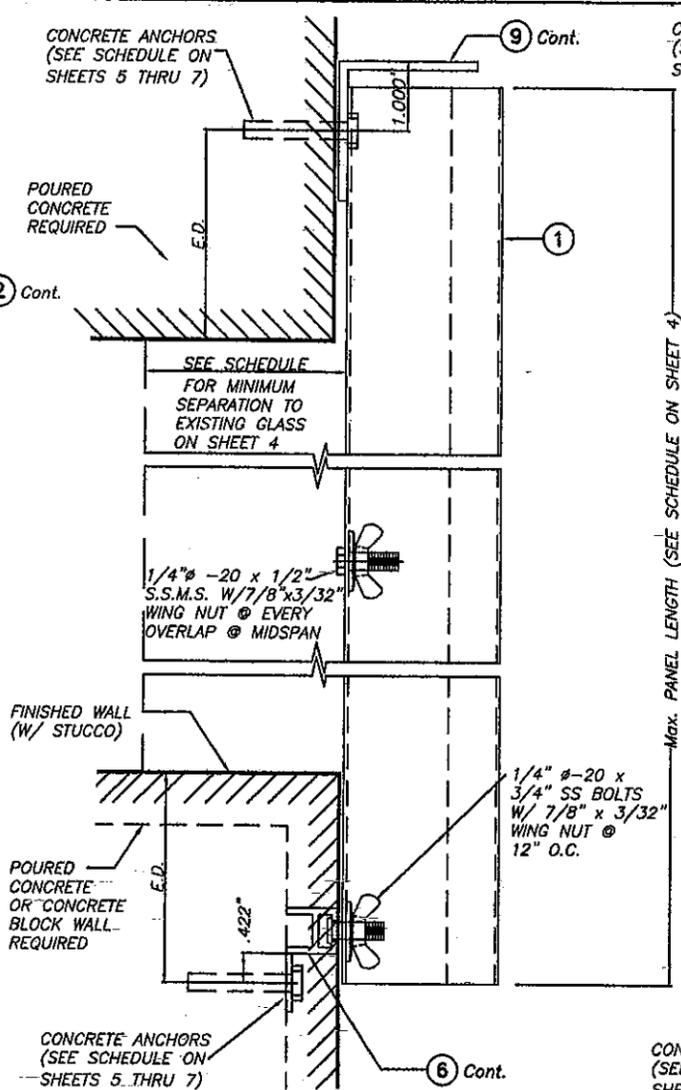


SECTION @ STUD

WALL MOUNTING INSTALLATION SECTION 1

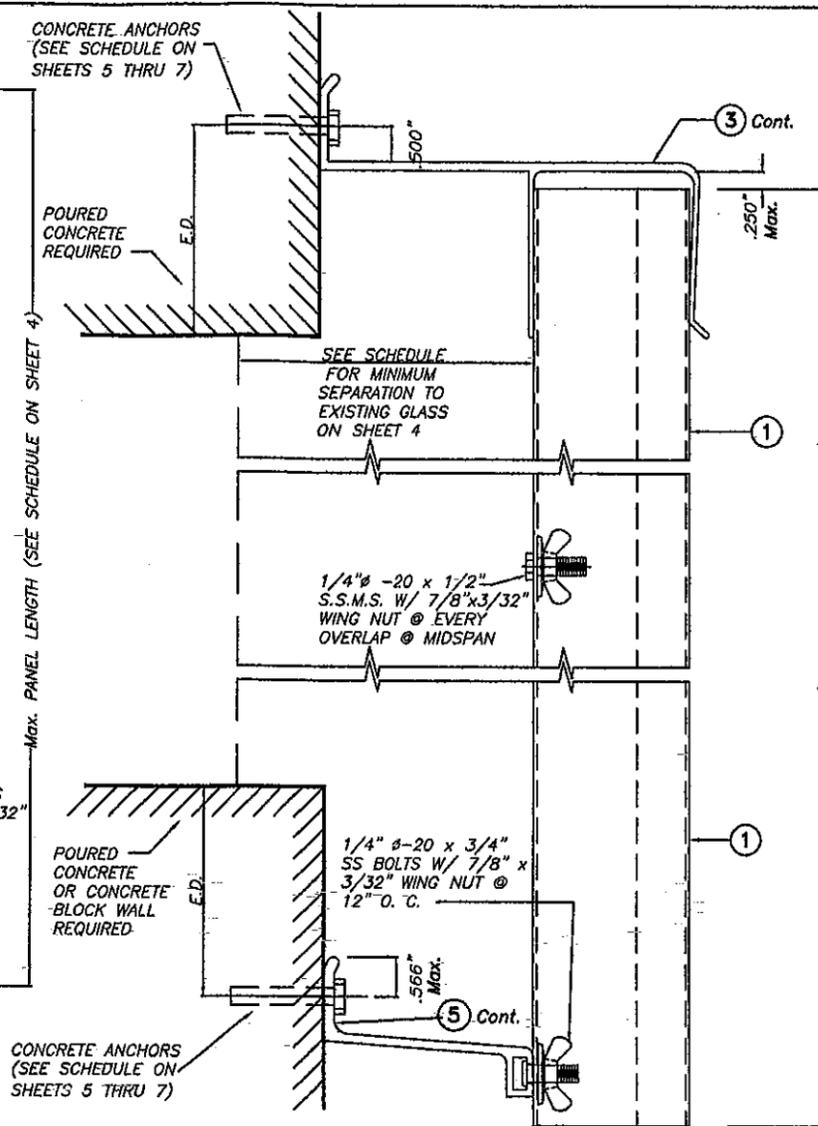
SCALE : 3/8" = 1"

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



BUILD OUT INSTALLATION SECTION 3

SCALE : 3/8" = 1"

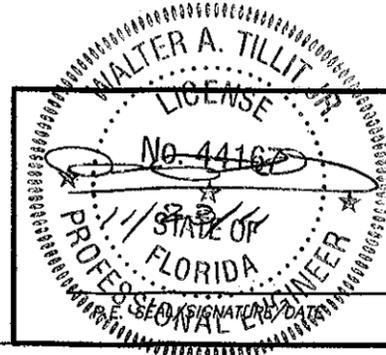


BUILD OUT INSTALLATION SECTION 4

SCALE : 3/8" = 1"

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

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



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FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL

EASTERN METAL SUPPLY, INC.

4268 WESTROADS DR.
 WEST PALM BEACH, FL 33407

M.C.V./A.G. DRAWN BY:

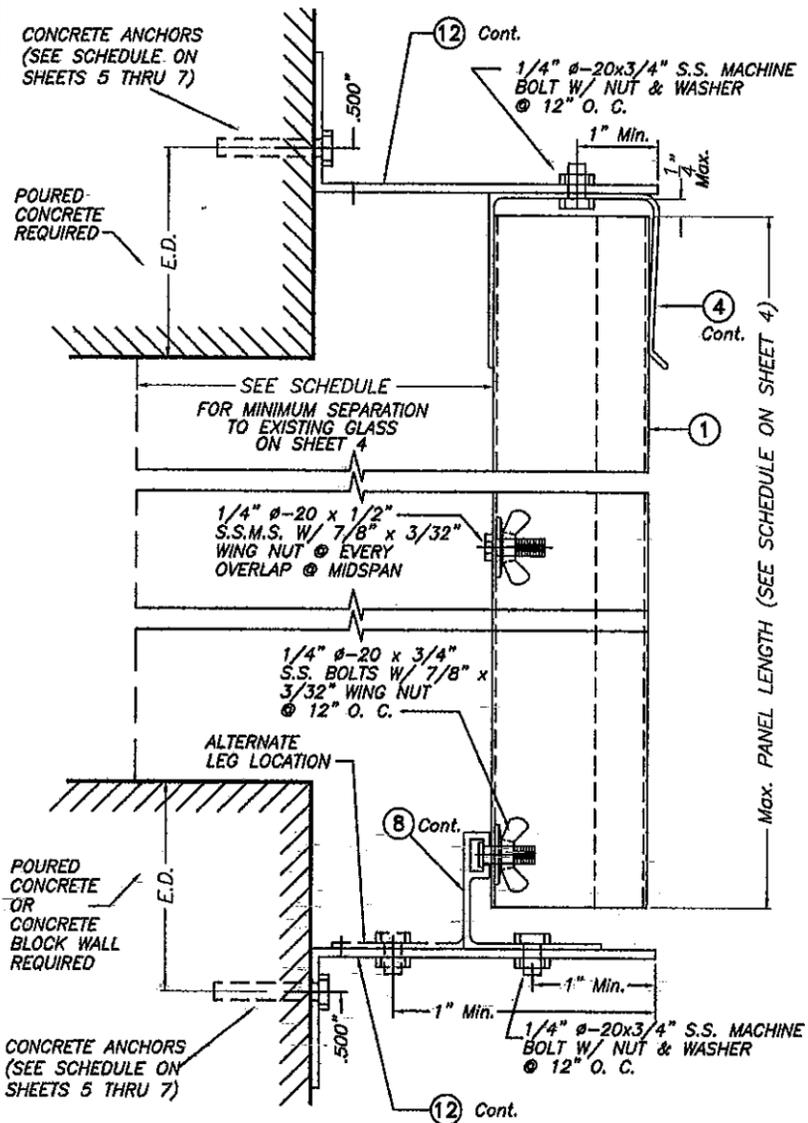
11/15/11 DATE

11-116 DRAWING No

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 09-013	11/15/11	3	-	-
2	-	-	4	-	-

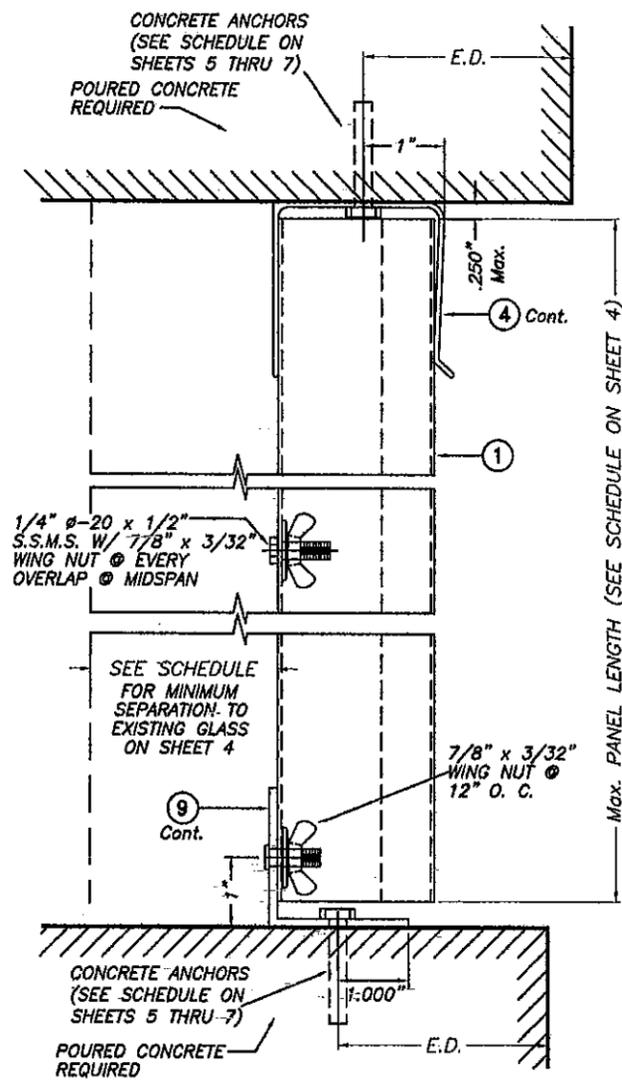
SHEET 2 OF 9

MIAMI-DADE COUNTY
 PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No 12-0209.07
 Expiration Date 06/07/2014
 By *Walter A. Tillit Jr.*
 Miami Dade Product Control



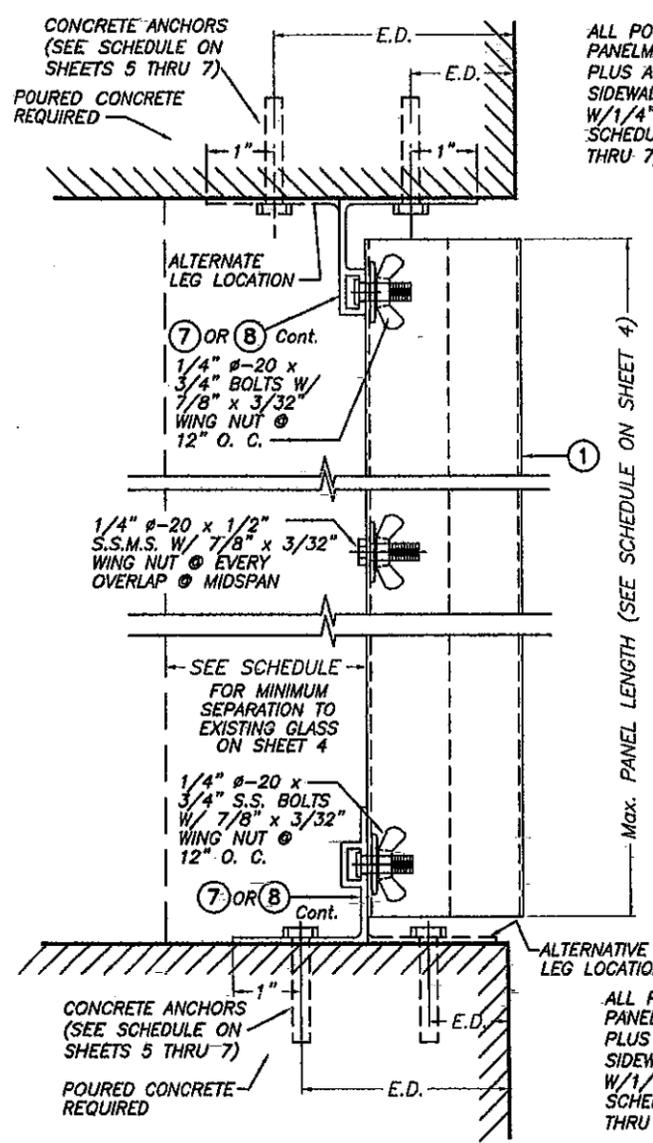
**BUILD OUT INSTALLATION
- SECTION 5**

SCALE : 3/8" = 1"



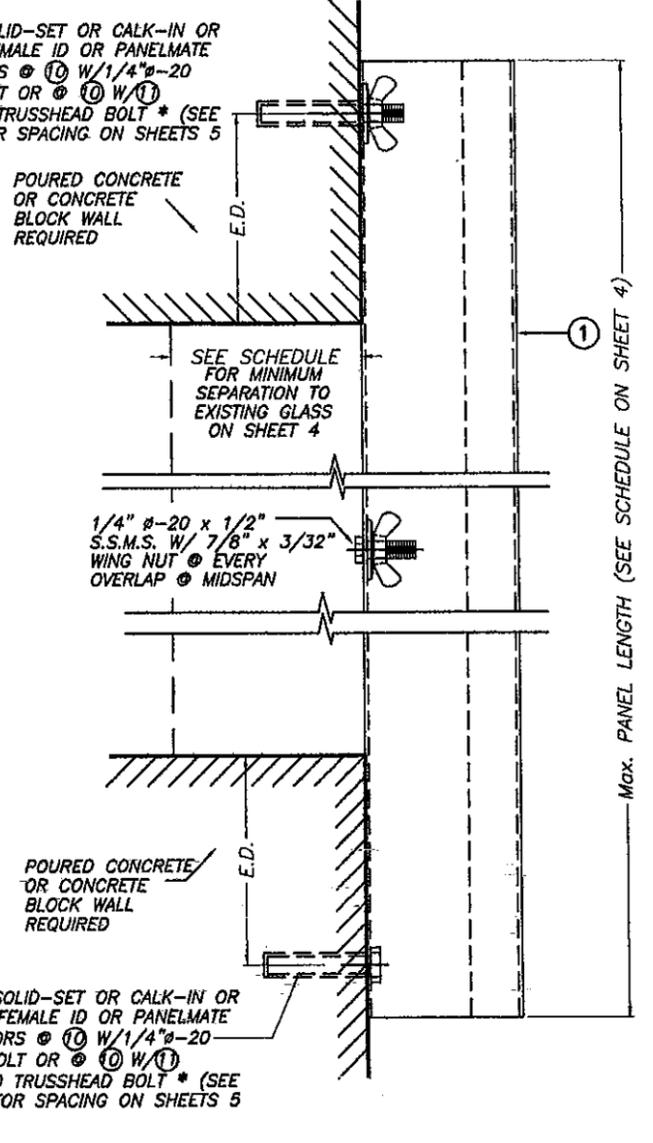
**CEILING & FLOOR MOUNTING
INSTALLATION - SECTION 6**

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"

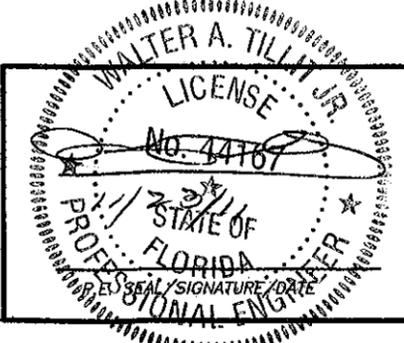
E.D. = EDGE DISTANCE
(SEE SCHEDULE ON
SHEET 5, 6 & 7 OF 9)

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

* SIDE WALK BOLTS ARE 3/4"x3/32"THICK
HEAD MACHINE SCREW W/LENGTH
AS PER NOTES A & B (SHEET 1)

* TRUSS HEAD BOLTS ARE 1/2"x1/8"THICK
HEAD MACHINE SCREW W/LENGTH
AS PER NOTES A & B (SHEET 1)

MIAMI-DADE COUNTY
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0209.07
Expiration Date 06/07/2014
By: *Walter A. Tillit Jr.*
Miami Dade Product Control

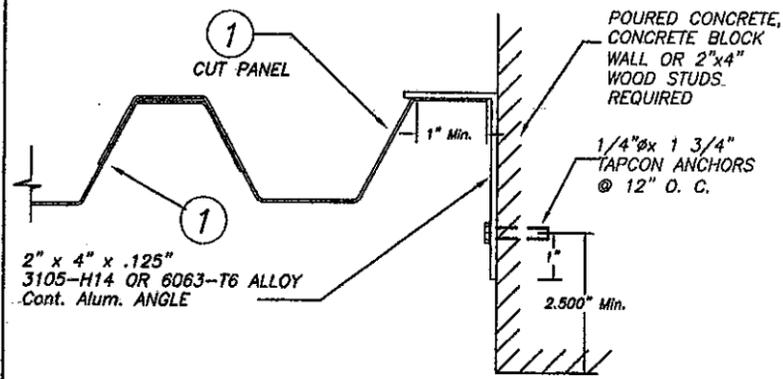


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WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

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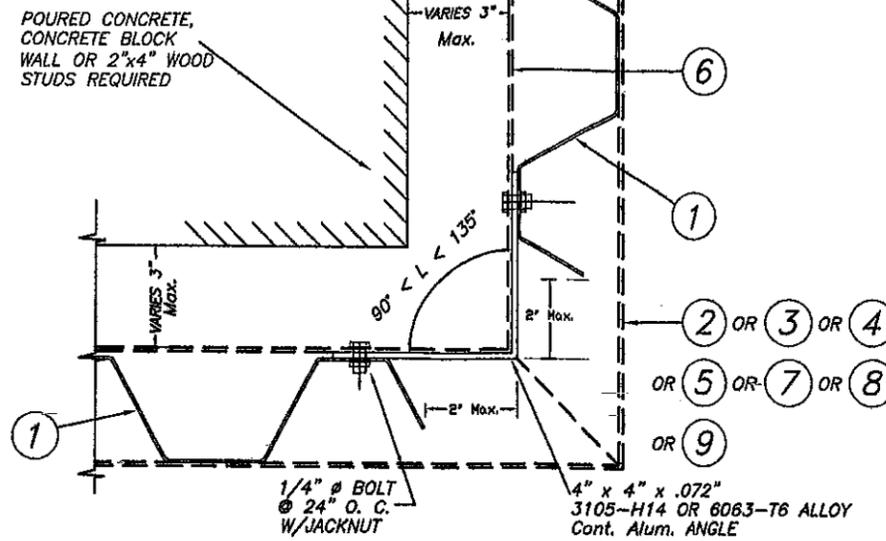
0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL		M.C.V./A.G. DRAWN BY:
EASTERN METAL SUPPLY, INC.		11/15/11 DATE
4268 WESTROADS DR. WEST PALM BEACH, FL 33407		11-116 DRAWING No
REV. NO	DESCRIPTION	DATE
1	OLD 09-013	11/15/11
2	-	-
3	-	-
4	-	-

SHEET 3 OF 9



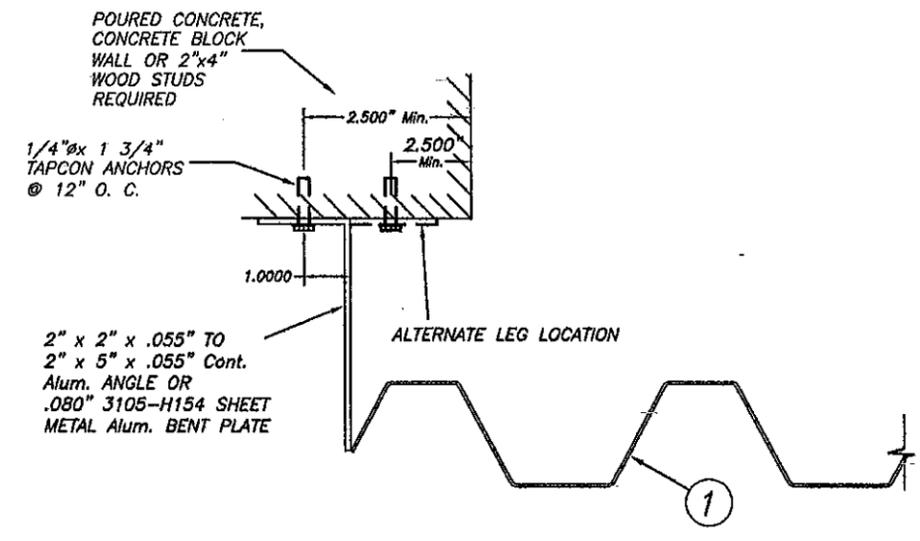
CASE A (Plan)

SCALE: 1/4" = 1"



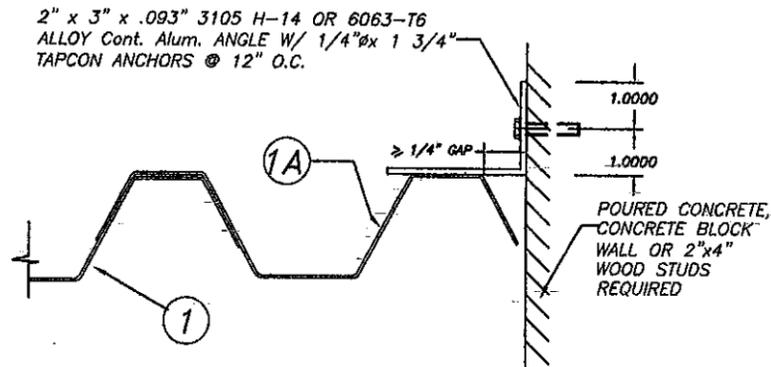
CASE B (Plan)

SCALE: 1/4" = 1"



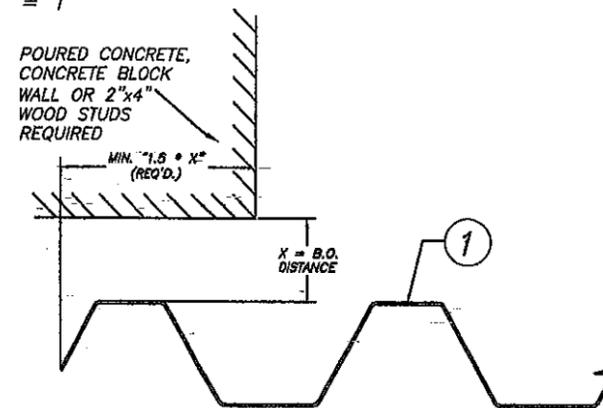
CASE C (Plan)

SCALE: 1/4" = 1"



CASE D (Plan)

SCALE: 1/4" = 1"



CASE E (Plan)

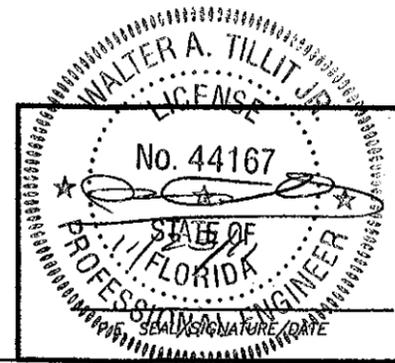
SCALE: 1/4" = 1"

END CLOSURES DETAILS

MAXIMUM 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

MIAMI-DADE COUNTY
 PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No 12-0209-07
 Expiration Date 06/07/2014
 By *Harley A. Miller*
 Miami Dade Product Control



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 WALTER A. TILLIT Jr. P.E.
 FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL

EASTERN METAL SUPPLY, INC.
 4268 WESTROADS DR.
 WEST PALM BEACH, FL 33407

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 09-013	11/15/11	3	--	--
2	--	--	4	--	--

M.C.V./A.G. DRAWN BY:
 11/15/11 DATE
 11-116 DRAWING No
 SHEET 4 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" (ft.)
	I.T.W. BUILDEX		ELCO FASTENING SYSTEMS		ELCO CONSTRUCTION PRODUCTS				POWER FASTENERS		ALL POINTS			
	TAPCONS/MAXI-SET TAPCONS		CRETE-FLEX SS4		PANELMATE FEMALE ID		PANELMATE PLUS		CALK-IN		SOLID-SET			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+60.0, -61.5	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	1 (TOP)	6'-0" OR LESS
	12"	10"	12"	8"	12"	12"	12"	11"	12"	11"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	12"	2 (TOP)	
	12"	10"	12"	8"	12"	12"	12"	11"	12"	11"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	3 (TOP)	
	12"	10"	12"	8"	12"	12"	12"	11"	12"	11"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	4 (TOP)	
	12"	10"	12"	8"	12"	12"	12"	11"	12"	11"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (TOP)	
	12"	9"	12"	7"	12"	12"	12"	10"	12"	10"	N/A	N/A	5 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	6 (TOP)	
	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	6 (BOTTOM)	
12"	N/A	10"	N/A	12"	N/A	N/A	N/A	11"	N/A	N/A	N/A	7 (TOP/BOTTOM)		
N/A	N/A	N/A	N/A	12"	12"	12"	12"	12"	6"	12"	12"	8 (TOP/BOTTOM)		
+66.0, -72.0	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	1 (TOP)	6'-0" OR LESS
	12"	8"	12"	7"	12"	12"	12"	10"	12"	9 1/2"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	12"	2 (TOP)	
	12"	8"	12"	7"	12"	12"	12"	10"	12"	9 1/2"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	3 (TOP)	
	12"	8"	12"	7"	12"	12"	12"	10"	12"	9 1/2"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	4 (TOP)	
	12"	8"	12"	7"	12"	12"	12"	10"	12"	9 1/2"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (TOP)	
	12"	6"	12"	5"	12"	10"	12"	7"	12"	7"	N/A	N/A	5 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	6 (TOP)	
	12"	N/A	10"	N/A	12"	N/A	N/A	N/A	11"	N/A	N/A	N/A	6 (BOTTOM)	
10"	N/A	8 1/2"	N/A	11"	N/A	N/A	N/A	9"	N/A	N/A	N/A	7 (TOP/BOTTOM)		
N/A	N/A	N/A	N/A	12"	12"	12"	6"	12"	6"	12"	12"	8 (TOP/BOTTOM)		
+60.0, -61.5	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	1 (TOP)	6'-0" TO 7'-6"
	12"	8"	12"	6 1/2"	12"	12"	12"	8"	12"	9"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	12"	2 (TOP)	
	12"	8"	12"	6 1/2"	12"	12"	12"	9"	12"	9"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	3 (TOP)	
	12"	8"	12"	6 1/2"	12"	12"	12"	9"	12"	9"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	4 (TOP)	
	12"	8"	12"	6 1/2"	12"	12"	12"	9"	12"	9"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (TOP)	
	12"	5"	10 1/2"	4"	12"	9"	12"	6"	12"	8"	N/A	N/A	5 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	6 (TOP)	
	11"	N/A	9 1/2"	N/A	12"	N/A	N/A	N/A	10 1/2"	N/A	N/A	N/A	6 (BOTTOM)	
9"	N/A	11 1/2"	N/A	10 1/2"	N/A	N/A	N/A	9 1/2"	N/A	N/A	N/A	7 (TOP/BOTTOM)		
N/A	N/A	N/A	N/A	12"	12"	12"	6"	12"	6"	12"	12"	8 (TOP/BOTTOM)		

** MINIMUM ANCHOR SPACING LISTED BELOW ARE AS PER MIN. EDGE DISTANCE SCHEDULE. FOR E.D. LESS SCHEDULE INDICATED, REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. 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 Δ	FEMALE PANELMATE	PANELMATE PLUS	CALK-IN	SOLID-SET
	Min. spacing=3"	Min. spacing=3"	Min. spacing=3"	Min. spacing=3"	Min. spacing=2 1/2"	Min. spacing=3"
1 1/2"	.35	.50	-	-	-	-
2 1/2"	-	-	-	-	0.50	.63
3"	1.00	1.00	-	1.00	0.63	-
3 1/2"	-	-	1.00	-	1.00	1.00

Δ REDUCTION FACTOR APPLICABLE FOR POURED CONCRETE ONLY.

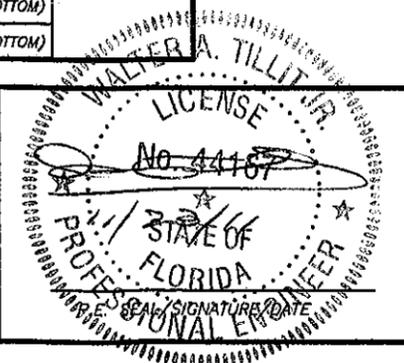
E.D. = EDGE DISTANCE

** MINIMUM ANCHORS E.D. SCHEDULE		
ANCHORS TYPE	-MINIMUM EDGE DISTANCE (E.D.)	
	CONCRETE	C. BLOCK
1/4" TAPCON	3"	3"
1/4" PANELMATE FEMALE ID	3"	3 1/2"
1/4" PANELMATE PLUS	3"	3 1/2"
1/4" CALK-IN	3"	4"
1/4" SOLID-SET	3 1/2"	3 1/2"

MIAMI-DADE COUNTY
 PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No 12-0209.07
 Expiration Date 06/07/2014
 By *Walter A. Tillit*
 Miami Dade Product Control

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

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



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 TILLIT TESTING & ENGINEERING COMPANY
 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166
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 EB-0006719
 WALTER A. TILLIT Jr. P.E.
 FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL
EASTERN METAL SUPPLY, INC.
 4268 WESTROADS DR.
 WEST PALM BEACH, FL 33407

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 09-013	11/15/11	3	-	-
2	-	-	4	-	-

M.C.V./A.G. DRAWN BY:
 11/15/11 DATE
 11-116 DRAWING No
 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" (ft.)
	TAPCONS/MAZI-SET TAPCONS		ELCO FASTENING SYSTEMS		ELCO CONSTRUCTION PRODUCTS				POWER FASTENERS		ALL POINTS			
	CRETE-FLEX SS4		CRETE-FLEX SS4		PANELMATE FEMALE ID		PANELMATE PLUS		CALK-IN		SOLID-SET			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+66.0, -72.0	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	1 (TOP)	>6'-0" TO 7'-6"
	12"	6"	12"	5 1/2"	12"	11"	12"	8"	12"	7 1/2"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	12"	2 (TOP)	
	12"	6"	12"	5 1/2"	12"	11"	12"	8"	12"	7 1/2"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	3 (TOP)	
	12"	6"	12"	5 1/2"	12"	11"	12"	8"	12"	7 1/2"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	4 (TOP)	
	12"	6"	12"	5 1/2"	12"	11"	12"	8"	12"	7 1/2"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (TOP)	
	11"	4"	8"	3"	12"	6"	12"	4"	11"	4 1/2"	N/A	N/A	5 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	11"	N/A	N/A	N/A	6 (TOP)	
	9"	N/A	8"	N/A	10"	N/A	N/A	N/A	8"	N/A	N/A	N/A	6 (BOTTOM)	
8"	N/A	10"	N/A	9"	N/A	N/A	N/A	7"	N/A	N/A	N/A	7 (TOP/BOTTOM)		
N/A	N/A	N/A	N/A	12"	12"	12"	6"	12"	6"	12"	12"	8 (TOP/BOTTOM)		
+60.0, -61.5	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	1 (TOP)	>7'-6" TO 8'-6"
	12"	7"	12"	5 1/2"	12"	12"	12"	8"	12"	8"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	12"	2 (TOP)	
	12"	7"	12"	5 1/2"	12"	12"	12"	8"	12"	8"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	3 (TOP)	
	12"	7"	12"	5 1/2"	12"	12"	12"	8"	12"	8"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	4 (TOP)	
	12"	7"	12"	5 1/2"	12"	12"	12"	8"	12"	8"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (TOP)	
	12"	4"	8 1/2"	3"	12"	7"	12"	4"	12"	4 1/2"	N/A	N/A	5 (BOTTOM)	
	9"	N/A	12"	N/A	12"	N/A	N/A	N/A	11"	N/A	N/A	N/A	6 (TOP)	
	10 1/2"	N/A	8 1/2"	N/A	10 1/2"	N/A	N/A	N/A	9"	N/A	N/A	N/A	6 (BOTTOM)	
8"	N/A	10 1/2"	N/A	9"	N/A	N/A	N/A	7"	N/A	N/A	N/A	7 (TOP/BOTTOM)		
N/A	N/A	N/A	N/A	12"	12"	12"	6"	12"	6"	12"	12"	8 (TOP/BOTTOM)		
+66.0, -72.0	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	1 (TOP)	>7'-6" TO 8'-6"
	12"	6"	12"	4 1/2"	12"	10"	12"	7"	12"	6 1/2"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	12"	2 (TOP)	
	12"	6"	12"	4 1/2"	12"	10"	12"	7"	12"	6 1/2"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	3 (TOP)	
	12"	6"	12"	4 1/2"	12"	10"	12"	7"	12"	6 1/2"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	4 (TOP)	
	12"	6"	12"	4 1/2"	12"	10"	12"	7"	12"	6 1/2"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (TOP)	
	9"	3"	6"	N/A	11"	5"	11"	3"	9"	3 1/2"	N/A	N/A	5 (BOTTOM)	
	11"	N/A	11"	N/A	11 1/2"	N/A	N/A	N/A	10"	N/A	N/A	N/A	6 (TOP)	
	8"	N/A	7"	N/A	9"	N/A	N/A	N/A	7"	N/A	N/A	N/A	6 (BOTTOM)	
7"	N/A	6 1/2"	N/A	7 1/2"	N/A	N/A	N/A	6"	N/A	N/A	N/A	7 (TOP/BOTTOM)		
N/A	N/A	N/A	N/A	12"	6"	12"	6"	12"	6"	12"	12"	8 (TOP/BOTTOM)		

** MINIMUM ANCHOR SPACINGS LISTED BELOW ARE AS PER MIN. EDGE DISTANCE SCHEDULE. FOR E.D. LESS THAN INDICATED ON SCHEDULE, REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. 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 Δ	FEMALE PANELMATE	PANELMATE PLUS	CALK-IN	SOLID-SET
	Min. spacing=3"	Min. spacing=3"	Min. spacing=3"	Min. spacing=3"	Min. spacing=2 1/2"	Min. spacing=3"
1 1/2"	.35	.50	-	-	-	-
2 1/2"	-	-	-	-	0.50	.63
3"	1.00	1.00	-	1.00	0.63	-
3 1/2"	-	-	1.00	-	1.00	1.00

Δ REDUCTION FACTOR APPLICABLE FOR POURED CONCRETE ONLY.

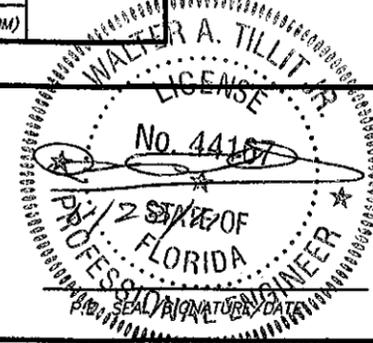
E.D. = EDGE DISTANCE

** MINIMUM ANCHORS E.D. SCHEDULE		
ANCHORS TYPE	MINIMUM EDGE DISTANCE (E.D.)	
	CONCRETE	C. BLOCK
1/4" TAPCON	3"	3"
1/4" PANELMATE FEMALE ID	3"	3 1/2"
1/4" PANELMATE PLUS	3"	3 1/2"
1/4" CALK-IN	3"	4"
1/4" SOLID-SET	3 1/2"	3 1/2"

MIAMI-DADE COUNTY
 PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 12-0209.07
 Expiration Date 06/07/2014
 By: *[Signature]*
 Miami Dade Product Control

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

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



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 TILLIT TESTING & ENGINEERING COMPANY
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 Phone: (305)871-1530 Fax: (305)871-1531
 EB-0006719
 WALTER A. TILLIT Jr. P.E.
 FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL		M.C.V./A.G. DRAWN BY:
EASTERN METAL SUPPLY, INC.		11/15/11 DATE
4268 WESTROADS DR. WEST PALM BEACH, FL 33407		11-116 DRAWING No
REV. NO	DESCRIPTION	DATE
1	OLD 09-013	11/15/11
2	-	-
REV. No	DESCRIPTION	DATE
3	-	-
4	-	-

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **												APPLICABLE TO SECTIONS # 1 & 2 - ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	I.T.W. BUILDX		ELCO FASTENING SYSTEMS		ELCO CONSTRUCTION PRODUCTS				POWER FASTENERS		ALL POINTS			
	TAPCONS/MAXI-SET TAPCONS		CRETE-FLEX SS4		PANELMATE FEMALE ID		PANELMATE PLUS		CALK-IN		SOLID-SET			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+66.0, -76.0	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	1 (TOP)	6'-0" OR LESS
	12"	8"	12"	6 1/2"	12"	12"	12"	9"	12"	9"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	12"	2 (TOP)	
	12"	8"	12"	6 1/2"	12"	12"	12"	9"	12"	9"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	3 (TOP)	
	12"	8"	12"	6 1/2"	12"	12"	12"	9"	12"	9"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	4 (TOP)	
	12"	8"	12"	6 1/2"	12"	12"	12"	9"	12"	9"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (TOP)	
	12"	5"	12"	4 1/2"	12"	9"	12"	6"	12"	6"	N/A	N/A	5 (BOTTOM)	
	12"	N/A	11"	N/A	12"	N/A	N/A	N/A	12"	N/A	N/A	N/A	6 (TOP)	
	11"	N/A	12"	N/A	12"	N/A	N/A	N/A	10"	N/A	N/A	N/A	6 (BOTTOM)	
9"	N/A	9 1/2"	N/A	10 1/2"	N/A	N/A	N/A	9"	N/A	N/A	N/A	7 (TOP/BOTTOM)		
N/A	N/A	N/A	N/A	12"	12"	12"	6"	12"	6"	12"	12"	8 (TOP/BOTTOM)		
+66.0, -76.0	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	1 (TOP)	>6'-0" TO 7'-6"
	12"	6"	12"	5"	12"	11"	12"	7 1/2"	12"	7"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	12"	2 (TOP)	
	12"	6 1/2"	12"	5"	12"	12"	12"	7 1/2"	12"	7"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	3 (TOP)	
	12"	6"	12"	5"	12"	11"	12"	7 1/2"	12"	7"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	4 (TOP)	
	12"	6"	12"	5"	12"	11"	12"	7 1/2"	12"	7"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (TOP)	
	10 1/2"	3 1/2"	7"	4"	12"	6"	12"	4"	10 1/2"	4"	N/A	N/A	5 (BOTTOM)	
	11 1/2"	N/A	11"	N/A	12"	N/A	N/A	N/A	10 1/2"	N/A	N/A	N/A	6 (TOP)	
	9"	N/A	7 1/2"	N/A	9 1/2"	N/A	N/A	N/A	8"	N/A	N/A	N/A	6 (BOTTOM)	
7 1/2"	N/A	9 1/2"	N/A	8 1/2"	N/A	N/A	N/A	7"	N/A	N/A	N/A	7 (TOP/BOTTOM)		
N/A	N/A	N/A	N/A	12"	6"	12"	6"	12"	6"	12"	12"	8 (TOP/BOTTOM)		
+66.0, -70.0	12"	N/A	11 1/2"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	1 (TOP)	>7'-6" TO 8'-6"
	12"	5"	11 1/2"	4 1/2"	12"	9"	12"	6"	12"	6 1/2"	12"	12"	1 (BOTTOM)	
	12"	N/A	11 1/2"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	12"	2 (TOP)	
	12"	5"	11 1/2"	4 1/2"	12"	9"	12"	6"	12"	6 1/2"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	11 1/2"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	3 (TOP)	
	12"	5"	11 1/2"	4 1/2"	12"	9"	12"	6"	12"	6 1/2"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	11 1/2"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	4 (TOP)	
	12"	5"	11 1/2"	4 1/2"	12"	9"	12"	6"	12"	6 1/2"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	11 1/2"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (TOP)	
	8"	N/A	5 1/2"	3"	10"	4 1/2"	10"	3"	8"	3"	N/A	N/A	5 (BOTTOM)	
	10"	N/A	10 1/2"	N/A	11"	N/A	N/A	N/A	9"	N/A	N/A	N/A	6 (TOP)	
	8"	N/A	7"	N/A	8 1/2"	N/A	N/A	N/A	7"	N/A	N/A	N/A	6 (BOTTOM)	
7"	N/A	8 1/2"	N/A	7 1/2"	N/A	N/A	N/A	6"	N/A	N/A	N/A	7 (TOP/BOTTOM)		
N/A	N/A	N/A	N/A	12"	6"	12"	6"	12"	6"	12"	12"	8 (TOP/BOTTOM)		

** MINIMUM ANCHOR SPACINGS LISTED BELOW ARE AS PER MIN. EDGE DISTANCE SCHEDULE. FOR E.D. LESS THAN INDICATED ON SCHEDULE, REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. 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 Δ	FEMALE PANELMATE	PANELMATE PLUS	CALK-IN	SOLID-SET
	Min. spacing=3"	Min. spacing=3"	Min. spacing=3"	Min. spacing=3"	Min. spacing=2 1/2"	Min. spacing=3"
1 1/2"	.35	.50	-	-	-	-
2 1/2"	-	-	-	-	0.50	.63
3"	1.00	1.00	-	1.00	0.63	-
3 1/2"	-	-	1.00	-	1.00	1.00

Δ REDUCTION FACTOR APPLICABLE FOR POURED CONCRETE ONLY.

E.D. = EDGE DISTANCE

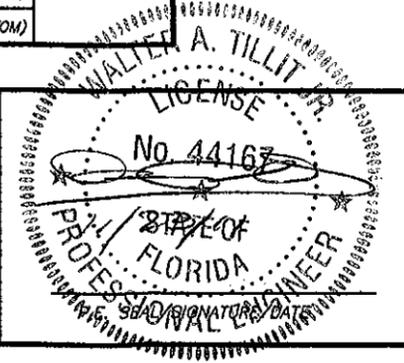
ANCHORS TYPE	MINIMUM EDGE DISTANCE (E.D.)	
	CONCRETE	C. BLOCK
	1/4" TAPCON	3"
1/4" PANELMATE FEMALE ID	3"	3 1/2"
1/4" PANELMATE PLUS	3"	3 1/2"
1/4" CALK-IN	3"	4"
1/4" SOLID-SET	3 1/2"	3 1/2"

** MINIMUM ANCHORS E.D. SCHEDULE

MIAMI-DADE COUNTY
 PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No 12-0209.07
 Expiration Date 06/07/2014
 By *Walter A. Tillit Jr.*
 Miami Dade Product Control

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

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

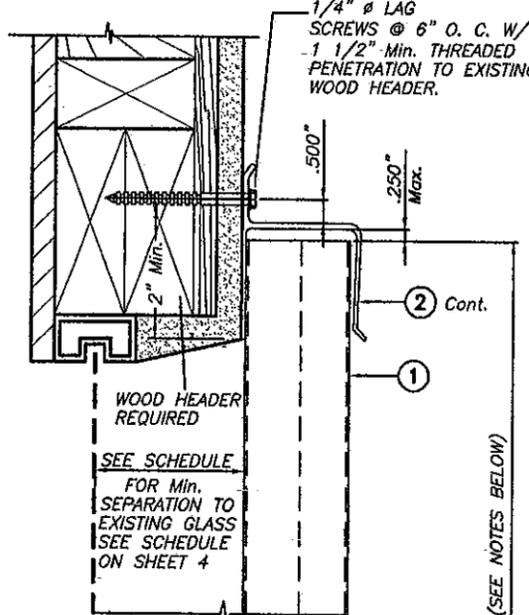


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 TILLIT TESTING & ENGINEERING COMPANY
 6355 N.W. 38th St., Ste. 305, VIRGINIA GARDENS, FL 33166
 Phone: (305)871-1530 Fax: (305)871-1531
 EB-0006719
 WALTER A. TILLIT Jr. P.E.
 FLORIDA Lic. # 44167

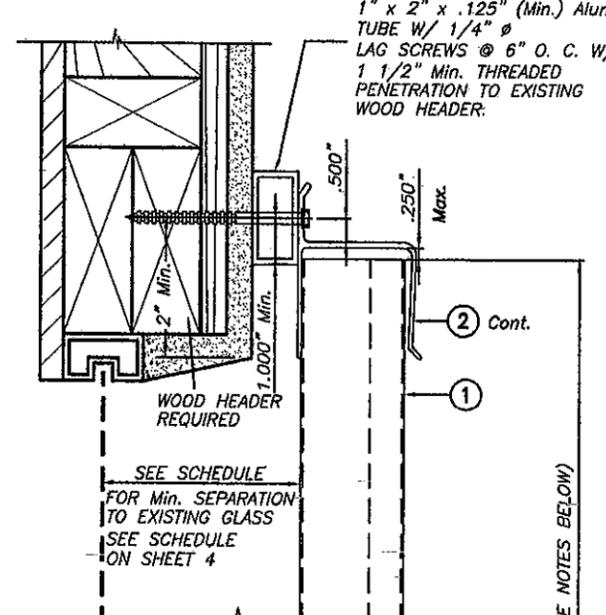
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL
EASTERN METAL SUPPLY, INC.
 4268 WESTROADS DR.
 WEST PALM BEACH, FL 33407
 M.C.V./A.G. DRAWN BY:
 11/15/11 DATE
 11-116 DRAWING No
 SHEET 7 OF 9

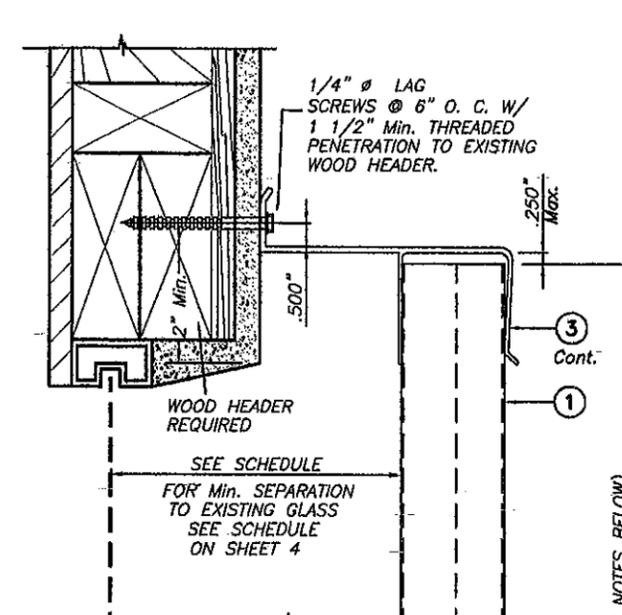
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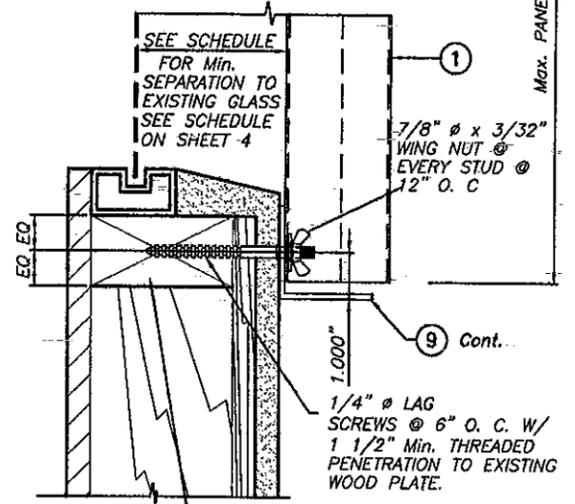
ALTERNATIVE 1



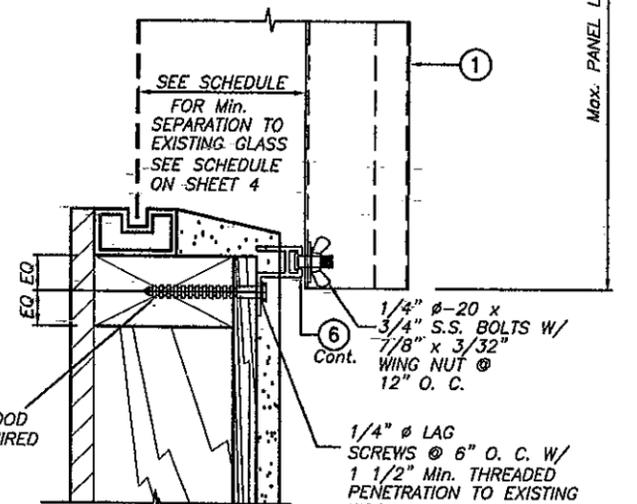
ALTERNATIVE 3



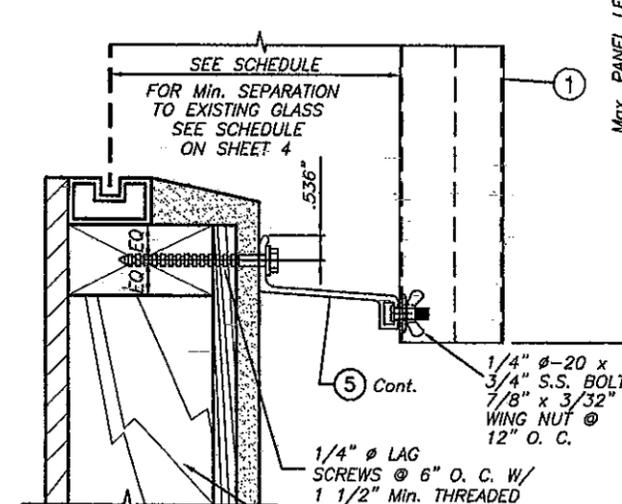
ALTERNATIVE 5



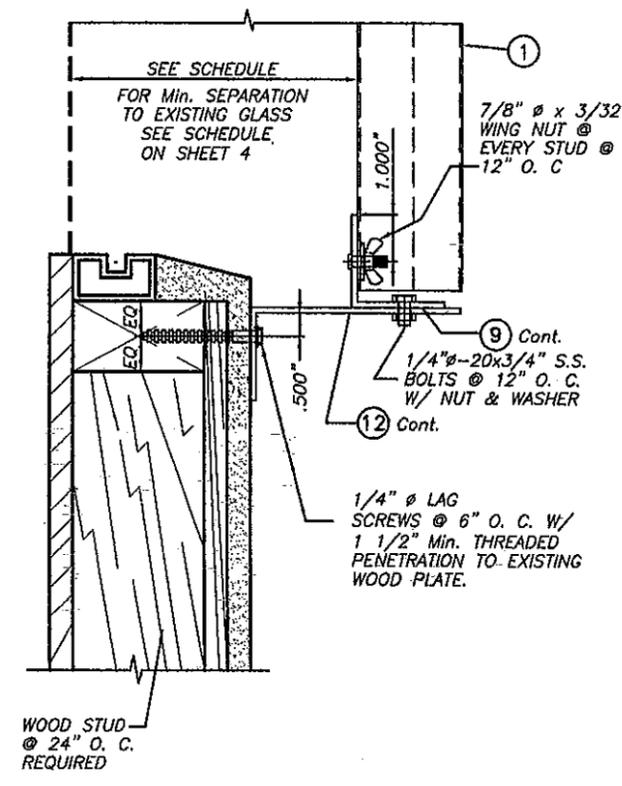
ALTERNATIVE 2



ALTERNATIVE 4



ALTERNATIVE 6



ALTERNATIVE 7

WALL MOUNTING INSTALLATIONS

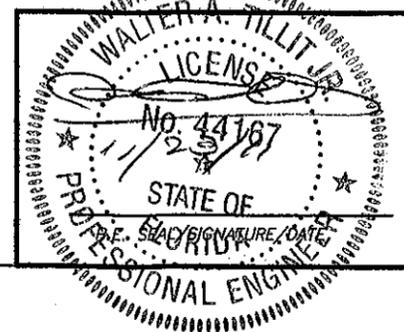
SECTIONS A

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 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.

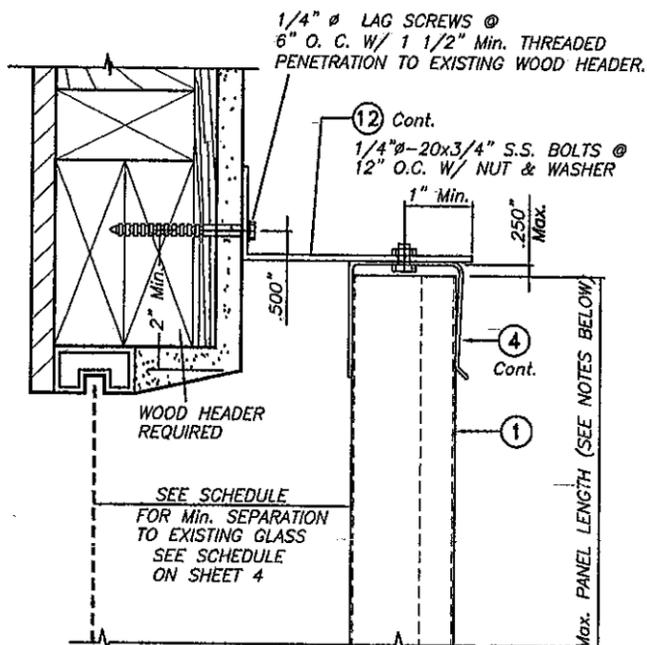


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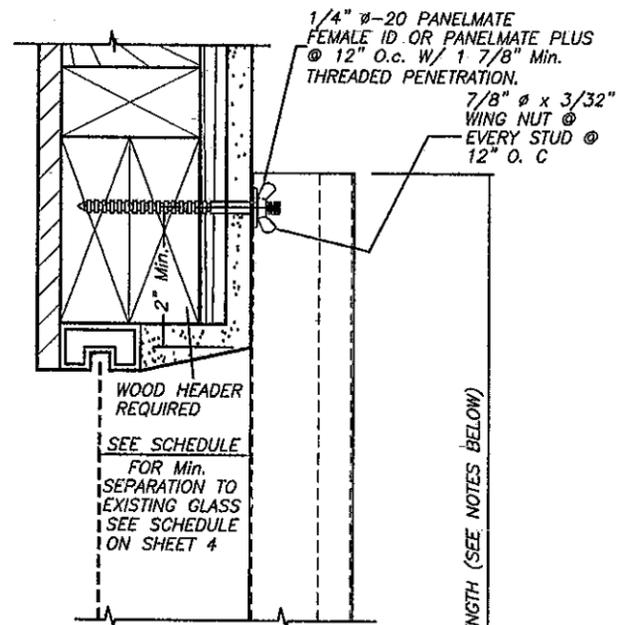
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL		M.C.V./A.G. DRAWN BY:	
EASTERN METAL SUPPLY, INC.		11/15/11 DATE	
4268 WESTROADS DR. WEST PALM BEACH, FL 33407		11-116 DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No
1	OLD 09-013	11/15/11	3
2	-	-	4

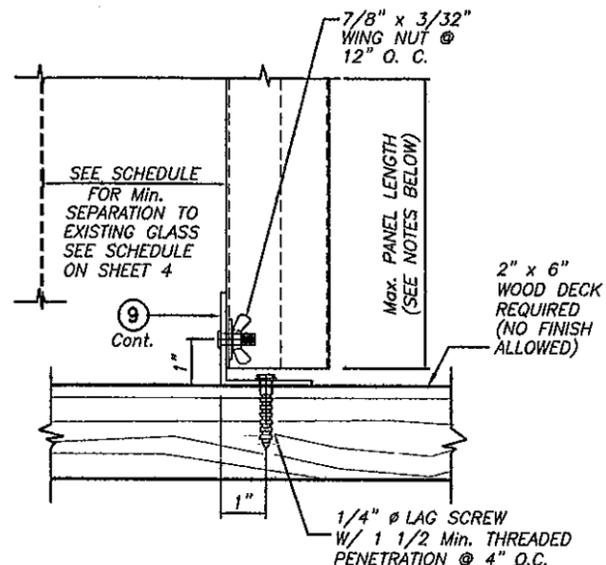
MIAMI-DADE COUNTY
PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No. 12-0209.07
Expiration Date 06/07/2014
By *Heather A. Miller*
Miami Dade Product Control



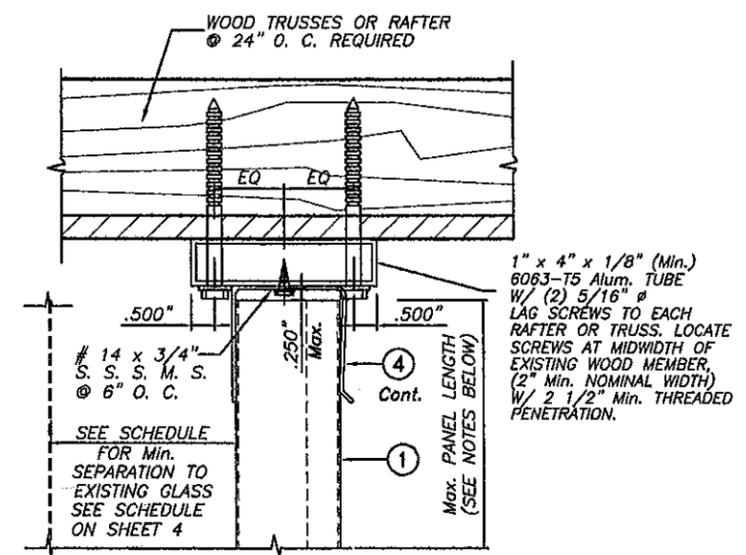
ALTERNATIVE 8



ALTERNATIVE 10

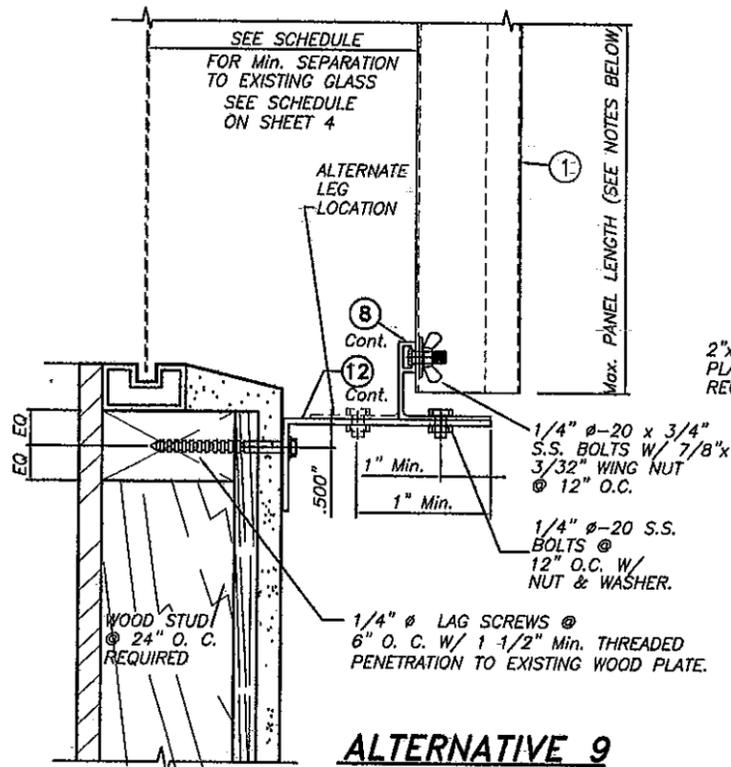


ALTERNATIVE 1



ALTERNATIVE 3

(Max. A.S.D. DESIGN PRESSURE RATING= ± 61.0 psf
Max. PANEL LENGTH= 8'-0")

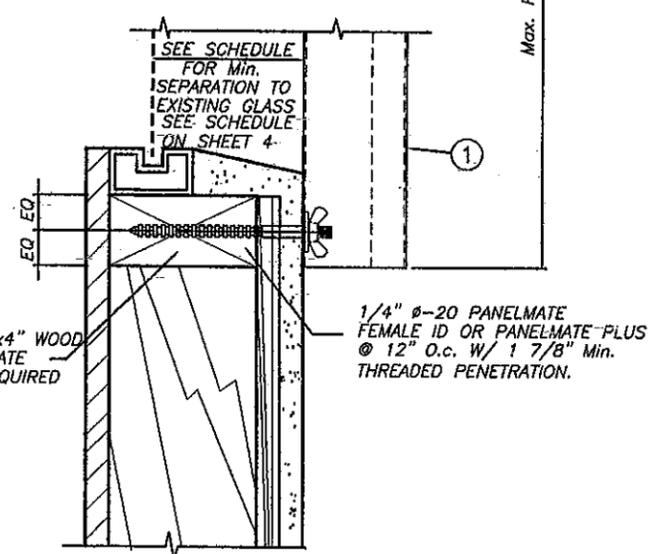


ALTERNATIVE 9

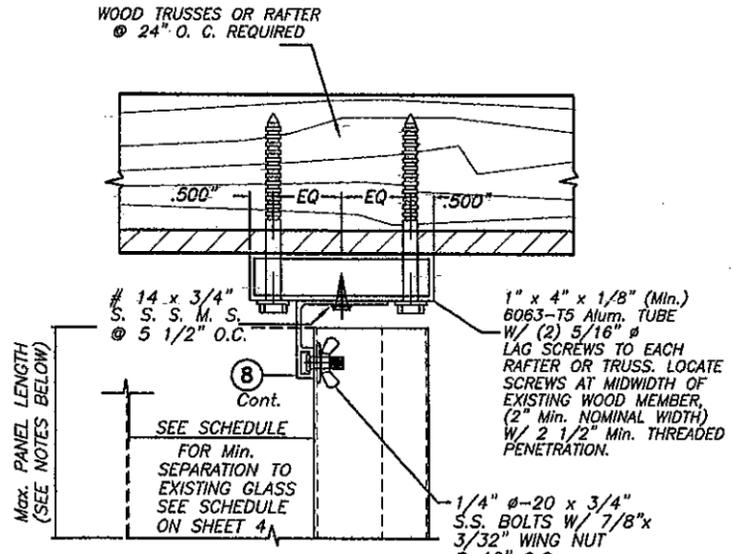
WALL MOUNTING INSTALLATIONS

SECTIONS A

SCALE : 1/4" = 1"

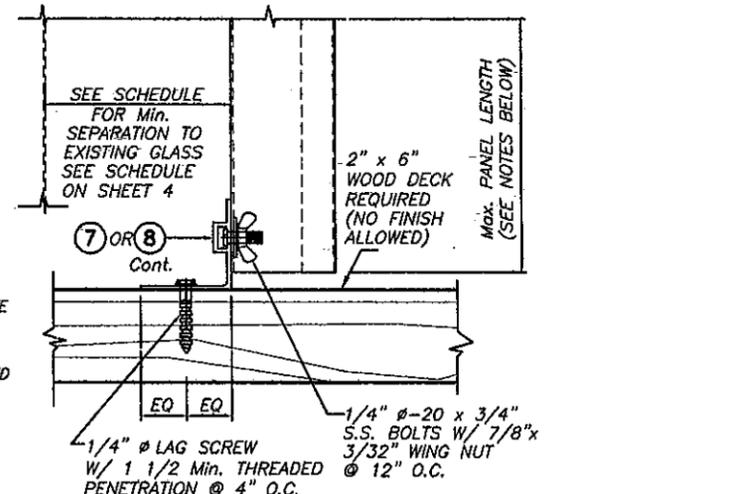


ALTERNATIVE 11



ALTERNATIVE 2

(Max. A.S.D. DESIGN PRESSURE RATING= ± 61.0 psf
Max. PANEL LENGTH= 8'-0")



ALTERNATIVE 4

NOTE FOR COMBINATION OF SECTIONS:

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

CEILING & FLOOR MOUNTING INSTALLATIONS

SECTIONS B

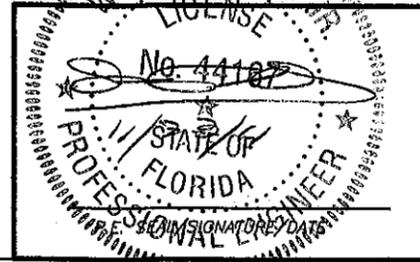
SCALE : 1/4" = 1"

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

NOTES:

- INSTALLATIONS ARE ONLY VALID FOR MAX. A.S.D. DESIGN PRESSURE RATINGS 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. A.S.D. DESIGN PRESSURE RATING OF ± 61.0 PSF SHALL BE USED.
- 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.

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6355 N.W. 38th St., Ste. 305, VIRGINIA GARDENS, FL 33168
Phone : (305)871-1530 Fax : (305)871-1531
EB-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

0.030" THICK GALVANIZED BERTHA STEEL STORM PANEL

EASTERN METAL SUPPLY, INC.

4268 WESTROADS DR.
WEST PALM BEACH, FL 33407

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 09-013	11/15/11	3	-	-
2	-	-	4	-	-

M.C.V./A.G. DRAWN BY:

11/15/11 DATE

11-116 DRAWING No

SHEET 9 OF 9

MIAMI-DADE COUNTY

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By *[Signature]*

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