



**BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908**

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 by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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: 0.072" Extruded Bertha Aluminum Storm Panels Shutter

APPROVAL DOCUMENT: Drawing No. 02-445, titled "Extruded Bertha Storm Panel", sheets 1 through 8 of 8, prepared by Tilteco, Inc., dated September 05, 2002, signed and sealed by Walter A. Tillit Jr., P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", 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 **renews NOA # 02-0809.03** and consists of this page 1, evidence submitted page(s) as well as approval document mentioned above.

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



Helmy A. Makar
11/13/03

**NOA No 03-0812.06
Expiration Date: 10/30/2008
Approval Date: 11/13/2003
Page 1**

Eastern Metal Supply, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. **EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #96-0913.01**
 - A. **DRAWINGS**
 1. *Drawing No. 96-144, Eastern Metal Supply, Inc., Extruded Bertha Storm Panel, sheets 1 through 8 of 8, prepared by Tilteco, Inc., revision 2 dated 10/02/97, 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 on 0.072" Aluminum Storm Panels, prepared by American Test Lab of South Florida, Report No. ATL 0531.01-96, dated 07/21/96, signed and sealed by William R. Mehner, P.E.*
 - C. **CALCULATIONS**
 1. *Comparative Analysis and Anchor Analysis, dated 07/02/96, pages 1 through 13, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E.*
 2. *Calculations for revised anchor schedule, dated 05/16/97, pages 1 through 22, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E.*
 - D. **MATERIAL CERTIFICATIONS**
 1. *Mill Certified Inspection Report, dated 04/12/96, for Aluminum Alloy 6063-T6 by Easco Aluminum Company with chemical composition and physical properties.*
 2. *Certified Tensile Test Report by Certified Testing Laboratories Report No. CTL 3689B dated 08/21/96, for Aluminum Alloy, signed and sealed by Ramesh Patel, P.E.*
2. **EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #00-0809.01**
 - A. **DRAWINGS**
 1. *None.*
 - B. **TESTS**
 1. *None.*
 - C. **CALCULATIONS**
 1. *None.*
 - D. **MATERIAL CERTIFICATIONS**
 1. *None.*



Helmy A. Makar, P. E.
Product Control Examiner
NOA No 03-0812.06
Expiration Date: 10/30/2008
Approval Date: 11/13/2003

Eastern Metal Supply, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. OTHERS

1. *Letter from Eastern Metal Supply Inc., dated July 28, 2000, signed by Mr. Bill Feeley, certifies that the product has not changed.*
2. *Letter from Tiltico, Inc., dated July 28, 2000, signed and sealed by Walter A. Tillit Jr., P.E., certify that he is still in the engineering business.*

3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #02-0809.03

A. DRAWINGS

1. *Drawing No. 02-445, titled "Extruded Bertha Storm Pane", sheets 1 through 8 of 8, 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.*

4. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *None.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. QUALITY ASSURANCE

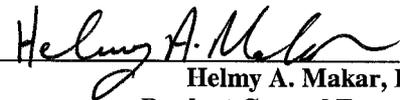
1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

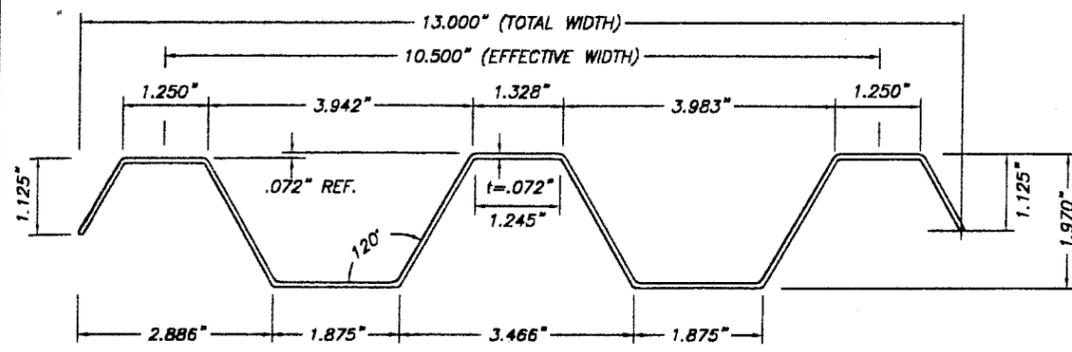
1. *None.*

F. OTHERS

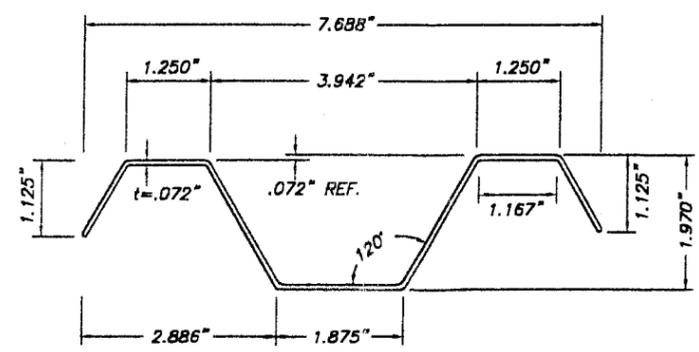
1. *Letter from Tilteco, Inc., dated July 30, 2003, signed and sealed by Walter A. Tillit Jr., P.E., stating that he is still the engineer of record for this shutter and continues to be in the engineering business.*



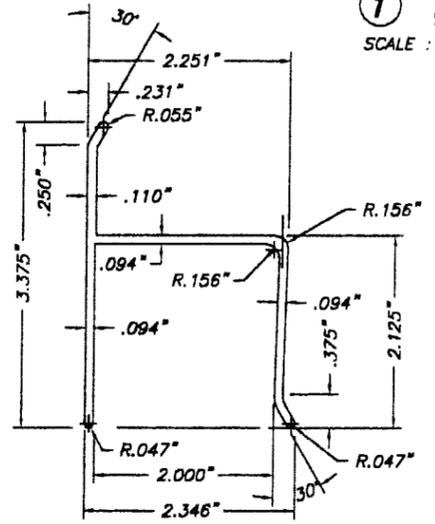
Helmy A. Makar, P. E.
Product Control Examiner
NOA No 03-0812.06
Expiration Date: 10/30/2008
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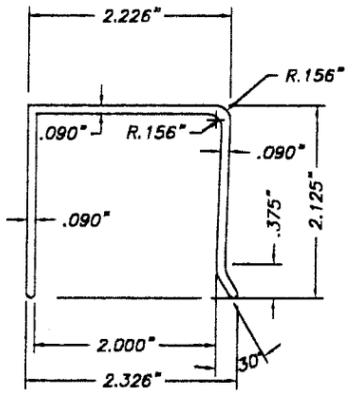
1 PANEL
SCALE: 3/8" = 1"



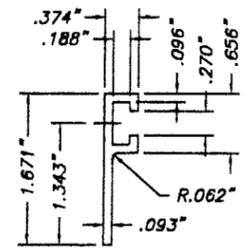
1A HALF PANEL
SCALE: 3/8" = 1"



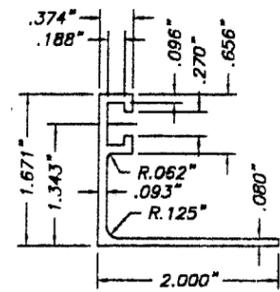
2 "h" HEADER
SCALE: 1/2" = 1"



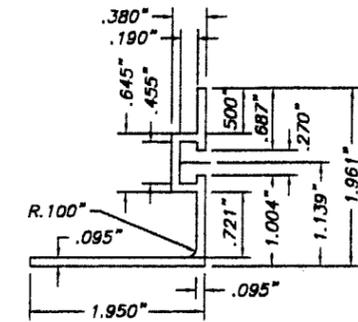
3 "U" HEADER
SCALE: 1/2" = 1"



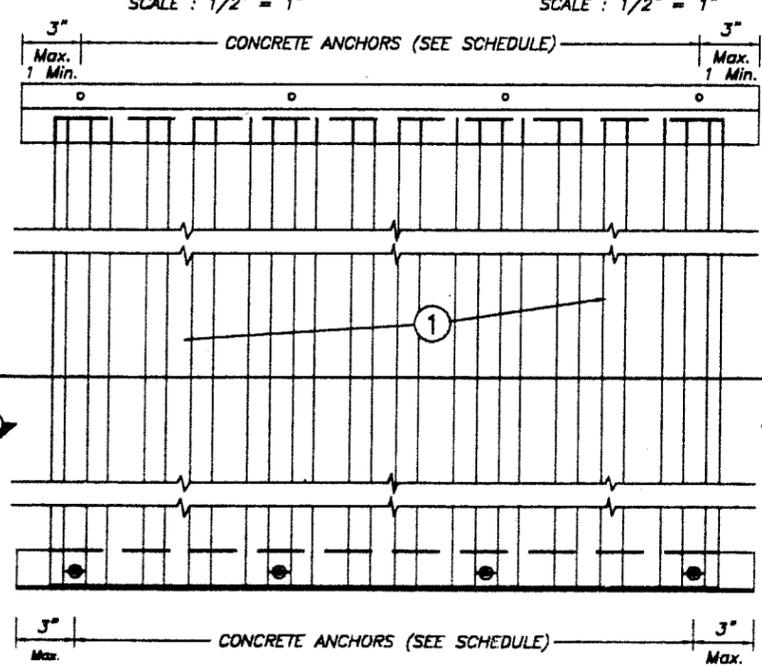
4 "F" TRACK
SCALE: 1/2" = 1"



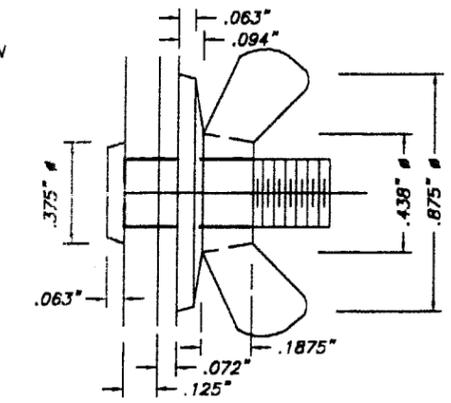
5 "F" TRACK ANGLE
SCALE: 1/2" = 1"



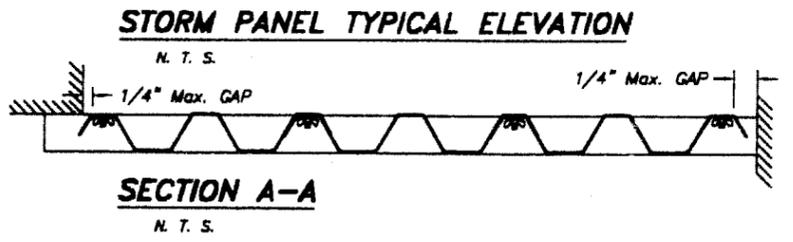
6 REVERSED "F" TRACK ANGLE
SCALE: 1/2" = 1"



7 STUDDED ANGLE
6063-T5 Alum. ALLOY
SCALE: 1/2" = 1"



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



SECTION A-A

GENERAL NOTES:

1. EXTRUDED BERTHA STORM PANEL SHOWN ON THIS PRODUCT APPROVAL DOCUMENT HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2001 EDITION OF THE FLORIDA BUILDING CODE. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1819 OF THE ABOVE MENTIONED CODE, FOR A BASIC WIND SPEED OF 146 m.p.h., AND IN ACCORDANCE W/ ASCE 7-98 STANDARD. STORM PANEL'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1806.1.4 OF THE ABOVE MENTIONED CODE AS PER PA-201, PA-202 AND PA-203.

- 2. ALL ALUMINUM EXTRUDED PANELS SHALL BE 6063-T6 ALLOY.
- 3. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALLOY UNLESS OTHERWISE NOTED.
- 4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 SERIES W/ 50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018.
- 5. BOLTS TO BE 2024-T4 ALUMINUM ALLOY, GALVANIZED OR STAINLESS STEEL, WITH 36 ksi MINIMUM YIELD POINT.
- 6. ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)
 - (A) TO EXISTING POURED CONCRETE:
 - 1/4" # TAPCON ANCHORS, AS MANUFACTURED BY I.T.W. BUILDDEX OR ELCO TEXTRON.
 - 1/4" # ZAMAC NAILIN, AS MANUFACTURED BY POWERS FASTENINGS, INC.
 - 1/4" # x 7/8" CALK-IN ANCHORS, AS MANUFACTURED BY POWERS FASTENINGS, INC.

NOTES:
A.1) MINIMUM EMBEDMENT INTO POURED CONCRETE OF TAPCON ANCHORS SHALL BE 1 3/4" & 1 1/2" FOR ZAMAC NAILIN.
A.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" #-20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST.
A.3) 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" # TAPCON ANCHORS, AS MANUFACTURED BY I.T.W. BUILDDEX OR ELCO TEXTRON.
- 1/4" # ZAMAC NAILIN, AS MANUFACTURED BY POWERS FASTENINGS, INC.
- 1/4" # x 7/8" CALK-IN ANCHORS AS MANUFACTURED BY POWERS FASTENINGS, INC.

NOTES:
B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS AND ZAMAC NAILIN, 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" #-20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.

B.3) 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 1 1/4" MINIMUM FOR ANCHORS MENTIONED IN B.1). & 7/8" FOR ANCHORS MENTIONED IN B.2).

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 2, 3, 7, 8, & 9 (SHEET 2, 3 & 4 OF 8).

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.

9. SHUTTER MANUFACTURER'S LABEL SHALL BE PLACED AT BOTTOM OF EACH PANEL. LABEL SHALL READ AS FOLLOWS:
EASTERN METAL SUPPLY, INC.
WEST PALM BEACH, FLORIDA
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.

10. (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 OF THIS PRODUCT BASED ON THIS PRODUCT APPROVAL PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

(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 PROFESSIONAL OF RECORD (P.O.R) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D. PROFESSIONAL OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.A.D. ENGINEER, SHALL SUBMIT TO THIS THE SITE SPECIFIC DRAWINGS FOR REVIEW.

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

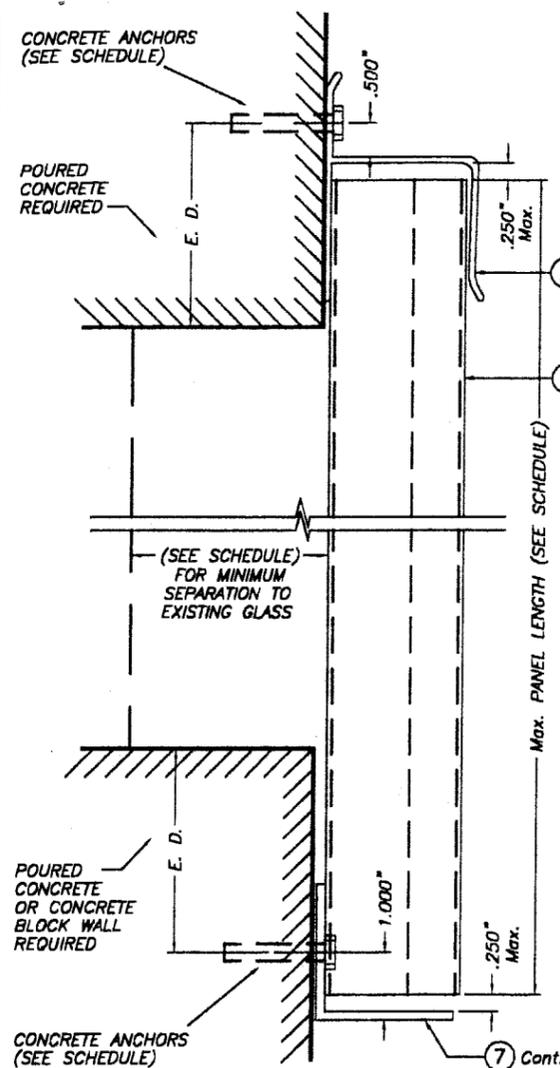
PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 03-0812-06
Expiration Date 10/30/2008
By *Helmut A. Mader*
Miami Dade Product Control Division

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 02-0809-03
Expiration Date 10/30/2003
By *Helmut A. Mader*
Miami Dade Product Control Division

MIAMI-DADE COUNTY

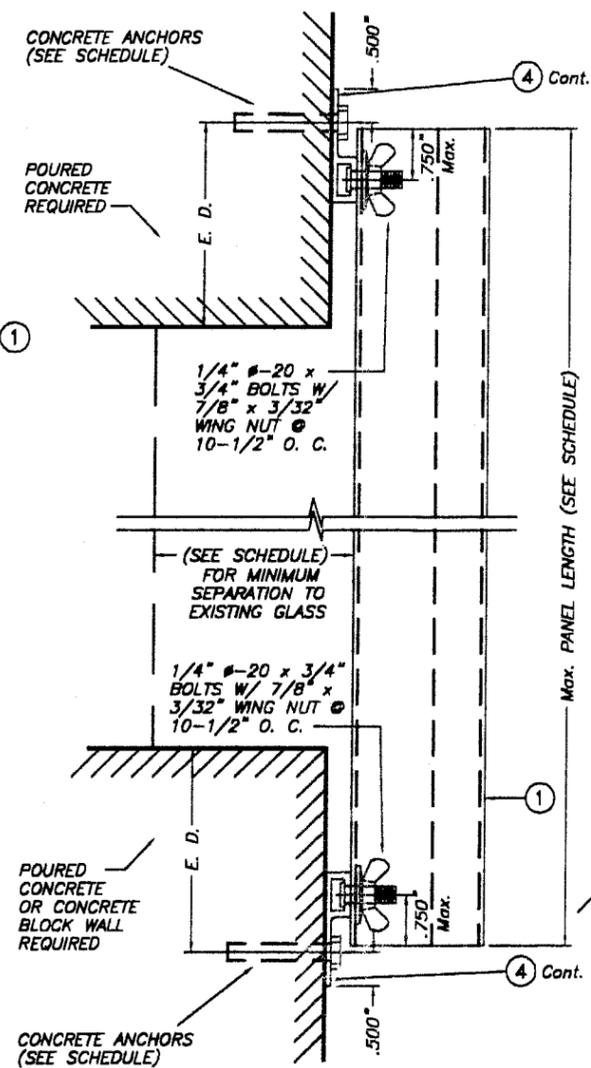
TILTECO INC.
TILTIT TESTING & ENGINEERING COMPANY
6065 N.W. 36th St., Box 217, VIRGINIA GARDENS, FLORIDA 33158
Phone: (305)871-1530 Fax: (305)871-1531
EB-0008719
WALTER A. TILIT Jr., P. E.
FLORIDA Lic. # 44167

EXTRUDED BERTHA STORM PANEL			AS SHOWN SCALE		
EASTERN METAL SUPPLY, INC.			9/5/02 DATE		
4268 WESTROADS DR. WEST PALM BEACH, FL 33407			02-445 DRAWING No		
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2	-	-	3	-	-
3	-	-	4	-	-
SHEET 1 OF 8					

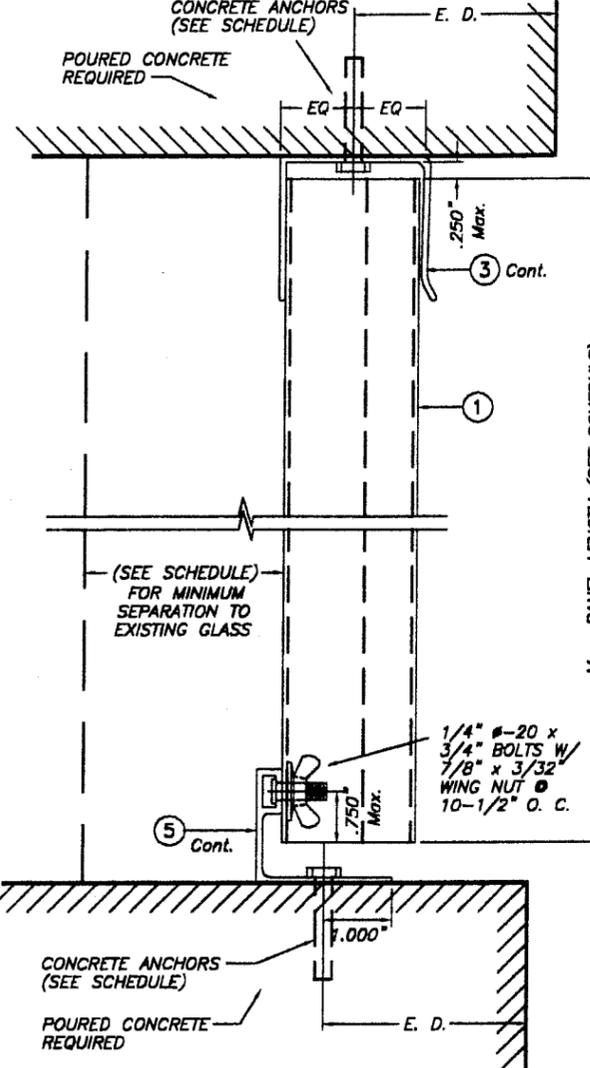


SECTION 2 ANCHOR

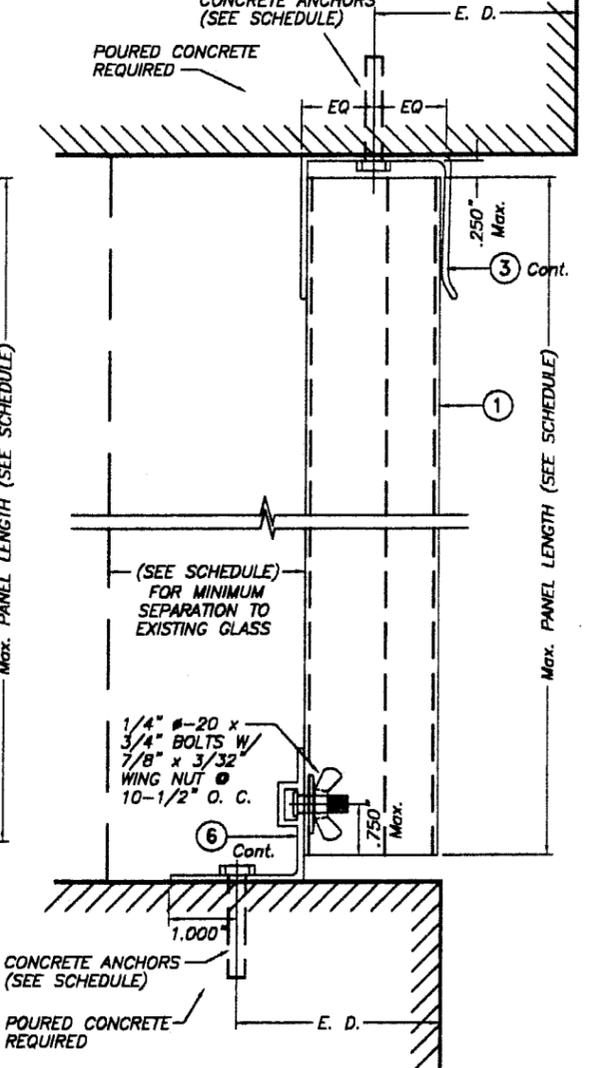
WALL MOUNTING INSTALLATION
SECTION 2
SCALE : 3/8" = 1"



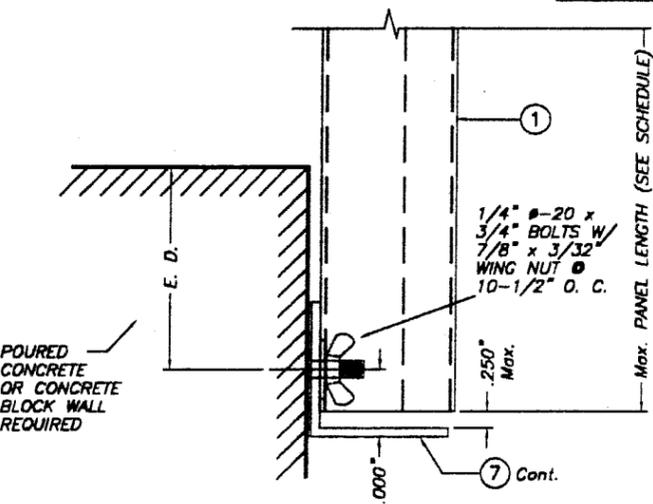
WALL MOUNTING INSTALLATION
SECTION 3
SCALE : 3/8" = 1"



CEILING & FLOOR MOUNTING
INSTALLATION - SECTION 4
SCALE : 3/8" = 1"



CEILING & FLOOR MOUNTING
INSTALLATION - SECTION 5
SCALE : 3/8" = 1"



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

NOTE : DETAIL OF SECTION 1 STUD VALID ALSO FOR WALL MOUNTING INSTALLATION - SECTION 2

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

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

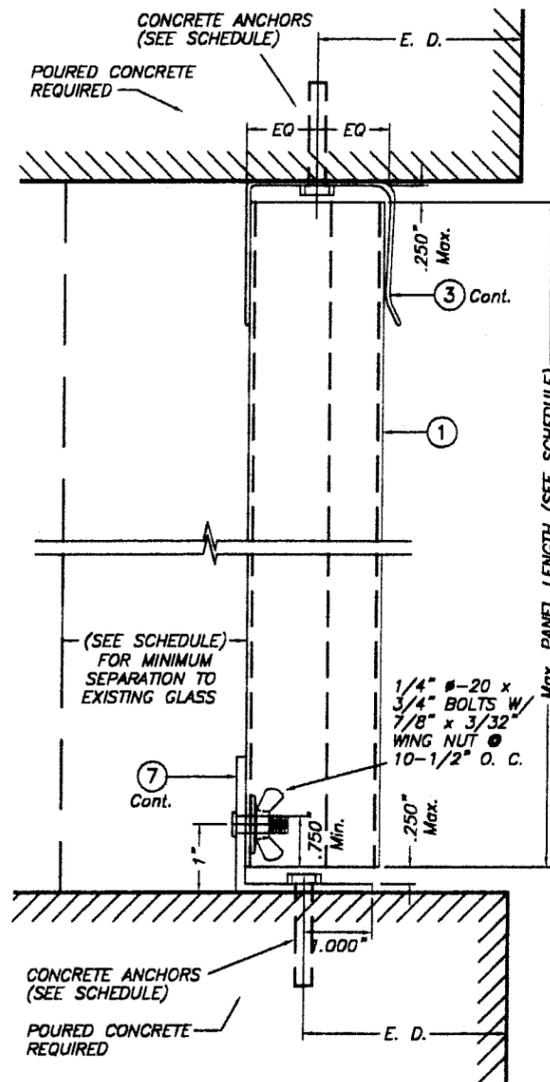
PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 03-0812.06
Expiration Date 10/30/2008
By Helmut A. Miller
Miami Dade Product Control
Division

PRODUCT REVISED
as complying with the Florida
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By Helmut A. Miller
Miami Dade Product Control
Division

MIAMI-DADE COUNTY

 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6005 N.W. 30th. St., Ste. 217, VIRGINIA GARDENS, FLORIDA 33180 Phone : (305)871-1530 . Fax : (305)871-1531 EB-0006718 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167	EXTRUDED BERTHA STORM PANEL EASTERN METAL SUPPLY, INC. 4288 WESTROADS DR. WEST PALM BEACH, FL 33407	AS SHOWN SCALE 9/5/02 DATE 02-445 DRAWING No																	
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REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE														
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SEP 09 2002

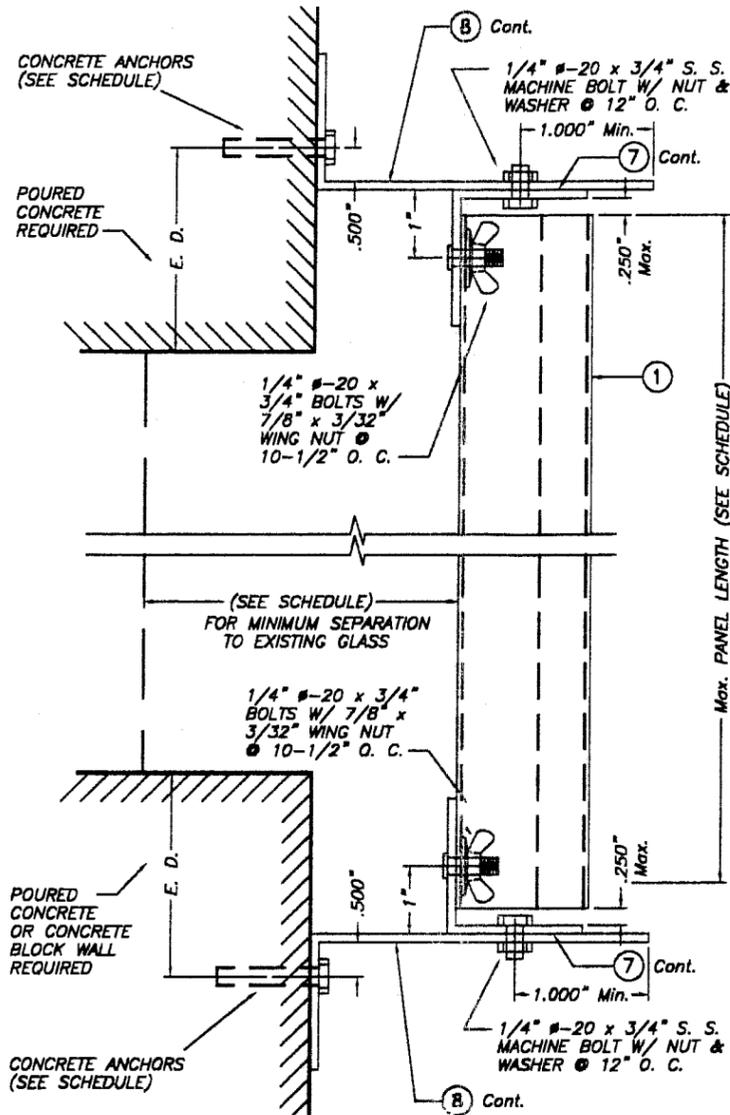


**CEILING & FLOOR MOUNTING
INSTALLATION - SECTION 6**

SCALE : 3/8" = 1"

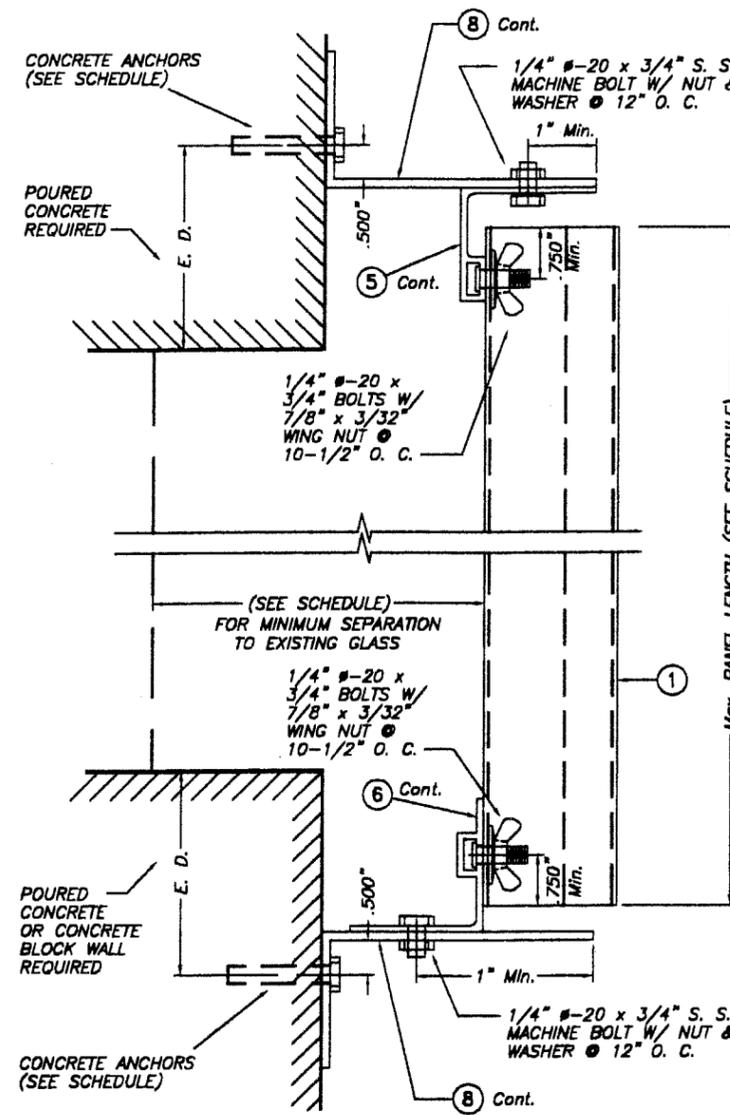
E. D. = EDGE DISTANCE
(SEE SCHEDULE ON
SHEET 5 & 6 OF 8)

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



BUILD-OUT INSTALLATION - SECTION 7

SCALE : 3/8" = 1"



BUILD-OUT INSTALLATION - SECTION 8

SCALE : 3/8" = 1"

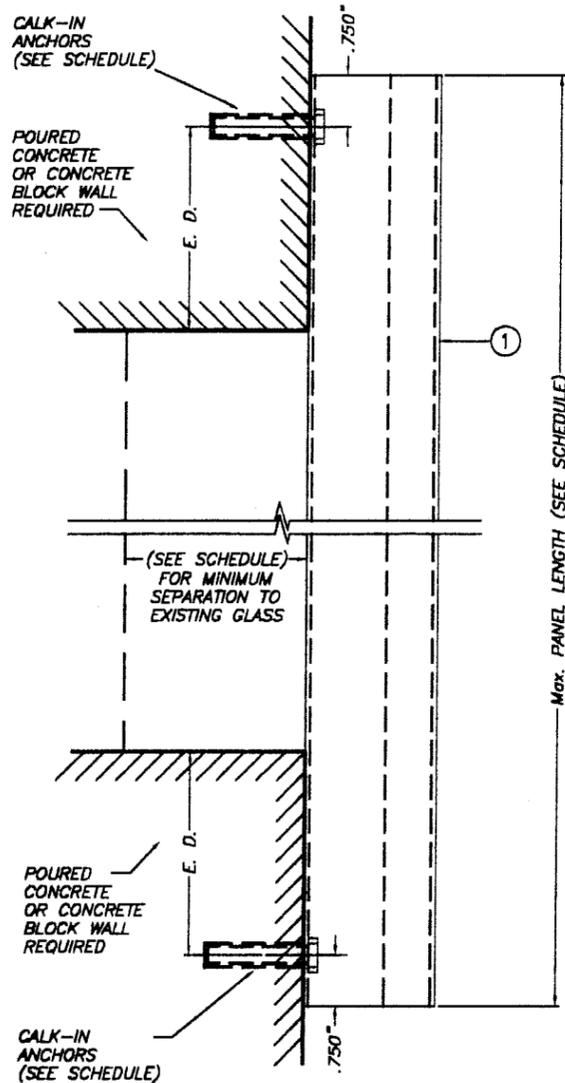
PRODUCT RENEWED
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By *Helmut A. Mohr*
Miami Dade Product Control
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PRODUCT REVISED
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Building Code
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By *Helmut A. Mohr*
Miami Dade Product Control
Division

MIAMI-DADE COUNTY

<p>TILECO INC. TILLIT TESTING & ENGINEERING COMPANY 8505 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FLORIDA 33166 Phone : (305)871-1830 . Fax : (305)871-1831 EB-0008719 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167</p>		EXTRUDED BERTHA STORM PANEL			AS SHOWN SCALE
		<p>EASTERN METAL SUPPLY, INC. 4268 WESTROADS DR. WEST PALM BEACH, FL 33407</p>			9/5/02 DATE
					02-445 DRAWING No
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	-	-	2	-	-
2	-	-	4	-	-
					SHEET 3 OF 8

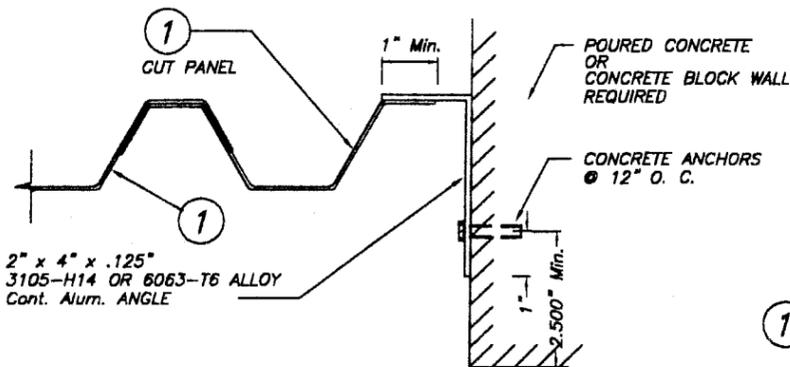
SEP 09 2002



**WALL MOUNTING INSTALLATION
(D. M.) - SECTION 9**

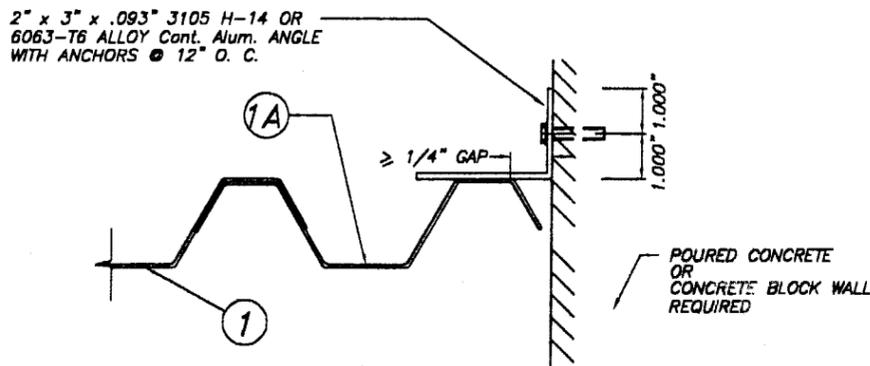
SCALE: 3/8" = 1"

E. D. = EDGE DISTANCE
(SEE SCHEDULE ON
SHEET 5 & 6 OF 8)



CASE A (Plan)

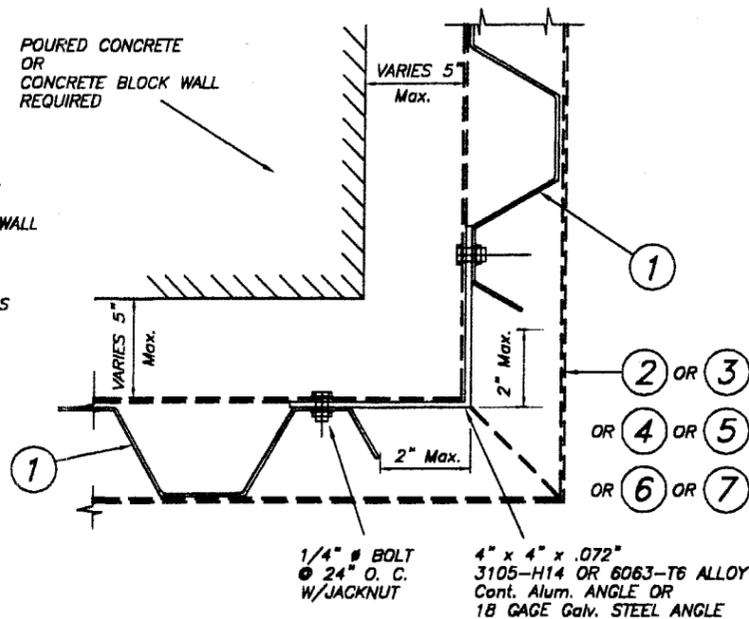
SCALE: 1/4" = 1"



CASE D (Plan)

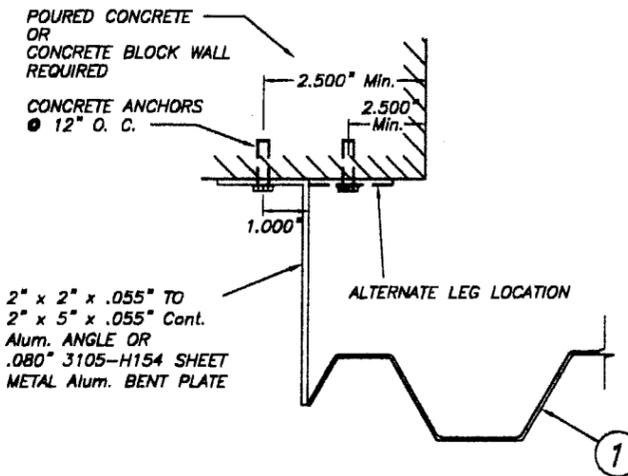
SCALE: 1/4" = 1"

END CLOSURES DETAILS



CASE B (Plan)

SCALE: 1/4" = 1"



CASE C (Plan)

SCALE: 1/4" = 1"

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

MAXIMUM DESIGN LOAD W (p.s.f.)	Max. PANEL LENGTH L (ft.)	MINIMUM SEPARATION TO GLASS	APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM (SEE SHEET 2, 3 & 4 OF 8)
60.0, -72.0	7'-6"	2 1/8"	1, 2, 3, 4, 5, 6, 7, 8, & 9
60.0, -72.0	7'-6" TO 9'-0"	2 3/8"	1, 2, 3, 4, 5, 6, 7, 8, & 9
60.0, -72.0	>9'-0" TO 10'-0"	2 15/16"	7, 8 & 9
30.0, -42.0	>9'-0" TO 11'-10"	3"	2 & 3
30.0, -42.0	>10'-0" TO 11'-10"	3"	9

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 03-0812.06
Expiration Date 10/30/2008
By *Helmut A. Miska*
Miami Dade Product Control
Division

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 02-0809.03
Expiration Date 10/30/2003
By *Helmut A. Miska*
Miami Dade Product Control
Division

MIAMI-DADE COUNTY

 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY <small>8085 N.W. 36th. St., Ste. 217, VIRGINIA GARDENS, FLORIDA 33188 Phone: (305)871-1930 Fax: (305)871-1931 EB-0006719 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167</small>	EXTRUDED BERTHA STORM PANEL	AS SHOWN SCALE
	EASTERN METAL SUPPLY, INC. <small>4288 WESTROADS DR. WEST PALM BEACH, FL 33407</small>	9/5/02 DATE
	<small>REV. NO DESCRIPTION DATE REV. No DESCRIPTION DATE</small> 1 - - - 3 - - - 2 - - - 4 - - -	02-445 DRAWING No
		SHEET 4 OF 8

SEP 09 2002

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 "L" (ft.)
	TAPCONS		ZAMAC NAILIN		CALK-IN			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+60.0, -72.0	12"	N/A	12"	N/A	12"	N/A	1 (TOP)	9'-0" OR LESS
	12"	7 1/2"	12"	9"	12"	10 1/2"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	2 (TOP)	
	12"	7 1/2"	12"	9"	12"	10 1/2"	2 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	3 (TOP)	
	12"	7 1/2"	12"	9"	12"	10 1/2"	3 (BOTTOM)	
	12"	N/A	8"	N/A	12"	N/A	4, 5, 6 (TOP)	
	9"	N/A	5 1/2"	N/A	9 1/2"	N/A	4 (BOTTOM)	
	9 1/2"	N/A	6"	N/A	10"	N/A	5 (BOTTOM)	
	10 1/2"	N/A	7"	N/A	11"	N/A	6 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	7 (TOP)	
	12"	7 1/2"	12"	9"	12"	10 1/2"	7 (BOTTOM)	
	12"	N/A	11 1/2"	N/A	12"	N/A	8 (TOP)	
	12"	7 1/2"	12"	9"	12"	10 1/2"	8 (BOTTOM)	
N/A	N/A	N/A	N/A	10 1/2"	10 1/2"	9 (TOP/BOTTOM)		

- * SEE SHEET 7 & 8 OF 8 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS.
- ** MAXIMUM ANCHOR SPACING IS 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, REDUCE SPACING OBTAINED USING FACTOR SHALL NOT BE LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT ANCHORS LEGEND.

ACTUAL E. D.	FACTOR	
	TAPCON/ZAMAC NAILIN/PANELMATES	CALK-IN
3"	.86	.75
2 1/2"	.71	.50
2"	.50	-

ANCHORS LEGEND

ANCHOR TYPE	MIN. ANCHOR SPACING
TAPCON/ ZAMAC NAILIN/ PANELMATES	3"
CALK-IN	2 1/2"

PRODUCT RENEWED
 as complying with the Florida Building Code
 Acceptance No 03-0812-06
 Expiration Date 10/30/2008
 By Helmut A. Nelson
 Miami Dade Product Control Division

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No 02-0809-03
 Expiration Date 10/30/2003
 By Helmut A. Nelson
 Miami Dade Product Control Division

MIAMI-DADE COUNTY

 TILECO INC. TILLIT TESTING & ENGINEERING COMPANY 6085 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FLORIDA 33196 Phone: (305)671-1830 Fax: (305)671-1831 EB-0006719 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167		EXTRUDED BERTHA STORM PANEL EASTERN METAL SUPPLY, INC. 4288 WESTROADS DR. WEST PALM BEACH, FL 33407		AS SHOWN SCALE 9/5/02 DATE 02-445 DRAWING No SHEET 5 OF 8	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	-	-	3	-	-
2	-	-	4	-	-

SEP 09 2002

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 "L" (ft.)
	TAPCONS		ZAMAC NAILIN		CALK-IN			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+60.0, -72.0	12"	N/A	10 1/2"	N/A	12"	N/A	7 (TOP)	>9'-0" TO 10'-0"
	12"	6 1/2"	10 1/2"	8"	12"	9 1/2"	7 (BOTTOM)	
	12"	N/A	8 1/2"	N/A	12"	N/A	8 (TOP)	
	12"	6 1/2"	10 1/2"	7 1/2"	12"	9 1/2"	8 (BOTTOM)	
	N/A	N/A	N/A	N/A	10 1/2"	10 1/2"	9 (TOP/BOTTOM)	
+30.0, -42.0	12"	N/A	12"	N/A	12"	N/A	2 (TOP)	>9'-0" TO 11'-10"
	12"	9 1/2"	12"	11 1/2"	12"	12"	2 (BOTTOM)	
	12"	N/A	11 1/2"	N/A	12"	N/A	3 (TOP)	
	12"	9 1/2"	12"	11 1/2"	12"	12"	3 (BOTTOM)	
+30.0, -42.0	N/A	N/A	N/A	N/A	10 1/2"	10 1/2"	9 (TOP/BOTTOM)	>10'-0" TO 11'-10"

- * SEE SHEET 7 & 8 OF 8 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS.
- ** MAXIMUM ANCHOR SPACING IS 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, REDUCE SPACING OBTAINED USING FACTOR SHALL NOT BE LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT ANCHORS LEGEND.

ACTUAL E. D.	FACTOR	
	TAPCON/ZAMAC NAILIN/PANELMATES	RAWL CALK-IN
3"	.86	.75
2 1/2"	.71	.50
2"	.50	-

ANCHORS LEGEND

ANCHOR TYPE	MIN. ANCHOR SPACING
TAPCON/ ZAMAC NAILIN/ PANELMATES	3"
CALK-IN	2 1/2"

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 03-0812.06
Expiration Date 10/30/2008

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 02-0809.03
Expiration Date 10/30/2003

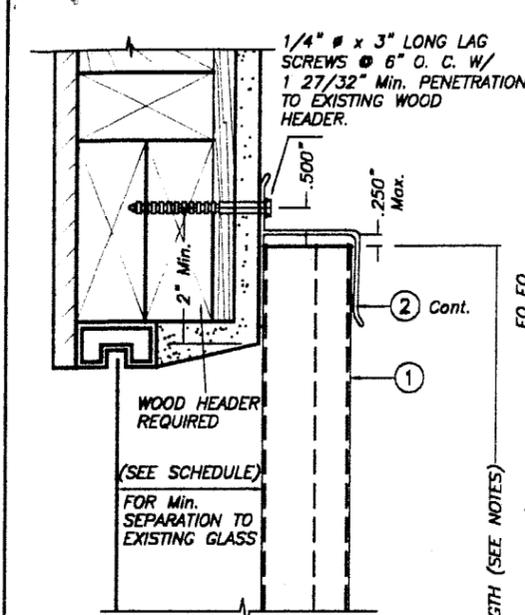
By *Helmut A. Miller*
Miami Dade Product Control Division

By *Helmut A. Miller*
Miami Dade Product Control Division

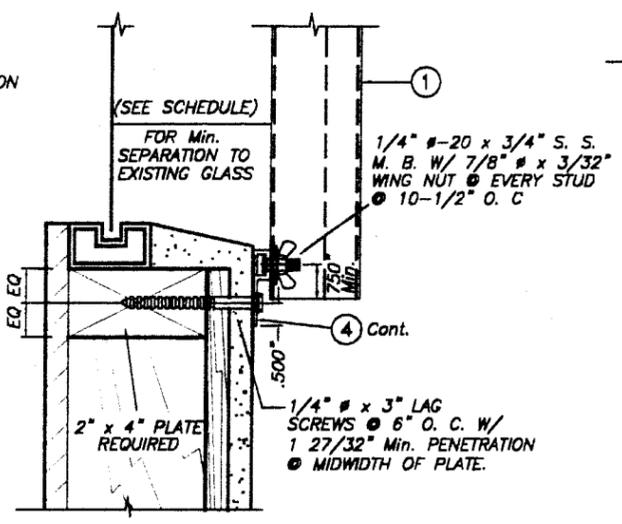
MIAMI-DADE COUNTY

 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6000 N.W. 36th. St., Ste. 217, VIRGINIA GARDENS, FLORIDA 33106 Phone : (305)871-1530 . Fax : (305)871-1531 EB-0008719 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167		EXTRUDED BERTHA STORM PANEL EASTERN METAL SUPPLY, INC. 4268 WESTROADS DR. WEST PALM BEACH, FL 33407		AS SHOWN SCALE 9/5/02 DATE 02-445 DRAWING No SHEET 6 OF 8	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	-	-	3	-	-
2	-	-	4	-	-

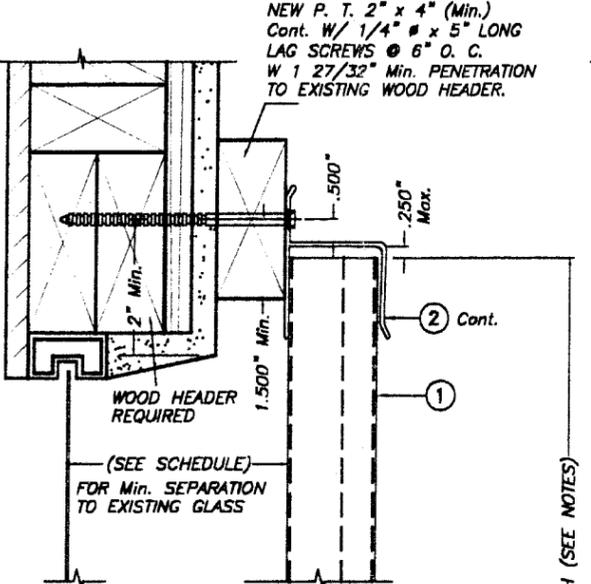
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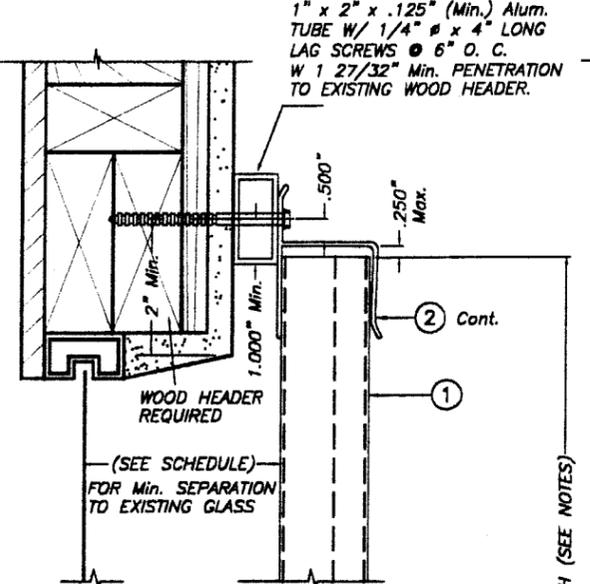
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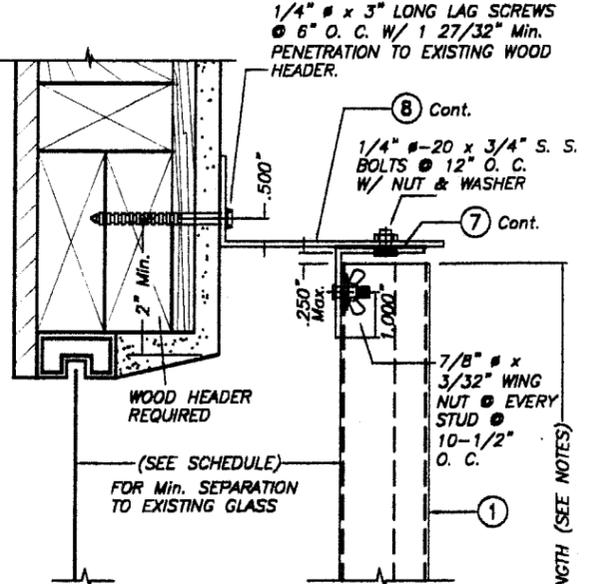
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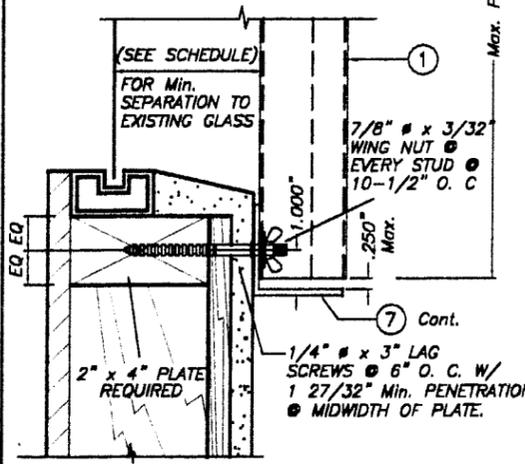
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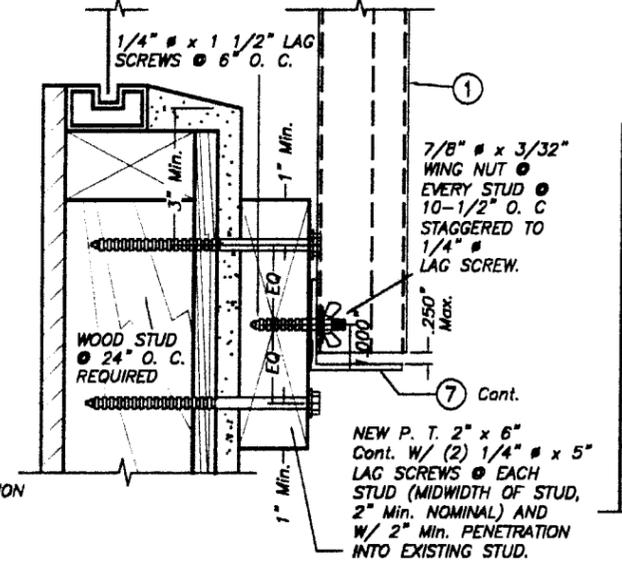
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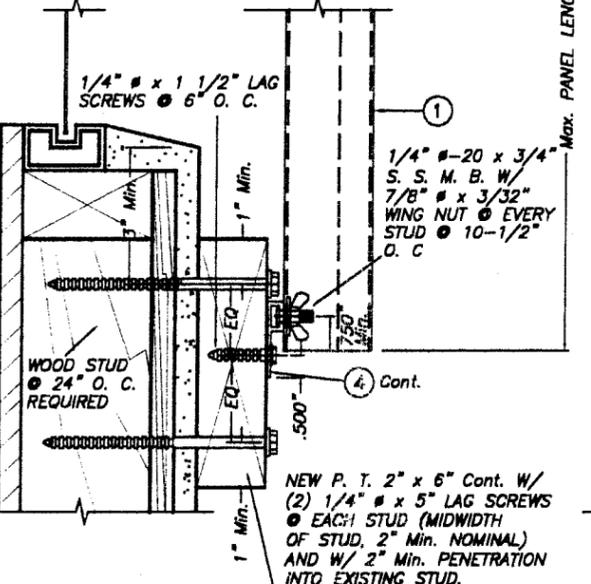
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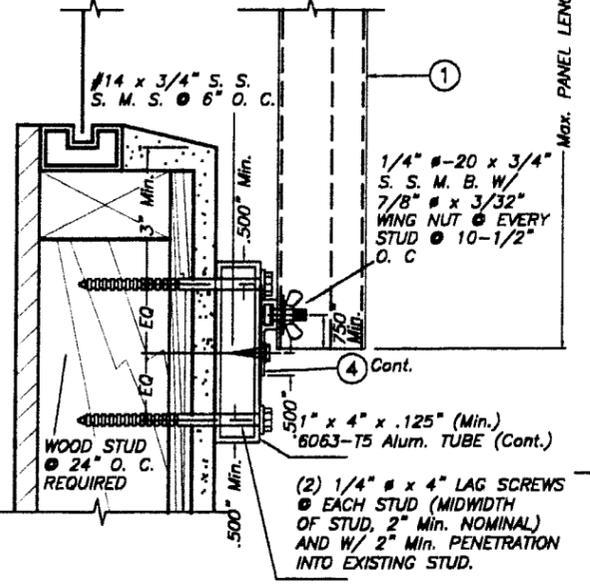
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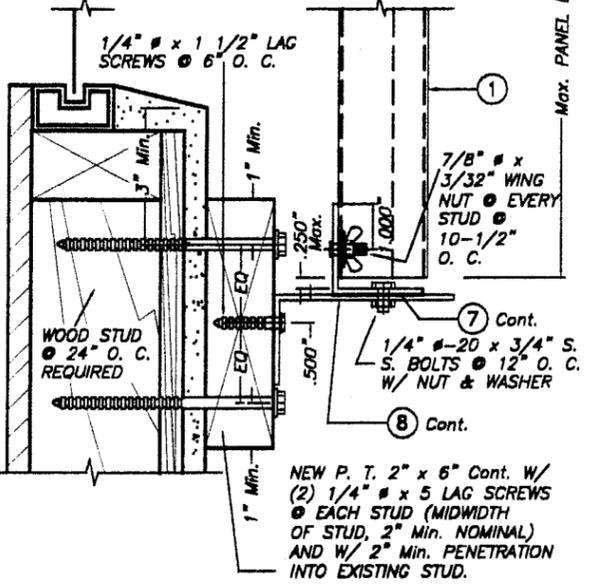
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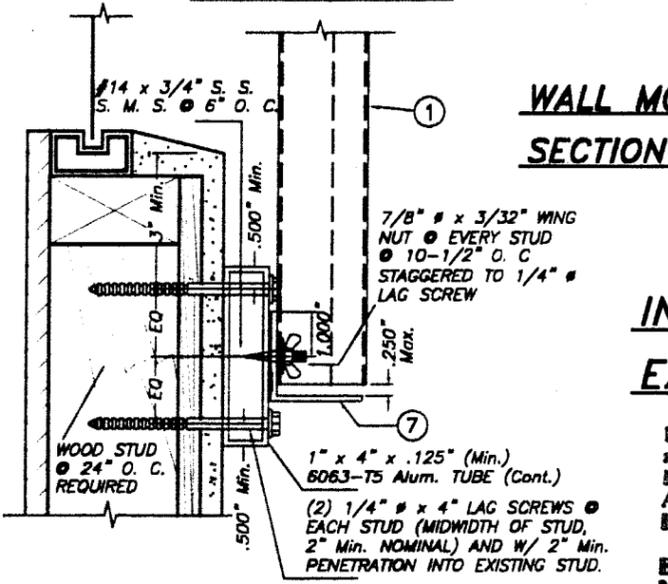
ALTERNATIVE 7



ALTERNATIVE 8



ALTERNATIVE 9



ALTERNATIVE 4

WALL MOUNTING INSTALLATIONS - SECTION A

SCALE: 1/4" = 1"

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS

PRODUCT RENEWED as complying with the Florida Building Code
 Acceptance No 03-0812.06
 Expiration Date 10/30/2008
 By *Walter A. Tillit Jr.*
 Miami Dade Product Control Division

NOTES:
 1. INSTALLATIONS ARE ONLY VALID FOR DESIGN WIND LOADS UP TO +60.0, -72.0 psf AND PANEL'S LENGTH UP TO 9'-0".
 2. NEW 2" x 6" P. T. TO BE SOUTHERN PINE No. 2, SURFACED DRY WITH 19% M. M. C. W/ SPECIFIC DENSITY OF 0.55.
 3. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

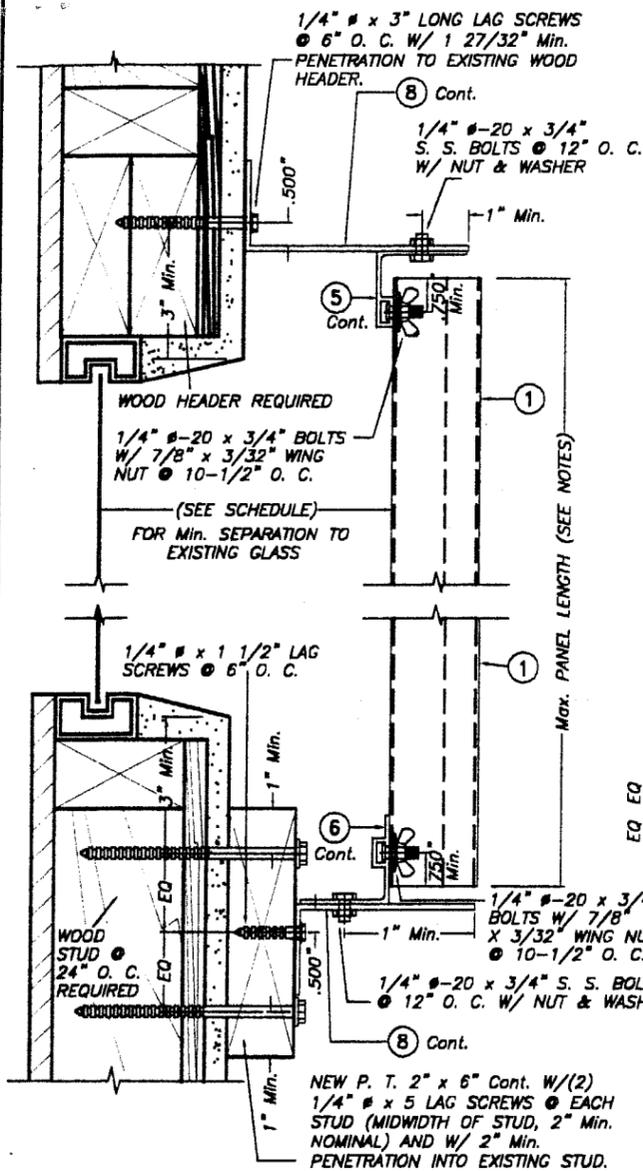
PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No 02-0809.03
 Expiration Date 10/30/2003
 By *Heather A. Miller*
 Miami Dade Product Control Division

MIAMI-DADE COUNTY

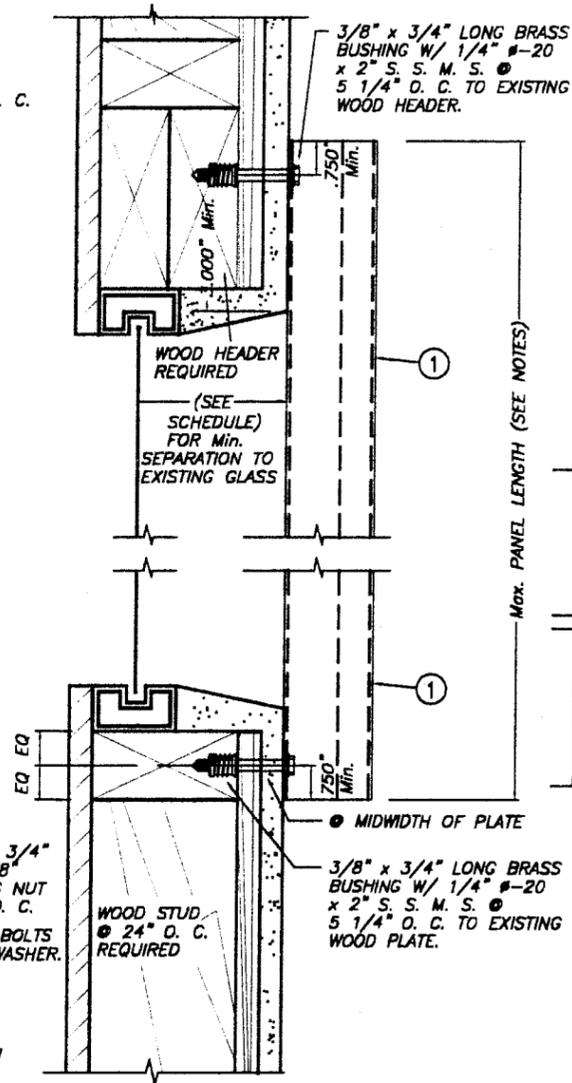
TILECO INC.
 TILLIT TESTING & ENGINEERING COMPANY
 6000 N.W. 34th St., Ste. 217, VIRGINIA GARDENS, FLORIDA 33196
 Phone: (305)871-1830 Fax: (305)871-1831
 EB-0008719
 WALTER A. TILLIT JR., P. E.
 FLORIDA Lic. # 44167

EXTRUDED BERTHA STORM PANEL						AS SHOWN SCALE
EASTERN METAL SUPPLY, INC.						9/5/02 DATE
4288 WESTROADS DR. WEST PALM BEACH, FL 33407						02-445 DRAWING No
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	SHEET 7 OF 8
1			3			
2			4			

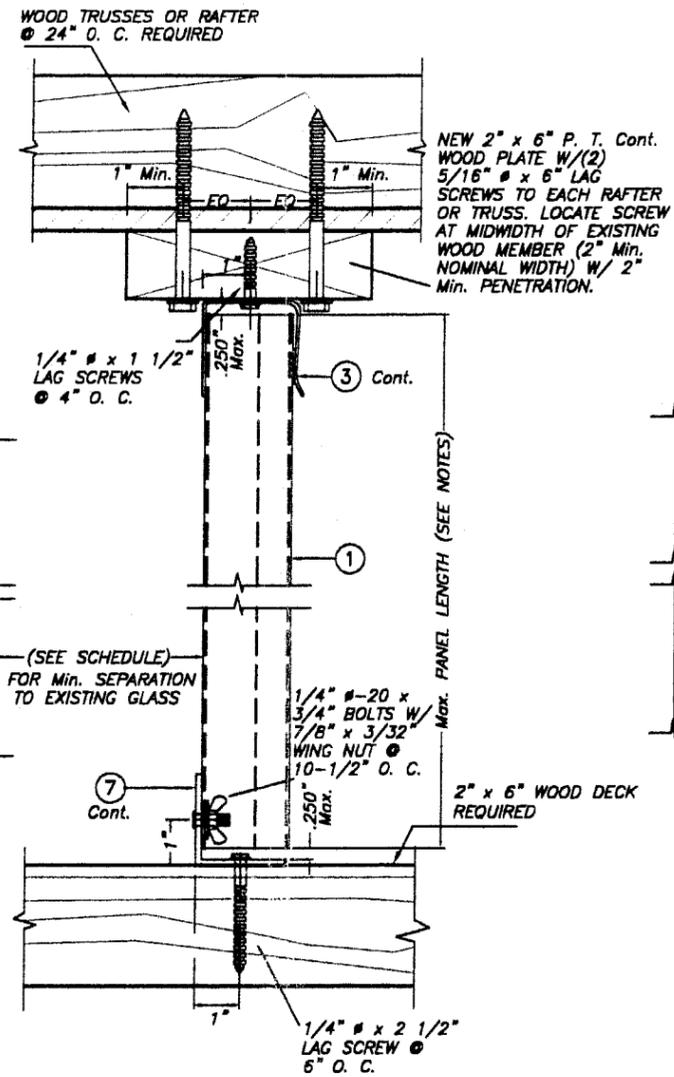
SEP 09 2002



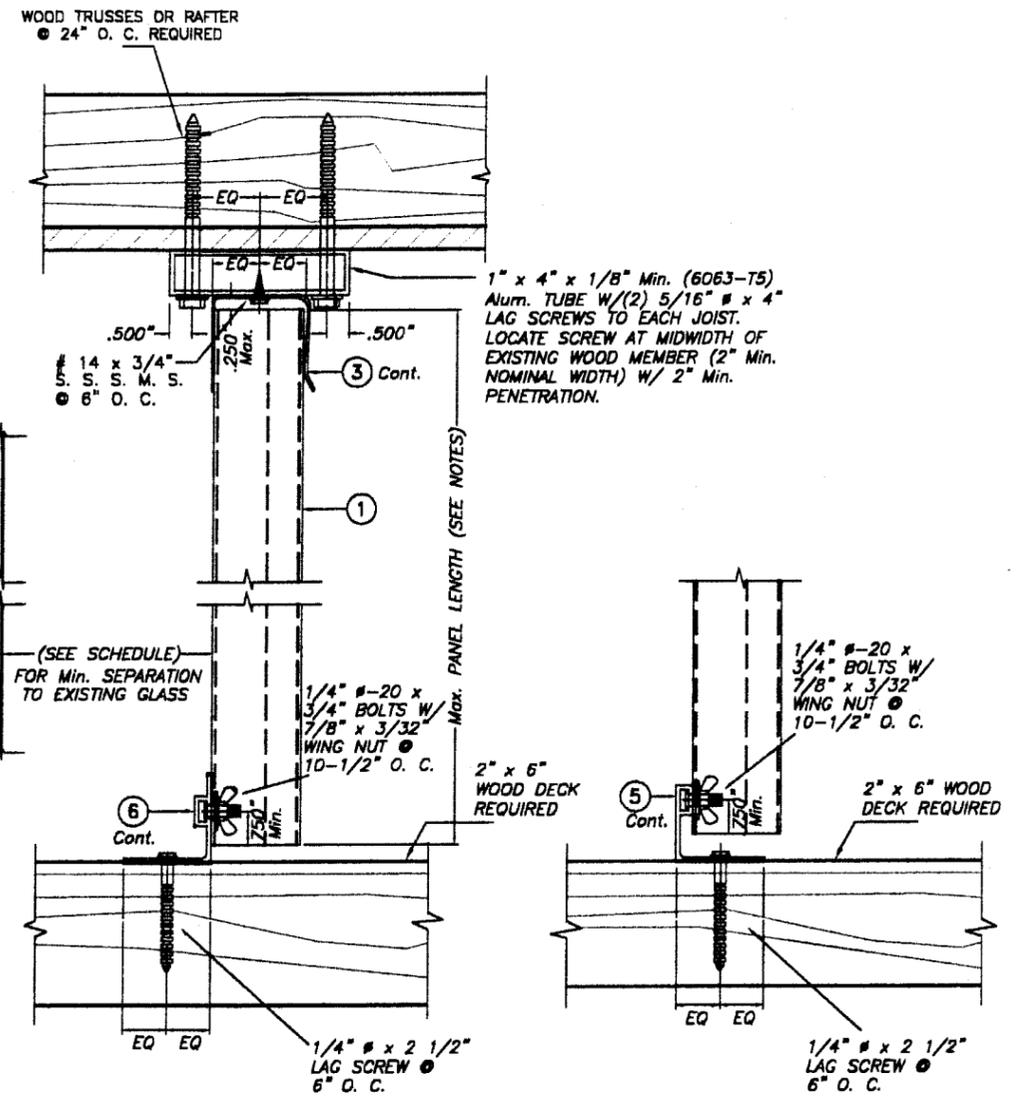
ALTERNATIVE 8



ALTERNATIVE 9



ALTERNATIVE 1



ALTERNATIVE 2

ALTERNATIVE 3

WALL MOUNTING INSTALLATIONS - SECTION A

SCALE: 1/4" = 1"

CEILING & FLOOR MOUNTING INSTALLATIONS - SECTION 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.

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS

- NOTES:**
1. INSTALLATIONS ARE ONLY VALID FOR DESIGN WIND LOADS UP TO +60.0, -72.0 psf AND PANEL'S LENGTH UP TO 9'-0".
 2. NEW 2" x 6" P. T. TO BE SOUTHERN PINE No. 2, SURFACED DRY WITH 19% M. M. C. W/ SPECIFIC DENSITY OF 0.55.
 3. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No. 03-0812.06
Expiration Date 10/30/2008
By *Helmut A. Hahn*
Miami Dade Product Control Division

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No. 02-0809.03
Expiration Date 10/30/2003
By *Helmut A. Hahn*
Miami Dade Product Control Division

MIAMI-DADE COUNTY

<p>TILECO INC. TILLIT TESTING & ENGINEERING COMPANY 6686 N.W. 34th St., Ste. 217, VIRGINIA GARDENS, FLORIDA 33166 Phone: (305)871-1830 Fax: (305)871-1831 EB-0008719 WALTER A. TILLIT JR., P. E. FLORIDA Lic. # 44187</p>		EXTRUDED BERTHA STORM PANEL		AS SHOWN SCALE	
		EASTERN METAL SUPPLY, INC. 4288 WESTROADS DR. WEST PALM BEACH, FL 33407		9/5/02 DATE	
		02-445		DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1			3		
2			4		
					SHEET B OF 8

SEP 09 2002