



MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

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

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Alufab Hurricane Shutter, Inc.
2353 Alibaba Ave.
Opa Locka FL 33054

CONTRACTOR LICENSING SECTION
(305) 375-2527 FAX (305) 375-2558

CONTRACTOR ENFORCEMENT SECTION
(305) 375-2966 FAX (305) 375-2908

PRODUCT CONTROL DIVISION
(305) 375-2902 FAX (305) 372-6339

Your application for Product Approval of:

0.063" Aluminum Storm Panels Shutter .

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This approval shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at anytime from a jobsite or manufacturer's plant for quality control testing.

If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Acceptance No.: 00-0128.05

Expires: 07/17/2003

Raul Rodriguez
Chief Product Control Division

THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL CONDITIONS

BUILDING CODE & PRODUCT REVIEW COMMITTEE

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director
Miami-Dade County
Building Code Compliance Office

Approved: 03/24/2000

1 of 3



Alufab Hurricane Shutters, Inc.

ACCEPTANCE No. : 00-0128.05

APPROVED : MAR 24 2000

EXPIRES : 07/17/2003

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

1. SCOPE

This renews the Notice of Acceptance, No. 96-1107.03, which was issued on July 17, 1997. It approves a 0.063" aluminum storm panels shutter, as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code, 1994 Edition for Miami-Dade County, for the locations where the pressure requirements, as determined by SFBC Chapter 23, do not exceed the Design Pressure Rating values indicated in the approved drawings.

2. PRODUCT DESCRIPTION

This 0.063" aluminum storm panels shutter and its components shall be constructed in strict compliance with the following documents: Drawing No. 96-279, titled "0.063" Aluminum Storm Panel", prepared by Tilteco, Inc., dated September 5, 1996, last revision # 2 dated June 25, 1997, sheets 1 through 8 of 8, bearing the Miami-Dade County Product Control Approval and Renewal stamps with the Notice of Acceptance numbers and approval dates by the Miami-Dade County Product Control Division. These documents shall hereinafter be referred to as the approved drawings.

3. LIMITATIONS

All permanent set components, included but not limited to embedded anchor bolts, threaded cones, metal shields, headers and sills, must be protected against corrosion, contamination and damage at all times.

4. INSTALLATION

This 0.063" aluminum storm panels shutter and its components shall be installed in strict compliance with the approved drawings.

5. 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".

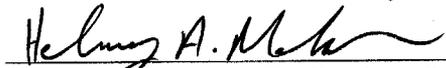
6. BUILDING PERMIT REQUIREMENTS

6.1 Application for building permit shall be accompanied by copies of the following:

6.1.1 This Notice of Acceptance.

6.1.2 Duplicate copies of the approved drawings, as identified in Section 2 of this Notice of Acceptance, clearly marked to show the components selected for the proposed installation.

6.1.3 Any other documents required by the Building Official or the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.



Helmy A. Makar, P.E. - Product Control Examiner
Product Control Division

Alufab Hurricane Shutters, Inc.

ACCEPTANCE No. : 00-0128.05

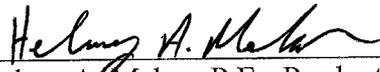
APPROVED : MAR 24 2000

EXPIRES : 07/17/2003

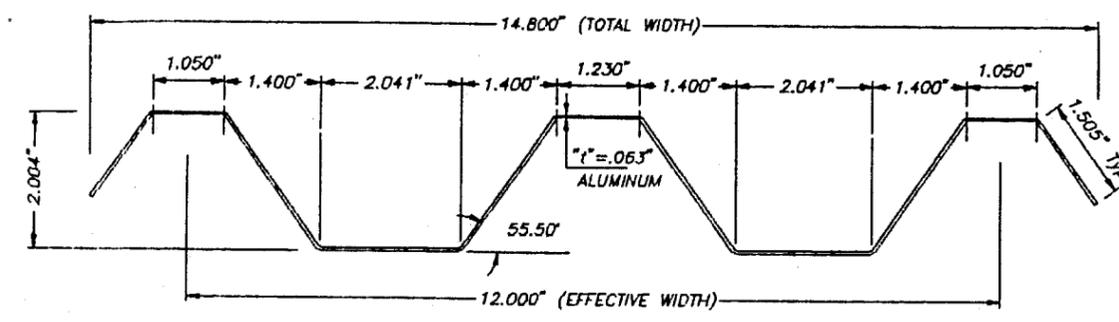
NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documents, including test-supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
3. Renewals of Acceptance will not be considered if:
 - a. There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes.
 - b. The product is no longer the same product (identical) as the one originally approved.
 - c. If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product.
 - d. The engineer, who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
5. Any of the following shall also be grounds for removal of this Acceptance:
 - a. Unsatisfactory performance of this product or process.
 - b. Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.
6. The Notice of Acceptance 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 Notice of Acceptance is displayed, then it shall be done in its entirety.
7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all times. The engineer needs not reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Notice of Acceptance consists of pages 1, 2 and this last page 3.

END OF THIS ACCEPTANCE

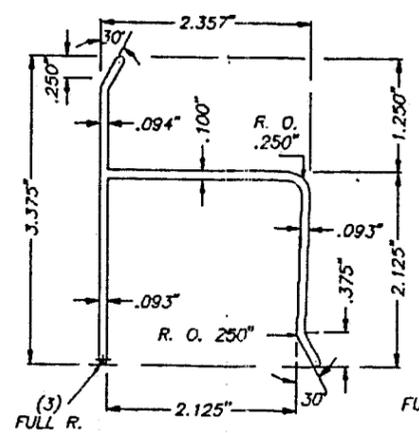


Helmy A. Makar, P.E. - Product Control Examiner
Product Control Division



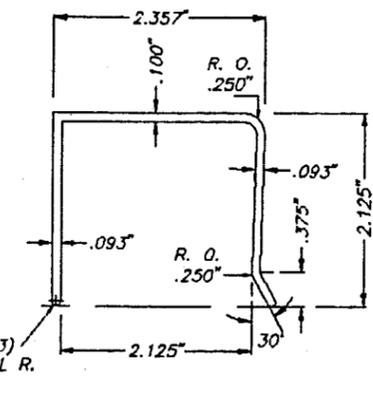
① PANEL

SCALE: 3/8" = 1"



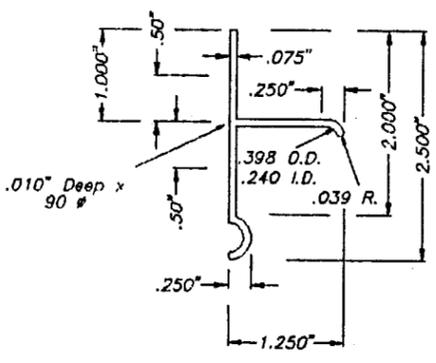
② HEADER

(6005-T5 ALUMINUM ALLOY)
SCALE: 1/2" = 1"



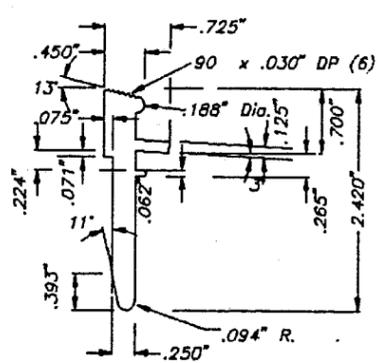
③ HEADER

(6005-T5 ALUMINUM ALLOY)
SCALE: 1/2" = 1"



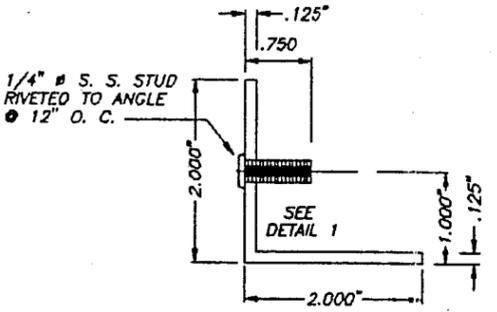
④ "T" TRACK

SCALE: 1/2" = 1"



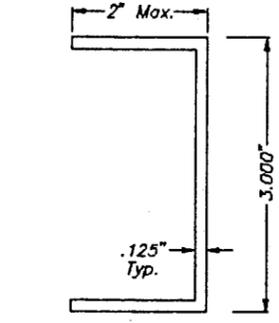
⑤ WEDGE PIN (1" LONG)

(6005-T5 ALUMINUM ALLOY)
SCALE: 1/2" = 1"



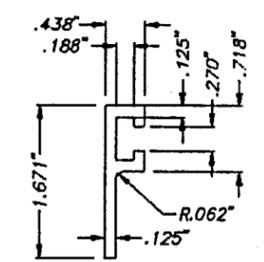
⑥ ANGLE WITH STUD

SCALE: 1/2" = 1"



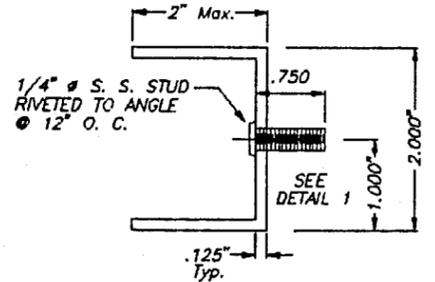
⑦ CHANNEL

SCALE: 1/2" = 1"



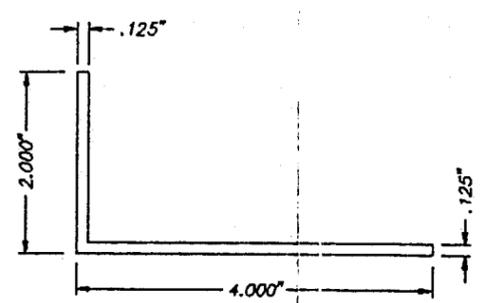
⑧ "F" TRACK

SCALE: 1/2" = 1"



⑨ CHANNEL WITH STUD

SCALE: 1/2" = 1"

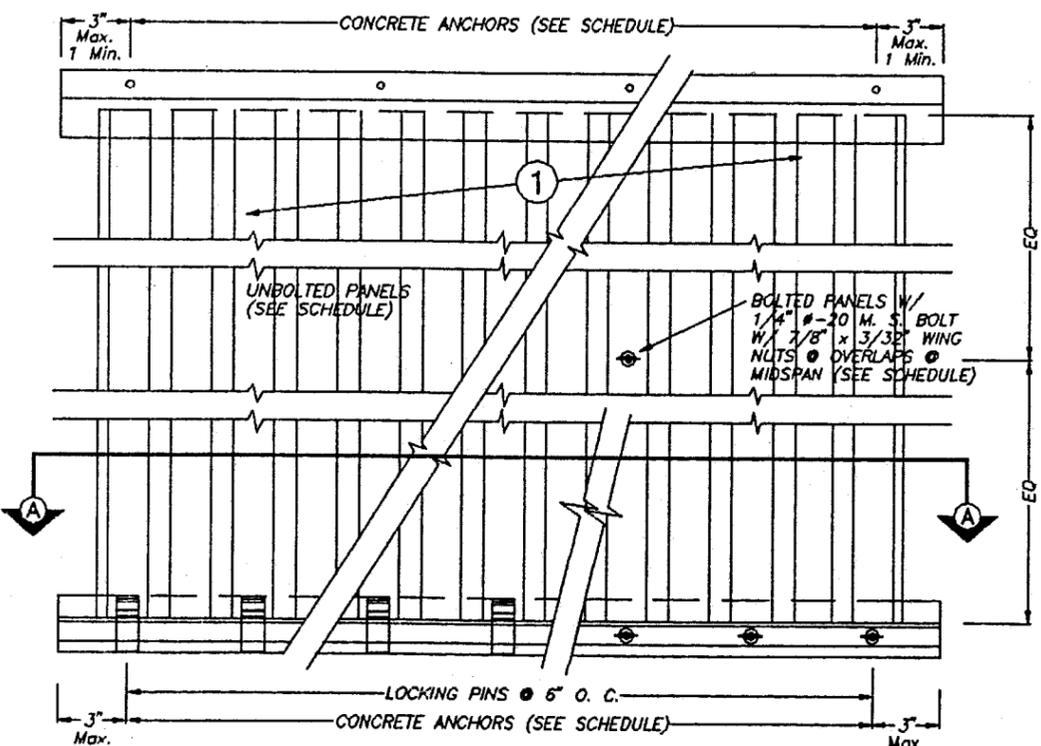


⑩ 2" x 4" (Max.) x .125" ANGLE

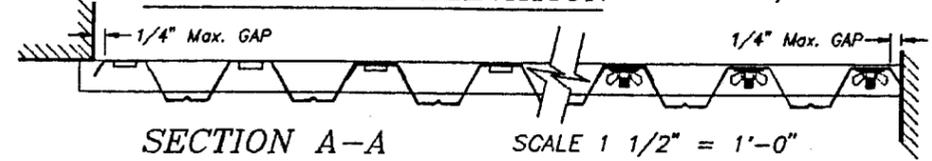
SCALE: 1/2" = 1"

GENERAL NOTES:

- STORM PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE DADE COUNTY, 1994 EDITION OF THE SOUTH FLORIDA BUILDING CODE. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 6 OF ASCE 7-88, WITH 110 m.p.h. BASIC WIND SPEED. STORM PANELS ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTIONS 2315 & 2314 RESPECTIVELY OF THE ABOVE MENTIONED CODE AS PER AMERICAN TEST LAB REPORT # 0822.01-96.
- ALL ALUMINUM SHEET METAL PANELS SHALL HAVE 5052-H32 ALLOY.
- ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALLOY UNLESS OTHERWISE NOTED.
- ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 SERIES.
- BOLTS TO BE 2024-T4 ALUMINUM ALLOY, GALVANIZED OR STAINLESS STEEL, WITH 36 ksi MINIMUM YIELD POINT.
- 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. RAMSET OR ELCO INDUSTRIES.
 - 1/4" # RAWL ZAMAC NAILIN ANCHORS AS MANUFACTURED BY THE RAWL PLUG COMPANY, INC.
 - 1/4" # x 7/8" RAWL CALK-IN ANCHORS OR ELCO male & female "PANELMATE" AS MANUFACTURED BY THE RAWL PLUG COMPANY AND ELCO INDUSTRIES, RESPECTIVELY.
 - NOTES:
 - A.1) MINIMUM EMBEDMENT INTO POURED CONCRETE OF TAPCON ANCHORS IS 1 3/4"; FOR RAWL ZAMAC NAILIN IS 1 3/8"; & FOR ELCO PANELMATES IS 1 7/8".
 - A.2) 7/8" RAWL 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, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.
 - 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. RAMSET OR ELCO INDUSTRIES.
 - 1/4" # RAWL ZAMAC NAILIN ANCHORS AS MANUFACTURED BY THE RAWL PLUG COMPANY, INC.
 - 1/4" # x 7/8" RAWL CALK-IN ANCHORS OR ELCO male & female "PANELMATE" AS MANUFACTURED BY THE RAWL PLUG CO. AND ELCO INDUSTRIES, RESPECTIVELY.
 - NOTES:
 - B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS, RAWL ZAMAC NAILIN & ELCO PANELMATE INTO THE CONCRETE BLOCK UNIT SHALL BE 1 1/4".
 - B.2) 7/8" RAWL 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.
- PANELS WITH LENGTHS OVER 8'-4" SHALL BE BOLTED W/ 1/4" # -20 BOLT AND WINGNUT AT OVERLAP AND MIDLENGTH.
- PANELS MAY ALSO BE INSTALLED HORIZONTALLY FOLLOWING INSTALLATION DETAILS SHOWN ON SECTIONS 1 THRU 8 (SHEET 2 & 3 OF 8) WITH END COMPONENTS ④, ⑤, ⑥, ⑦, ⑧ & ⑨ EXCEPT THAT HEADERS ② & ③ SHALL NOT BE USED.
- 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.
- SHUTTER MANUFACTURER'S STICKER SHALL BE PLACED ON THE EXPOSED SURFACE OF THE CENTER RANGE OF EVERY PANEL APPROXIMATELY 4" ABOVE THE BOTTOM. STICKER SHALL READ AS FOLLOWS:
ALUFAB HURRICANE SHUTTERS
OPA LOCKA, FL.
DADE COUNTY PRODUCT CONTROL APPROVED.

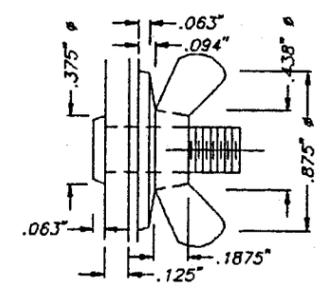


STORM PANEL ELEVATION SCALE 1 1/2" = 1'-0"



SECTION A-A SCALE 1 1/2" = 1'-0"

COMPONENTS



DETAIL 1:
STUD W/ WING NUT
SCALE: 1" : 1"

PRODUCT RENEWED

ACCEPTANCE No. 00-0128.05

EXPIRATION DATE July 17, 2003

By Helmut A. Mahr
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

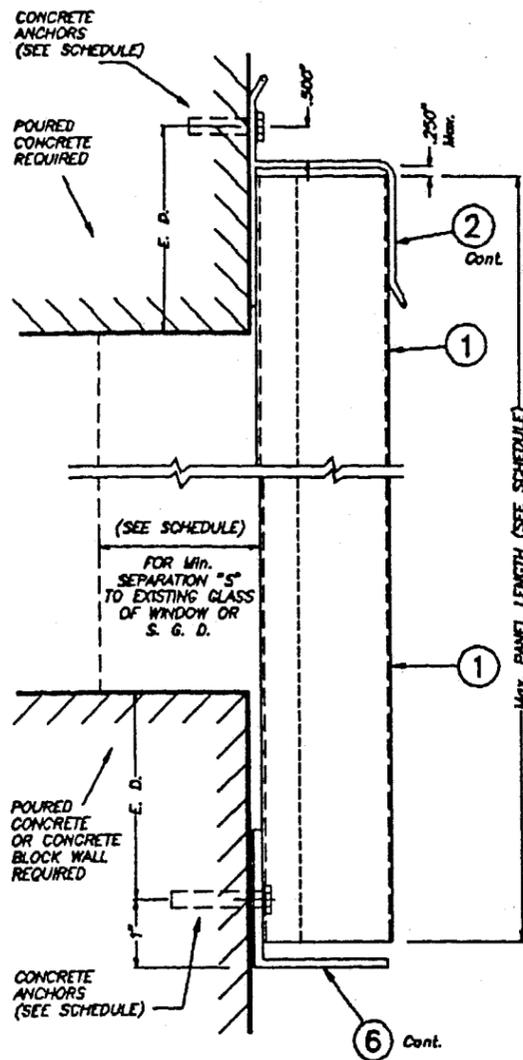
APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE JULY 17 1997
BY Helmut A. Mahr
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE No. 96-1107.03

TILECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6395 N.W. 38th St., Ste. 217, VIRGINIA GARDENS, FL. 33166
Phone: (305)871-1530, Fax: (305)871-1531
WALTER A. TILLIT Jr., P. E.
FLORIDA Lic. 44167

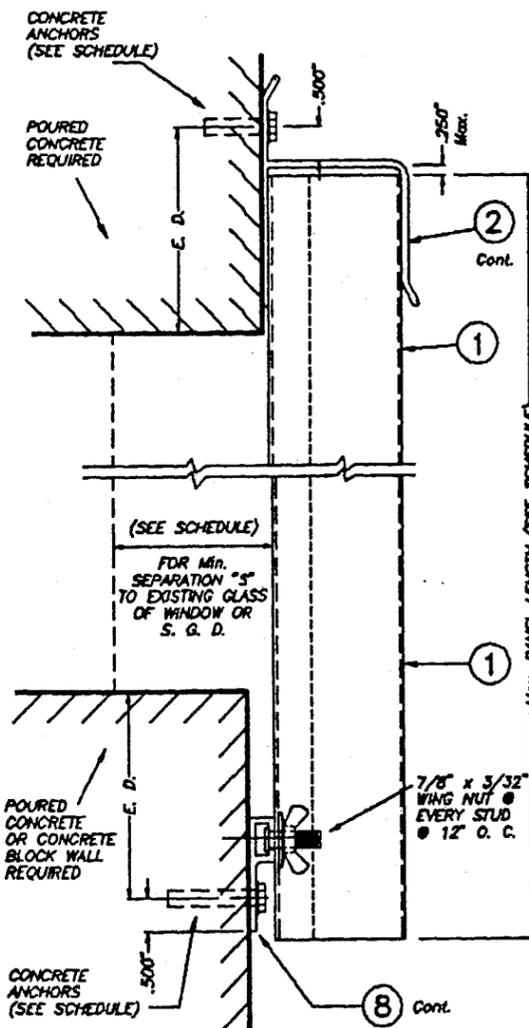
0.063" ALUMINUM STORM PANEL		AS SHOWN SCALE	
ALUFAB HURRICANE SHUTTERS, Inc.		9/5/96 DATE	
2349 N.W. 147 STREET OPA-LOCKA, FLORIDA 33142		96 - 279 DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No
1	GENERAL	5/14/97	3
2	GENERAL	6/25/97	4

DADE COUNTY

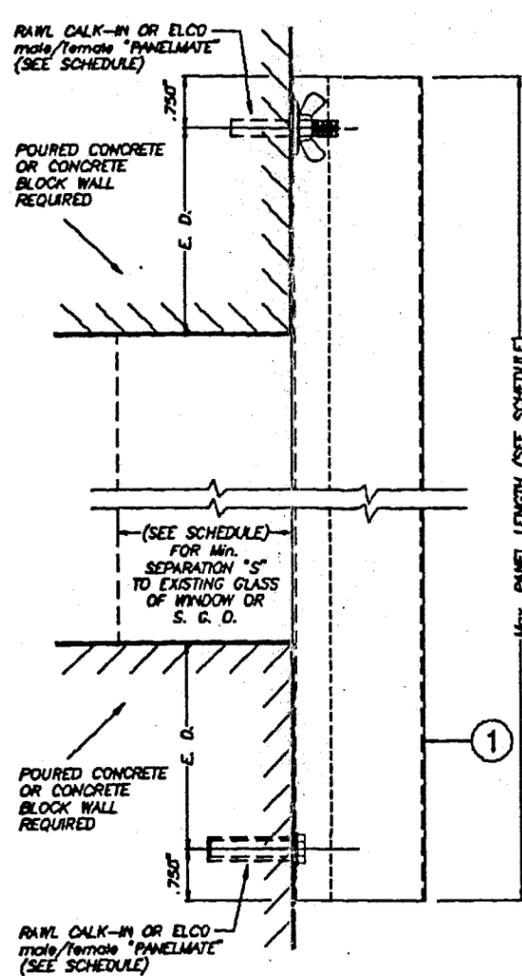
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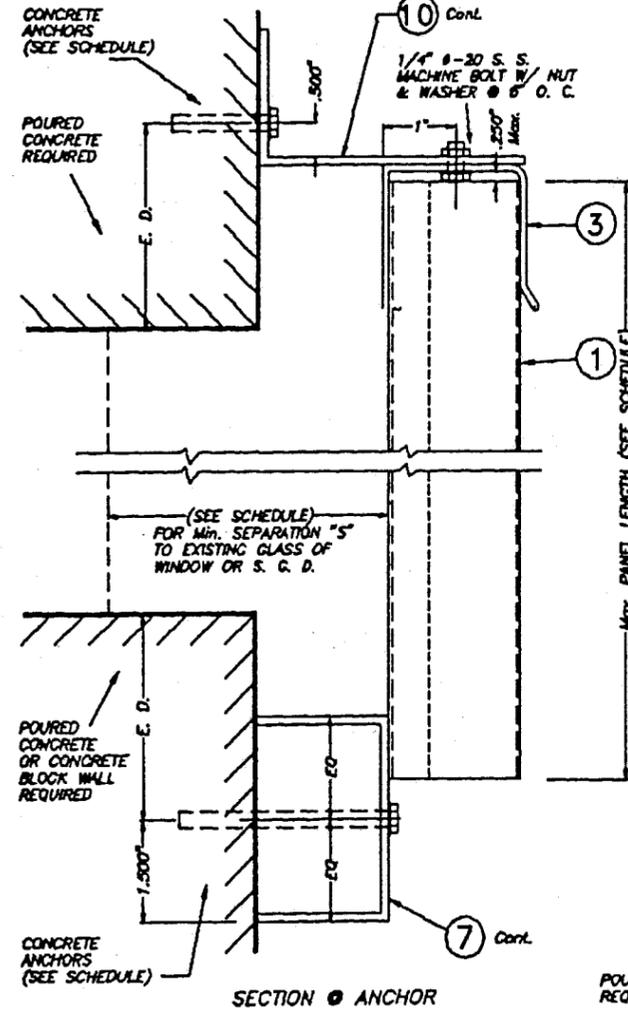
SECTION @ ANCHOR



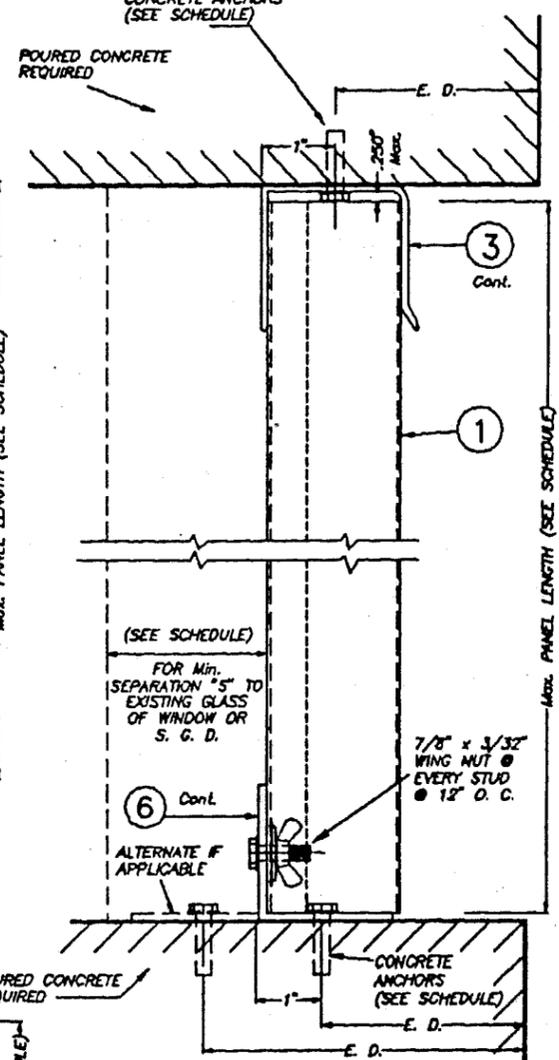
WALL MOUNTING INSTALLATION - SECTION 2 SCALE: 3/8" = 1"



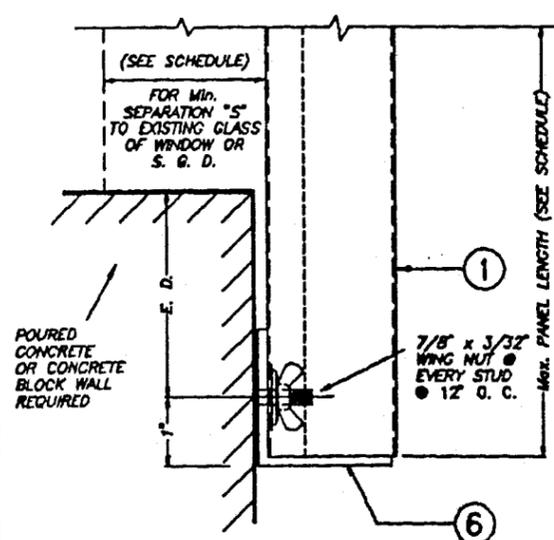
WALL MOUNTING INSTALLATION (D. M.) - SECTION 3 SCALE: 3/8" = 1"



SECTION @ ANCHOR
SECTION @ MACHINE BOLT
BUILD-OUT INSTALLATION - SECTION 4 SCALE: 3/8" = 1"



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



SECTION @ STUD
WALL MOUNT. INSTALL. - SECTION 1 SCALE: 3/8" = 1"

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

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

PRODUCT RENEWED

ACCEPTANCE No. 00-0128.05

EXPIRATION DATE July 17, 2003

By *Helmut A. Mahr*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

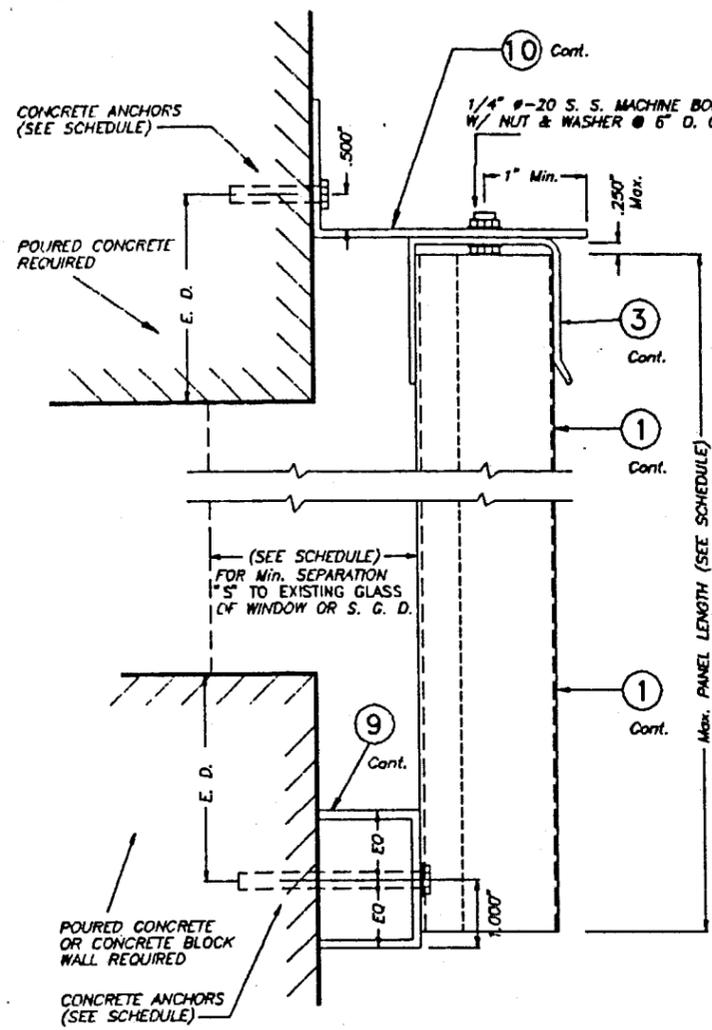
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE July 17, 1997
BY *Helmut A. Mahr*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE No. 96-1107.03

DADE COUNTY

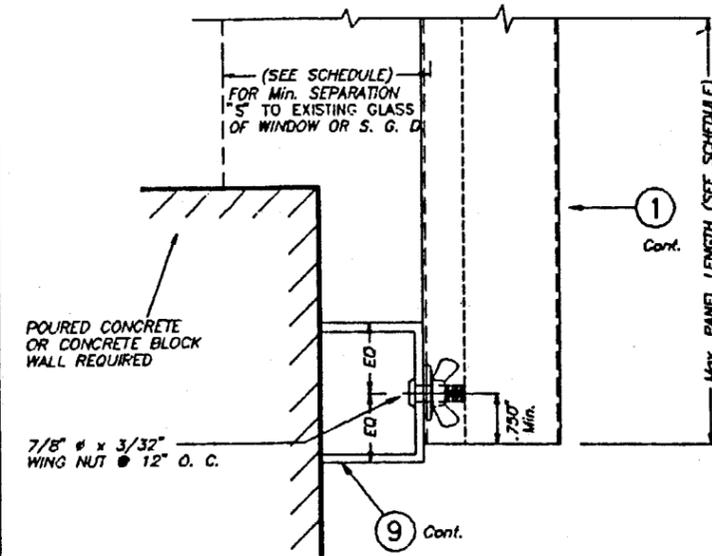
TILECO Inc.
TILLIT TESTING & ENGINEERING COMPANY
6595 N.W. 38th St., Ste. 217, VERO BEACH, FL 33180
Phone: (305) 971-1530 • Fax: (305) 971-1531
WALTER A. TILLIT Jr., P. E.
FLORIDA Lic. 44167

0.063" ALUMINUM STORM PANEL		AS SHOWN SCALE	
ALUFAB HURRICANE SHUTTERS, Inc.		9/5/96 DATE	
2349 N.W. 147 STREET OPA-LOCCA, FLORIDA 33142		96 - 279 DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No
1	GENERAL	3/14/97	3
2	GENERAL	6/25/97	4
		SHEET 2 OF 8	

David B...
6/26/97



SECTION 10 ANCHOR

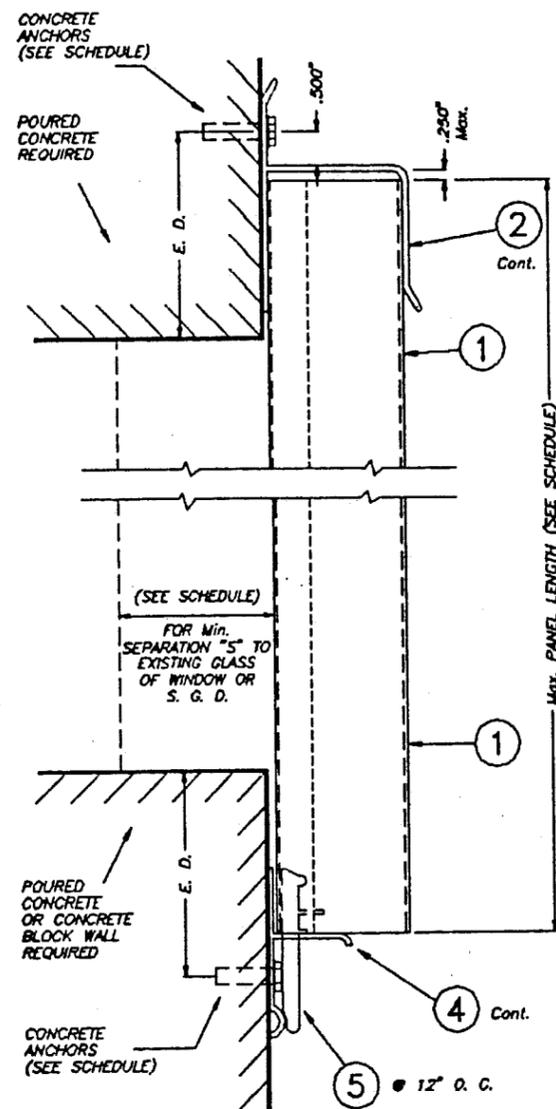


SECTION 9 STUD

BUILD-OUT INSTALLATION

SECTION 6

SCALE: 3/8" = 1"



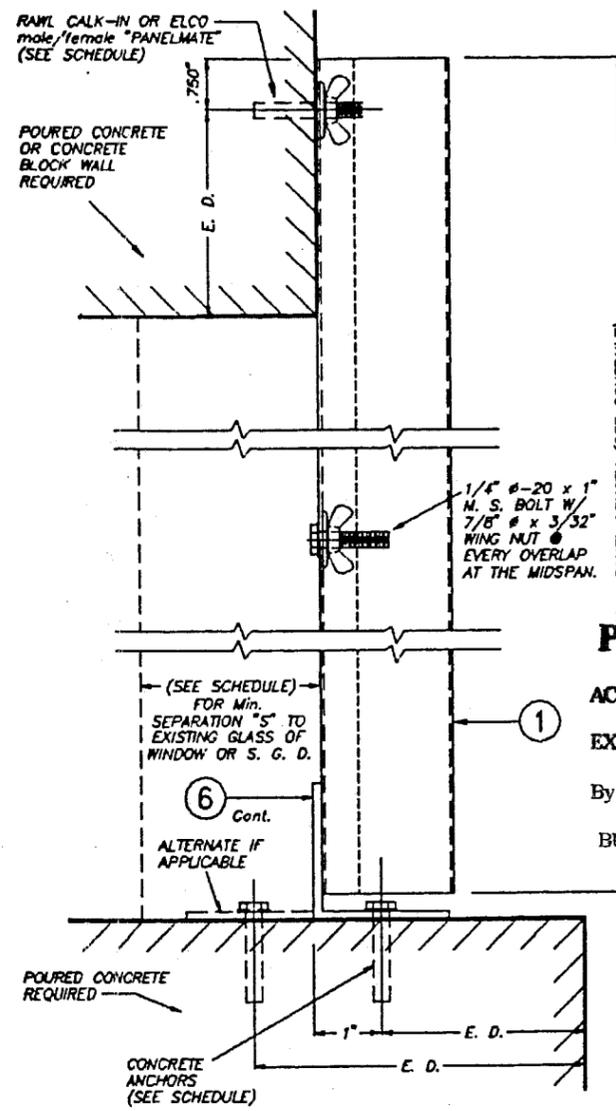
WALL MOUNT. INSTALL. - SECTION 7

SCALE: 3/8" = 1"

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

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

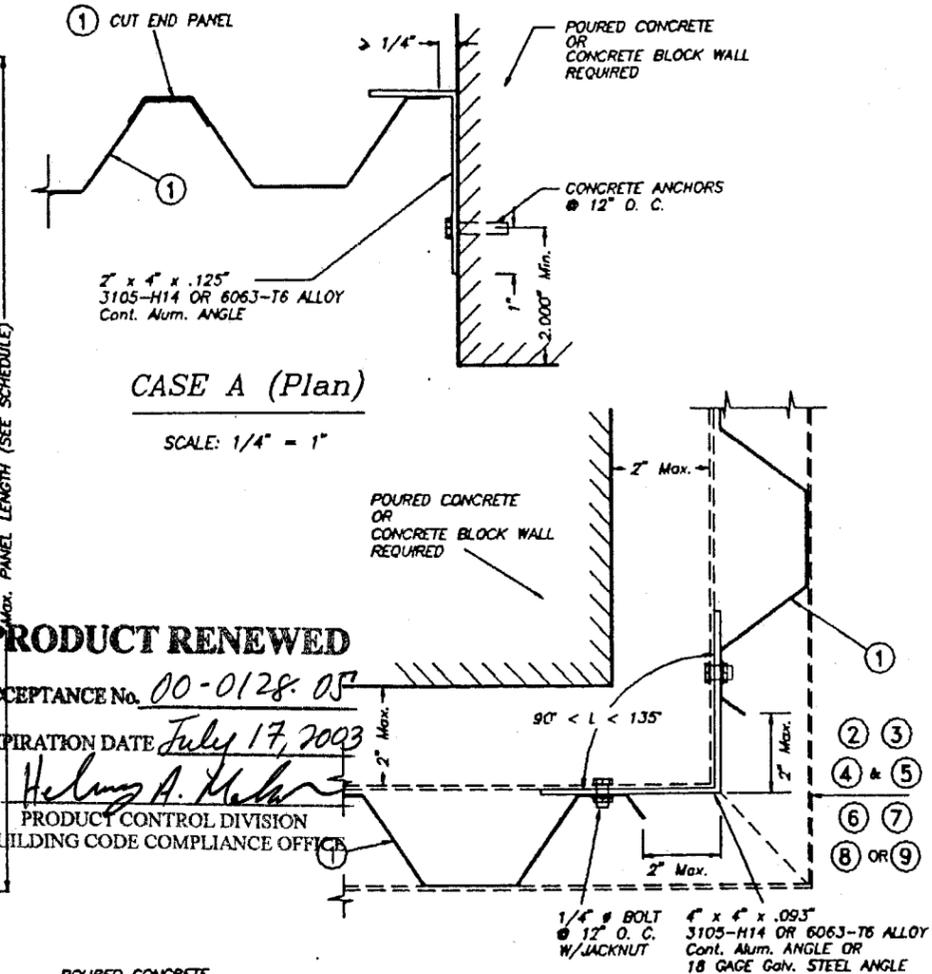
Walter A. Tillit
6/24/97



SECTION 6 ANCHOR

WALL/FLOOR MOUNTING INSTALLATION - SECTION 8

SCALE: 3/8" = 1"



CASE A (Plan)

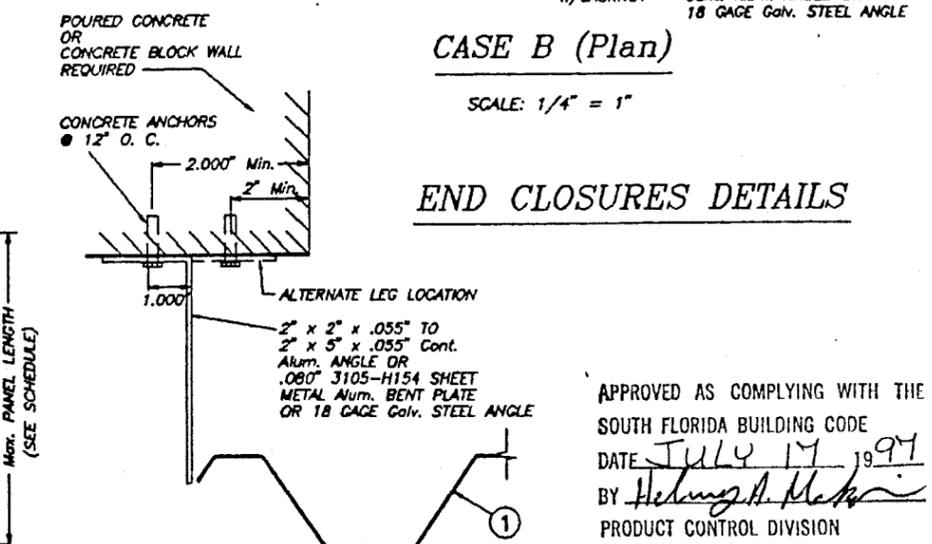
SCALE: 1/4" = 1"

PRODUCT RENEWED

ACCEPTANCE No. 00-0128.05

EXPIRATION DATE July 17, 2003

By *Helmut A. Malar*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE



CASE B (Plan)

SCALE: 1/4" = 1"

CASE C (Plan)

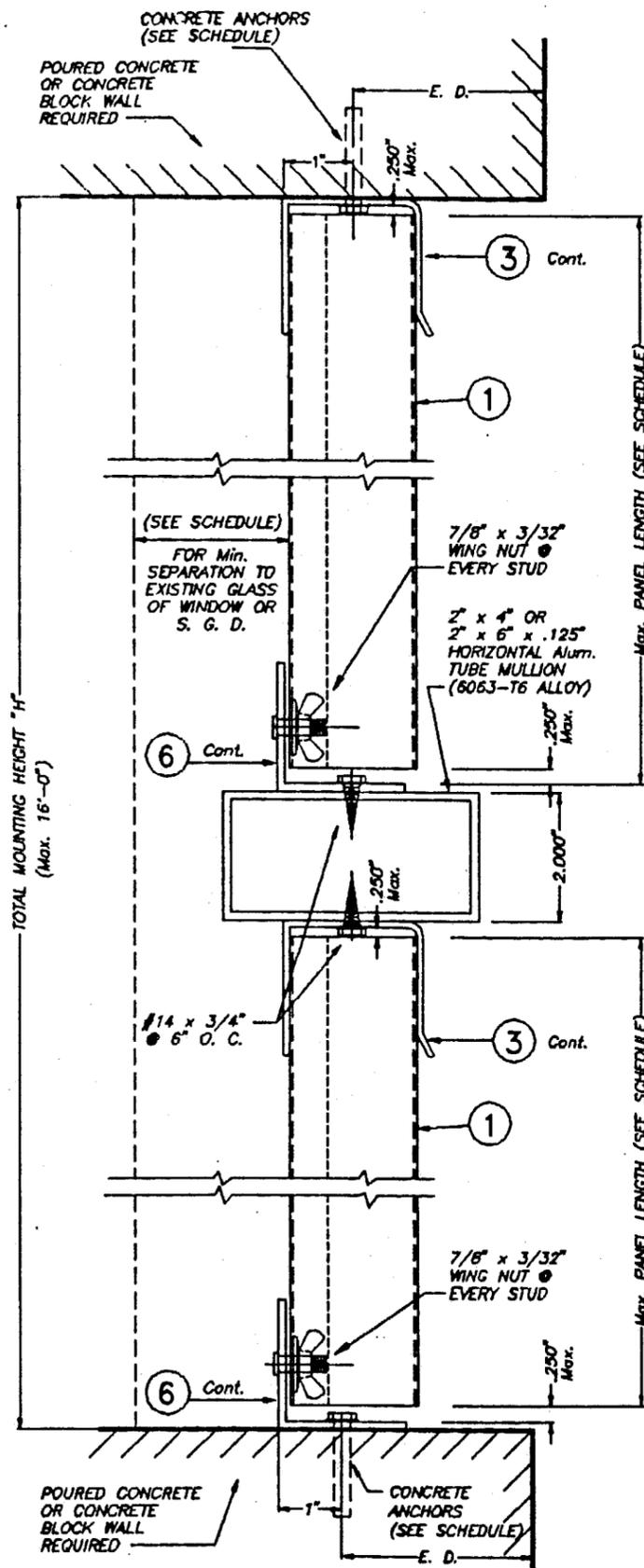
SCALE: 1/4" = 1"

END CLOSURES DETAILS

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE July 17, 1997
BY *Helmut A. Malar*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE No. 96-1107.03

DADE COUNTY

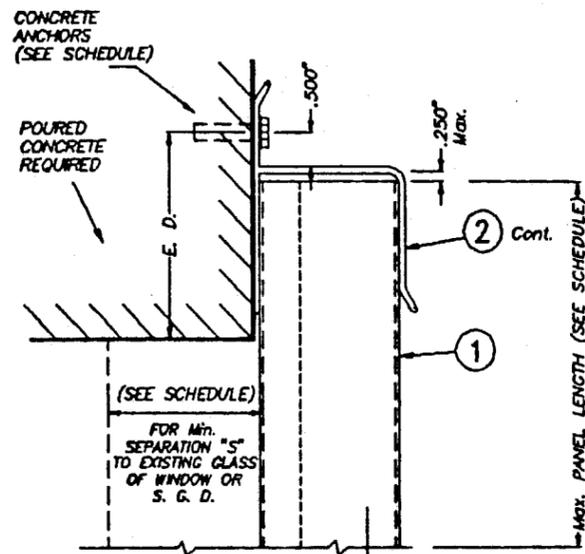
<p>TILLIT TESTING & ENGINEERING COMPANY 6565 N.W. 30th St., Ste. 217, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530, Fax: (305)871-1531</p> <p>WALTER A. TILLIT Jr., P. E. FLORIDA Lic. 44167</p>		0.063" ALUMINUM STORM PANEL		AS SHOWN SCALE	
		ALUFAB HURRICANE SHUTTERS, Inc.		9/5/96 DATE	
		2349 N.W. 147 STREET OPA-LOCKA, FLORIDA 33142		96 - 279 DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	5/14/97	3	-	-
2	GENERAL	6/25/97	4	-	-



ALTERNATIVE 1
SPLIT PANEL MOUNTING INSTALLATION

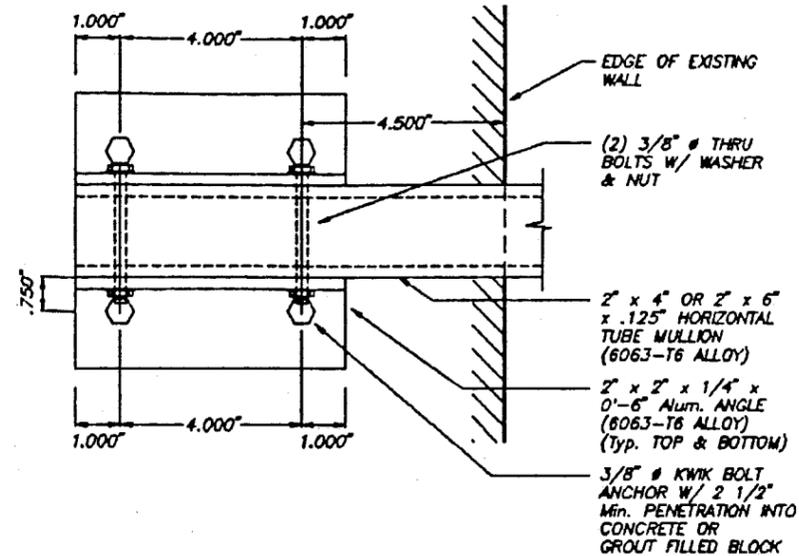
SECTION 9 SCALE: 3/8" = 1"

NOTE: FLOOR & CEILING MOUNT INSTALLATIONS SHOWN. FOR DIFFERENT MOUNTING INSTALLATIONS SEE TYPICAL SECTIONS ON SHEET 2 & 3 OF 8.



ALTERNATIVE 2 (TOP)

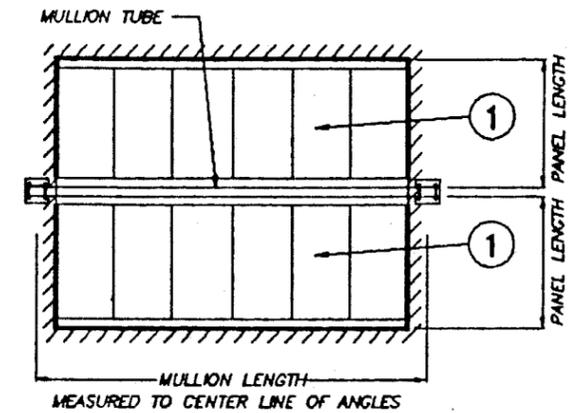
Cont. EQUAL TO Typ. SECTION 9



HORIZONTAL TUBE MULLION

CONNECTION TO WALL

SCALE: 1/4" = 1"



TYPICAL SPLIT PANEL
INSTALLATION ELEVATION W/
MULLION TUBE ON FACE MOUNT

N. T. S.

MAXIMUM MULLION SPAN (HORIZONTALLY) SCHEDULE

FOR SPLIT PANEL INSTALLATION

MAXIMUM DESIGN LOAD "W" (p.s.f.)	TOTAL MOUNTING HEIGHT "H"			
	≤ 10'-0"	10' < H < 12'	12' < H < 14'	14' < H < 16'
40	7'-7"	7'-2"	6'-10"	6'-6"
	10'-8"	10'-1"	9'-7"	9'-2"
50	7'-1"	6'-8"	6'-4"	6'-0"
	9'-11"	9'-4"	8'-11"	8'-6"
60	6'-8"	6'-3"	5'-11"	5'-8"
	9'-4"	8'-10"	8'-4"	8'-0"
66	6'-4"	5'-11"	5'-8"	5'-5"
	8'-10"	8'-4"	7'-11"	7'-7"

2" x 4" TUBE
2" x 6" TUBE

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

MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.)	Max. PANEL LENGTH "L" (ft.) (SEE SECTIONS)	MINIMUM SEPARATION TO GLASS	PANEL CONDITION
+55.5, -66.0	9'-0"	3"	UNBOLTED
+30.0, -40.0	>9'-0" TO 12'-0"	2 7/8"	BOLTED *

* BOLTED W/ 1/4" #20 S. S. M. S. & WINGNUT AT OVERLAP & MIDLENGTH OF PANEL.

PRODUCT RENEWED

ACCEPTANCE No. 00-0128.05

EXPIRATION DATE July 17, 2003

By *Helmy A. Maher*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE July 17, 1997
BY *Helmy A. Maher*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 96-1107.03

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

Walter A. Tillit Jr.
6/26/97

 TILIT TESTING & ENGINEERING COMPANY 6395 N.W. 30th St., Suite 217, VEROBEACH GARDENS, FL 33186 Phone: (305)871-1530 Fax: (305)871-1531 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. 44167	0.063" ALUMINUM STORM PANEL	AS SHOWN SCALE
	ALUFAB HURRICANE SHUTTERS, Inc. 2349 N.W. 147 STREET OPA-LOCKA, FLORIDA 33142	9/5/96 DATE
REV. NO. 1 DESCRIPTION GENERAL DATE 5/14/97	REV. NO. 2 DESCRIPTION - DATE 8/25/97	96 - 279 DRAWING No
		SHEET 4 OF 8

DADE COUNTY

MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS INTO CONCRETE AND C.B.S. 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		RAWL ZAMAC NAILIN		RAWL CALK-IN		PANELMATES			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+55.5, -66.0	12"	N/A	12"	N/A	12"	N/A	12"	N/A	1 (TOP)	8'-0" OR LESS
	12"	9"	12"	11"	12"	12"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	2 (TOP)	
	12"	9"	12"	11"	12"	12"	12"	12"	2 (BOTTOM)	
	N/A	N/A	N/A	N/A	12"	12"	12"	12"	3 (TOP/BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	4 (TOP)	
	6"	6"	6"	6"	6"	6"	6"	6"	4 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	5 (TOP)	
	12"	N/A	8 1/2"	N/A	12"	N/A	7"	N/A	5 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6 (TOP)	
	6"	6"	6"	6"	6"	6"	6"	6"	6 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	7 (TOP)	
	8"	6"	8"	7"	8"	8"	8"	8"	7 (BOTTOM)	
	N/A	N/A	N/A	N/A	12"	12"	12"	12"	8 (TOP)	
	12"	N/A	8 1/2"	N/A	12"	N/A	7"	N/A	8 (BOTTOM)	

- * SEE SHEET 7 & 8 OF 8 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 RAWL CALK-IN ANCHORS & ELCO PANELMATE IS 2 1/2").

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

Walter A. Tillit Jr.
4/26/97

PRODUCT RENEWED
ACCEPTANCE No. 00-0128.05
EXPIRATION DATE July 17, 2003
By Helmut A. Mabe
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE July 17, 1997
BY Helmut A. Mabe
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 96-1107.03

DADE COUNTY

 TILECO Inc. TILLIT TESTING & ENGINEERING COMPANY 6595 N.W. 36th St., Ste. 217, VEROBEA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. 44167	0.063" ALUMINUM STORM PANEL ALUFAB HURRICANE SHUTTERS, Inc. 2349 N.W. 147 STREET OPA-LOCKA, FLORIDA 33142	AS SHOWN SCALE 9/5/96 DATE 96 - 279 DRAWING No SHEET 3 OF 5																		
	<table border="1"> <tr> <th>REV. NO</th> <th>DESCRIPTION</th> <th>DATE</th> <th>REV. NO</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> <tr> <td>1</td> <td>GENERAL</td> <td>5/14/97</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>GENERAL</td> <td>6/25/97</td> <td>4</td> <td>-</td> <td>-</td> </tr> </table>	REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE	1	GENERAL	5/14/97	3	-	-	2	GENERAL	6/25/97	4	-	-	
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE															
1	GENERAL	5/14/97	3	-	-															
2	GENERAL	6/25/97	4	-	-															

MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS INTO CONCRETE AND C.B.S. 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		RAWL ZAMAC NAILIN		RAWL CALK-IN		PANELMATES			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+55.5, -66.0	12"	N/A	9 1/2"	N/A	12"	N/A	8"	N/A	1 (TOP)	>8'-0" TO 9'-0"
	12"	8"	12"	9 1/2"	12"	11 1/2"	11"	11"	1 (BOTTOM)	
	12"	N/A	9 1/2"	N/A	12"	N/A	8"	N/A	2 (TOP)	
	12"	8"	12"	9 1/2"	12"	11 1/2"	11"	11"	2 (BOTTOM)	
	N/A	N/A	N/A	N/A	12"	6"	6"	6"	3 (TOP/BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	4 (TOP)	
	6"	6"	6"	6"	6"	6"	6"	6"	4 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	5 (TOP)	
	11 1/2"	N/A	7 1/2"	N/A	12"	N/A	6"	N/A	5 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6 (TOP)	
	6"	6"	6"	6"	6"	6"	6"	6"	6 (BOTTOM)	
	12"	N/A	9 1/2"	N/A	12"	N/A	8"	N/A	7 (TOP)	
	8"	5.5"	8"	6.5"	8"	7.5"	7.5"	7.5"	7 (BOTTOM)	
	N/A	N/A	N/A	N/A	12"	6"	6"	6"	8 (TOP)	
11 1/2"	N/A	7 1/2"	N/A	12"	N/A	6"	N/A	8 (BOTTOM)		
+30.0, -40.0	6"	6"	6"	6"	6"	6"	6"	6"	8 (TOP)	>9'-0" TO 12'-0"
	6"	N/A	6"	N/A	6"	N/A	5"	N/A	8 (BOTTOM)	

PRODUCT RENEWED
 ACCEPTANCE No. 00-0128-05
 EXPIRATION DATE July 17, 2003
 By Helmy A. Matar
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE

* SEE SHEET 7 & 8 OF 8 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 RAWL CALK-IN ANCHORS & ELCO PANELMATE IS 2 1/2").

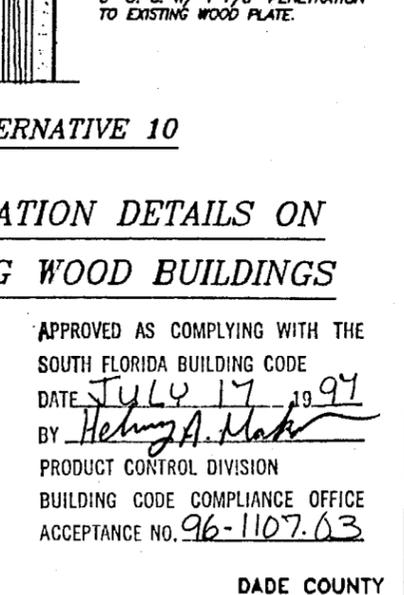
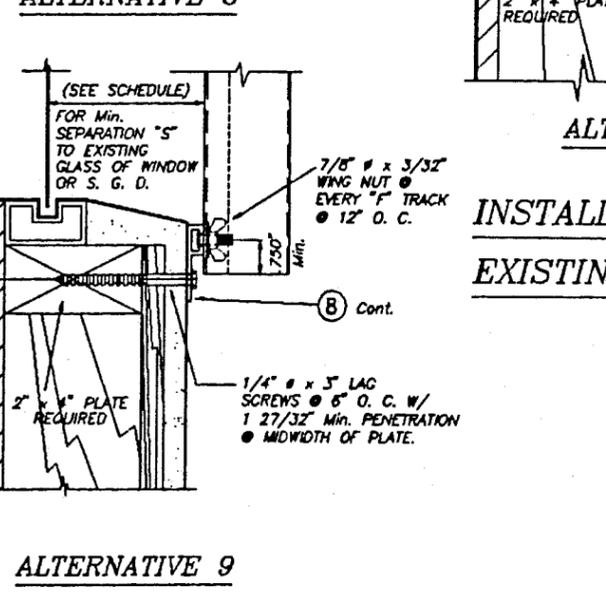
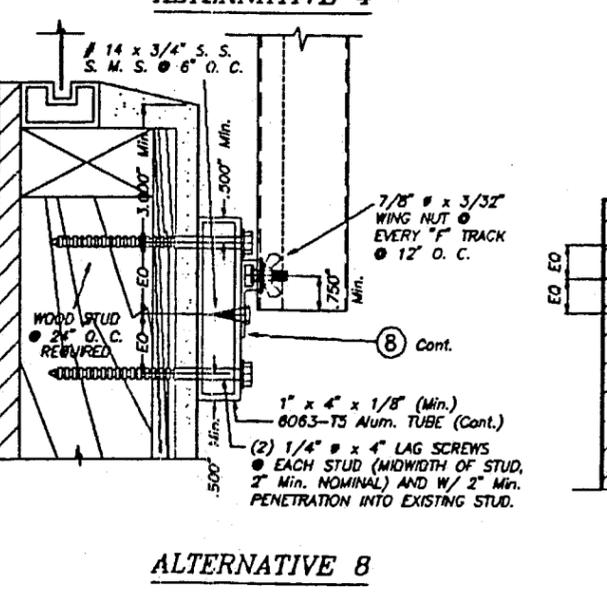
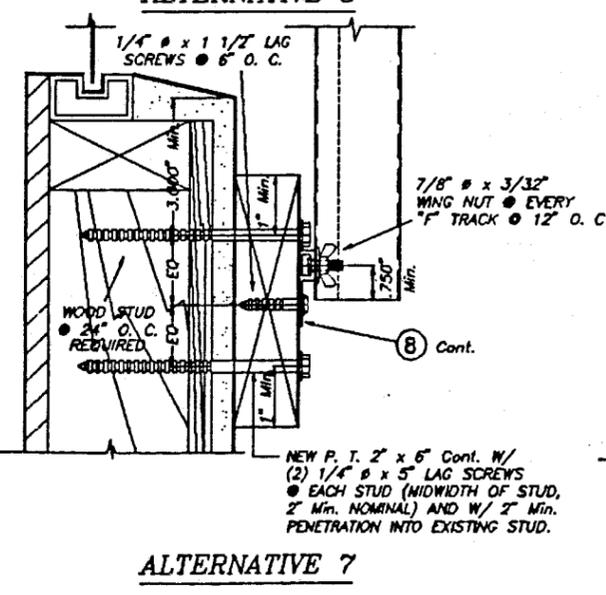
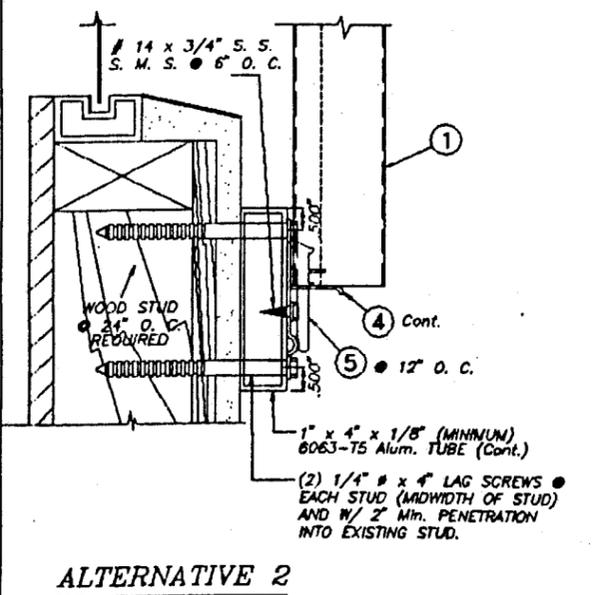
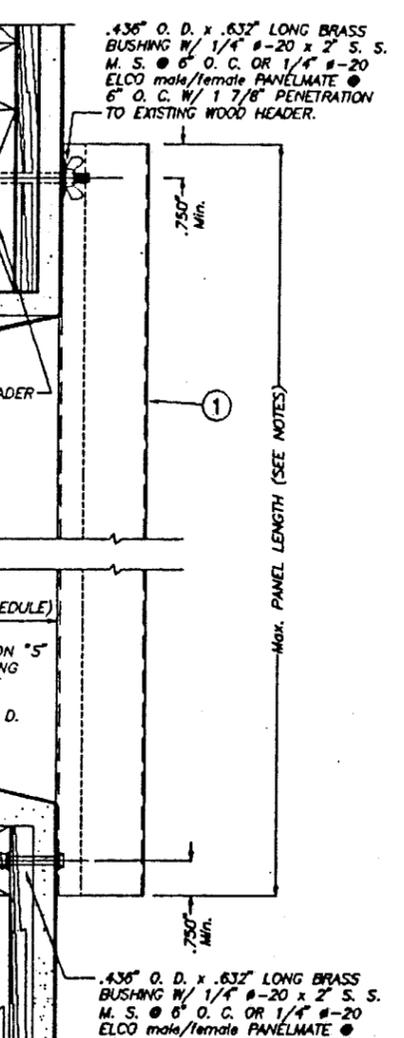
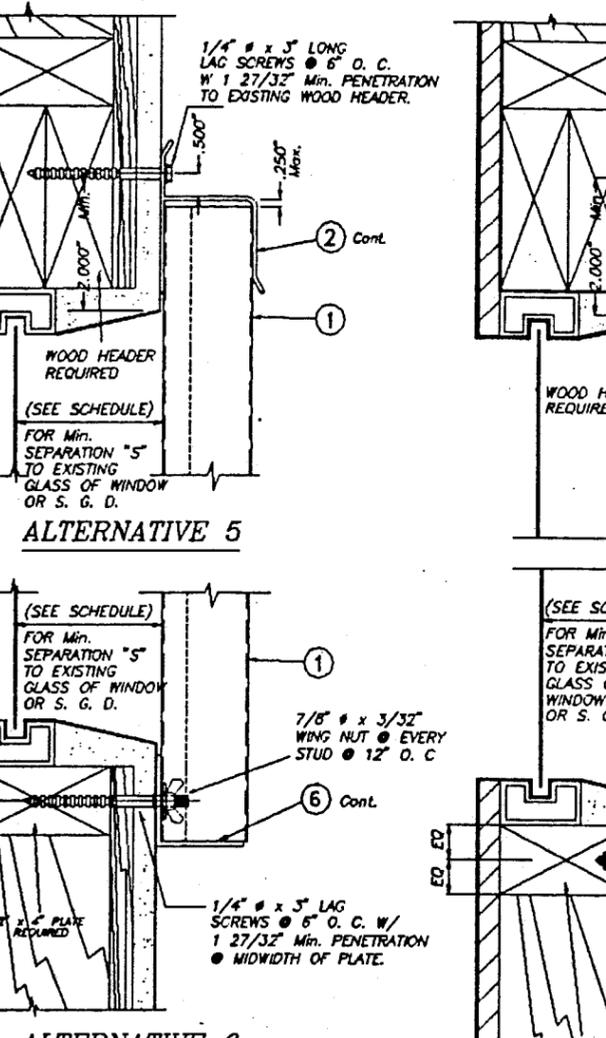
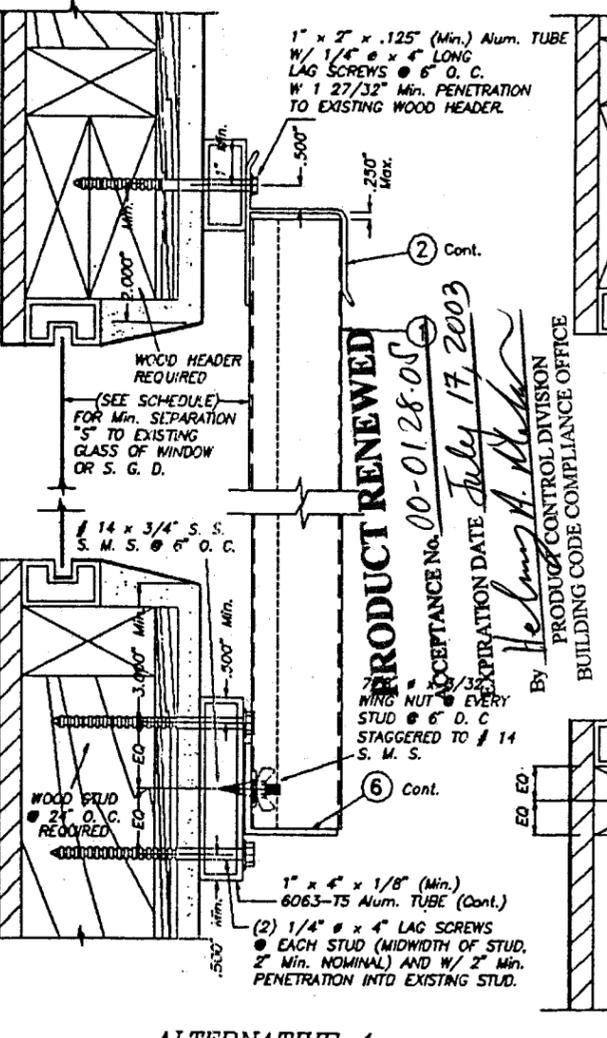
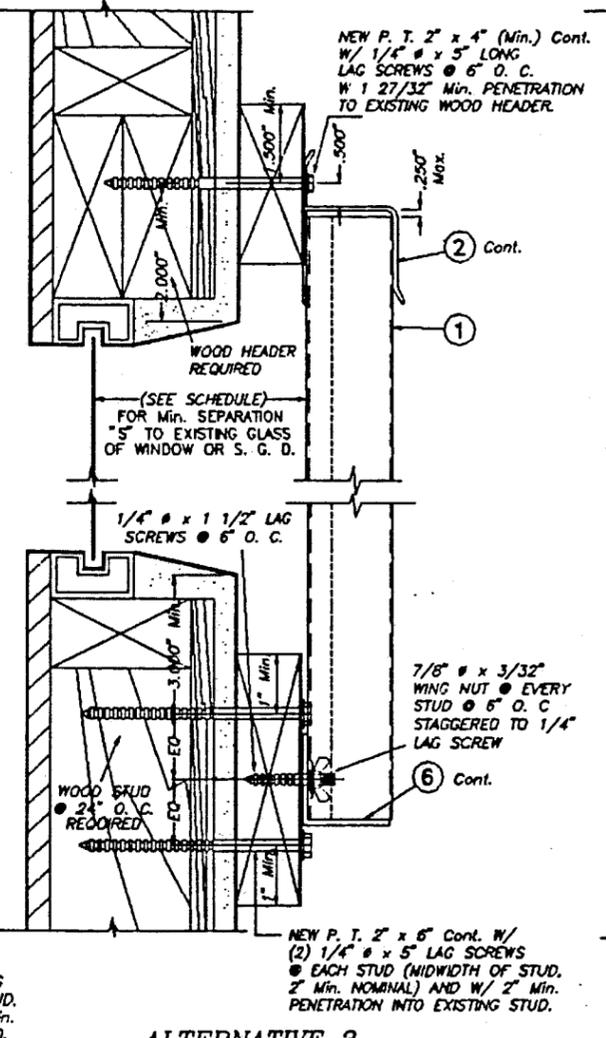
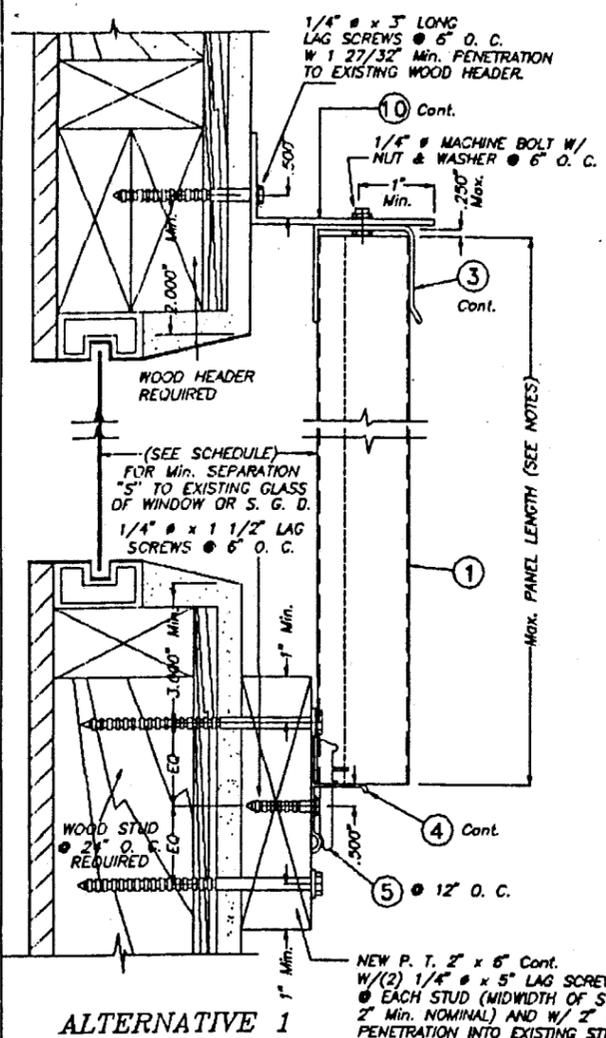
ACTUAL E. D.	FACTOR	
	TAPCON/ZAMAC NAILIN/PANELMATES	RAWL CALK-IN
3"	.86	.75
2 1/2"	.71	.50
2"	.50	-

Walter A. Tillit
 6/20/97

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
 DATE JULY 17, 1997
 BY Helmy A. Matar
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE No. 96-1167-03

DADE COUNTY

 TILIT TESTING & ENGINEERING COMPANY 8505 N.W. 38th St., Ste. 217, VIRGINIA GARDENS, FL 33186 Phone: (305)871-1530 Fax: (305)871-1531 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. 44167	0.063" ALUMINUM STORM PANEL	AS SHOWN SCALE
	ALUFAB HURRICANE SHUTTERS, Inc. 2349 N.W. 147 STREET OPA LOCKA, FLORIDA 33142	9/5/96 DATE
REV. NO. 1 DESCRIPTION GENERAL DATE 5/14/97	REV. No. 2 DESCRIPTION GENERAL DATE 8/25/97	96 - 279 DRAWING No
		SHEET 6 OF 8



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

- NOTES:
- INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH DESIGN LOADS UP TO 66.0 psf AND PANEL LENGTHS UP TO 9'-0".
 - 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.
 - FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2 W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

WALL MOUNTING INSTALLATION
- SECTIONS A SCALE: 1/4" = 1"

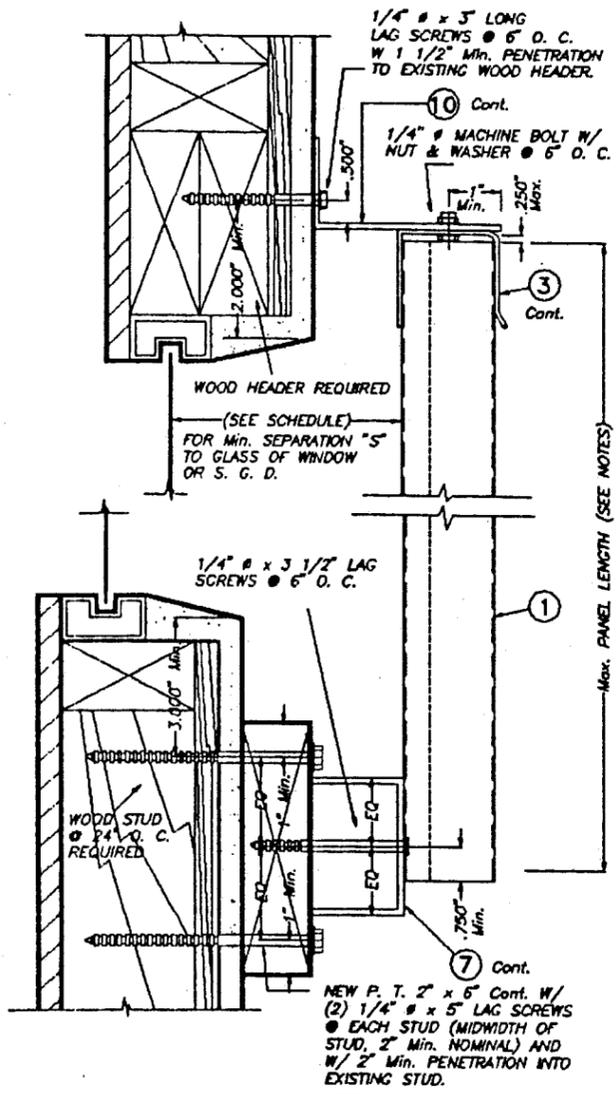
Walter A. Tillit Jr.
6/26/99

TILECO inc.
TILLOT TESTING & ENGINEERING COMPANY
6595 N.W. 38th St., Ste. 217, VIRGINIA GARDENS, FL 33186
Phone: (305)871-1530 Fax: (305)871-1531
WALTER A. TILLOT Jr., P. E.
FLORIDA Lic. 44167

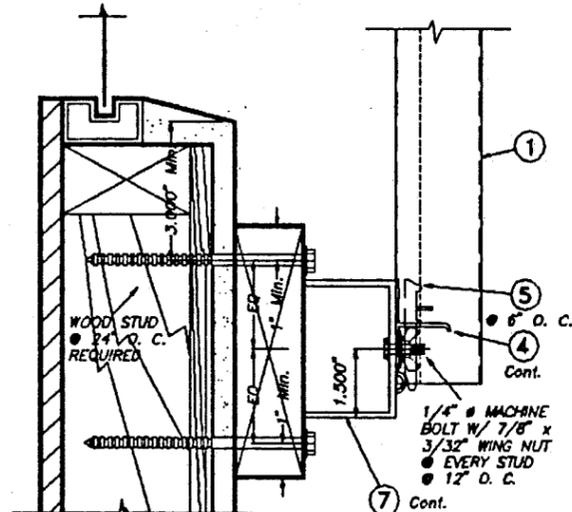
0.063" ALUMINUM STORM PANEL		AS SHOWN SCALE
ALUFAB HURRICANE SHUTTERS, Inc.		9/5/96 DATE
2349 N.W. 147 STREET OPA-LOCKA, FLORIDA 33142		96 - 279
REV. NO	DESCRIPTION	DATE
1	GENERAL	5/14/97
2	GENERAL	6/25/97
DRAWING No		SHEET 7 OF 8

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JULY 17, 1999
BY Hehny A. Mak
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 96-1107.03

DADE COUNTY



SECTION • LAG SCREW

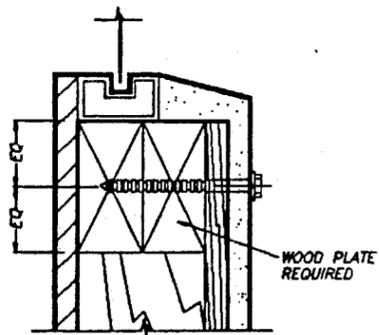


SECTION • LOCKING PIN

ALTERNATIVE 11

WALL MOUNTING INSTALLATION & (OFFSET) - SECTION A

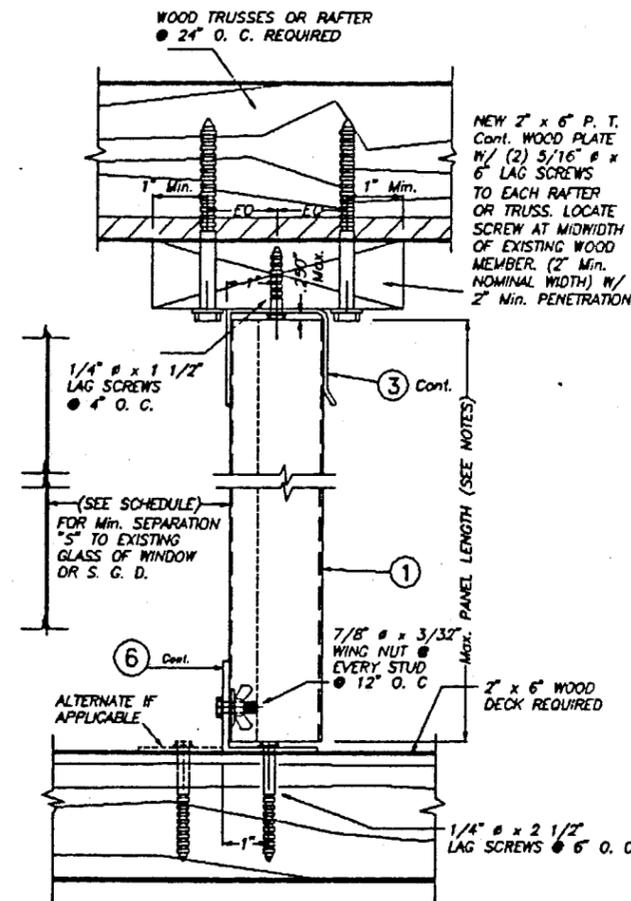
SCALE: 1/4" = 1"



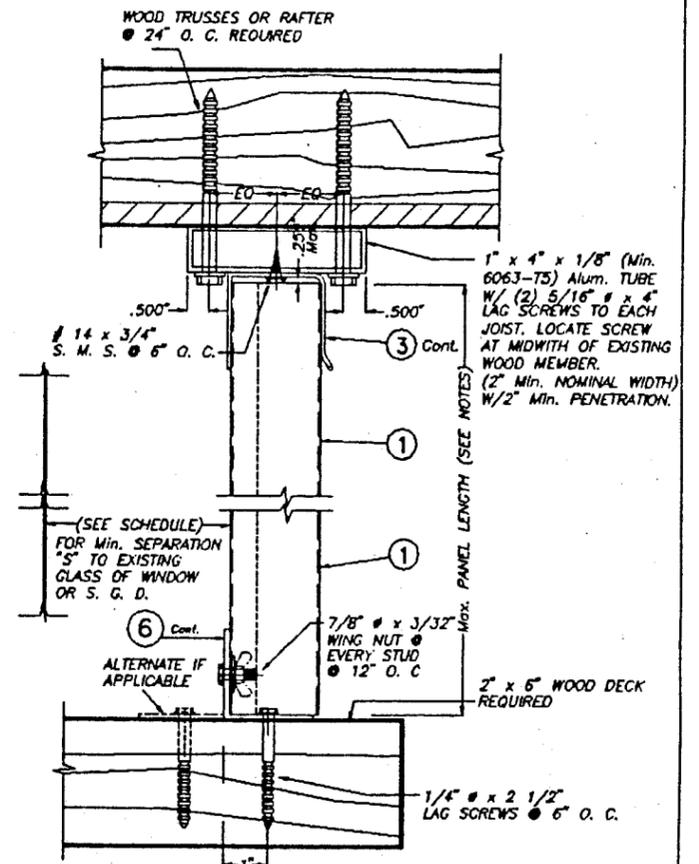
ALTERNATIVE WOOD FRAME CONDITION & ANCHOR LOCATION AT BOTTOM

SCALE: 1/4" = 1"
NOTE: SHUTTER TRACKS NOT SHOWN FOR CLARITY

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS



ALTERNATIVE 1



ALTERNATIVE 2

CEILING & FLOOR MOUNTING INSTALLATION - SECTIONS B

SCALE: 1/4" = 1"

- NOTES:**
- INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH DESIGN LOADS UP TO 66 psf AND PANEL LENGTHS UP TO 9'-0"
 - 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.
 - FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

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

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JULY 17, 1997
BY Helmut A. M...
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 96-1107.03

PRODUCT RENEWED

ACCEPTANCE No. 00-0128.05
EXPIRATION DATE July 17, 2003
By Helmut A. M...
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

<p>TILLIT TESTING & ENGINEERING COMPANY 6595 N.W. 30th St., Ste. 217, VERO BEACH, FL 33106 Phone: (305) 771-1530 Fax: (305) 771-1531</p> <p>WALTER A. TILLIT Jr., P. E. FLORIDA Lic. 44167</p>		0.063" ALUMINUM STORM PANEL		AS SHOWN SCALE	
		ALUFAB HURRICANE SHUTTERS, Inc.		9/5/96 DATE	
		2349 N.W. 147 STREET OPA-LOCKA, FLORIDA 33142		96 - 279 DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	5/14/97	3	-	-
2	GENERAL	6/25/97	4	-	-

Handwritten signature
6/26/97

DADE COUNTY