



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

Robico Shutters, Inc.
9108 NW 105 Way
Medley FL 33178

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:

20 Gauge Galvanized Steel Storm Panel 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.: 00-0307.04

Expires: 06/26/2003

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: 04/28/2000

1 of 3



Robico Shutters, Inc.

ACCEPTANCE No. : 00-0307.04

APPROVED : APR 28 2000

EXPIRES : 06/26/2003

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

1. SCOPE

This renews the Notice of Acceptance No. 99-0317.04, which was issued on May 27, 1999. It approves a 20 Gauge Galvanized Steel Storm Panel 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 20 Gauge Galvanized Steel Storm Panel Shutter and its components shall be constructed in strict compliance with the following documents: Drawing No. 96-297, titled "20 Gage Storm Panel", prepared by Tilteco, Inc., dated September 20, 1996, last revision #4 dated May 5, 1999, sheets 1 through 15 of 15, total of 16 sheets including sheet 10A of 15, 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 20 Gauge Galvanized Steel Storm Panel 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".

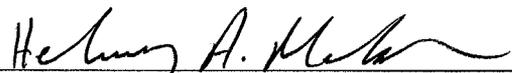
6. BUILDING PERMIT REQUIREMENTS

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

Robico Shutters, Inc.

ACCEPTANCE No. : 00-0307.04

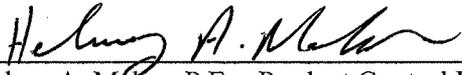
APPROVED : APR 28 2000

EXPIRES : 06/26/2003

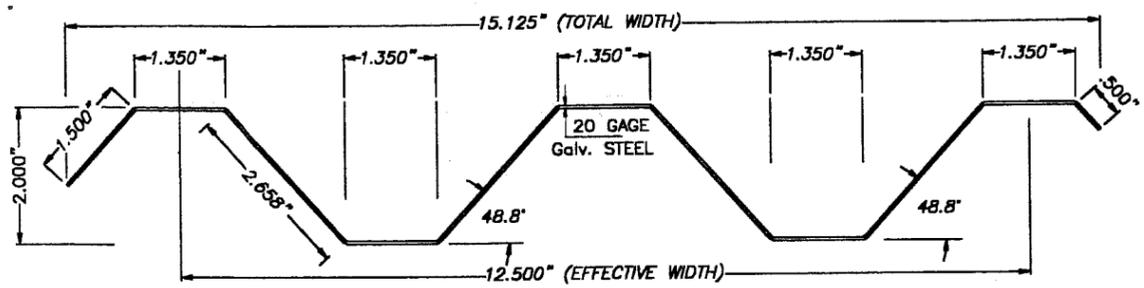
NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

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 time. 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.

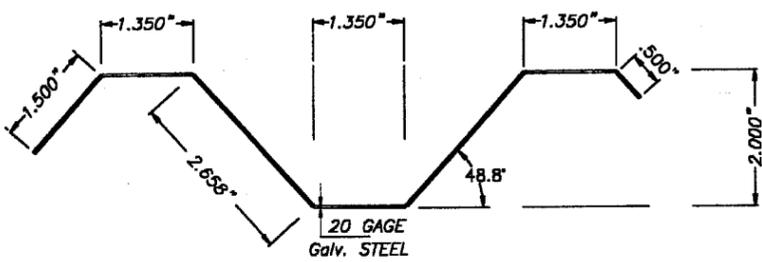
END OF THIS ACCEPTANCE



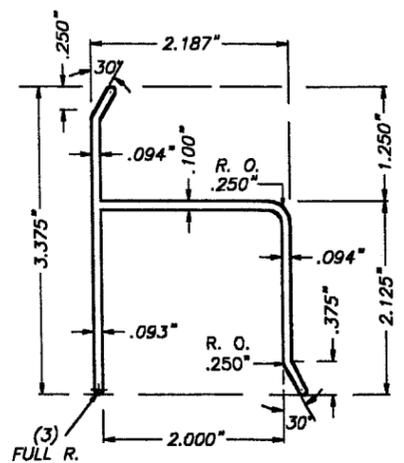
Helmy A. Makar, P.E. - Product Control Examiner
Product Control Division



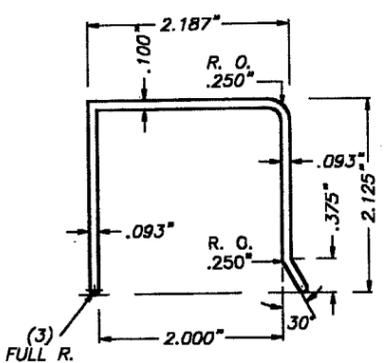
① PANEL
SCALE: 3/8" = 1"



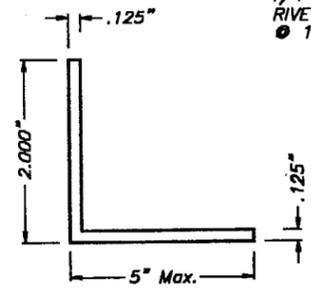
①A END PANEL
SCALE: 3/8" = 1"



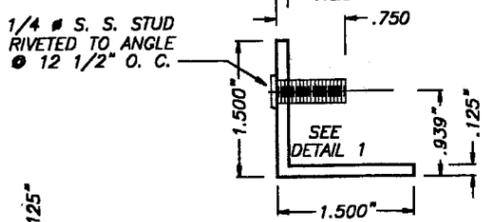
② "h" HEADER
SCALE: 1/2" = 1"



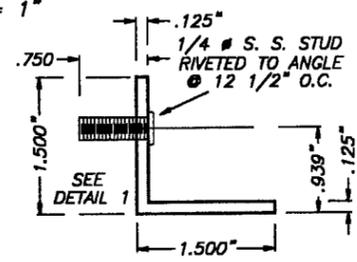
③ "U" HEADER
SCALE: 1/2" = 1"



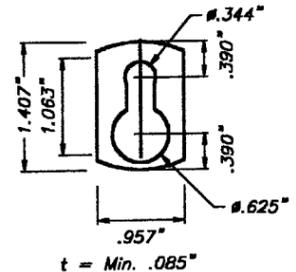
④ ANGLE
SCALE: 1/2" = 1"



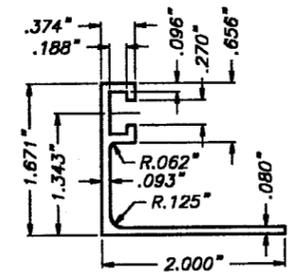
④A ANGLE WITH STUD
SCALE: 1/2" = 1"



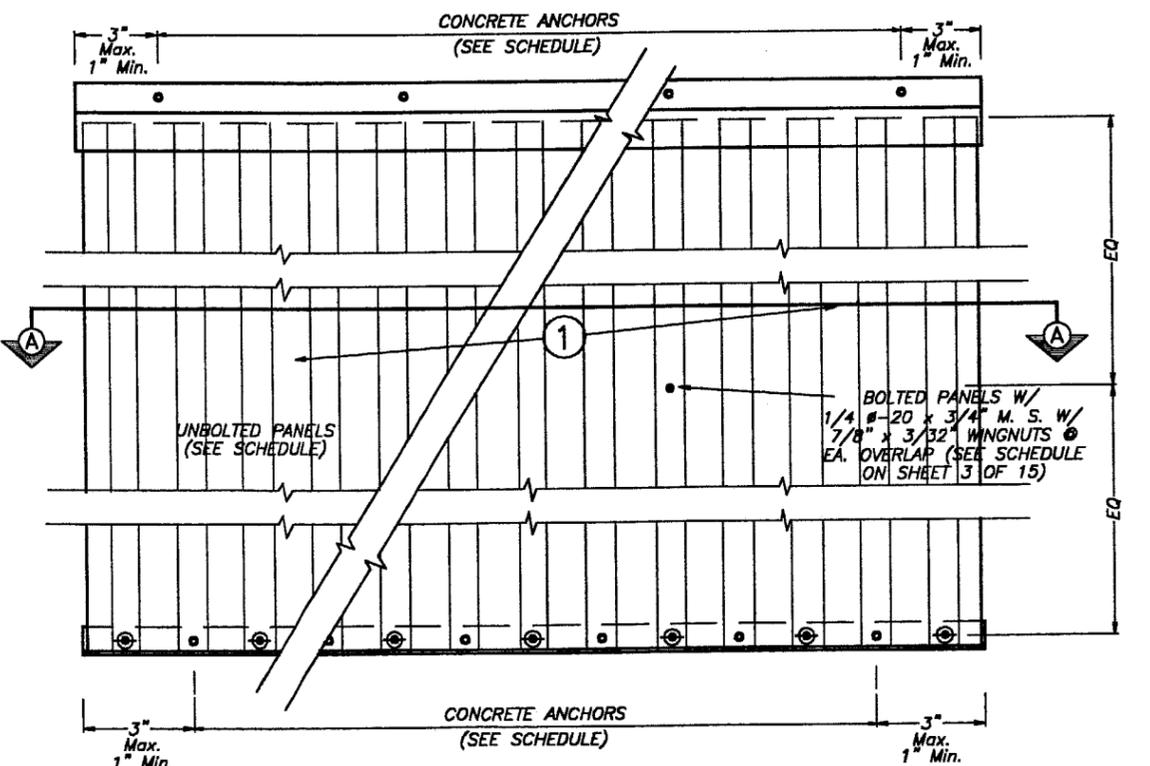
④B ANGLE WITH REVERSED STUD
SCALE: 1/2" = 1"



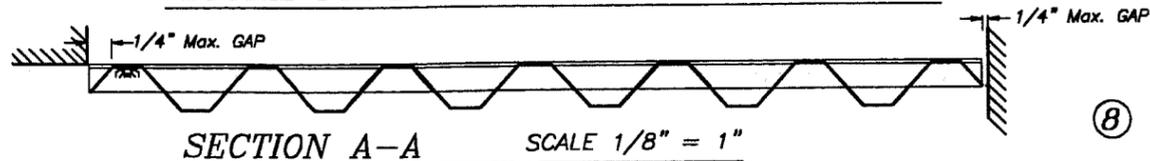
⑤ KEY HOLE WASHER
3105-H154 Alum. ALLOY
SCALE: 1/2" = 1"



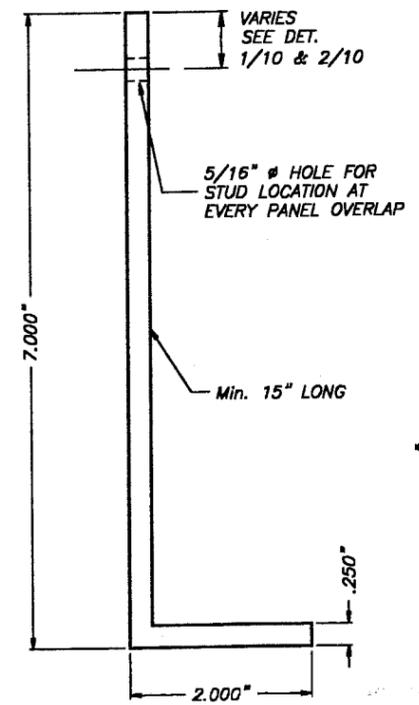
⑥ "F" TRACK ANGLE
SCALE: 1/2" = 1"



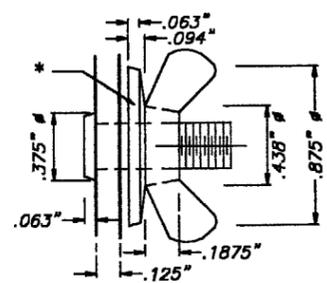
STORM PANEL ELEVATION SCALE 1/4" = 1"



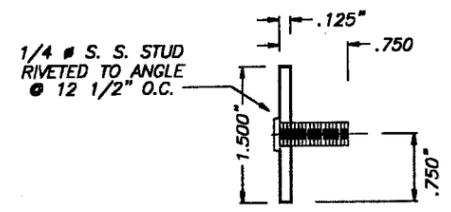
SECTION A-A SCALE 1/8" = 1"



⑧ 2" x 7" x 1/4" ALUMINUM ANGLE
SCALE: 1/2" = 1"



DETAIL 1
SCALE: 2" = 1"
* ALTERNATIVELY, USE WING NUT W/O MONOLITHIC WASHER W/ADDITIONAL 7/8" Dia. x 3/32" WASHER (STAINLESS STEEL OR NICKEL PLATED STEEL).



⑦ FLAT PLATE WITH STUD
SCALE: 1/2" = 1"

GENERAL NOTES : VALID FOR 20 GAGE STORM PANEL

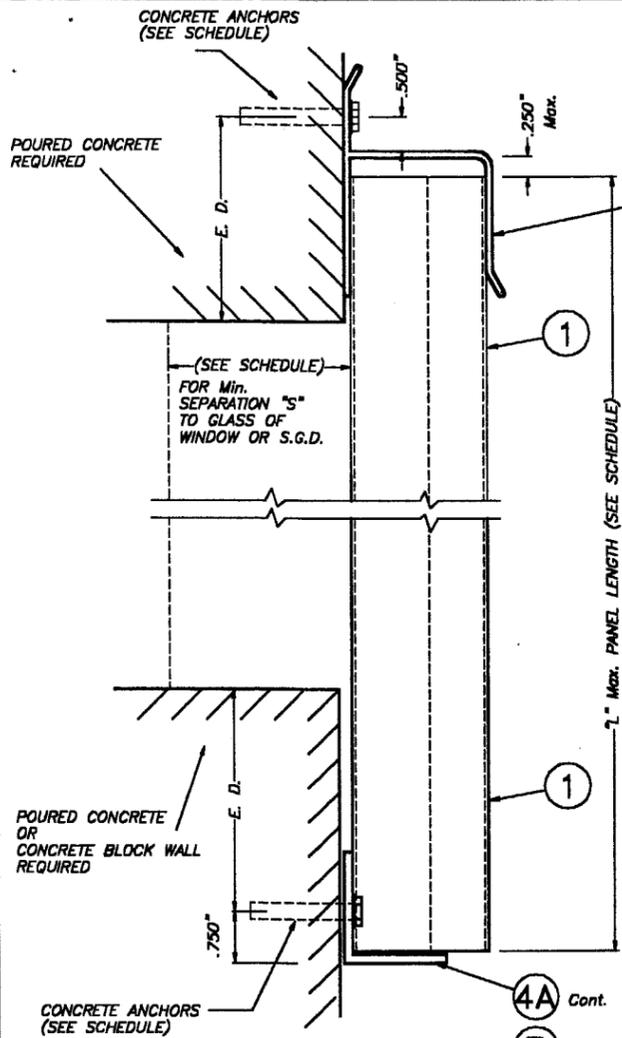
- STORM PANELS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE DADE COUNTY 1984 EDITION OF THE SOUTH FLORIDA BUILDING CODE. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 6 OF ASCE 7-88, WITH 110 m.p.h. DESIGN WIND SPEED. STORM PANEL'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTIONS 2315 & 2314 RESPECTIVELY OF THE ABOVE MENTIONED CODE AS PER HURRICANE ENGINEERING & TESTING INC. REPORTS # 96-569, 96-570 & 96-130.
 - ALL ALUMINUM EXTRUSIONS TO BE 6063-T6 ALLOY. (UNLESS OTHERWISE NOTED)
 - ALL ALUMINUM SHEET METAL USED AT CLOSURES SHALL HAVE 3103-H14 ALLOY.
 - ALL STEEL SHEET METAL PANELS SHALL HAVE STRUCTURAL QUALITY STEEL, ASTM A-446 GRADE C MINIMUM, GALVANIZED STEEL DESIGNATION W/FY= 41.4 ksi (AFTER ROLLED).
 - 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:
 - TO EXISTING POURED CONCRETE:
 - 1/4" # TAPCON ANCHORS AS MANUFACTURED BY I. T. W. RAMSET, OR ELCO INDUSTRIES.
 - 1/4" # CF TAP-GRIP ANCHORS, AS MANUFACTURED BY TRU-FAST CORPORATION.
 - 1/4" # x 7/8" RAWL CALK-IN ANCHORS OR ELCO male/female PANELMATES AS MANUFACTURED BY THE RAWL PLUG COMPANY AND ELCO PANELMATES, RESPECTIVELY.
 - TO EXISTING CONCRETE BLOCK WALL:
 - 1/4" # TAPCON ANCHORS, AS MANUFACTURED BY I. T. W. RAMSET OR ELCO INDUSTRIES.
 - 1/4" # CF TAP-GRIP ANCHORS, AS MANUFACTURED BY TRU-FAST CORPORATION.
 - 1/4" # x 7/8" RAWL CALK-IN ANCHORS OR ELCO male/female PANELMATES AS MANUFACTURED BY THE RAWL PLUG COMPANY AND ELCO INDUSTRIES, RESPECTIVELY.
- NOTES:
- MINIMUM EMBEDMENT OF TAPCON ANCHORS INTO POURED CONCRETE SHALL BE 1 3/4", 1 7/8" FOR ELCO PANELMATES AND FOR CF TAP-GRIP ANCHORS IS 1 1/4".
 - 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, AND MAY BE HEADED SCREWS OR ALL THREADED SCREWS W/O HEAD, BUT WITH WING NUTS.
 - 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 MENTIONED IN A.1) AND IN A.2).

PRODUCT RENEWED
ACCEPTANCE No. 00-0307.04
EXPIRATION DATE 06/26/2003
By Helmy A. Makhadmeh
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

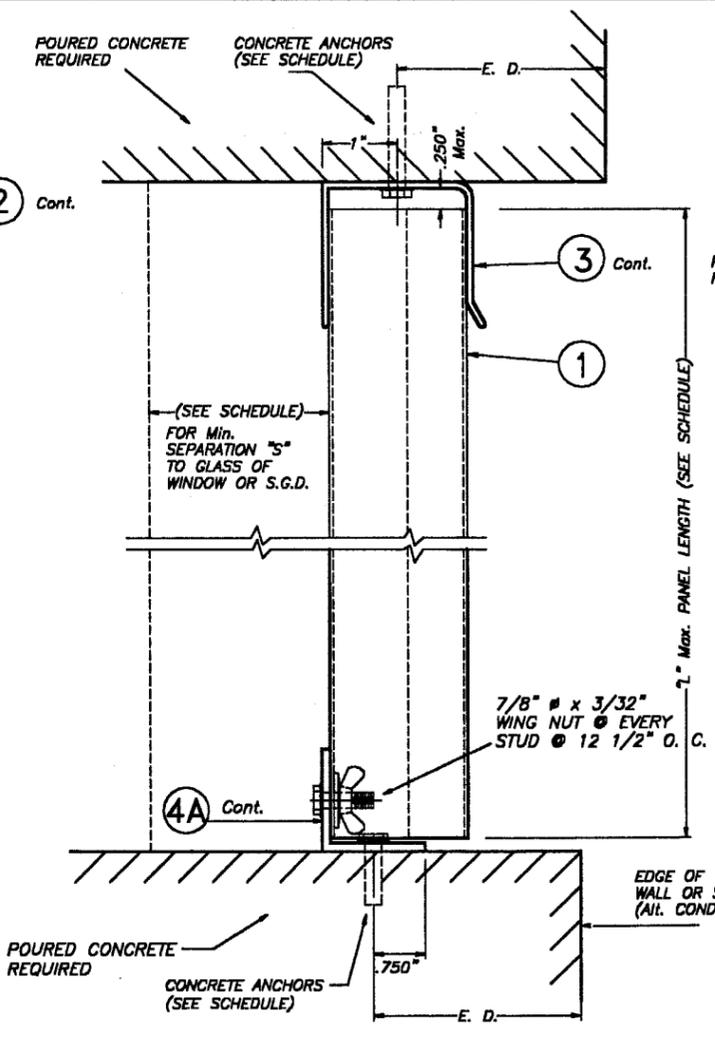
TILECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6595 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33166
Phone : (305)871-1530 . Fax : (305)871-1531
WALTER A. TILLIT Jr., P. E.
FLORIDA Lic. # 44167

20 GAGE STORM PANEL		AS SHOWN SCALE			
ROBICO SHUTTERS, Inc.		9/20/96 DATE			
9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178		96 - 297			
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	5/18/97	3	ROBICO SHUTTERS, Inc.	0/27/98
2	GENERAL	5/5/97	4	GENERAL	5/5/99

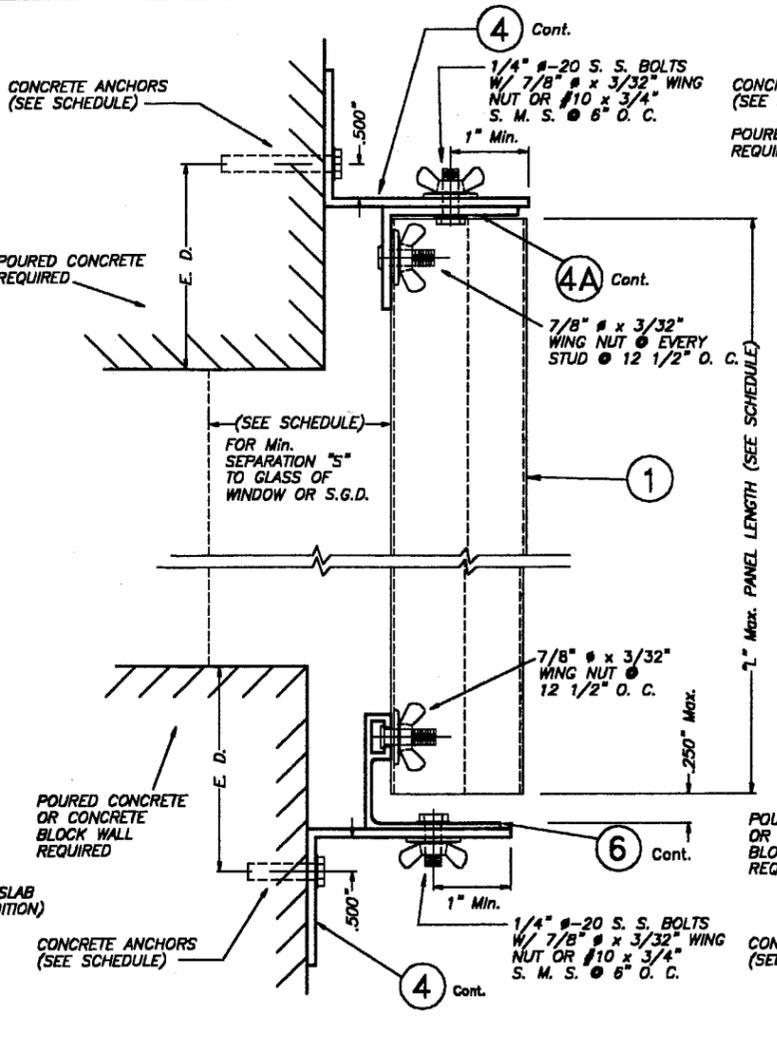
SHEET 1 OF 15



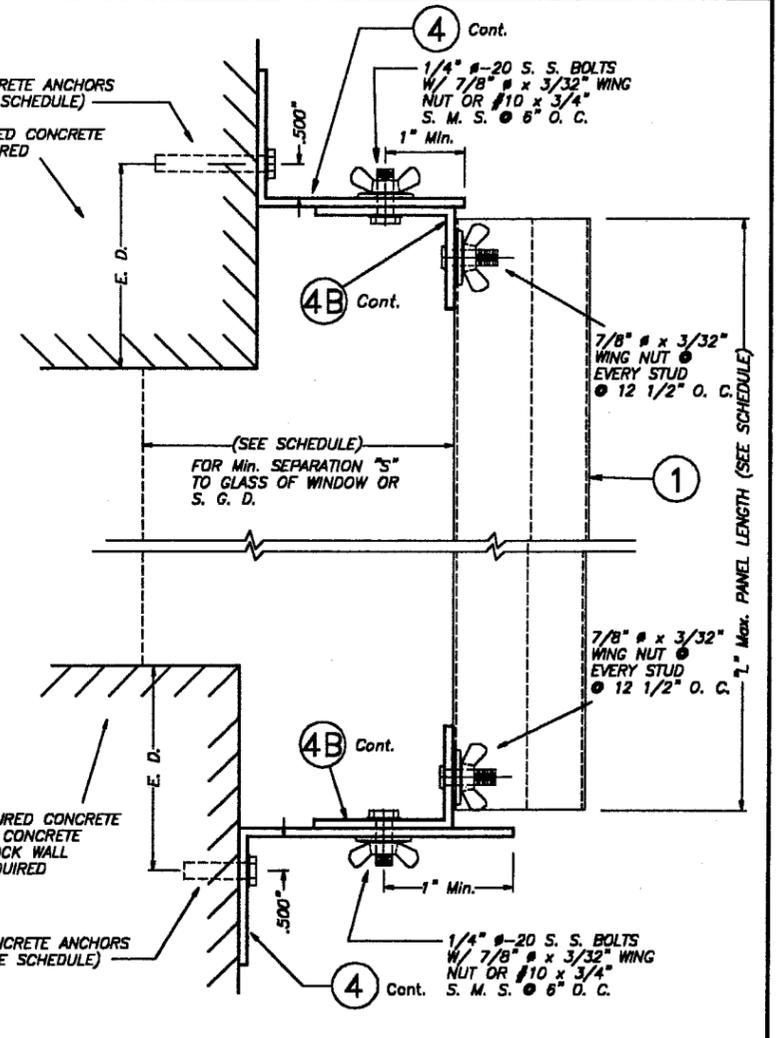
SECTION @ ANCHOR



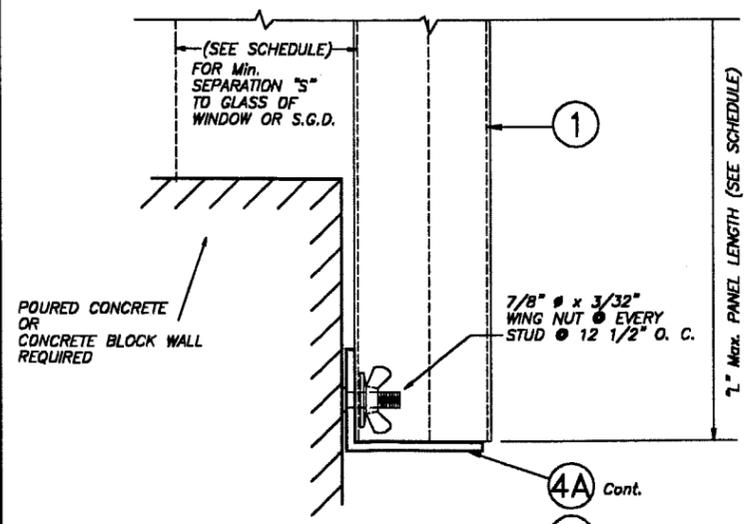
CEILING AND FLOOR MOUNT. INSTALLAT.
- SECTION 2 SCALE: 3/8" = 1"



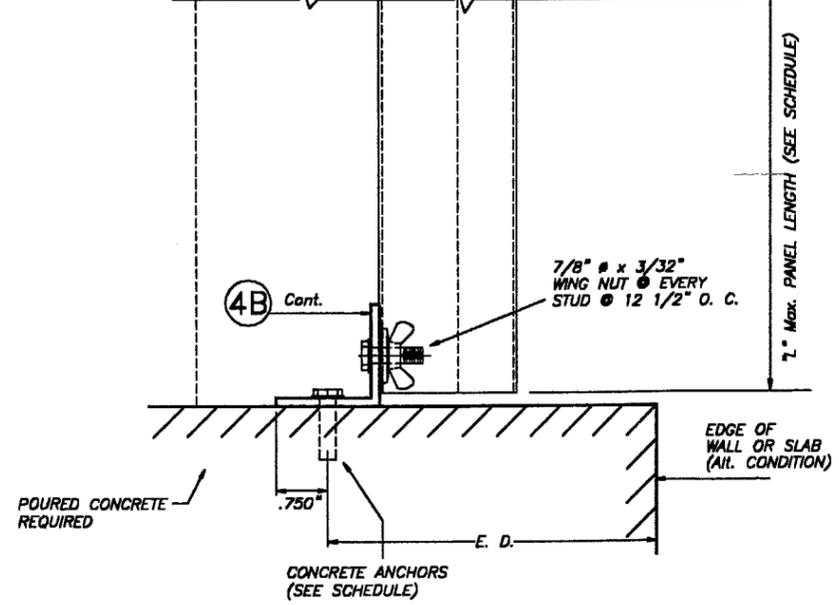
BUILD OUT MOUNTING INSTALLATION
- SECTION 3 SCALE: 3/8" = 1"



ALTERNATE BUILD-OUT MOUNT. INSTALLAT.
- SECTION 4 SCALE: 3/8" = 1"



SECTION @ STUD



CEILING AND FLOOR MOUNTING INSTALLATION
- SECTION 2A SCALE: 3/8" = 1"

E. D. = EDGE DISTANCE
(SEE SCHEDULE ON
SHEET 5 & 6 OF 15)

NOTE FOR COMBINATION OF SECTIONS :
MOUNTING SHOWN ON SECTIONS 1 THROUGH 5
CAN BE COMBINED IN ANY WAY TO SUIT ANY
INSTALLATION.

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04
EXPIRATION DATE 06/26/2003
By *Helmut A. Muehler*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

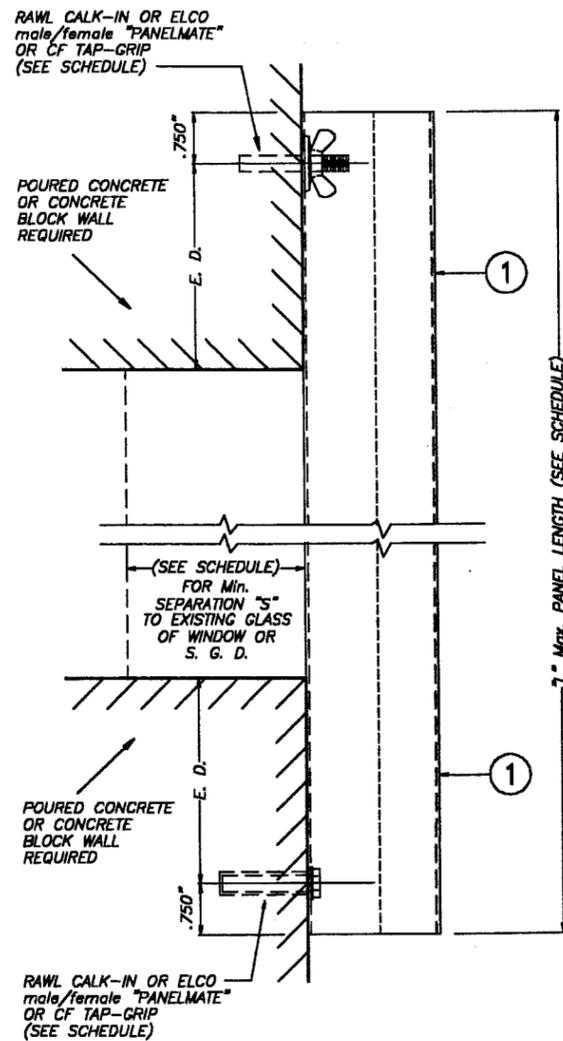
DADE COUNTY

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

<p>TILLIT TESTING & ENGINEERING COMPANY 6595 N.W. 36th. St., Ste. 217, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167</p>		20 GAGE STORM PANEL		AS SHOWN SCALE	
		<p>ROBICO SHUTTERS, Inc.</p> <p>9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178</p>		9/20/96 DATE	
		96 - 297		DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	3/18/97	3	ROBICO SHUTTERS, Inc.	0/27/98
2	GENERAL	8/5/97	4	GENERAL	5/15/99

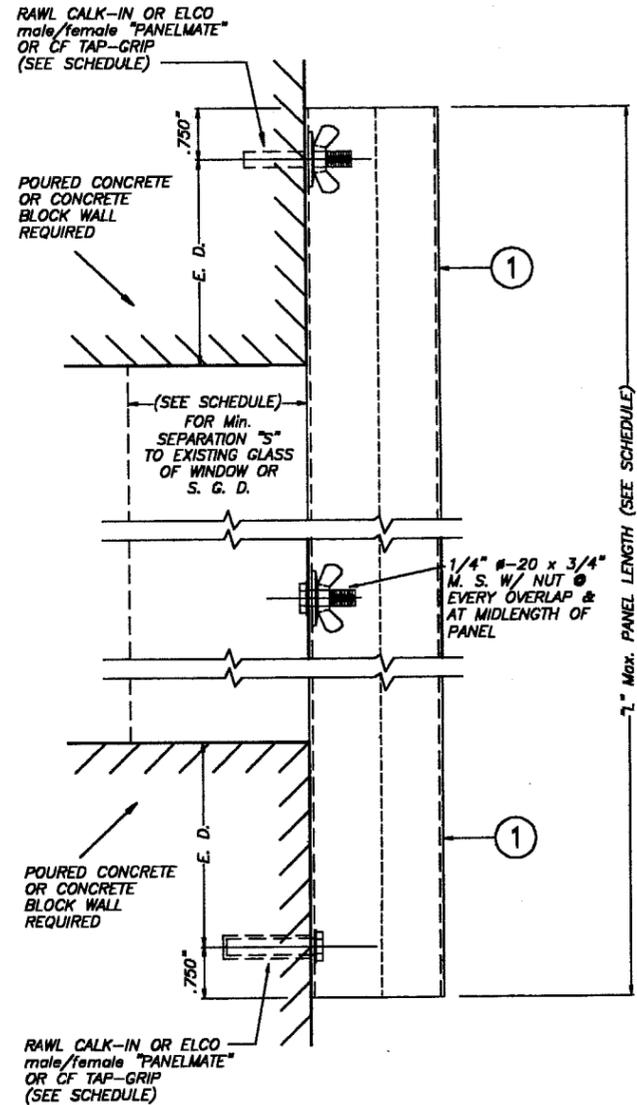
SHEET 2 OF 15

2000
9/6/00



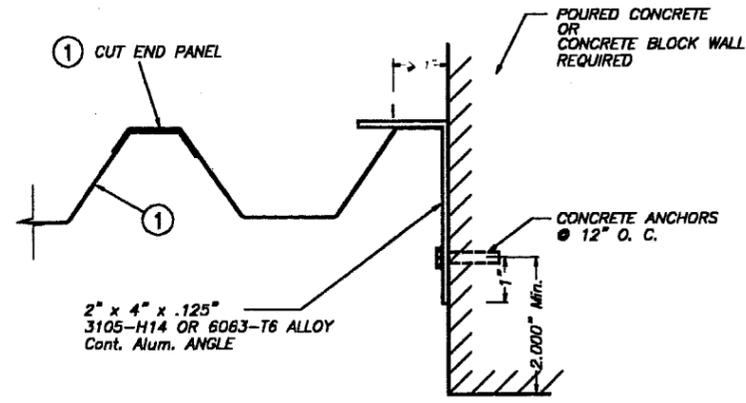
WALL MOUNTING INSTALLATION
(D. M.) - SECTION 5

SCALE: 3/8" = 1"



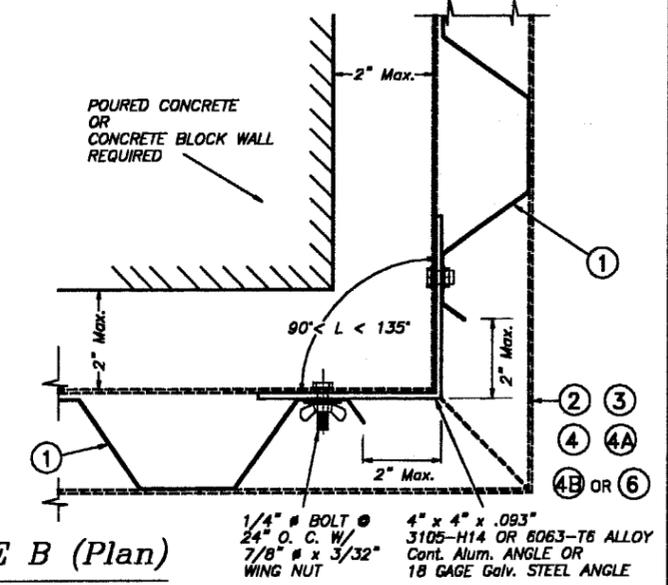
WALL MOUNTING INSTALLATION
(D. M.) - SECTION 6

SCALE: 3/8" = 1"



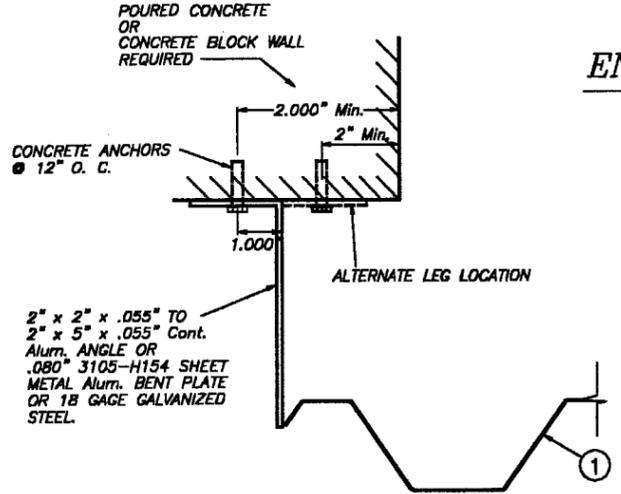
CASE A (Plan)

SCALE: 1/4" = 1"



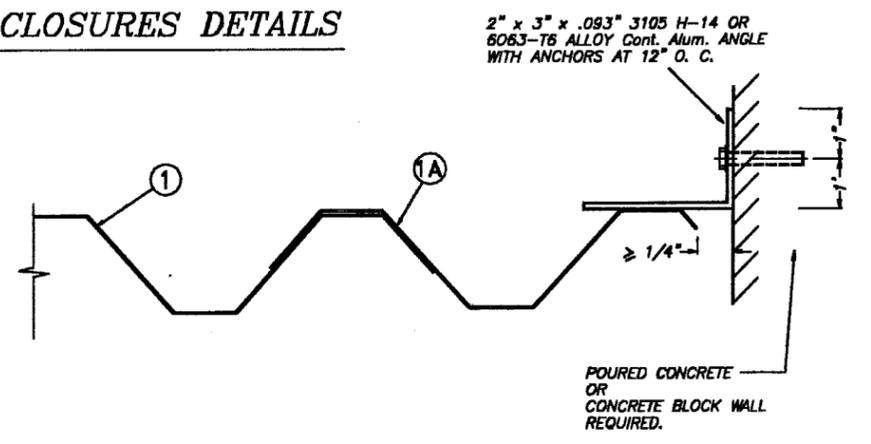
CASE B (Plan)

SCALE: 1/4" = 1"



CASE C (Plan)

SCALE: 1/4" = 1"



CASE D (Plan)

SCALE: 1/4" = 1"

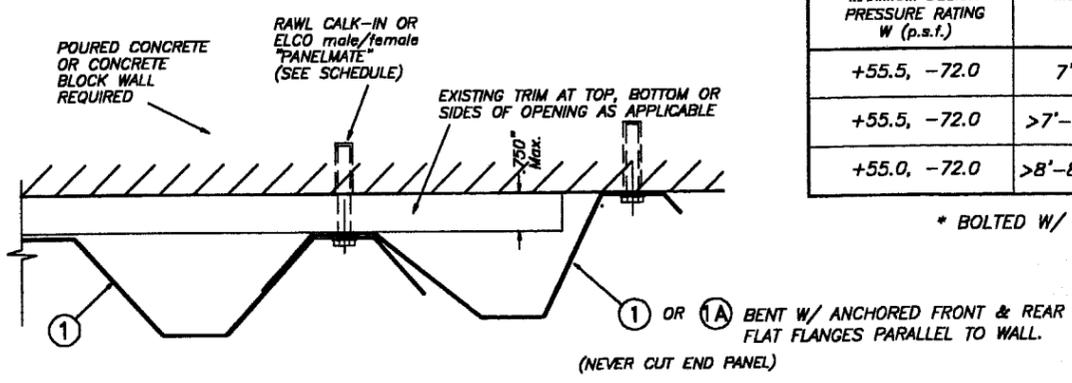
END CLOSURES DETAILS

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

(VALID ONLY FOR PANEL INSTALLATIONS AS PER SECTIONS 1 THRU 6, ON SHEETS 2 & 3 OF 15)

MAXIMUM DESIGN PRESSURE RATING W (p.s.f.)	Max. PANEL LENGTH L (ft.) (SEE SECTIONS)	MINIMUM SEPARATION TO GLASS	PANEL CONDITION	APPLICABLE TO SECTIONS # AND ANY COMBINATION OF THEM
+55.5, -72.0	7'-5" OR LESS	2 1/4"	UNBOLTED	1 THRU 5
+55.5, -72.0	>7'-5" TO 8'-8" Max.	2 3/4"	UNBOLTED	1 THRU 5
+55.0, -72.0	>8'-8" TO 11'-2" Max.	2 1/2"	* BOLTED AT MIDLENGTH AT OVERLAPS	6

* BOLTED W/ 1/4" #20 x 3/4" S. S. M. S. & WINGNUT AT OVERLAP & MIDLENGTH OF PANEL.



CASE E (Plan)

SCALE: 1/4" = 1"

VALID FOR DIRECT MOUNT INSTALLATION ONLY & CERTIFIED PANEL INSTALLATION AT WALLS W/ SURFACE LEVEL VARIATIONS WITHIN 3/4"

E. D. = EDGE DISTANCE (SEE SCHEDULE ON SHEET 5 & 6 OF 15)

NOTE FOR COMBINATION OF SECTIONS : MOUNTINGS SHOWN ON SECTIONS 1 THROUGH 5 CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04
EXPIRATION DATE 06/26/2003
By *Heather A. Mark*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6595 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33166
Phone : (305)871-1530 . Fax : (305)871-1531
WALTER A. TILLIT Jr., P. E.
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20 GAGE STORM PANEL

ROBICO SHUTTERS, Inc.
9108 N.W. 105th. WAY
MEDLEY, FLORIDA 33178

SCALE

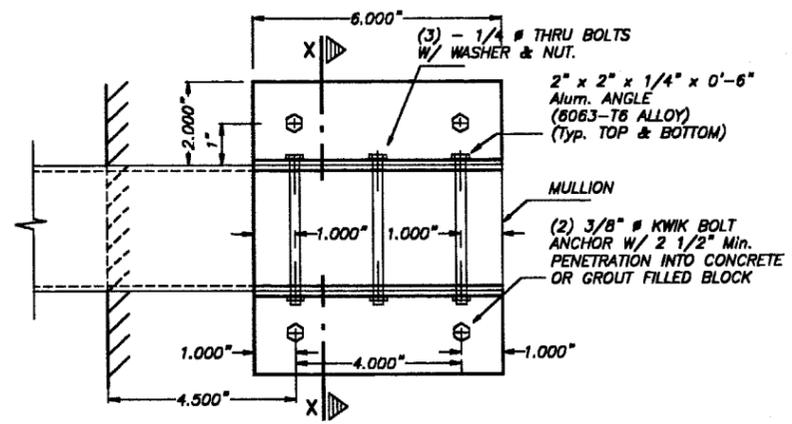
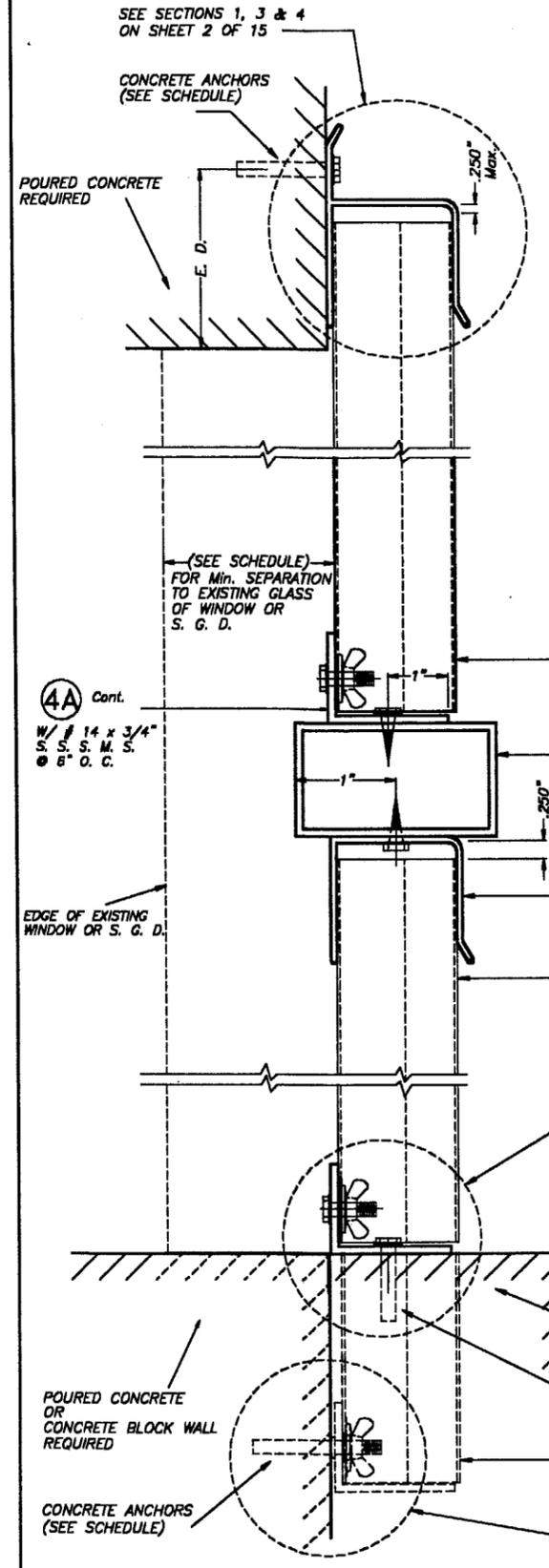
9/20/96
DATE

96 - 297
DRAWING No

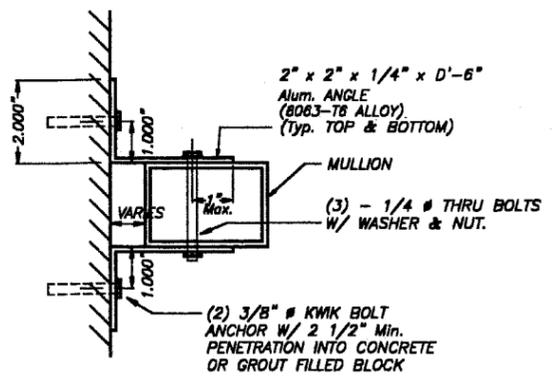
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	8/19/97	3	ROBICO SHUTTERS, Inc.	10/27/98
2	GENERAL	8/5/97	4	GENERAL	5/5/99

SHEET 3 OF 15

David
6/6/10

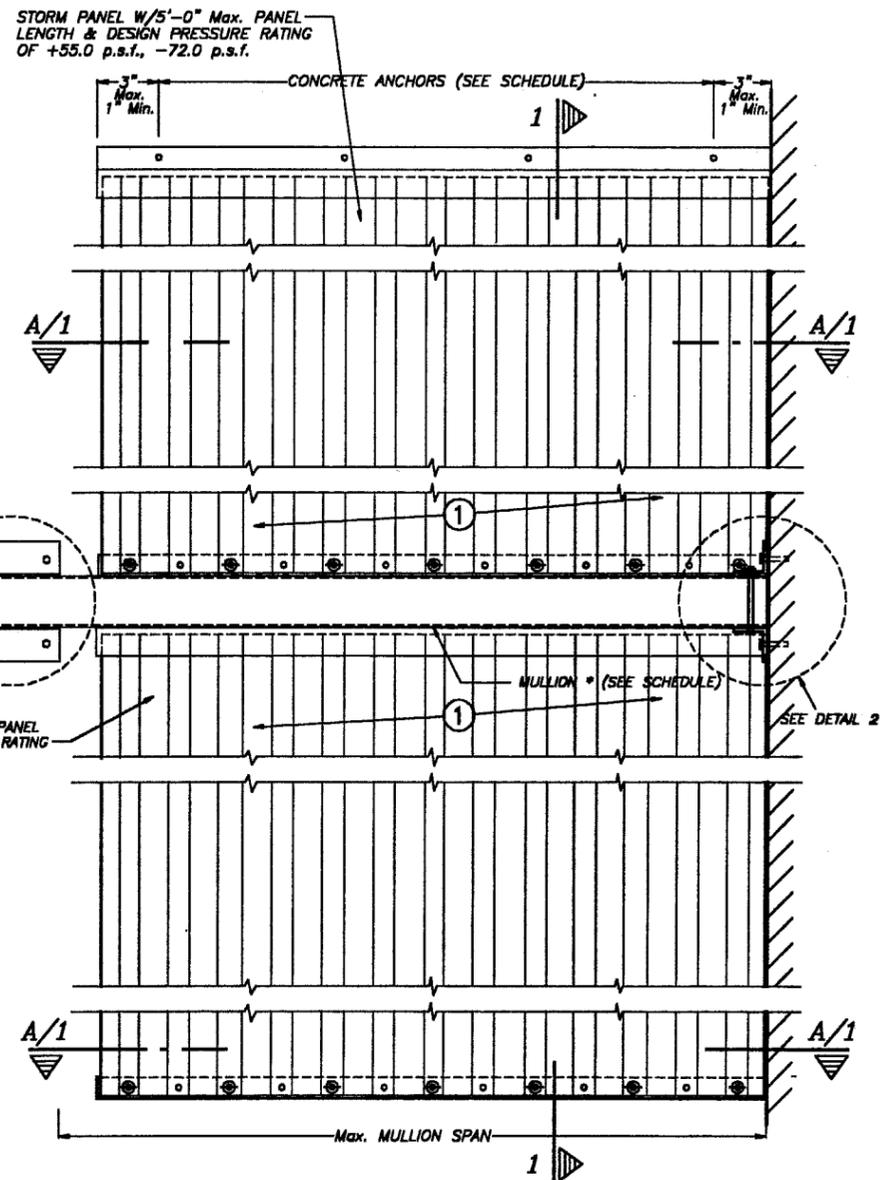


ELEVATION
SCALE: 1/4" = 1"

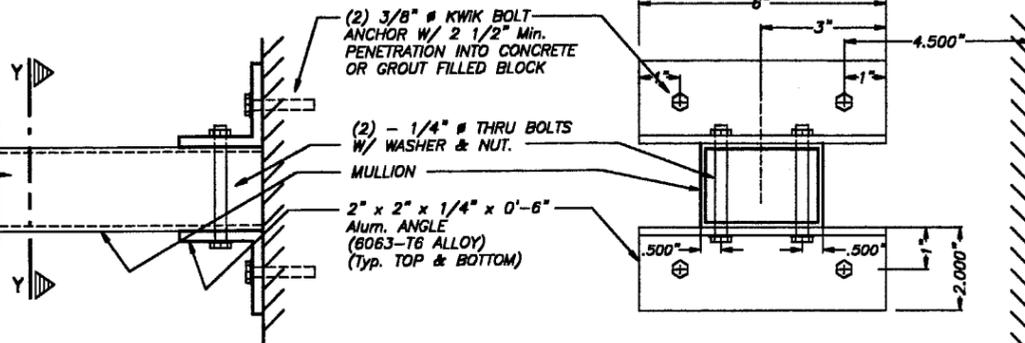
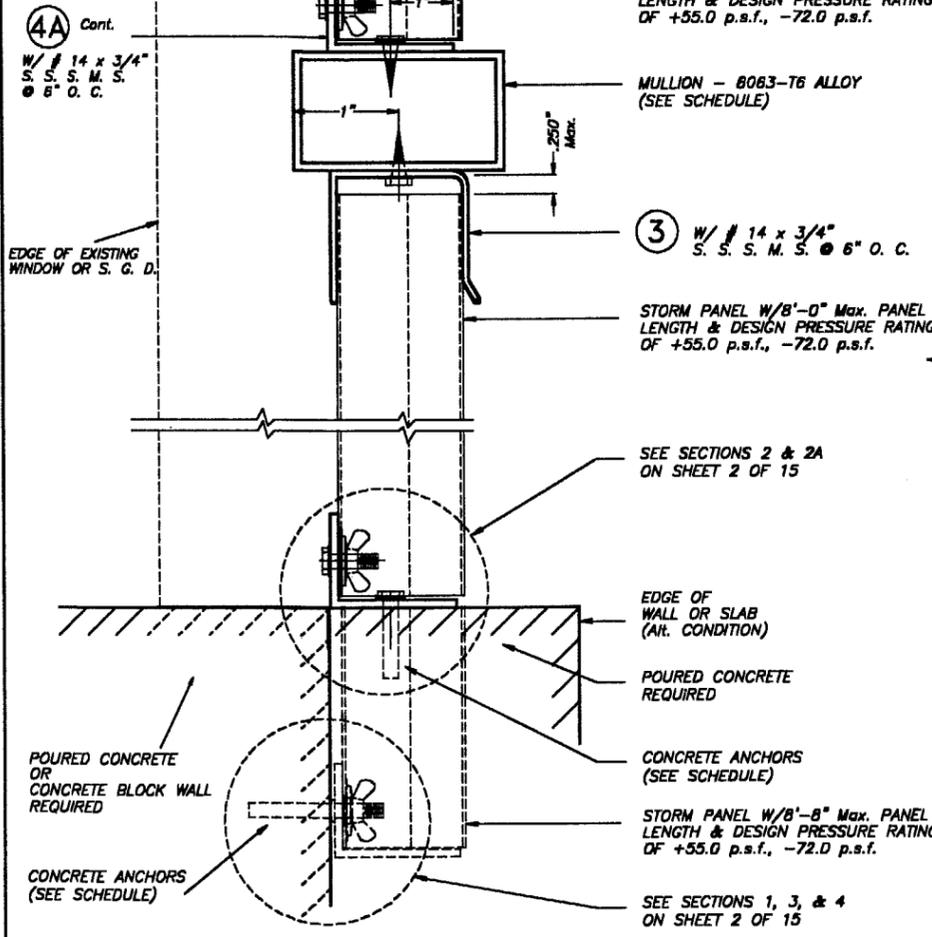


SECTION X-X
SCALE: 1/4" = 1"

DETAIL 1



SPLIT STORM PANEL ELEVATION SCALE 1/8" = 1"



ELEVATION
SCALE: 1/4" = 1"

SECTION Y-Y
SCALE: 1/4" = 1"

DETAIL 2

MULLION SCHEDULE

Max. MULLION SPAN (Ft.) *	REQUIRED Min. TUBE MULLION **
≤ 4'-6"	2" x 3" x 1/8"
> 4'-6" TO 5'-8"	2" x 4" x 1/8"
> 5'-8" TO 6'-10"	2" x 5" x 1/8"; 2" x 4" x 1/4"
> 6'-10" TO 8'-0"	2" x 6" x 1/8"

* SPANS VALID FOR DESIGN PRESSURE RATING LOADS OF +55.0 p.s.f., -72.0 p.s.f.
** MINIMUM TUBE'S DIMENSION SHALL BE ORIENTED PARALLEL TO STORM PANEL'S LENGTH.

WALL AND FLOOR MOUNTING INSTALLATION FOR SPLIT PANELS - SECTION 1 SCALE: 3/8" = 1"

NOTE: MULLION CAN ALSO BE INSTALLED W/O STORM PANELS ON TOP OR BOTTOM SO THAT IT IS LOCATED AT TOP OR BOTTOM OF OPENING. (ONE PANEL OPENING W/ TUBE TOP & BOTTOM)

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04
EXPIRATION DATE 06/26/2003
By *Helmut A. Mark*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

 TILECO Inc. TILLIT TESTING & ENGINEERING COMPANY 6595 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		20 GAGE STORM PANEL		AS SHOWN SCALE	
		ROBICO SHUTTERS, Inc. 9108 N.W. 105th WAY MEDLEY, FLORIDA 33178		9/20/96 DATE 96 - 297 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	5/19/97	3	ROBICO SHUTTERS, Inc.	10/27/98
2	GENERAL	8/3/97	4	GENERAL	2/3/99

David
6/6/00

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

(VALID ONLY FOR PANEL INSTALLATIONS AS PER SECTIONS 1 THRU 7, ON SHEETS 2 & 3 OF 15)

MAXIMUM DESIGN PRESSURE RATING W (p.s.f.)	Max. PANEL LENGTH L (ft.) (SEE SECTIONS)	MINIMUM SEPARATION TO GLASS	PANEL CONDITION	APPLICABLE TO SECTIONS # AND ANY COMBINATION OF THEM
+55.5, -72.0	7'-5" OR LESS	2 1/4"	UNBOLTED	1 THRU 5 & 7
+55.5, -72.0	>7'-5" TO 8'-8" Max.	2 3/4"	UNBOLTED	1 THRU 5 & 7
+55.0, -72.0	>8'-8" TO 11'-2" Max.	2 1/2"	* BOLTED AT MIDLENGTH AT OVERLAPS	6

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

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

(VALID ONLY FOR PANEL INSTALLATIONS AS PER SECTIONS 1 THRU 5, ON SHEETS 2 & 3 OF 15)

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		CF TAP-GRIP		RAWL CALK-IN		PANELMATES			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+55.5, -72.0	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	1 (TOP)	7'-5" OR LESS
	6"	6"	N/A	N/A	6"	6"	6"	6"	1 (BOTTOM)	
	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	2 (TOP)	
	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	2 (BOTTOM)	
	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	3 (TOP)	
	6"	6"	N/A	N/A	6"	6"	6"	6"	3 (BOTTOM)	
	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	4 & 7 (TOP)	
	6"	6"	N/A	N/A	6"	6"	6"	6"	4 & 7 (BOTTOM)	
	N/A	N/A	6 1/4"	6 1/4"	12 1/2"	12 1/2"	6 1/4"	6 1/4"	5 (TOP/BOTTOM)	

* SEE SHEET 7 & 8 OF 15 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 AND CF TAP-GRIP ANCHORS IS 2 1/2").

ACTUAL E. D.	FACTOR		
	TAPCON ANCHORS/PANELMATES	CF TAP-GRIP	RAWL CALK-IN
3"	.86	1.00	.75
2 1/2"	.71	.80	.50
2"	.50	-	-

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04
 EXPIRATION DATE 06/26/2003
 By Heung A. Mak
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

 TILLIT TESTING & ENGINEERING COMPANY 6595 N.W. 38th St., Ste. 217, VIRGINIA GARDENS, FL 33168 Phone : (305)871-1530 . Fax : (305)871-1531 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167	20 GAGE STORM PANEL		AS SHOWN SCALE																		
	ROBICO SHUTTERS, Inc. 9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178		9/20/96 DATE																		
96 - 297		DRAWING No																			
SHEET 5 OF 15		<table border="1"> <thead> <tr> <th>REV. No</th> <th>DESCRIPTION</th> <th>DATE</th> <th>REV. No</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GENERAL</td> <td>5/19/97</td> <td>3</td> <td>ROBICO SHUTTERS, Inc.</td> <td>10/27/96</td> </tr> <tr> <td>2</td> <td>GENERAL</td> <td>8/3/97</td> <td>4</td> <td>GENERAL</td> <td>5/5/99</td> </tr> </tbody> </table>	REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	1	GENERAL	5/19/97	3	ROBICO SHUTTERS, Inc.	10/27/96	2	GENERAL	8/3/97	4	GENERAL	5/5/99	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE																
1	GENERAL	5/19/97	3	ROBICO SHUTTERS, Inc.	10/27/96																
2	GENERAL	8/3/97	4	GENERAL	5/5/99																

2000
8/16/02

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

(VALID ONLY FOR PANEL INSTALLATIONS AS PER SECTIONS 1 THRU 6, ON SHEETS 2 & 3 OF 15)

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		CF TAP-GRIP		RAWL CALK-IN		PANELMATES			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+55.5, -72.0	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	1 (TOP)	>7'-5" TO 8'-8"
	6"	6"	N/A	N/A	6"	6"	6"	6"	1 (BOTTOM)	
	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	2 (TOP)	
	6"	N/A	N/A	N/A	6"	N/A	5"	N/A	2 (BOTTOM)	
	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	3 (TOP)	
	6"	6"	N/A	N/A	6"	6"	6"	6"	3 (BOTTOM)	
	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	4 & 7 (TOP)	
	6"	6"	N/A	N/A	6"	6"	6"	6"	4 & 7 (BOTTOM)	
+50.0, -53.3	N/A	N/A	12 1/2"	6 1/4"	12 1/2"	6 1/4"	6 1/4"	6 1/4"	6 (TOP/BOTTOM)	>8'-8" TO 11'-2"
+55.0, -72.0	N/A	N/A	6 1/4"	N/A	6 1/4"	6 1/4"	6 1/4"	6 1/4"	6 (TOP/BOTTOM)	>8'-8" TO 11'-2"

* SEE SHEET 7 & 8 OF 15 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. RAWL CALK-IN ANCHORS AND CF TAP-GRIP IS 2 1/2").

ACTUAL E. D.	FACTOR		
	TAPCON ANCHORS/ PANELMATES	CF TAP-GRIP	RAWL CALK-IN
3"	.86	1.00	.75
2 1/2"	.71	.80	.50
2"	.50	-	-

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04

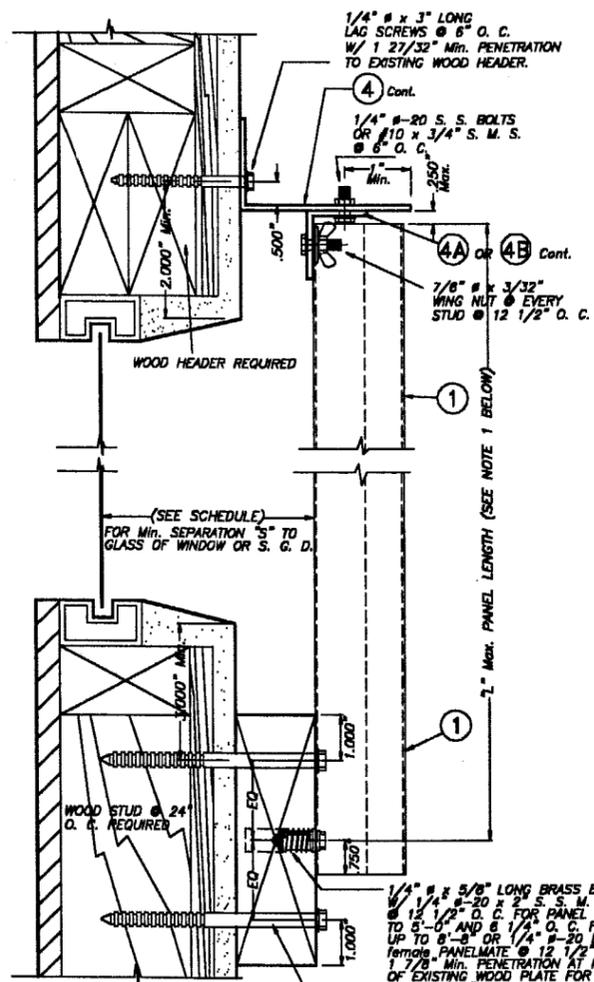
EXPIRATION DATE 06/26/2003

By Heung A. Mak
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

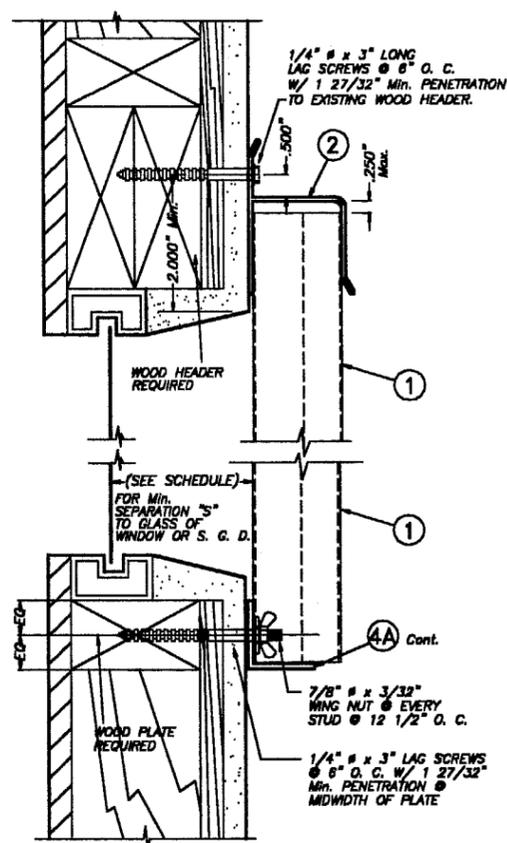
DADE COUNTY

David
6/6/00

 TILLIT TESTING & ENGINEERING COMPANY 6585 N.W. 38th. St., Ste. 217, VIRGINIA GARDENS, FL 33186 Phone : (305)871-1530 . Fax : (305)871-1531		20 GAGE STORM PANEL		SCALE	
		ROBICO SHUTTERS, Inc. 9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178		9/20/96 DATE	
WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167		96 - 297 DRAWING No		SHEET 6 OF 15	
REV. No	DESCRIPTION	DATE	REV. No		DESCRIPTION
1	GENERAL	6/19/97	3	ROBICO SHUTTERS, Inc.	10/27/98
2	GENERAL	8/5/97	4	GENERAL	3/3/99



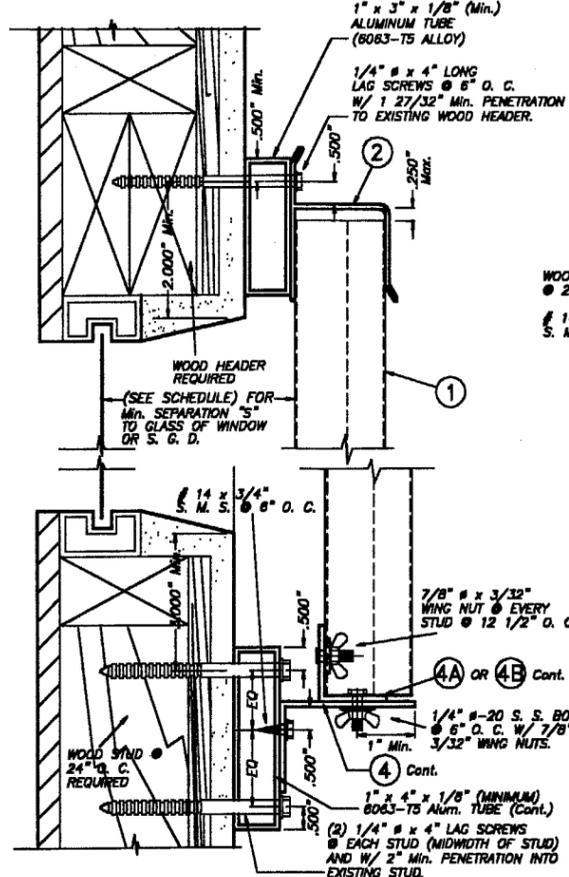
ALTERNATIVE 1



ALTERNATIVE 2

WALL MOUNTING INSTALLATIONS - SECTIONS 1

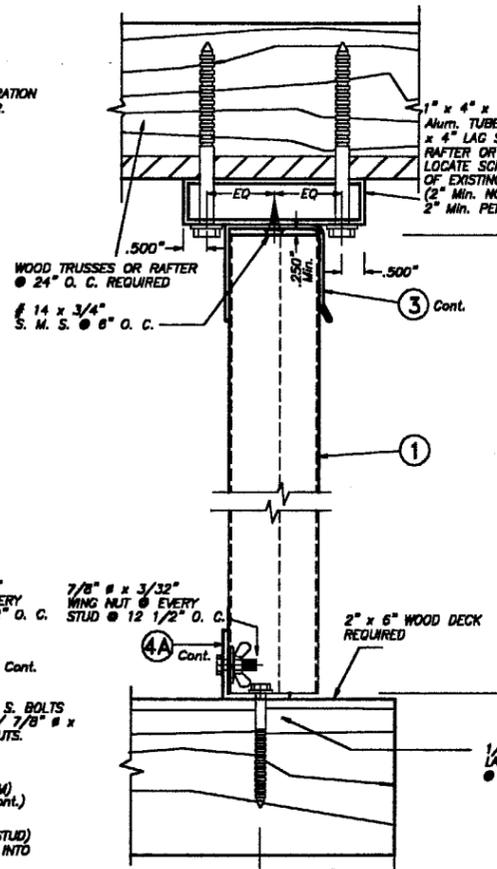
SCALE: 1/4" = 1"



ALTERNATIVE 3

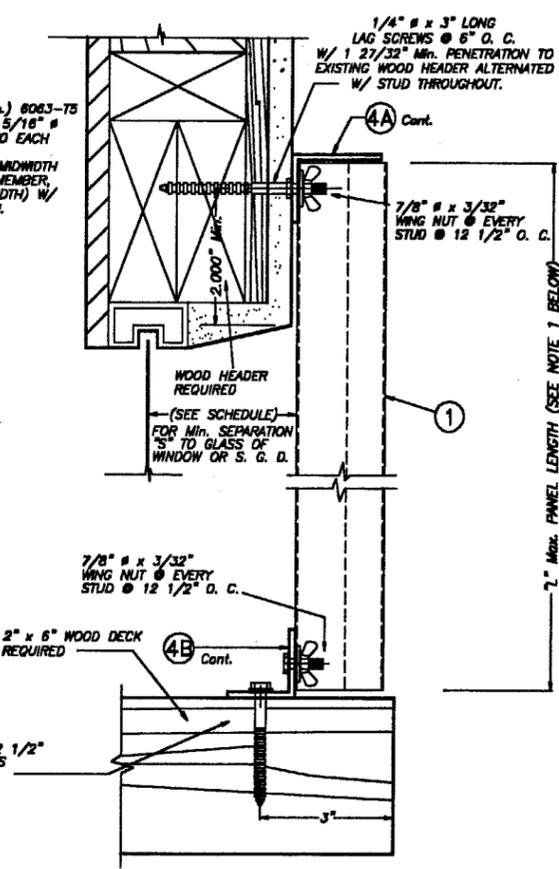
WALL MOUNTING INSTALLATIONS - SECTIONS 1

SCALE: 1/4" = 1"



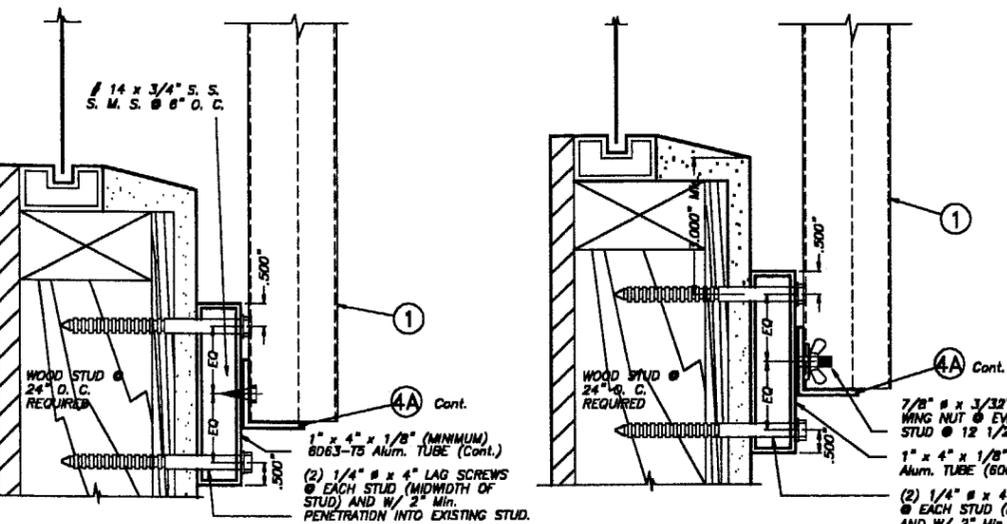
CEILING & FLOOR MOUNTING INSTALLATION - SECTION 2

SCALE: 1/4" = 1"



WALL MOUNTING & FLOOR MOUNTING INSTALLATIONS - SECTION 2A

SCALE: 1/4" = 1"



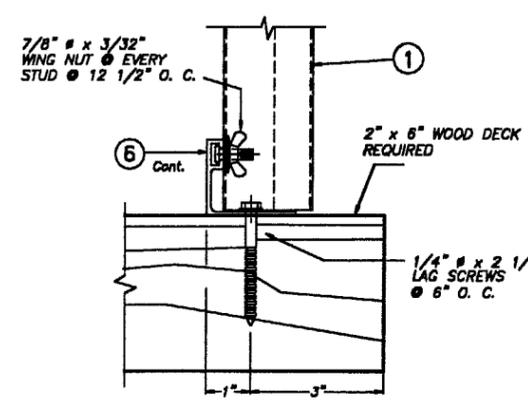
ALTERNATIVE 4

NOTES:

- INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH DESIGN LOADS UP TO +55.5, - 72.0 psf AND PANEL'S LENGTH UP TO 8'-8".
- 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.



FLOOR MOUNTING INSTALLATION - SECTION 2B

SCALE: 1/4" = 1"

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04

EXPIRATION DATE 06/26/2003

By *Healy A. M...*

PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

20 GAGE STORM PANEL

TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6595 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33166
Phone: (305)871-1530 - Fax: (305)871-1531

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

ROBICO SHUTTERS, Inc.
9108 N.W. 105th. WAY
MEDLEY, FLORIDA 33178

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	5/19/97	3	ROBICO SHUTTERS, Inc.	10/27/98
2	GENERAL	8/5/97	4	GENERAL	5/2/99

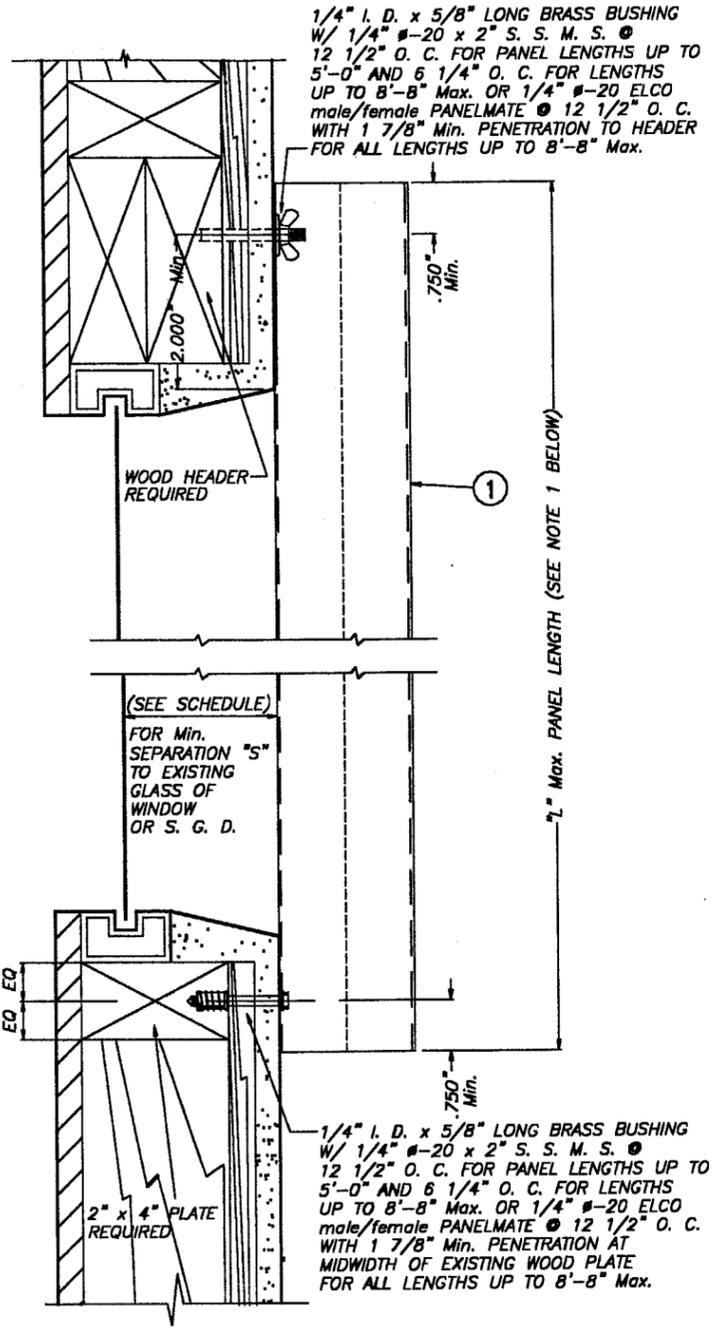
SCALE

9/20/96 DATE

96 - 297 DRAWING No

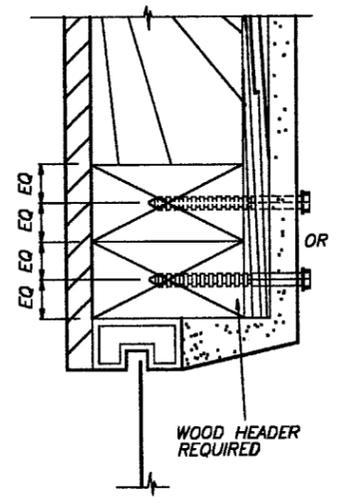
SHEET 7 OF 15

David
4/6/02

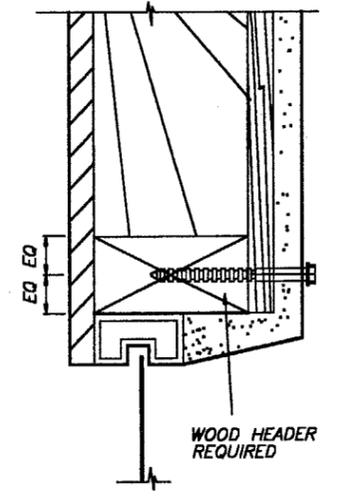


ALTERNATIVE 5

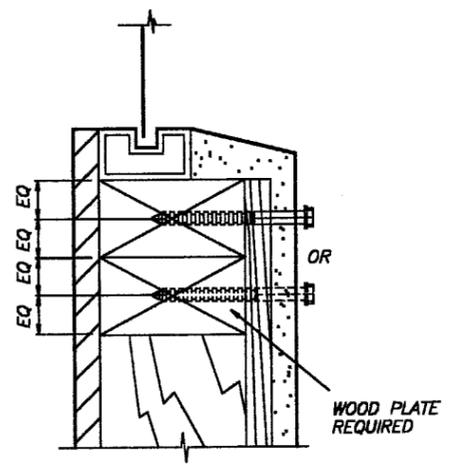
WALL MOUNTING INSTALLATION - SECTION 1
SCALE: 3/8" = 1"



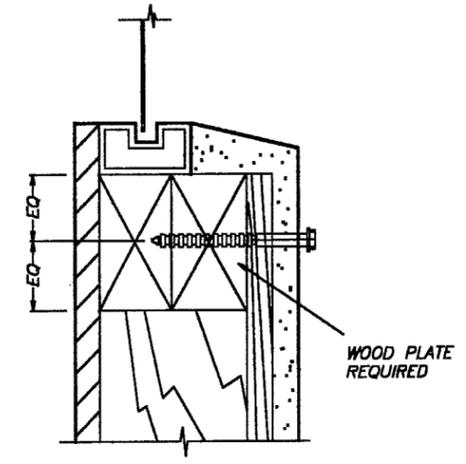
ALTERNATIVE 1



ALTERNATIVE 2



ALTERNATIVE 3



ALTERNATIVE 4

ALTERNATIVE WOOD FRAME CONDITIONS & ANCHOR LOCATIONS

SCALE: 3/8" = 1"

NOTE: SHUTTER TRACKS NOT SHOWN FOR CLARITY

- NOTES:**
- INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH DESIGN LOADS UP TO +55.5, -72.0 psf AND PANEL'S LENGTH UP TO 8'-8".
 - 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.

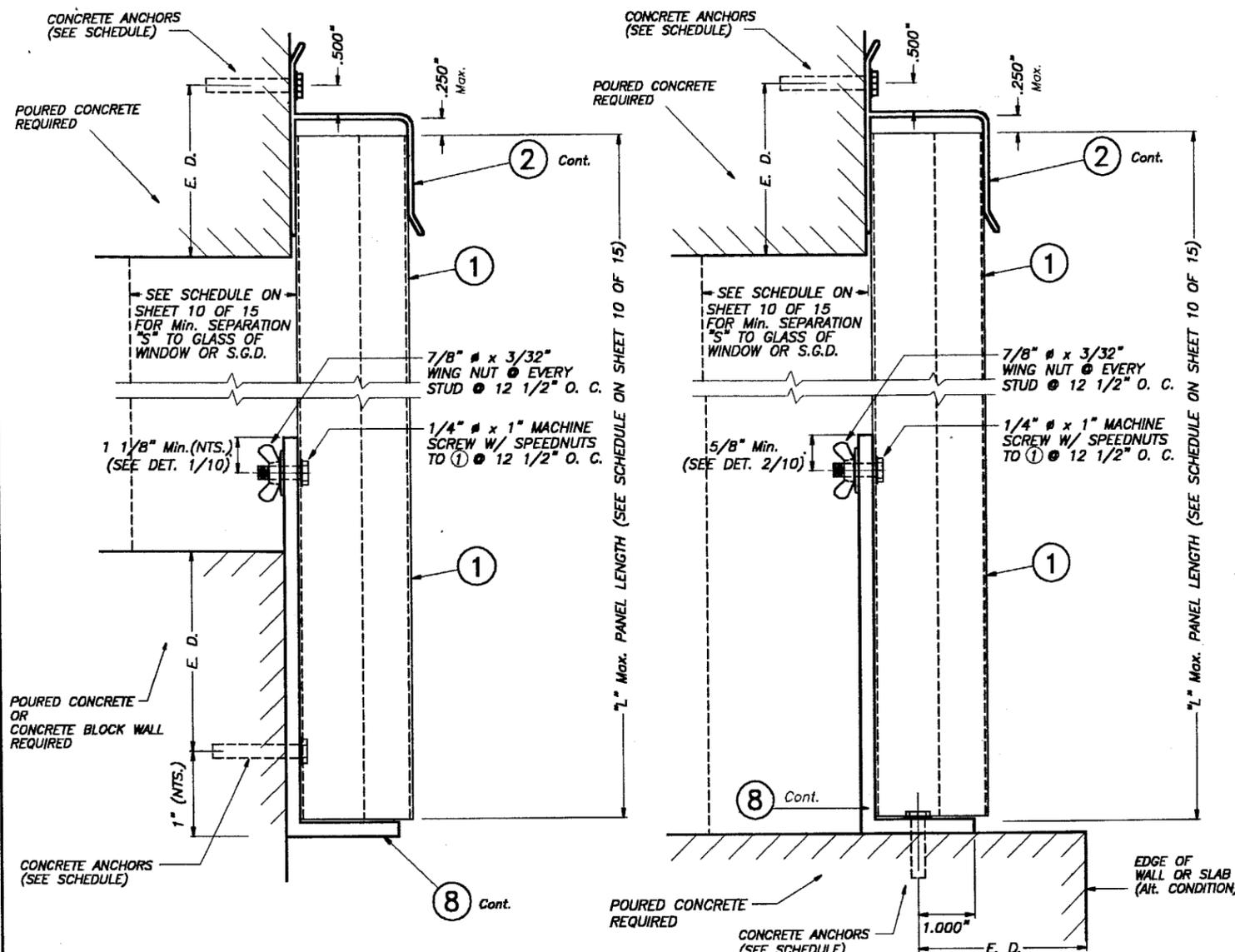
**INSTALLATION DETAILS ON
EXISTING WOOD BUILDINGS**

PRODUCT RENEWED
ACCEPTANCE No. 00-0307.04
EXPIRATION DATE 06/26/2003
By *Heung A. Moh*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

<p>TILLIT TESTING & ENGINEERING COMPANY 8585 N.W. 38th. St., Ste. 217, VIRGINIA GARDENS, FL 33188 Phone : (305)871-1530 . Fax : (305)871-1531</p> <p>WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167</p>		20 GAGE STORM PANEL		AS SHOWN SCALE	
		<p>ROBICO SHUTTERS, Inc.</p> <p>9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178</p>		9/20/96 DATE	
		96 - 297		DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	5/18/97	3	ROBICO SHUTTERS, Inc.	10/27/98
2	GENERAL	8/5/97	4	GENERAL	3/3/98

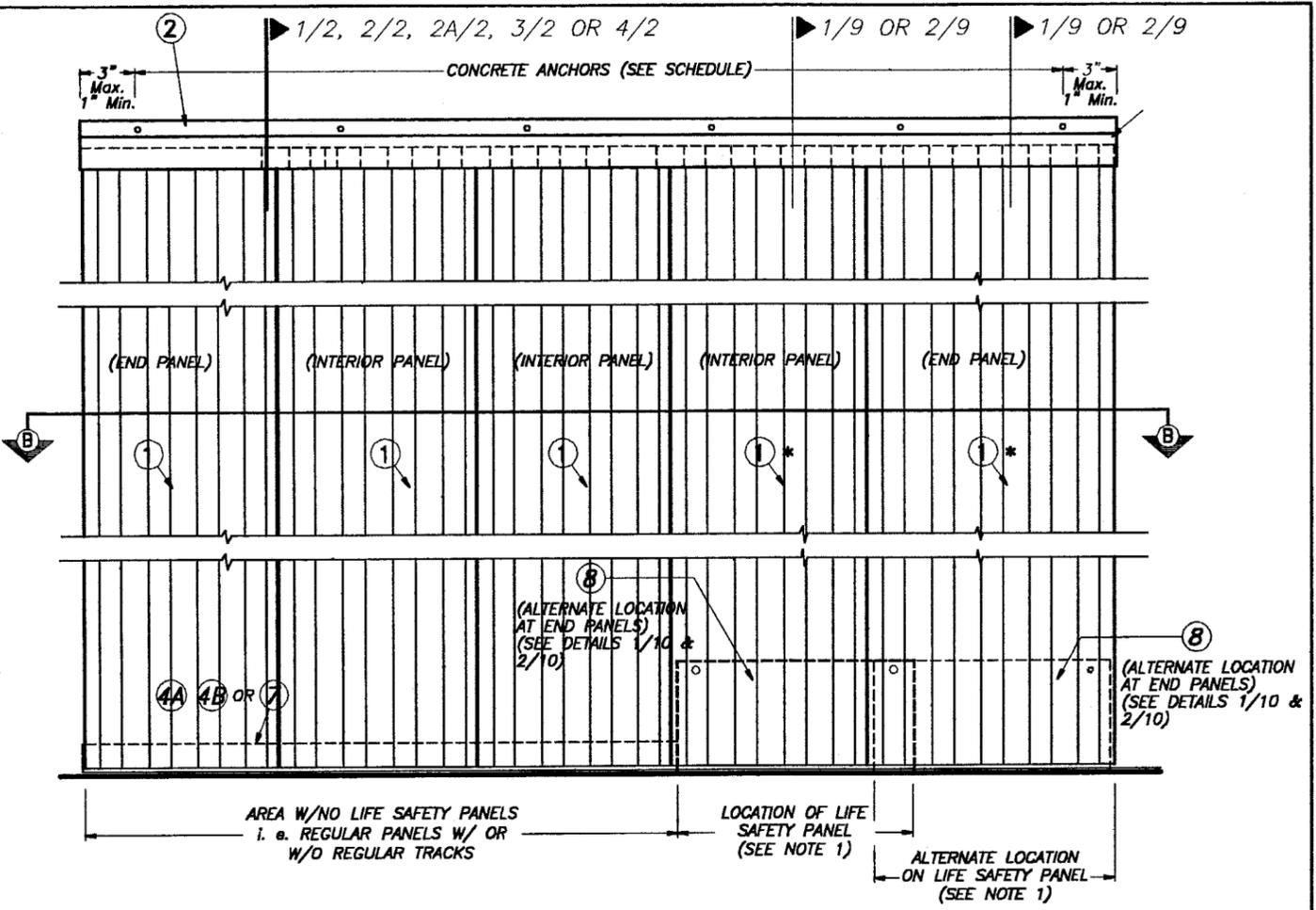
2003
C/P/W



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

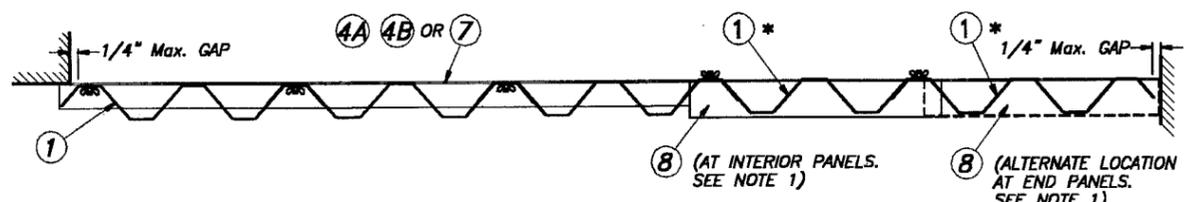
WALL AND FLOOR MOUNTING INSTALLATION
- SECTION 2 SCALE: 3/8" = 1"

- NOTES ON LIFE SAFETY STORM PANEL SYSTEM INSTALLATION :**
- LIFE SAFETY STORM PANEL CAN BE LOCATED AS AN END PANEL (FIRST OR LAST PANEL) OR AS AN INTERIOR PANEL. (ANY PANEL LOCATION IN BETWEEN END PANELS). LIFE SAFETY PANELS MAY OR MAY NOT BE INSTALLED ADJACENT TO REGULAR PANELS (W/ OR W/O REGULAR TRACKS.)
 - LIFE SAFETY STORM PANEL CONSISTS OF 20 GAGE GALVANIZED STORM PANEL AS PER COMPONENT ①, SHEET 1 OF 15 OF DRAWING. THIS PANEL ALLOWS ITSELF TO BE REMOVED OR INSTALLED FROM THE INSIDE OF STRUCTURE.
 - LIFE SAFETY PANEL REQUIRES TOP TRACK TO BE COMPONENT ② & BOTTOM TRACK TO BE COMPONENT ③ AS PER SHEET 1 OF 15 OF THIS DRAWING. COMPONENT ③ MAY BE INSTALLED WALL OR FLOOR MOUNTED FOLLOWING SECTIONS 1 & 2 ON THIS SHEET, AS WELL AS DETAILS 1 & 2 ON SHEET 10 OF 15.
 - Min. LENGTH FOR COMPONENT ③ IS 15". Max. ANCHOR SPACING FOR COMPONENT ③ ANCHORAGE AT BOTTOM IS GIVEN ON SCHEDULES 1 & 2, SHEET 10 OF 15. COMPONENT ③ MAY BE PERMANENT OR REMOVABLE.
 - SEE DETAILS FOR INSTALLATION INTO WOOD FRAME BUILDINGS ON SHEET 10A OF 15.
 - SEE SHEET 3 OF 15 FOR DETAIL APPLICABLE TO THE NECESSITY FOR THE INSTALLATION OF SPACERS AT TRACKS INSTALLED ADJACENT AND BEYOND TO STUCCO/WOOD BANDS.



TYPICAL ELEVATION
SCALE 3/32" = 1"

* LAST PANEL ① TO BE INSTALLED AS LIFE SAFETY STORM PANEL OPENING SHALL ALWAYS BE PROVIDED W/ REAR HANDLE TO FACILITATE INSTALLATION IF INTENDED TO BE INSTALLED OR REMOVED FROM INSIDE OF STRUCTURE.



SECTION B-B

PRODUCT RENEWED

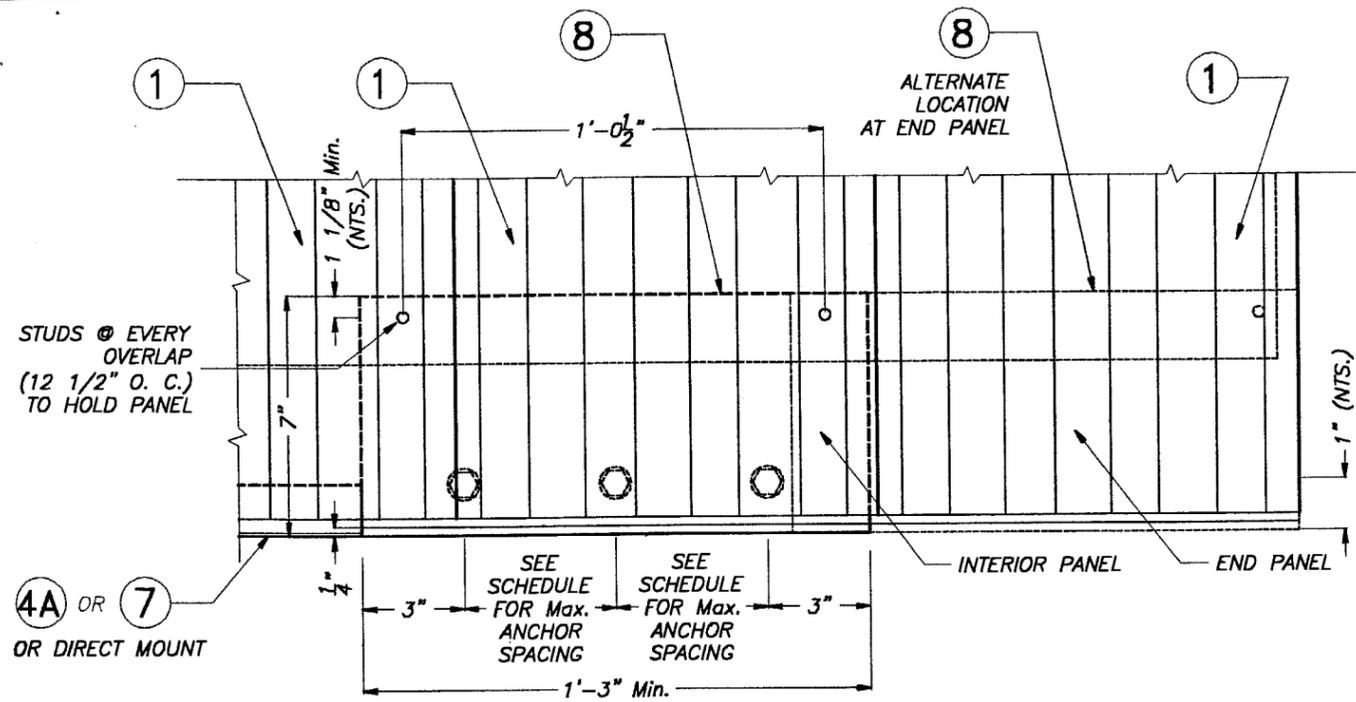
ACCEPTANCE No. 00-0307.04
EXPIRATION DATE 06/26/2003
By *Helmy A. Matar*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

TILECO Inc.
TILLIT TESTING & ENGINEERING COMPANY
6585 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

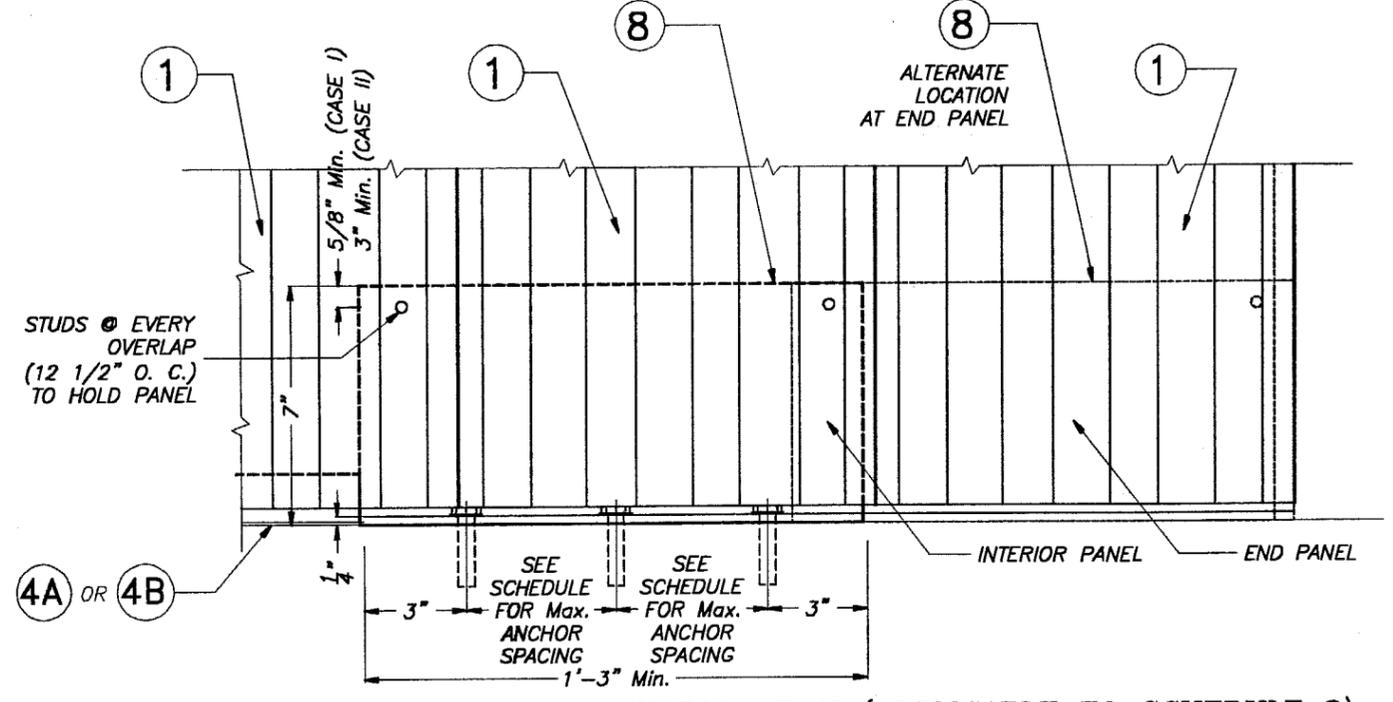
LIFE SAFETY STORM PANEL SYSTEM (20 GAGE GALVANIZED STEEL)		SCALE
ROBICO SHUTTERS, Inc.		9/20/96 DATE
9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178		96 - 297 DRAWING No
REV. No	DESCRIPTION	DATE
1	ROBICO SHUTTERS, Inc.	10/27/96
2	GENERAL	6/5/99

2005
6/6/02



DETAIL 1 : WALL MOUNTING INSTALLATION (APPLICABLE TO SCHEDULE 1)

SCALE: 3/16" = 1"



DETAIL 2 : FLOOR MOUNTING INSTALLATION (APPLICABLE TO SCHEDULE 2)

SCALE: 3/16" = 1"

MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE AT (B) FOR INSTALLATIONS INTO CONCRETE AND C.B.S. STRUCTURES

E. D. = EDGE DISTANCE

SCHEDULE # 1 : (B) W/ WALL MOUNT CONDITIONS TOP & BOTTOM W/ E. D. = 3 1/2" *

MAXIMUM DESIGN LOAD W (p.s.f.)	TAPCONS		CF TAP-GRIP		RAWL CALK-IN		PANELMATES		APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+55.0, -72.0	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	1 & 2 (TOP)	5'-0" OR LESS
	9"	9"	9"	9"	9"	9"	9"	9"	1 (BOTTOM)	
+55.0 -72.0	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	1 & 2 (TOP)	>5'-0" TO 7'-6"
	9"	6"	9"	6"	9"	9"	9"	9"	1 (BOTTOM)	
+55.0 -72.0	6"	N/A	N/A	N/A	6"	N/A	6"	N/A	1 & 2 (TOP)	>7'-6" TO 8'-8"
	9"	6"	9"	6"	9"	6"	6"	6"	1 (BOTTOM)	

SCHEDULE # 2 : (B) W/ FLOOR MOUNT CONDITIONS AT BOTTOM W/ E. D. = 3 1/2" *

MAXIMUM DESIGN LOAD W (p.s.f.)	CASE I (STUD @ 5/8" Min. FROM TOP OF ANGLE)		CASE II (STUD @ 3" Min. FROM TOP OF ANGLE)		APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	TAPCONS		RAWL CALK-IN			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+49.2 -61.5	4"	N/A	4"	N/A	2 (BOTTOM)	7'-6" OR LESS
+52.8 -66.0	4"	N/A	4"	N/A	2 (BOTTOM)	7'-6" OR LESS
+55.0 -72.0	3 1/2"	N/A	3 1/2"	N/A	2 (BOTTOM)	7'-6" OR LESS
+55.0 -72.0	3"	N/A	3"	N/A	2 (BOTTOM)	>7'-6" TO 8'-8"

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

(APPLICABLE ONLY TO SECTIONS 1 & 2 INDICATED FOR LIFE SAFETY STORM PANEL SYSTEM ON SHEET 9 OF 15).

MAXIMUM DESIGN PRESSURE RATING W (p.s.f.)	Max. PANEL LENGTH L (ft.) (SEE SECTIONS)	MINIMUM SEPARATION TO GLASS	PANEL CONDITION
+55.0, -72.0	8'-8"	2 3/4"	UNBOLTED

* 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 & CF TAP-GRIP ANCHORS IS 2 1/2").

ACTUAL E. D.	FACTOR		
	TAPCON ANCHORS/PANELMATES	CF TAP-GRIP	RAWL CALK-IN
3"	.86	1.00	.75
2 1/2"	.71	.80	.50
2"	.50	-	-

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04

EXPIRATION DATE 06/26/2003

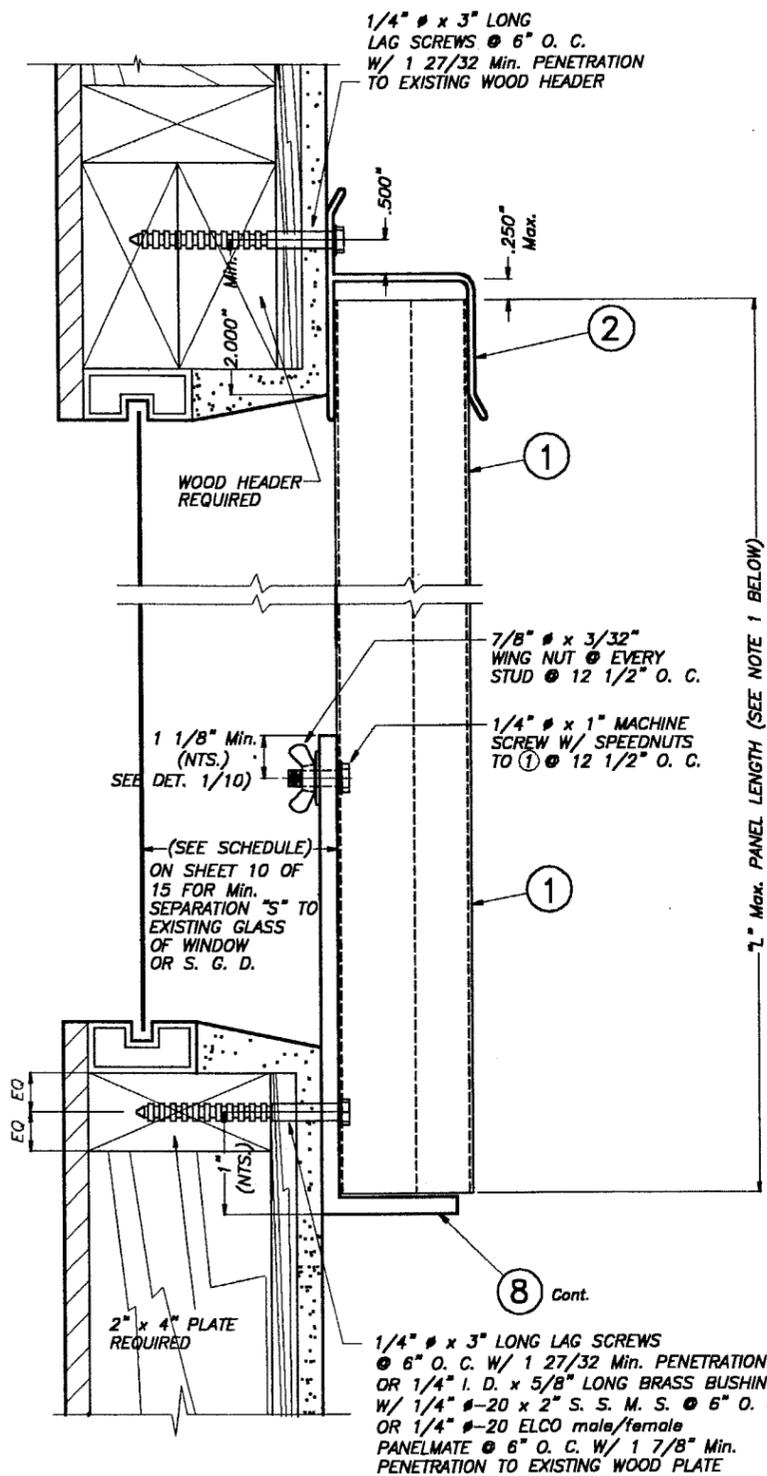
By *Helmut A. Mader*

PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

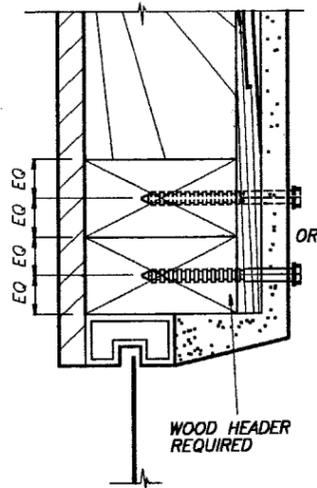
 TILECO Inc. TILLIT TESTING & ENGINEERING COMPANY 6585 N.W. 38th St., Ste. 217, VIRGINIA GARDENS, FL 33188 Phone : (305)871-1530 . Fax : (305)871-1531 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167	LIFE SAFETY STORM PANEL SYSTEM (20 GAGE GALVANIZED STEEL)	SCALE 8/20/96 DATE
	ROBICO SHUTTERS, Inc. 9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178	96 - 297 DRAWING No
REV. No. 1 DESCRIPTION: ROBICO SHUTTERS, Inc. DATE: 10/27/96	REV. No. 2 DESCRIPTION: GENERAL DATE: 5/5/99	SHEET 10 OF 15

Walter A. Tillit Jr.
8/6/00

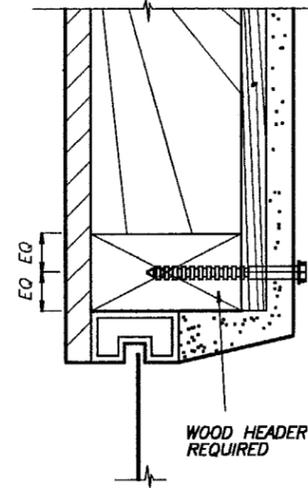


WALL MOUNTING INSTALLATION - SECTION 1

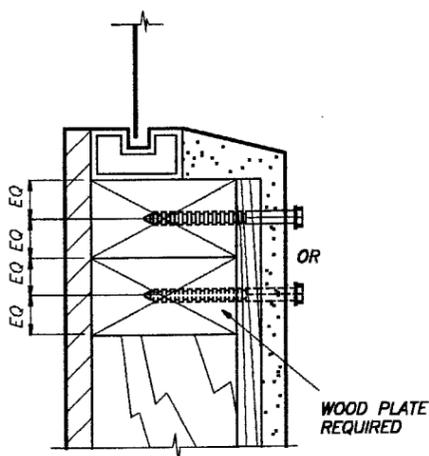
SCALE: 3/8" = 1"



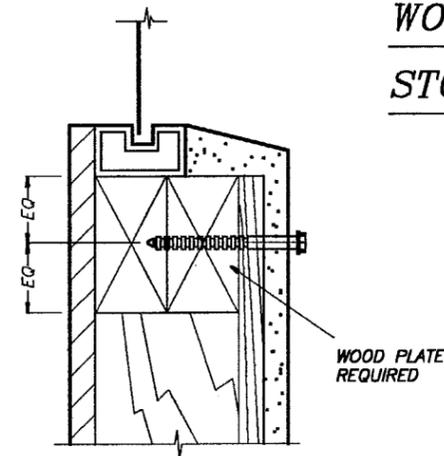
ALTERNATIVE 1



ALTERNATIVE 2



ALTERNATIVE 3



ALTERNATIVE 4

ALTERNATIVE WOOD FRAME CONDITIONS & ANCHOR LOCATIONS

SCALE: 3/8" = 1"

NOTE: SHUTTER TRACKS NOT SHOWN FOR CLARITY

NOTES:

1. INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH DESIGN LOADS UP TO +55.5, -72.0 psf AND PANEL'S LENGTH UP TO 8'-8".
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.

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS FOR LIFE SAFETY STORM PANEL SYSTEM

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04

EXPIRATION DATE 06/26/2003

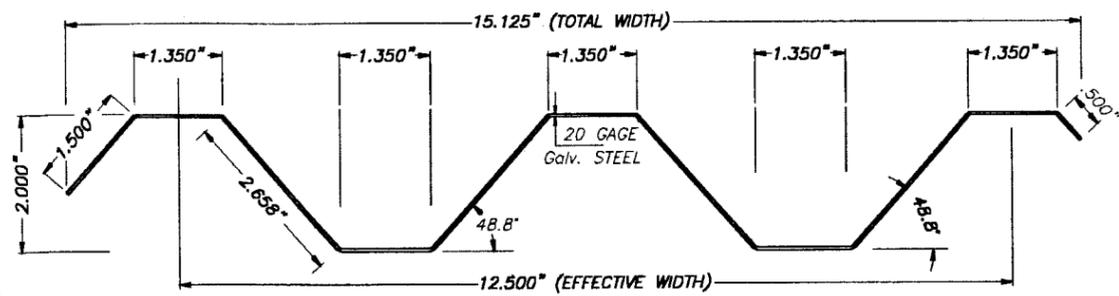
By Heung A. Ma
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6595 N.W. 36th. St., Ste. 217, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 • Fax: (305)871-1531 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167		LIFE SAFETY STORM PANEL SYSTEM (20 GAGE GALVANIZED STEEL)		AS SHOWN SCALE	
		ROBICO SHUTTERS, Inc. 9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178		9/20/96 DATE	
		96 - 297		DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	ROBICO SHUTTERS, Inc.	10/27/96	3		
2	GENERAL	5/3/99	4		
					SHEET 10A OF 15

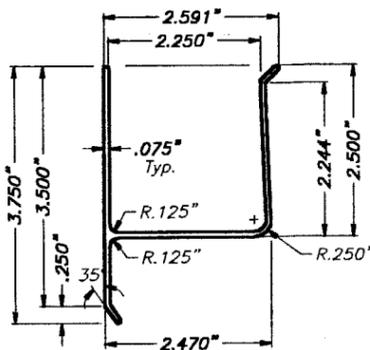
Walter A. Tillit Jr.

4/6/00



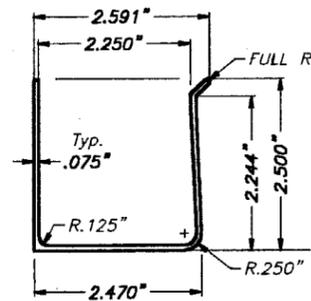
① PANEL

SCALE: 3/8" = 1"



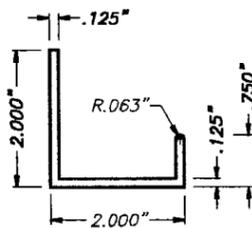
② REVERSED "h" TRACK

SCALE: 3/8" = 1"



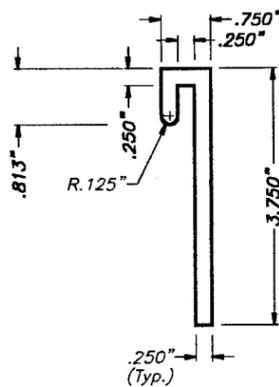
③ REVERSED "U" TRACK

SCALE: 3/8" = 1"



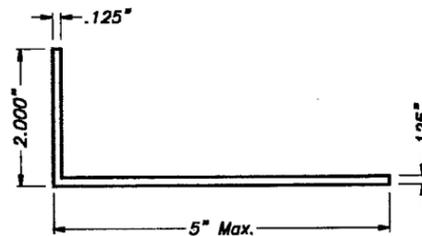
④ "J" TRACK

SCALE: 3/8" = 1"



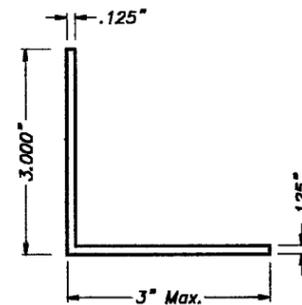
⑤ PANEL HANGER :

1 1/4" WIDE
6061-T6 Alum. ALLOY
SCALE: 3/8" = 1"



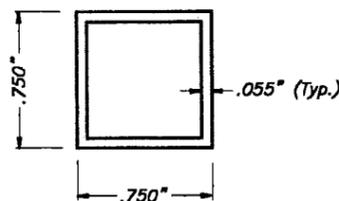
⑥ 2" x 5" (Max.) Alum. ANGLE

SCALE: 3/8" = 1"



⑦ 3" x 3" (Max.) Alum. ANGLE

SCALE: 3/8" = 1"



⑧ STOP BAR 11" LONG

6063-T5 Alum. ALLOY
SCALE: FULL

COMPONENTS

GENERAL NOTES : VALID FOR E-Z HANG STORM PANEL SYSTEM

- E-Z HANG STORM PANEL SYSTEM HAVE 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. DESIGN WIND SPEED. STORM PANEL'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTIONS 2315 & 2314 RESPECTIVELY OF THE ABOVE MENTIONED CODE AS PER FENESTRATION TESTING LABORATORY, INC. REPORT # 2032.
 - THIS SYSTEM HAS BEEN DESIGNED TO BE INSTALLED ON THE OUTSIDE OF THE OPENING ACCESSING THE OPENING FROM THE INSIDE W/O THE USE OF A LADDER OR LIFT. THIS APPLICATION IS VALID WHEN INSTALLATION IS INTENDED TO BE PERFORMED FROM THE INSIDE OF STRUCTURE.
 - SERIES 1000 INSTALLATION IS APPLICABLE TO SINGLE AND DOUBLE HUNG STYLE WINDOWS WHEN INSTALLATION IS REQUIRED TO BE PERFORMED FROM THE INSIDE OF STRUCTURE.
 - SERIES 2000 INSTALLATION IS APPLICABLE TO SINGLE AND DOUBLE HUNG AND HORIZONTAL SLIDERS STYLE WINDOWS WHEN INSTALLATION IS REQUIRED TO BE PERFORMED FROM THE INSIDE OF STRUCTURE.
 - ALL ALUMINUM EXTRUSIONS TO BE 6063-T6 ALLOY. (UNLESS OTHERWISE NOTED)
 - ALL ALUMINUM SHEET METAL USED AT CLOSURES SHALL HAVE 3105-H14 ALLOY.
 - ALL STEEL SHEET METAL PANELS SHALL HAVE STRUCTURAL QUALITY STEEL, ASTM A-448 GRADE C Min., GALVANIZED STEEL DESIGNATION W/FY= 41.4 ksi (AFTER ROLLED).
 - ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 SERIES.
 - BOLTS TO BE 2024-T4 ALUMINUM ALLOY, GALVANIZED OR STAINLESS STEEL WITH 36 Ksi Min. YIELD POINT.
 - ANCHORS TO WALL SHALL BE AS FOLLOWS:
 - TO EXISTING POURED CONCRETE:
 - 1/4" # TAPCON ANCHORS AS MANUFACTURED BY I. T. W. RAMSET. OR ELCO INDUSTRIES.
 - 1/4" # x 7/8" RAWL CALK-IN ANCHORS OR ELCO male/female PANELMATES AS MANUFACTURED BY THE RAWL PLUG COMPANY AND ELCO PANELMATES, RESPECTIVELY.
 - NOTES:
 - MINIMUM EMBEDMENT OF TAPCON ANCHORS INTO POURED CONCRETE SHALL BE 1 3/4" AND 1 7/8" FOR ELCO PANELMATES.
 - 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" Min. FOR WALLS WITH NO STUCCO, AND MAY BE HEADED SCREWS OR ALL THREADED SCREWS W/O HEAD, BUT WITH WING NUTS.
 - 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 MENTIONED IN A.1) AND IN A.2).
 - TO EXISTING CONCRETE BLOCK WALL:
 - 1/4" # TAPCON ANCHORS, AS MANUFACTURED BY I. T. W. RAMSET OR ELCO INDUSTRIES.
 - 1/4" # x 7/8" RAWL CALK-IN ANCHORS OR ELCO male/female PANELMATES AS MANUFACTURED BY THE RAWL PLUG COMPANY AND ELCO INDUSTRIES, RESPECTIVELY.
 - NOTES:
 - MINIMUM EMBEDMENT OF TAPCON ANCHORS AND ELCO PANELMATES INTO CONCRETE BLOCK SHALL BE 1 1/4"
 - 7/8" RAWL CALK-IN ANCHORS AND 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 MIN. SHOULD STUCCO EXIST, AND 1" Min. FOR WALLS WITH NO STUCCO, AND MAY BE HEADED SCREWS OR ALL THREADED SCREWS W/O HEAD, BUT WITH WING NUTS.
 - 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 MENTIONED IN B.1) AND IN B.2).
 - ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.
- 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.
 - ROBICO SHUTTER, Inc. E - Z HANG STORM PANEL SYSTEM™ IS PATENT PENDING.
 - SHUTTER MANUFACTURER'S STAMP SHALL BE PLACED ON THE EXPOSED SURFACE OF THE CENTER FLANGE OF EVERY PANEL APPROXIMATELY 4" ABOVE THE BOTTOM OF SUCH PANEL. STAMP SHALL READ AS FOLLOWS:
ROBICO SHUTTER, Inc.
MEDLEY, FLORIDA
DADE COUNTY PRODUCT CONTROL APPROVED.

PRODUCT RENEWED

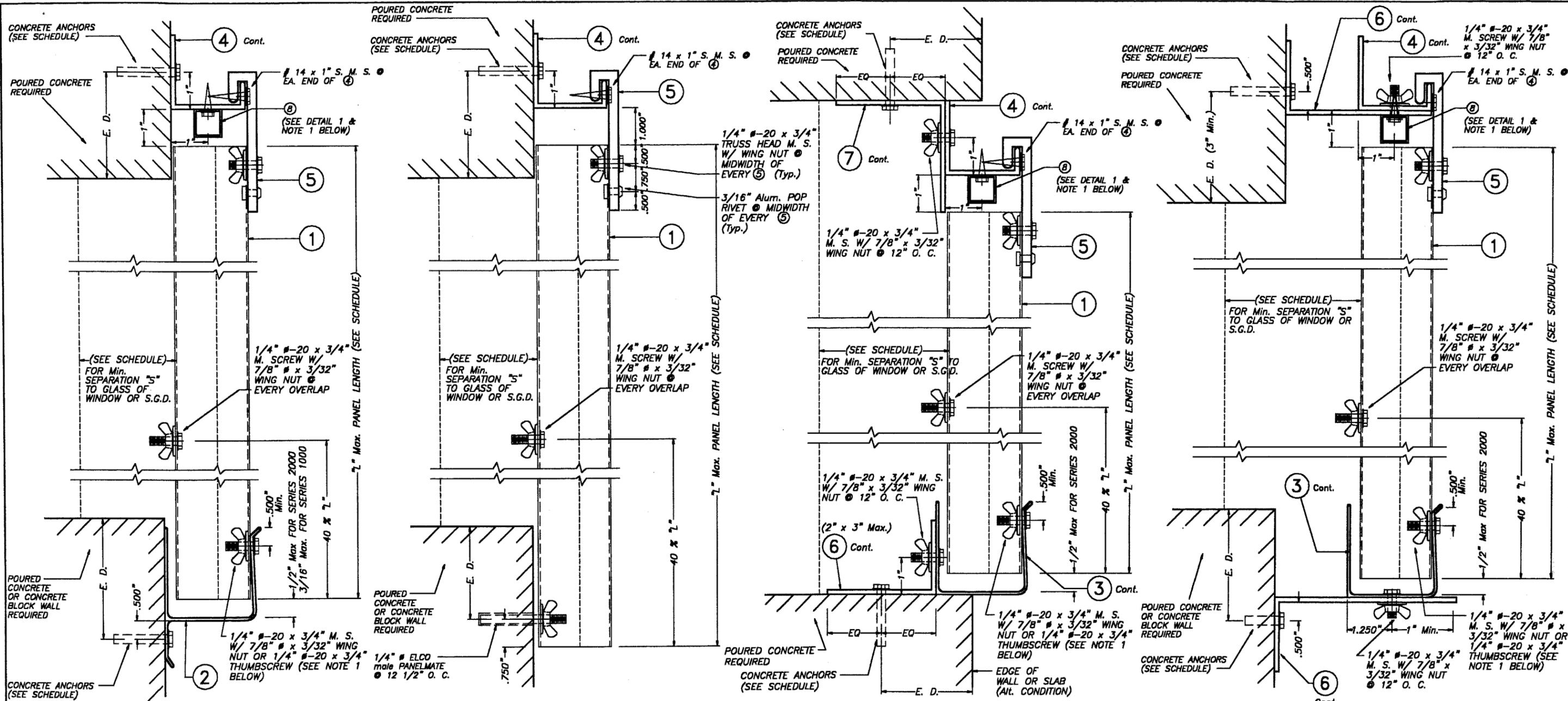
ACCEPTANCE No. 00-0307.04

EXPIRATION DATE 06/26/2003

By *Heung A. Ma*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 8595 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		E - Z HANG STORM PANEL SYSTEM™ (20 GAGE GALVANIZED STEEL)		AS SHOWN SCALE	
		ROBICO SHUTTERS, Inc. 9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178		9/20/96 DATE	
				96 - 297	
				DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	ROBICO SHUTTERS, Inc.	10/27/98	3		
2	GENERAL	5/3/99	4		
					SHEET 11 OF 15



SECTION 1'
SCALE: 3/8" = 1"

SECTION 2'
SCALE: 3/8" = 1"

SECTION 3'
SCALE: 3/8" = 1"

SECTION 4'
SCALE: 3/8" = 1"

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04

EXPIRATION DATE 06/26/2003

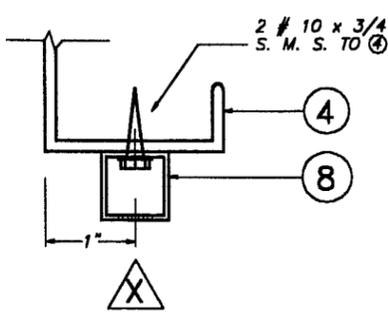
By Helmut A. Mohr
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

DADE COUNTY

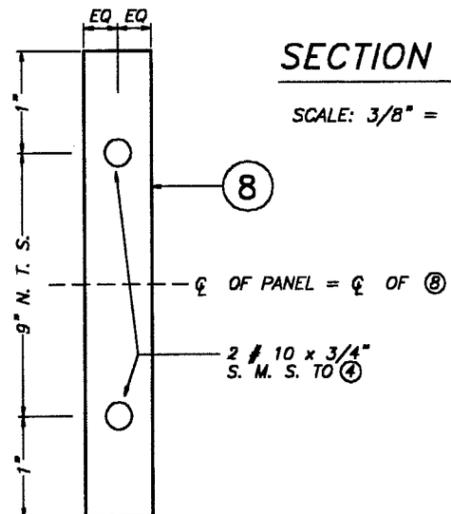
NOTE 1 :
SEE SPECIFICATIONS AND REQUIREMENTS FOR USE OF STOP BAR (8) AT TOP AS WELL AS PANEL (1) CONNECTION TO TRACKS (2) OR (3) AT BOTTOM, BASED ON 1000 OR 2000 SERIES INSTALLATION TYPE ON SHEET 12 OF 15.

NOTE FOR COMBINATION OF SECTIONS :
MOUNTING SHOWN ON SECTIONS 1' THROUGH 4' CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

E. D. = EDGE DISTANCE
(SEE SCHEDULE ON SHEET 14 OF 15)



DETAIL 1
SCALE: 1/2" = 1"



VIEW X

<p>TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6585 N.W. 36th 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>		<p>E - Z HANG STORM PANEL SYSTEMTM (20 GAGE GALVANIZED STEEL)</p>		<p>AS SHOWN SCALE</p>
		<p>ROBICO SHUTTERS, Inc.</p> <p>9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178</p>		<p>4/17/98 DATE</p>
<p>REV. No. 1 ROBICO SHUTTERS, Inc. 10/27/98</p>		<p>REV. No. 3 GENERAL 5/6/99</p>		<p>96 - 297 DRAWING No</p>
<p>2 GENERAL 5/6/99</p>		<p>4</p>		<p>SHEET 13 OF 15</p>

David
6/6/00

POURED CONCRETE
OR
CONCRETE BLOCK WALL
REQUIRED

CONCRETE ANCHORS
@ 12" O. C.

2.000" Min.

1.000"

2" x 2" x .055" TO
2" x 3" x .055" Cont.
Alum. ANGLE OR
.080" 3105-H154 SHEET
METAL Alum. BENT PLATE
OR 18 GAGE GALVANIZED
STEEL.

CASE A (Plan)

SCALE: 3/8" = 1"

END CLOSURES DETAILS

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

(VALID ONLY FOR PANEL INSTALLATIONS AS PER SECTIONS 1' THRU 4', SHEET 13 OF 15).

MAXIMUM DESIGN PRESSURE RATING W (p.s.f.)	Max. PANEL LENGTH L (in.) (SEE SECTIONS)	MINIMUM SEPARATION TO GLASS	PANEL CONDITION	APPLICABLE TO SECTIONS
+66.0, -75.3	70" OR LESS	2 9/16"	BOLTED *	1', 2' & 3'
+66.0, -75.3	70" OR LESS	2 7/8"	BOLTED *	4'

* BOLTED W/ 1/4" #20 x 3/4" S. S. M. S. & WINGNUT AT OVERLAP & 40% OF PANEL LENGTH MEASURED FROM BOTTOM OF PANEL.

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

(VALID ONLY FOR PANEL INSTALLATIONS AS PER SECTIONS 1' THRU 4', SHEET 13 OF 15).

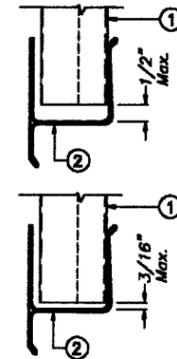
E. D. = EDGE DISTANCE

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" (in.)
	TAPCONS		RAWL CALK-IN		PANELMATES			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+66.0, -75.3	12"	N/A	12"	N/A	12"	N/A	1' & 2' (TOP)	70" OR LESS
	12"	4"	12"	5 1/2"	5"	5"	1' (BOTTOM) SERIES 2000 +	
	12"	5 1/2"	12"	8 1/2"	8"	8"	1' (BOTTOM) SERIES 2000 ++	
	N/A	N/A	N/A	N/A	12 1/2"	12 1/2"	2' (BOTTOM)	
	9 1/2"	N/A	9 1/2"	N/A	4 1/2"	N/A	3' (TOP)	
	12"	N/A	12"	N/A	9 1/2"	N/A	3' (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	4' (TOP)	
	12"	11"	12"	12"	12"	12"	4' (BOTTOM)	

75.3
7/17/98

+ REQUIRES Max. DISTANCE BETWEEN BOTTOM OF PANEL AND ② TO BE : 1/2"

++ REQUIRES Max. DISTANCE BETWEEN BOTTOM OF PANEL AND ② TO BE : 3/16"



* SEE SHEET 15 OF 15 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 IS 2 1/2").

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

PRODUCT RENEWED

ACCEPTANCE No. 00-0307.04

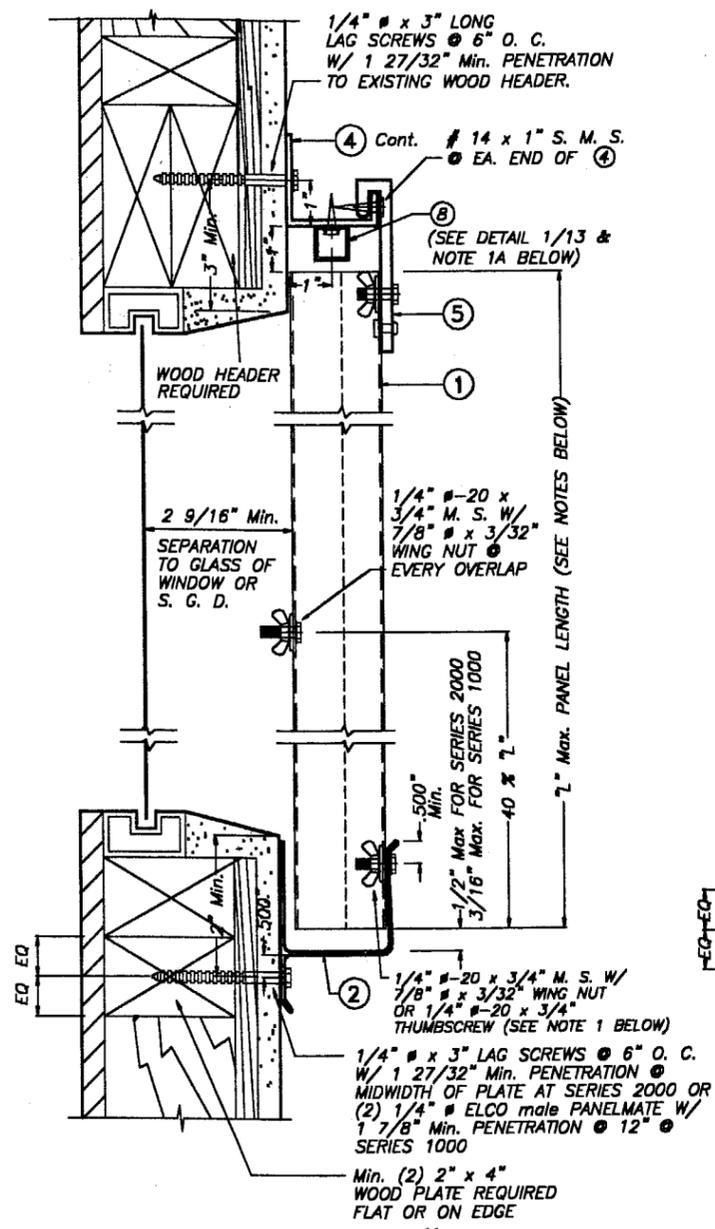
EXPIRATION DATE 06/26/2003

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

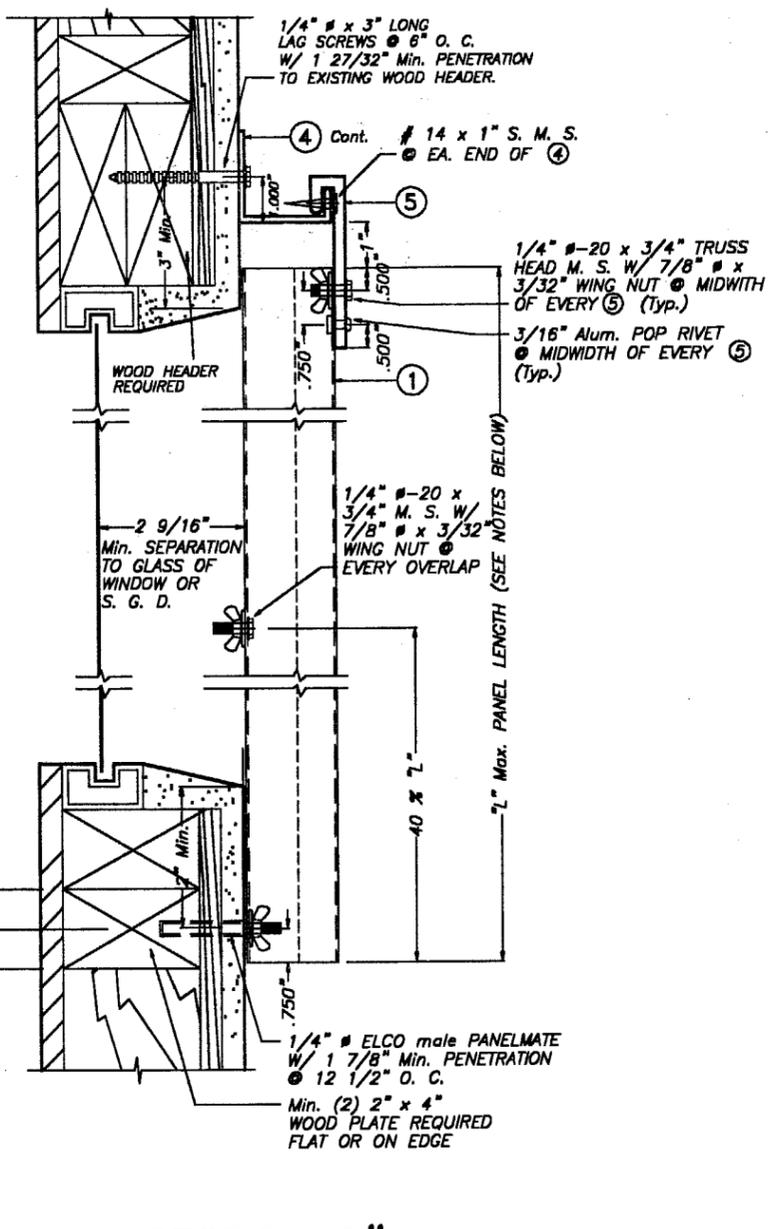
DADE COUNTY

 TILECO INC. TILLIT TESTING & ENGINEERING COMPANY 8595 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	E - Z HANG STORM PANEL SYSTEM (20 GAGE GALVANIZED STEEL)	AS SHOWN SCALE
	ROBICO SHUTTERS, Inc. 9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178	4/17/98 DATE
	96 - 297 DRAWING No	SHEET 14 OF 15
REV. No. DESCRIPTION DATE REV. No. DESCRIPTION DATE 1 ROBICO SHUTTERS, Inc 10/27/98 3 2 GENERAL 5/8/99 4		

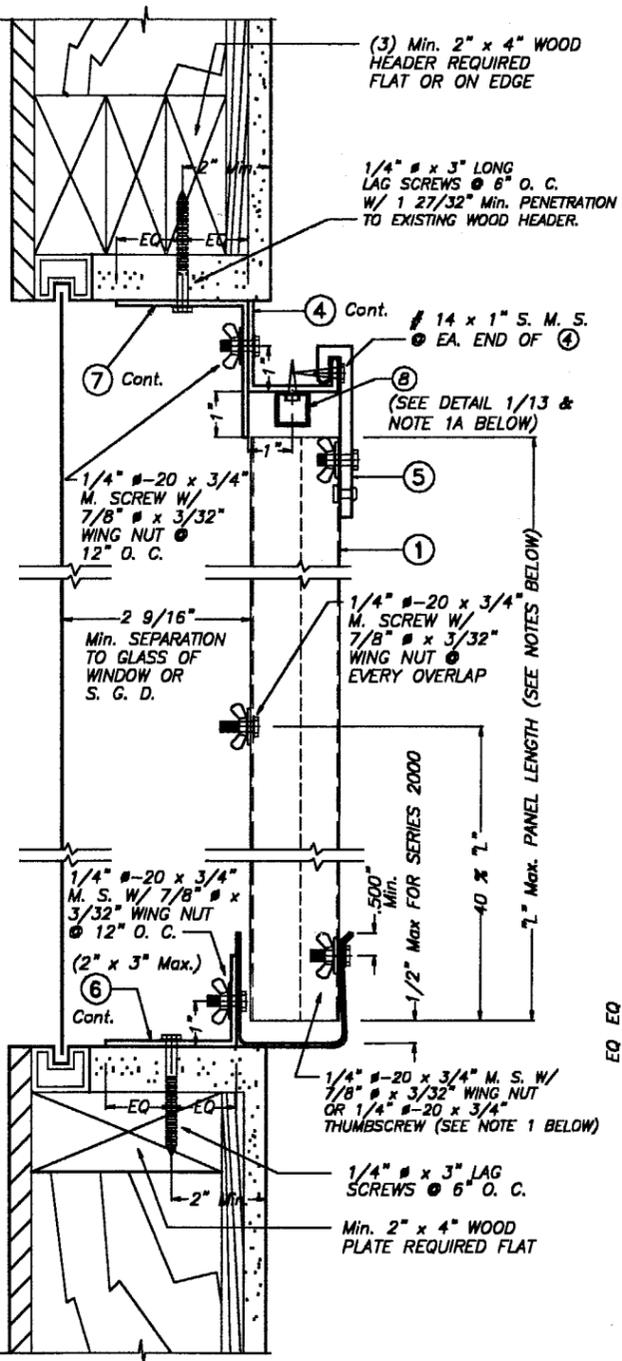
David
6/6/00



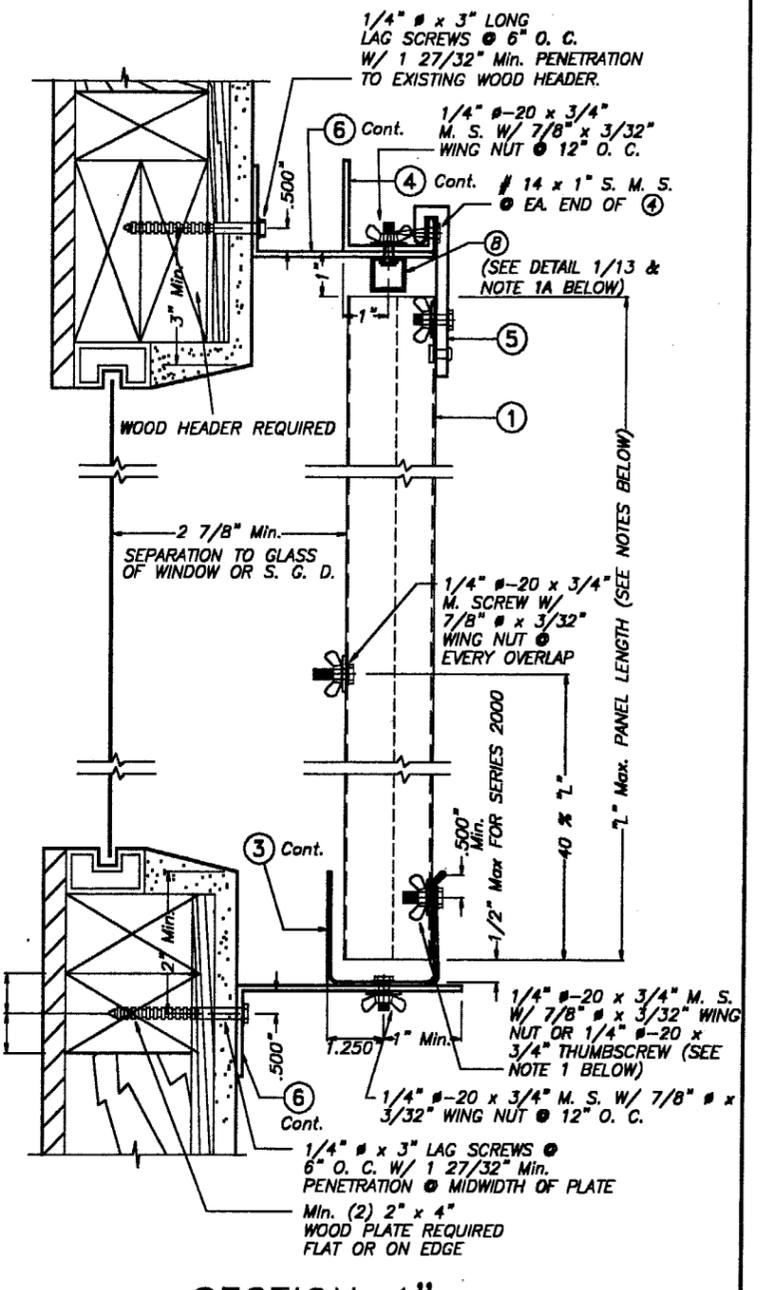
SECTION 1"
SCALE: 1/4" = 1"



SECTION 2"
SCALE: 1/4" = 1"



SECTION 3"
SCALE: 1/4" = 1"

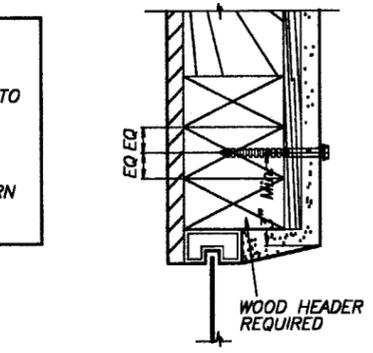


SECTION 4"
SCALE: 1/4" = 1" **PRODUCT RENEWED**

NOTES:

- INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH DESIGN LOADS UP TO +66.0, - 75.3 psf AND PANEL'S LENGTH UP TO 5'-10".
- 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.



ALTERNATIVE TOP HEADER WOOD FRAME CONDITION & ANCHOR LOCATION
SCALE: 1/4" = 1"
NOTE: SHUTTER TRACKS NOT SHOWN FOR CLARITY

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS FOR E-Z HANG STORM PANEL SYSTEM

2000
6/6/00

NOTE 1A:
SEE SPECIFICATIONS AND REQUIREMENTS FOR USE OF STOP BAR (8) AT TOP AS WELL AS PANEL (1) CONNECTION TO TRACKS (2) OR (3) AT BOTTOM, BASED ON 1000 OR 2000 SERIES INSTALLATION TYPE ON SHEET 12 OF 15.

ACCEPTANCE No. 00-0307.04
EXPIRATION DATE 06/26/2003
By *Halley A. Mabe*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

 TILECO INC. TILLIT TESTING & ENGINEERING COMPANY 6385 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44167		E - Z HANG STORM PANEL SYSTEM (20 GAGE GALVANIZED STEEL)		AS SHOWN SCALE	
		ROBICO SHUTTERS, Inc. 9108 N.W. 105th. WAY MEDLEY, FLORIDA 33178		4/17/98 DATE 96 - 297 DRAWING No	
REV. No 1 2	DESCRIPTION ROBICO SHUTTERS, Inc GENERAL	DATE 10/27/98 5/5/99	REV. No 3 4	DESCRIPTION 	DATE
				DADE COUNTY	
				SHEET 15 OF 15	