



**MIAMI-DADE COUNTY**  
**BUILDING CODE COMPLIANCE OFFICE (BCCO)**  
**PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA**  
**METRO-DADE FLAGLER BUILDING**

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

**www.miamidade.gov**

**NOTICE OF ACCEPTANCE (NOA)**

**Homeshield Stormguard, LLC**  
**3585 E. 10<sup>th</sup> Court**  
**Hialeah, Florida 33013**

**SCOPE:**

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

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

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

**DESCRIPTION: Extruded Aluminum Accordion Shutter**

**APPROVAL DOCUMENT:** Drawing No. **05-182**, titled " Supper Shutter Accordion ", sheets 1 through 6 of 6, prepared by Tilteco, Inc., dated August 22, 2005, last revision #1 dated August 22, 2005, signed and sealed by Walter A. Tillit Jr., P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Division.

**MISSILE IMPACT RATING: Large and Small Missile Impact**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

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

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

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

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA **renews NOA # 07-0831.07** and consists of this page 1, evidence submitted pages E-1, E-2, E-3 & E-4 and approval document mentioned above.

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



*Helmy A. Makar*  
 04/01/2009

**NOA No. 09-0226.07**  
**Expiration Date: 03/06/2010**  
**Approval Date: 04/01/2009**

**Homeshield Stormguard, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #97-0212.08**

**A. DRAWINGS**

1. *Drawing Number 96-252 sheets 1 through 6 of 6 dated 08/13/96, revision #1 dated 01/23/98, signed and sealed on 01/23/98 by Walter A. Tillit Jr., P.E.*

**B. TESTS**

1. *Test report on Uniform Static Air Pressure Test of "Accordion Shutter", for various blade heights, prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-94-347, dated Oct. 20, 1994, signed and sealed by Hector M. Medina, P.E.*
2. *Test report on Large Missile Impact Test and Cyclic Wind Pressure Test of "Accordion Shutter", prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-94-361, dated Oct. 31, 1994, signed and sealed by Hector M. Medina, P.E.*
3. *Test report on Large Missile Impact Test of "Accordion Shutter", for center mate impact of 155" blade height specimen, prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-95-435, dated March 29, 1995, signed and sealed by Hector M. Medina, P.E.*
4. *Test report on Large Missile Impact Test and Cyclic Wind Pressure Test of "Accordion Shutter", prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-96-582, dated December 3, 1996, signed and sealed by Hector M. Medina, P.E.*

**C. CALCULATIONS**

1. *Anchor analysis dated December 20, 21, 22 & 23, 1994, Pages A-0 thru A-12 and AP-1 thru AP-11, prepared by Al-Farooq Corp., signed and sealed by Humayoun Farooq, P.E.*
2. *Comparative Analysis dated October 01, 1996, Pages 1 through 14 of 14, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit, P.E.*
3. *Anchor analysis received on September 17, 1997, Pages 1 through 18 of 18, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit, P.E.*

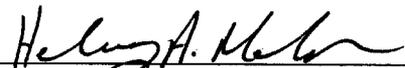
**D. MATERIAL CERTIFICATIONS**

1. *Mill Certified Test Report #800414-A, issued by Werner Co. dated 09/30/94 with chemical composition and mechanical properties for aluminum alloy 6063-T6.*
2. *Tensile Test Report No. HETI-94-T39, prepared by Hurricane Engineering & Testing Inc. dated 11/09/94, signed and sealed by Hector M. Medina, P.E.*
3. *Mill Certified Test Report #805368-A-03, issued by Werner Co. dated 09/07/96 with chemical composition and mechanical properties for aluminum alloy 6063-T6.*
4. *Tensile Test Report No. HETI-96-T39, prepared by Hurricane Engineering & Testing Inc. dated 11/19/96, signed and sealed by Hector M. Medina, P.E.*

**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #99-1122.04**

**A. DRAWINGS**

1. *None.*



Helmy A. Makar, P.E., M.S.  
Product Control Examiner  
NOA No. 09-0226.07  
Expiration Date: 03/06/2010  
Approval Date: 04/01/2009

**Homeshield Stormguard, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. MATERIAL CERTIFICATIONS**

1. *None.*

**E. STATEMENTS**

1. *A letter by Homeshield Industries, Inc. stating that the product has not changed.*
2. *Letter by Tilteco Inc., dated November 2, 1999, certifying that Tilteco, Inc. is still the engineer of record and continues to be in the engineering business, signed by Mr. Walter A. Tillit, Jr., P.E.*

**3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #03-0106.08**

**A. DRAWINGS**

1. *Drawing No. 02-528, titled " Supper Shutter Accordion ", sheets 1 through 6 of 6, prepared by Tilteco, Inc., dated November 07, 2002, last revision #1 dated November 07, 2002 signed and sealed Walter A. Tillit, Jr., P.E.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. MATERIAL CERTIFICATIONS**

1. *None.*

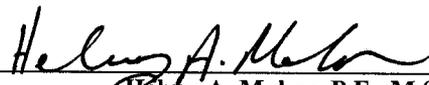
**E. STATEMENTS**

1. *Letter issued by Mr. Walter A. Tillit, Jr., P.E., dated December 04, 2002, indicating that the only change is up-date General Note numbers 1 & 10 to reference the Florida Building Code and ASCE 7-98.*

**4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 05-0912.06**

**A. DRAWINGS:**

1. *Drawing No. 05-182, titled " Supper Shutter Accordion ", sheets 1 through 6 of 6, prepared by Tilteco, Inc., dated August 22, 2005, last revision #1 dated August 22, 2005, signed and sealed by Walter A. Tillit Jr., P.E.*



Helmy A. Makar, P.E., M.S.  
Product Control Examiner  
NOA No. 09-0226.07  
Expiration Date: 03/06/2010  
Approval Date: 04/01/2009

**Homeshield Stormguard, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**B. TESTS:**

1. *None.*

**C. CALCULATIONS:**

1. *Anchor analysis dated September 08, 2005, Pages 1 through 47 of 47, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit, P.E.*

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATION:**

1. *None.*

**F. STATEMENTS**

1. *Letter from Tilteco, Inc., dated September 08, 2005, signed and sealed by Walter A. Tillit Jr., P.E., certifying that the drawing (No. 05-182) prepared for Homeshield Industries, Inc., signed and sealed by Walter A. Tillit, Jr., P.E., is in compliance with the 2004 Edition of the Florida Building Code.*

**5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 07-0831.07**

**A. DRAWINGS:**

1. *None.*

**B. TESTS:**

1. *None.*

**C. CALCULATIONS:**

1. *None.*

**D. QUALITY ASSURANCE**

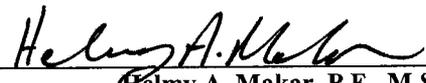
1. *By Miami-Dade County Building Code Compliance Office.*

**E. MATERIAL CERTIFICATION:**

1. *None.*

**F. STATEMENTS**

1. *Letter from Tilteco, Inc., dated August 09, 2007, signed and sealed by Walter A. Tillit Jr., P.E., certifying that Tilteco, Inc. is still the engineer of the record for this product and manufacturer and continues to be in the engineering business.*

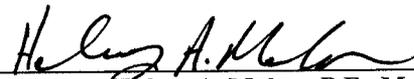


**Helmy A. Makar, P.E., M.S.**  
**Product Control Examiner**  
**NOA No. 09-0226.07**  
**Expiration Date: 03/06/2010**  
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**Homeshield Stormguard, LLC**

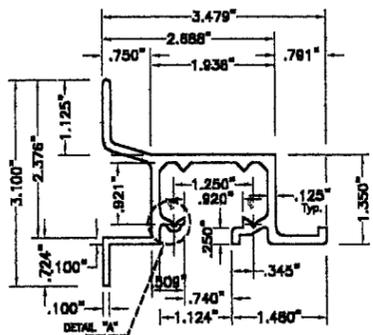
**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

- 6. NEW EVIDENCE SUBMITTED**
- A. DRAWINGS:**
  - 1. *None.*
- B. TESTS:**
  - 1. *None.*
- C. CALCULATIONS:**
  - 1. *None.*
- D. QUALITY ASSURANCE**
  - 1. *By Miami-Dade County Building Code Compliance Office.*
- E. MATERIAL CERTIFICATION:**
  - 1. *None.*

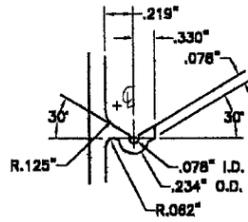


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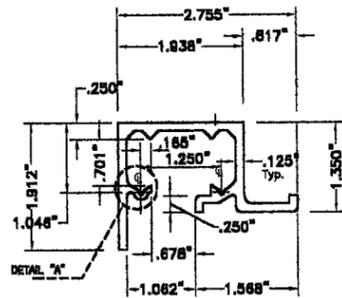
**Helmy A. Makar, P.E., M.S.**  
**Product Control Examiner**  
**NOA No. 09-0226.07**  
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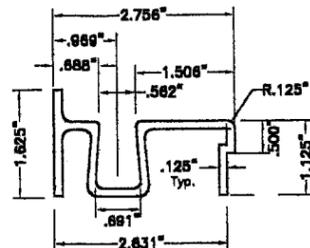
**(A) HEADER-WALL MOUNTING**  
**(A) SILL-WALL MOUNTING (INVERTED USE)**  
 SCALE: 3/8" = 1"



**DETAIL "A" HEADER**  
 SCALE: 2 : 1

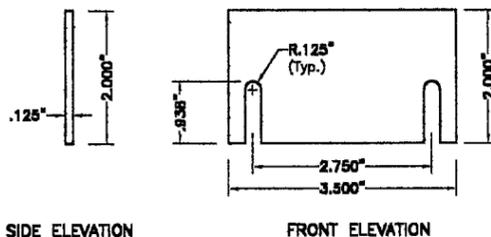


**(B) HEADER CEILING MOUNTING**  
 SCALE: 3/8" = 1"

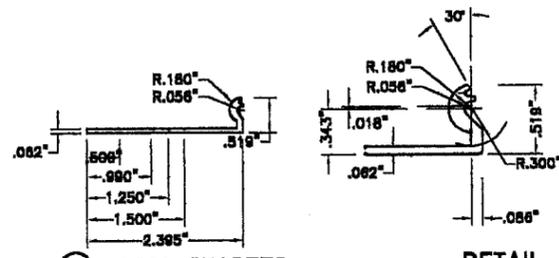


**(C) SILL**  
 SCALE: 3/8" = 1"

**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
 Acceptance No. 09-0226-07  
 Expiration Date 03/06/2010  
 By *Helmut A. Walter*  
 Miami Dade Product Control  
 Division  
**COMPONENTS**

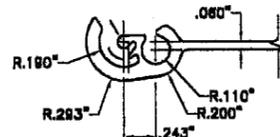


**(D) INSIDE LOCKER**  
 SCALE: 3/8" = 1"

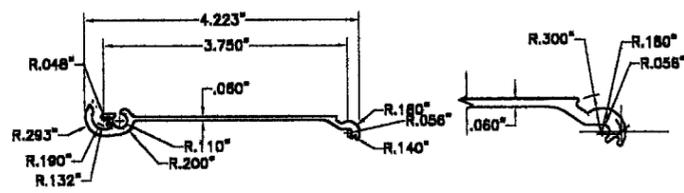


**(E) 180° STARTER**  
 SCALE: 3/8" = 1"

**PRODUCT REVISED**  
 as complying with the Florida  
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 Expiration Date 03/06/2009  
 By *Helmut A. Walter*  
 Miami Dade Product Control  
 Division

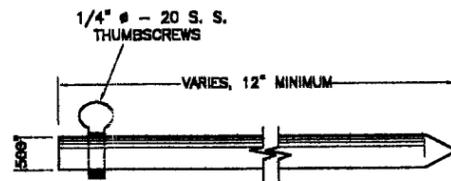


**DETAIL BLADE**  
 SCALE: 2 : 1

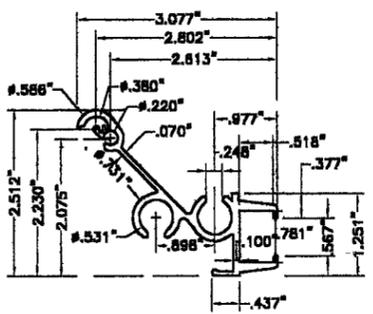


**(F) LOUVER BLADE**  
 SCALE: 3/8" = 1"

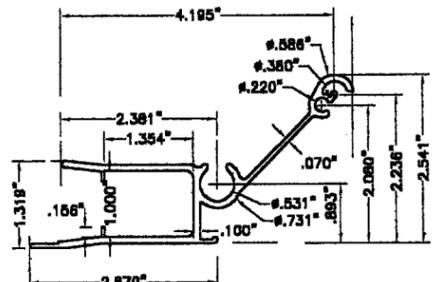
**DETAIL BLADE**  
 SCALE: 2 : 1



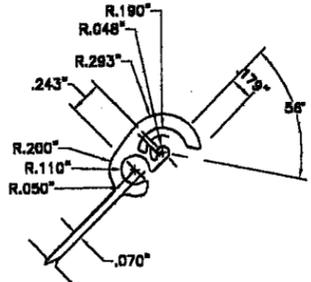
**(G) LOCKING PIN**  
 SCALE: 3/8" = 1"



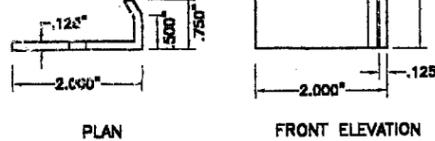
**(H) MALE LOCK SLAT**  
 SCALE: 3/8" = 1"



**(I) FEMALE LOCK SLAT**  
 SCALE: 3/8" = 1"



**DETAIL FEMALE LOCK & MALE LOCK**  
 SCALE: 2 : 1



**(J) OUTSIDE LOCKER**  
 SCALE: 3/8" = 1"

**GENERAL NOTES:**

- ACCORDION SHUTTER SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2004 EDITION OF THE FLORIDA BUILDING CODE. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODE. IN ORDER TO VERIFY THAT ANCHORS ON THIS P.A.D., AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE LOADS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. HOWEVER, FOR LAG SCREWS INTO WOOD, A 1.80 WIND LOAD DURATION FACTOR WAS USED TO CALCULATE SCREWS SPACINGS. ACCORDION SHUTTER'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1609.1.4 OF THE ABOVE MENTIONED CODE.
- STAINLESS STEEL SHEET METAL SCREWS USED AT BLADE PIN SHALL BE # 14 x 3", TYPE B, 410-H MINIMUM SERIES. SCREWS SHALL BE COATED WITH XYLAN 8000 SERIES FLUOROPOLYMER COATINGS AS MANUFACTURED BY WHITFORD Co., BOX 507, WEST CHESTER PA. 19381.
- ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALLOY (UNLESS OTHERWISE NOTED).
- ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 SERIES WITH 50 ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH.
- ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.
- BOLTS TO BE ASTM A-307 GALVANIZED OR AISI 304 SERIES STAINLESS STEEL WITH 35 ksi MINIMUM YIELD STRENGTH.
- ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)
  - (A) TO EXISTING POURED CONCRETE:
    - 1/4" # TAPCON, AS MANUFACTURED BY ELCO TEXTRON.
    - 1/4" # x 7/8" CALK-IN ANCHOR AS MANUFACTURED BY POWERS FASTENERS, INC.
  - (B) TO EXISTING CONCRETE BLOCK WALL:
    - 1/4" # TAPCON, AS MANUFACTURED BY ELCO TEXTRON.
    - 1/4" # x 7/8" CALK-IN ANCHORS AS MANUFACTURED BY POWERS FASTENERS, INC.
  - (C) ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.
- EACH UNIT SHALL HAVE A READILY VISIBLE DECAL INSTRUCTING OWNER OR TENANT THE MANDATORY USE OF TWO ANGLES FASTENED TOGETHER WITH BOLT AND WINGNUT, OR TWO FLAT PLATES SECURED WITH THUMB SCREWS, AT CENTER MATES DURING PERIODS OF HURRICANE WARNING.
- 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.
- (A) THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.A.D.
- (B) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS PRODUCT APPROVAL DOCUMENT PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
- (C) THIS PRODUCT APPROVAL DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.
- (D) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE PROFESSIONAL OF RECORD (P.O.R) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D.
- (E) THIS P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER THAT PREPARED IT.
- A LABEL SHALL BE AFFIXED AT BOTTOM OF LOCKING MEMBER UNIT WITH THE FOLLOWING STATEMENT:  
 HOMESHIELD STORMGUARD, INC. HIALEAH, FL  
 SUPER SHUTTER ACCORDION  
 "MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED"

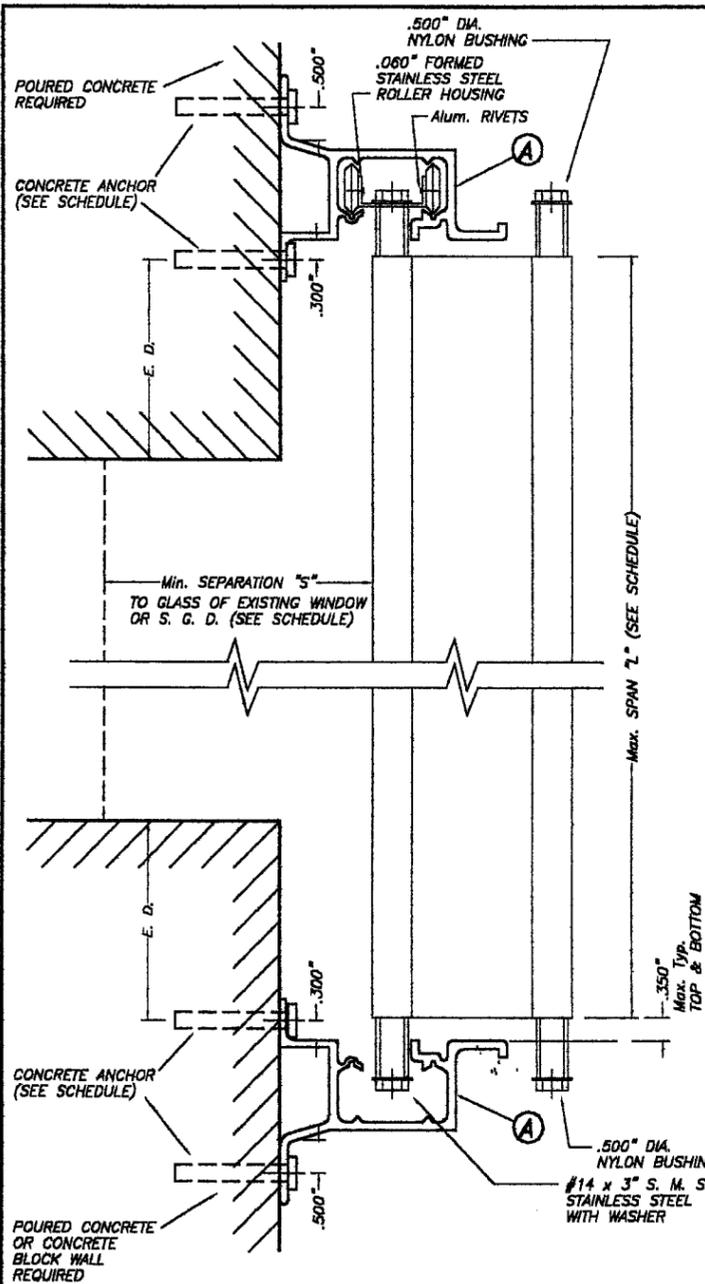
**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
 Acceptance No. 05-0912-06  
 Expiration Date 03/06/2008  
 By *Helmut A. Walter*  
 Miami Dade Product Control  
 Division

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

 <b>TILTECO INC.</b> TILLIT TESTING & ENGINEERING COMPANY 5305 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33169 Phone: (305)871-1030 Fax: (305)871-1031 EB-0008719 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44187		<b>SUPER SHUTTER ACCORDION</b>		DRAWN BY: J.J.V.	
		<b>HOMESHIELD STORMGUARD, LLC</b> 3585 E. 10th. COURT HIALEAH, FLORIDA 33013 PH:(305)891-2888, FAX:(305)891-2244		8/22/05 DATE	
				05-182 DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 02-528	8/22/05	3	-	-
2	-	-	4	-	-

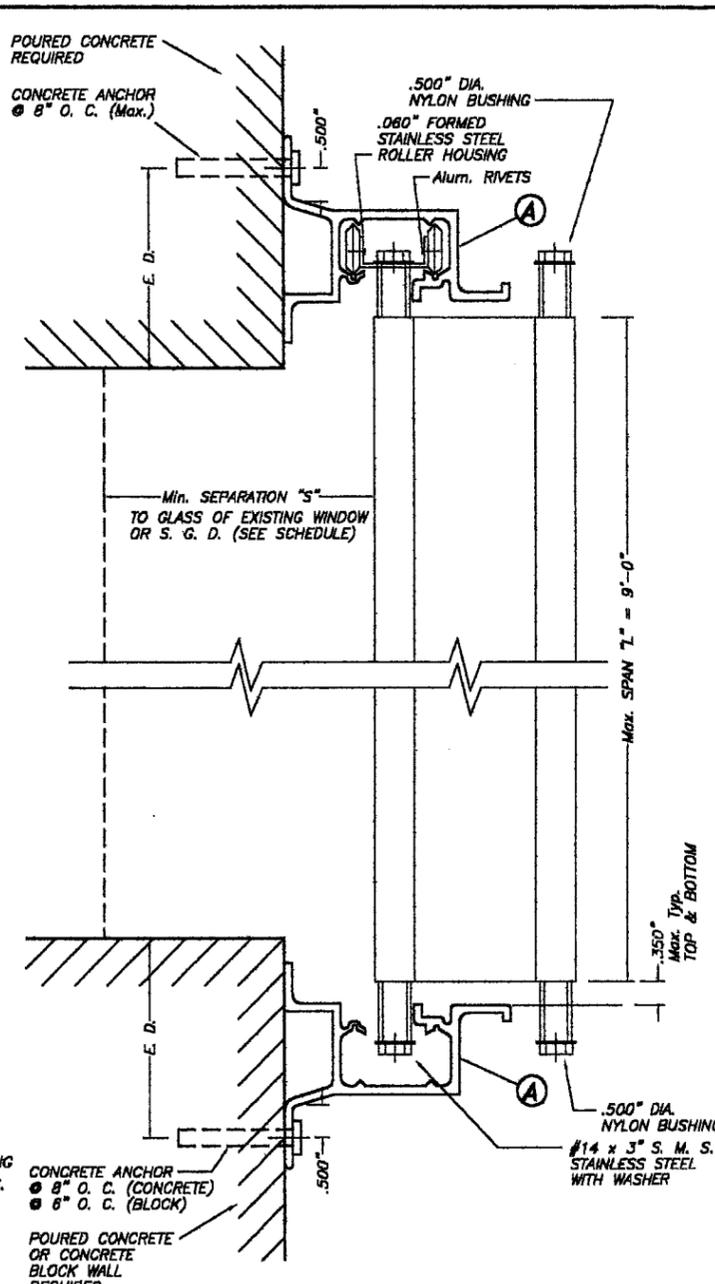
SHEET 1 OF 6

*Handwritten signature and date: 8/22/05*



**WALL MOUNTING INSTALLATION**

SECTION A SCALE: 3/8" = 1"

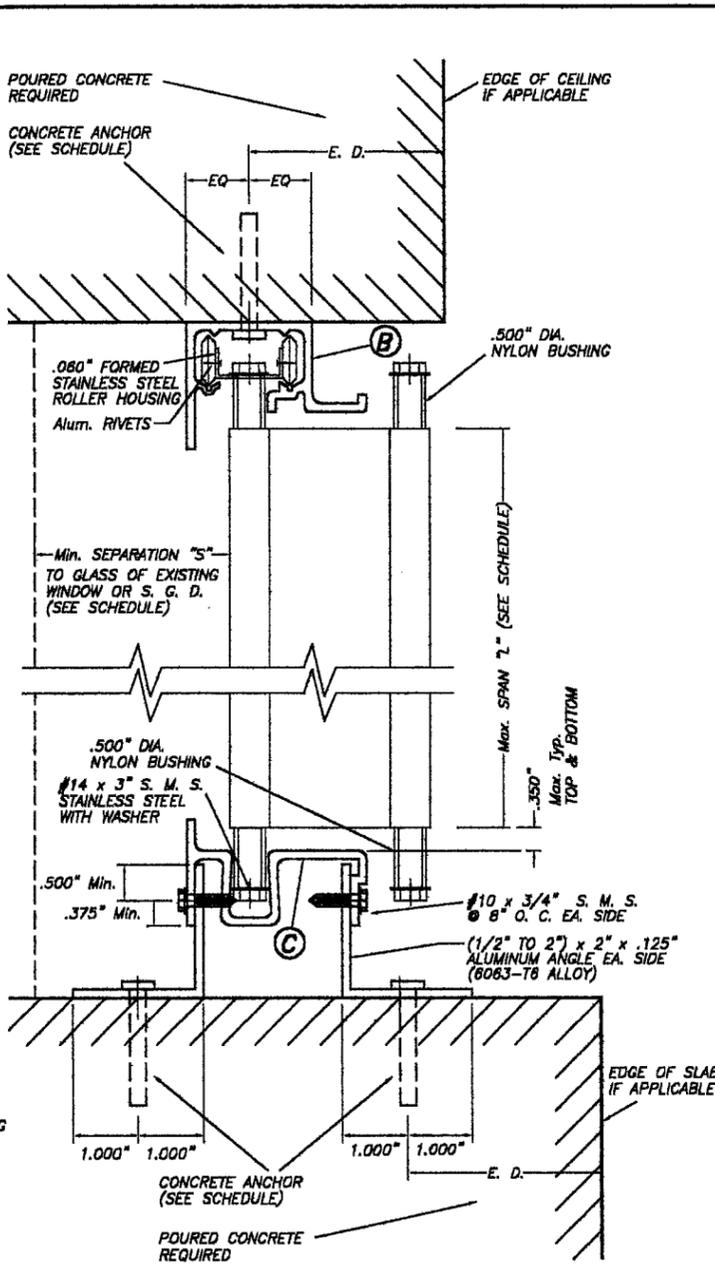


**WALL MOUNTING INSTALLATION**

SECTION A1 SCALE: 3/8" = 1"

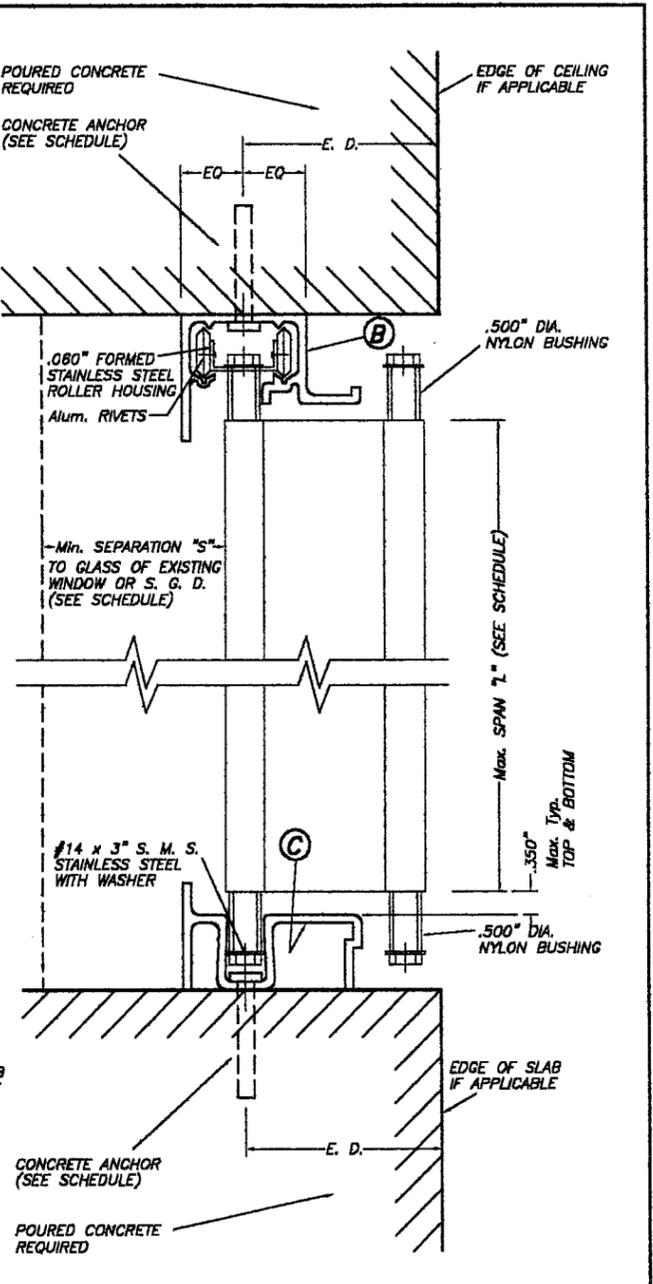
NOTE: THIS SECTION ONLY VALID FOR DESIGN LOADS UP TO 75 psf.

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



**CEILING/FLOOR MOUNTING INSTALLATION**

SECTION B SCALE: 3/8" = 1"



**CEILING/FLOOR MOUNTING INSTALLATION**

SECTION B1 SCALE: 3/8" = 1"

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No. 09-0226.07  
 Expiration Date 03/06/2010  
 By Helmut A. Miller  
 Miami Dade Product Control Division

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No. 07-0831.07  
 Expiration Date 03/06/2009  
 By Helmut A. Miller  
 Miami Dade Product Control Division

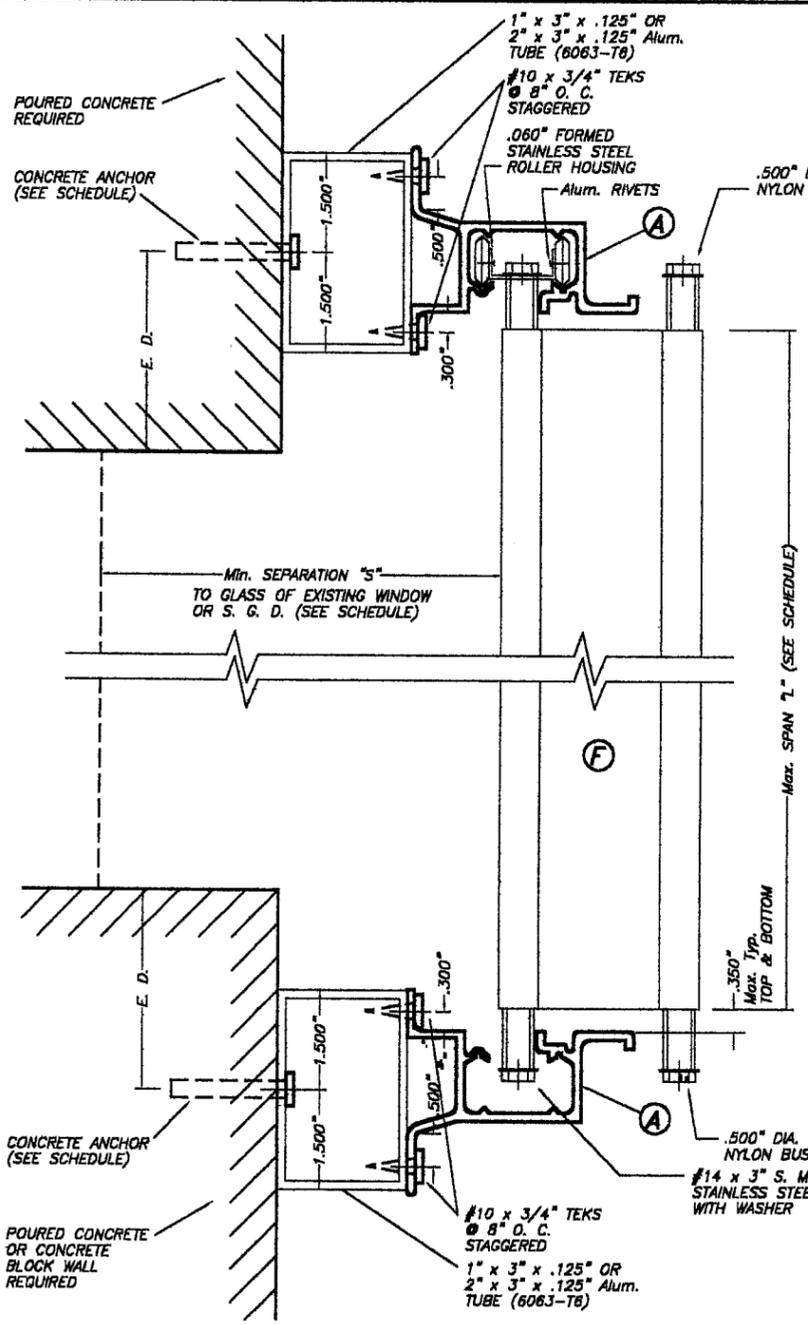
**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No. 05-0912.06  
 Expiration Date 03/06/2008  
 By Helmut A. Miller  
 Miami Dade Product Control Division

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

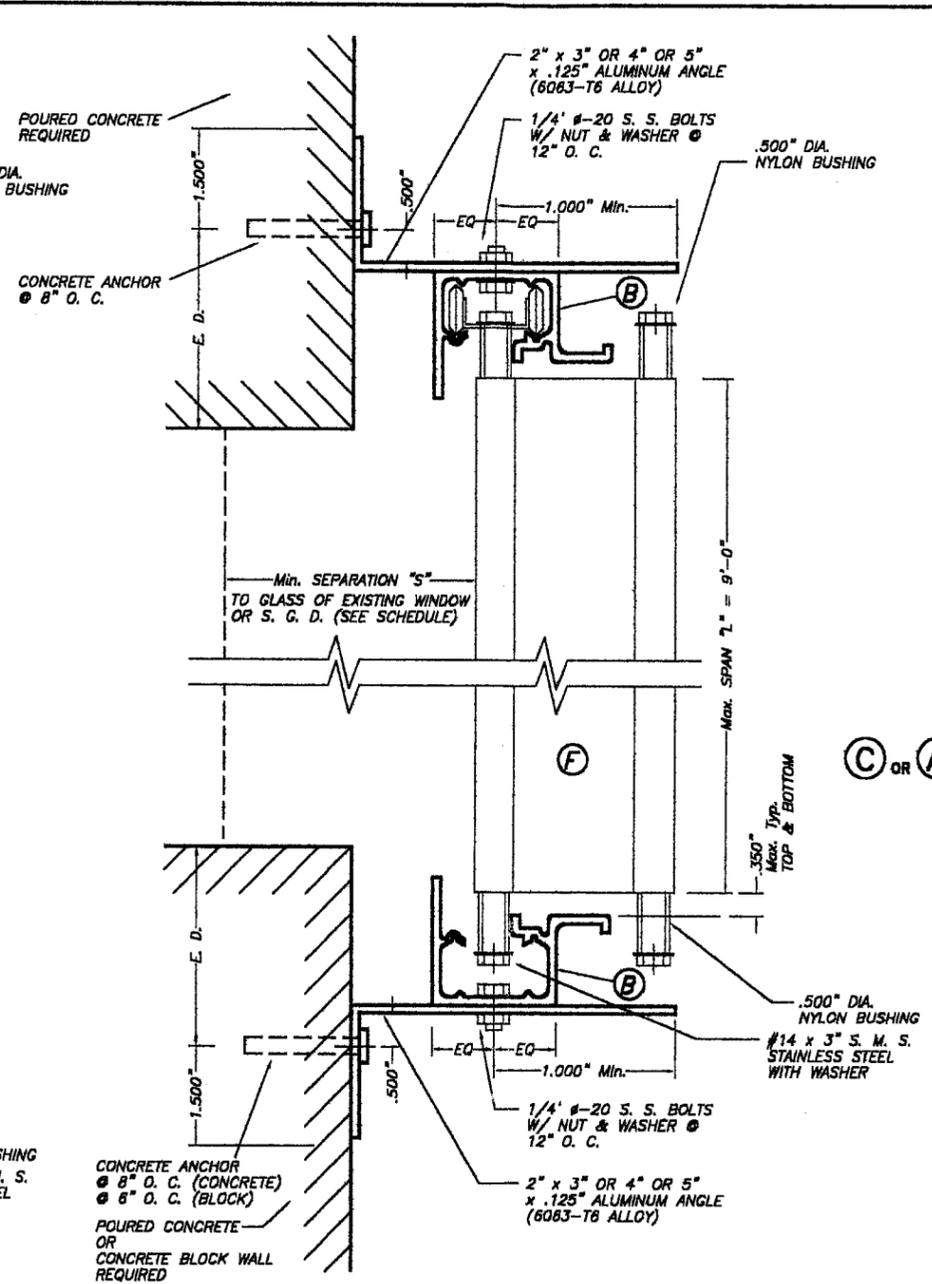
**TILECO Inc.**  
 TILT TESTING & ENGINEERING COMPANY  
 6306 N.W. 36th St., Box 308, Virginia Gardens, Florida 33166  
 Phone: (305) 871-1830 Fax: (305) 871-1831  
 EB-0008719  
 WALTER A. TILIT Jr., P. E.  
 FLORIDA Lic. # 44187

<b>SUPER SHUTTER ACCORDION</b>						DRAWN BY: J.J.V.
<b>HOMESHIELD STORMGUARD, LLC</b>						8/22/05 DATE
3585 E. 10th COURT HIALEAH, FLORIDA 33013 PH:(305)681-2888, FAX:(305)681-2244						05-182 DRAWING No
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	SHEET 2 OF 6
1	OLD 02-528	8/22/05	3	-	-	
2	-	-	4	-	-	

*Handwritten signature and date: 8/22/05*

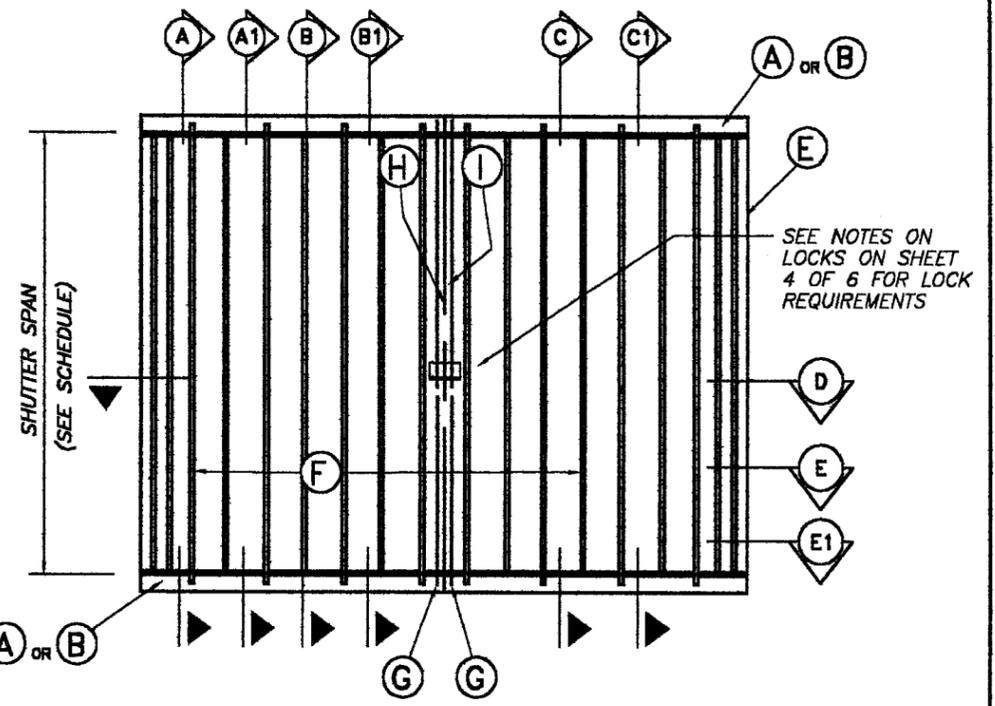


**WALL MOUNTING INSTALLATION (OFFSET)**  
 - SECTION C  
 SCALE: 3/8" = 1"



**WALL MOUNTING INSTALLATION (OFFSET)**  
 - SECTION C1  
 SCALE: 3/8" = 1"

NOTE: THIS SECTION ONLY VALID FOR DESIGN LOADS UP TO 75 psf.



**TYPICAL ELEVATION** N. T. S.

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No. 09-0226.07  
 Expiration Date 03/06/2010  
 By *Helmut A. Mohr*  
 Miami Dade Product Control Division

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No. 07-0831.07  
 Expiration Date 03/06/2009  
 By *Helmut A. Mohr*  
 Miami Dade Product Control Division

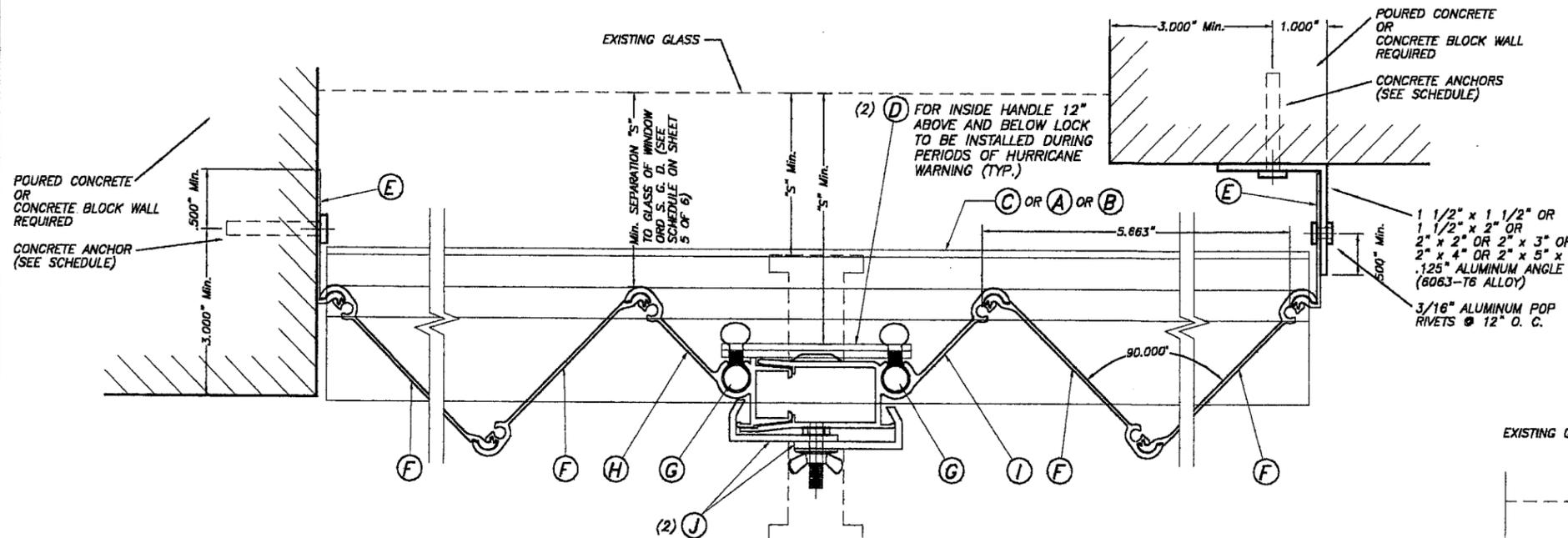
**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No. 05-0912.06  
 Expiration Date 03/06/2008  
 By *Helmut A. Mohr*  
 Miami Dade Product Control Division

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

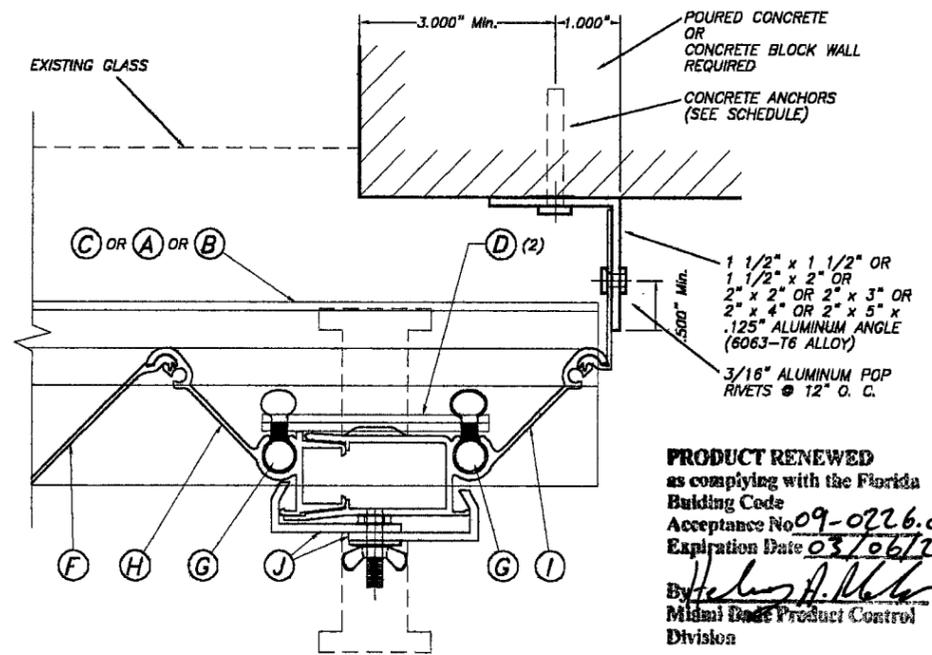
*2/8/05*

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

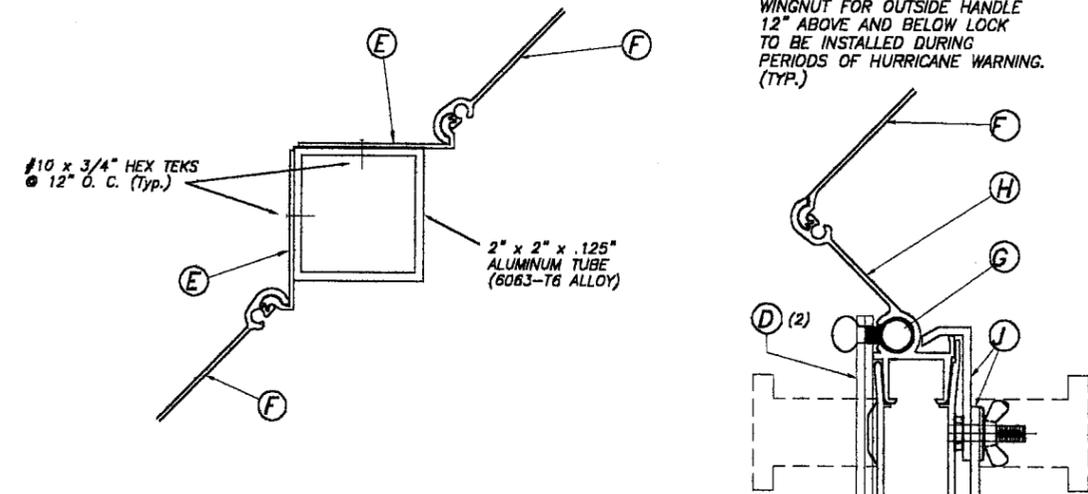
 <b>TILECO Inc.</b> <small>TILLIT TESTING &amp; ENGINEERING COMPANY</small> <small>6300 N.W. 36th. Dr. P.O. Box 300, VERO BEACH, FLORIDA 32908</small> <small>Phone: (305)871-1830 Fax: (305)871-1831</small> <small>EB-0008719</small> <small>WALTER A. TILLIT Jr., P. E.</small> <small>FLORIDA Lic. # 44167</small>	<b>SUPER SHUTTER ACCORDION</b>		DRAWN BY: J.J.V.																			
	<b>HOMESHIELD STORMGUARD, LLC</b> <small>3585 E. 10th. COURT</small> <small>HIALEAH, FLORIDA 33013</small> <small>PH:(305)891-2888, FAX:(305)891-2244</small>		8/22/05 DATE																			
			05-182 DRAWING No																			
<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>OLD 02-528</td> <td>8/22/05</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> <td>4</td> <td>-</td> <td>-</td> </tr> </tbody> </table>		REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	1	OLD 02-528	8/22/05	3	-	-	2	-	-	4	-	-	SHEET 3 OF 6		
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE																	
1	OLD 02-528	8/22/05	3	-	-																	
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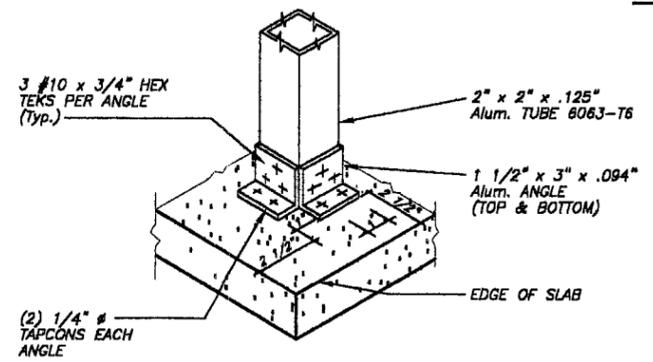
**SECTION D**  
SCALE: 3/8" = 1"



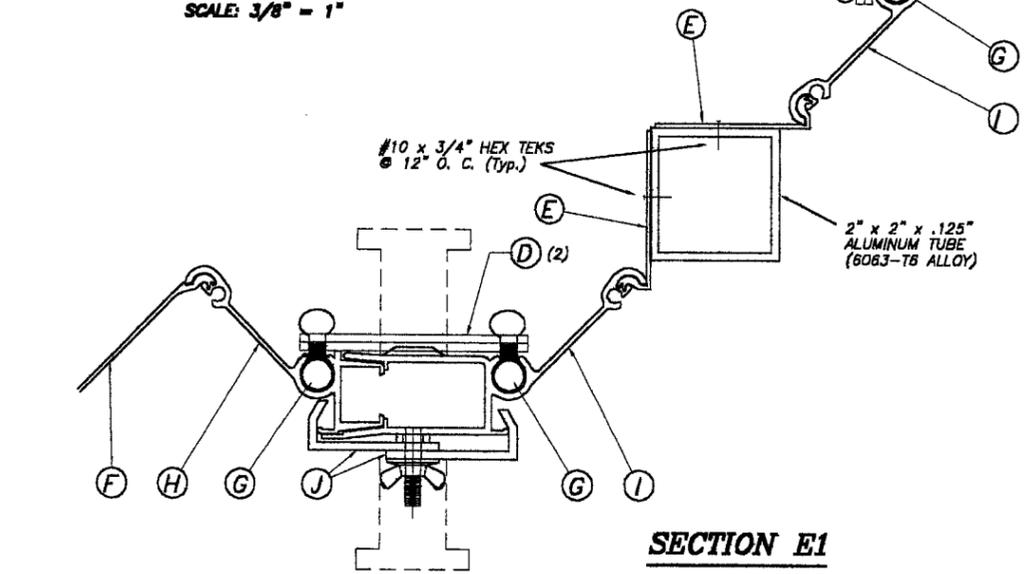
**ONE SIDED SHUTTER : END CONNECTION DETAIL**  
SCALE: 3/8" = 1"



**SECTION E**  
SCALE: 3/8" = 1"



**ISOMETRIC (CORNER POST) & BOTTOM SLABS**  
(Typ. AT TOP & BOTTOM SLABS)  
N. T. S.



**SECTION E1**  
SCALE: 3/8" = 1"

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**TILTECO inc.**  
TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 26th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33166  
Phone: (305)871-1530 Fax: (305)871-1531  
EB-0006719  
WALTER A. TILLIT Jr., P. E.  
FLORIDA Lic. # 44167

SUPER SHUTTER ACCORDION						DRAWN BY: J.J.V.
HOMESHIELD STORMGUARD, LLC						8/22/05 DATE
3585 E. 10th COURT HIALEAH, FLORIDA 33013 PH:(305)691-2888, FAX:(305)691-2244						05-182 DRAWING No
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	SHEET 4 OF 6
1	OLD 02-528	8/22/05	3	-	-	
2	-	-	4	-	-	

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

*Handwritten signature and date: 8/18/05*

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

(VALID FOR SECTIONS A, B, B1 & C ON SHEETS 2 & 3 OF 6).

NOTE: DESIGN PRESSURE RATING CORRESPONDS ONLY TO NEGATIVE PRESSURE (SUCTION) LOADS, IN ACCORDANCE WITH ASCE 7-98 CRITERIA FOR A GIVEN OPENING. IF NEGATIVE PRESSURE VALUES COMPLY WITH THE REQUIRED PRESSURE FOR THE OPENING, THE POSITIVE PRESSURE WILL AUTOMATICALLY QUALIFY AND NEED NOT TO BE CHECKED.

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)		MINIMUM SEPARATION "S" TO GLASS (in.)	
	*	**	*	**
45.1	12'-11"	13'-10"	3"	3"
47.8	12'-11"	13'-8"	3"	3"
49.0	12'-11"	13'-7"	3"	3"
50.5	12'-11"	13'-6"	3"	3"
52.0	12'-11"	13'-4"	3"	3"
52.4	12'-11"	13'-4"	3"	3"
55.0	12'-11"	13'-2"	3"	3"
55.2	12'-11"	13'-2"	3"	3"
55.6	12'-11"	13'-2"	3"	3"
57.2	12'-11"	13'-0"	3"	3"
58.6	12'-11"	13'-0"	3"	3"
58.8	12'-11"	13'-0"	3"	3"
59.5	12'-11"	12'-11"	3"	3"
59.7	12'-11"	12'-11"	3"	3"
61.5	12'-10"	12'-10"	3"	3"
61.8	12'-10"	12'-10"	3"	3"
61.9	12'-10"	12'-10"	3"	3"
63.4	12'-9"	12'-9"	3"	3"
63.6	12'-9"	12'-9"	3"	3"
63.7	12'-8"	12'-8"	3"	3"
66.9	12'-7"	12'-7"	3"	3"
67.0	12'-7"	12'-7"	3"	3"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)		MINIMUM SEPARATION "S" TO GLASS (in.)	
	*	**	*	**
67.5	12'-6"	12'-6"	3"	3"
70.1	12'-5"	12'-5"	3"	3"
71.1	12'-4"	12'-4"	3"	3"
71.4	12'-4"	12'-4"	3"	3"
71.5	12'-4"	12'-4"	3"	3"
72.9	12'-3"	12'-3"	3"	3"
75.1	12'-2"	12'-2"	3"	3"
75.2	12'-2"	12'-2"	3"	3"
75.3	12'-2"	12'-2"	3"	3"
77.0	12'-2"	12'-2"	3"	3"
77.5	12'-1"	12'-1"	3"	3"
78.8	12'-0"	12'-0"	3"	3"
80.7	12'-0"	12'-0"	3"	3"
81.5	11'-11"	11'-11"	3"	3"
82.5	11'-10"	11'-10"	3"	3"
83.4	11'-10"	11'-10"	3"	3"
86.2	11'-9"	11'-9"	3"	3"
88.7	11'-9"	11'-9"	3"	3"
88.8	11'-9"	11'-9"	3"	3"
88.5	11'-8"	11'-8"	3"	3"
90.3	11'-8"	11'-8"	3"	3"
90.8	11'-7"	11'-7"	3"	3"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)		MINIMUM SEPARATION "S" TO GLASS (in.)	
	*	**	*	**
91.4	11'-7"	11'-7"	3"	3"
92.7	11'-6"	11'-6"	3"	3"
93.8	11'-6"	11'-6"	3"	3"
94.8	11'-6"	11'-6"	3"	3"
98.8	11'-5"	11'-5"	3"	3"
98.8	11'-5"	11'-5"	3"	3"
97.7	11'-5"	11'-5"	3"	3"
100.5	11'-4"	11'-4"	3"	3"
101.5	11'-4"	11'-4"	3"	3"
103.7	11'-3"	11'-3"	3"	3"
106.5	11'-2"	11'-2"	3"	3"
108.8	11'-2"	11'-2"	3"	3"
110.8	11'-0"	11'-0"	3"	3"
111.0	11'-0"	11'-0"	3"	3"
114.1	11'-0"	11'-0"	3"	3"
116.5	10'-11"	10'-11"	3"	3"
116.9	10'-11"	10'-11"	3"	3"
117.8	10'-11"	10'-11"	3"	3"
119.7	10'-11"	10'-11"	3"	3"
120.0	10'-11"	10'-11"	3"	3"
121.2	10'-10"	10'-10"	3"	3"
122.5	10'-9"	10'-9"	3"	3"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)		MINIMUM SEPARATION "S" TO GLASS (in.)	
	*	**	*	**
125.3	10'-9"	10'-9"	3"	3"
125.8	10'-8"	10'-8"	3"	3"
128.7	10'-8"	10'-8"	3"	3"
129.6	10'-7"	10'-7"	3"	3"
130.9	10'-7"	10'-7"	3"	3"
131.6	10'-7"	10'-7"	3"	3"
134.3	10'-6"	10'-6"	3"	3"
136.2	10'-6"	10'-6"	3"	3"
137.8	10'-5"	10'-5"	3"	3"
140.7	10'-5"	10'-5"	3"	3"
142.8	10'-4"	10'-4"	3"	3"
143.5	10'-4"	10'-4"	3"	3"
147.0	10'-2"	10'-2"	3"	2 7/8"
148.4	10'-2"	10'-2"	3"	2 7/8"
152.6	10'-0"	10'-0"	3"	2 7/8"
153.1	10'-0"	10'-0"	3"	2 7/8"
156.8	9'-10"	9'-10"	3"	2 7/8"
157.5	9'-10"	9'-10"	3"	2 7/8"
157.8	9'-10"	9'-10"	3"	2 7/8"
160.8	9'-9"	9'-9"	3"	2 3/4"
161.7	9'-9"	9'-9"	3"	2 3/4"
164.4	9'-8"	9'-8"	3"	2 3/4"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)		MINIMUM SEPARATION "S" TO GLASS (in.)	
	*	**	*	**
165.2	9'-7"	9'-7"	3"	2 3/4"
168.1	9'-6"	9'-6"	3"	2 3/4"
168.7	9'-6"	9'-6"	3"	2 3/4"
170.0	9'-6"	9'-6"	3"	2 3/4"
175.6	9'-4"	9'-4"	3"	2 5/8"
176.6	9'-4"	9'-4"	3"	2 5/8"
180.3	9'-2"	9'-2"	3"	2 5/8"
188.0	9'-0"	9'-0"	3"	2 1/2"
195.2	8'-10"	8'-10"	3"	2 1/2"
197.2	8'-10"	8'-10"	3"	2 1/2"
199.1	8'-9"	8'-9"	3"	2 1/2"
204.7	8'-8"	8'-8"	3"	2 3/8"
211.3	8'-6"	8'-6"	3"	2 3/8"
216.9	8'-5"	8'-5"	3"	2 3/8"
221.8	8'-4"	8'-4"	3"	2 1/4"
226.3	8'-3"	8'-3"	3"	2 1/4"

**PRODUCT RENEWED**  
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Acceptance No. 09-0226-07  
Expiration Date 03/06/2010  
By *Helmut A. Meiser*  
Miami Dade Product Control Division 9/8/05

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Miami Dade Product Control Division

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

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

### MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +

(VALID FOR SECTIONS A, A1, B, B1, C & C1 ON SHEET 2 & 3 OF 6).

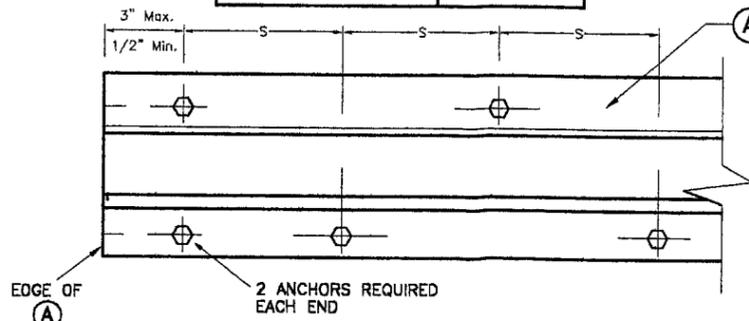
MAXIMUM DESIGN LOAD "W" (p.s.f.)	WALL MOUNTING INSTALLATION AT TOP OR BOTTOM (TO CONCRETE)			WALL MOUNTING INSTALLATION AT BOTTOM (TO MASONRY)			FLOOR/CEILING MOUNTING INSTALLATION TOP & BOTTOM (TO CONCRETE)		
	NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3
FROM 45.1 TO 61.8	8"	8"	8"	8"	8"	6"	8"	7"	5"
FROM 61.9 TO 75.3	8"	8"	8"	8"	7"	5 1/2"	7"	5 1/2"	4"
FROM 75.4 TO 91.4	8"	8"	8"	7"	6"	4 1/2"	6"	4 1/2"	3 1/2"
FROM 91.5 TO 120.0	8"	8"	8"	5 1/2"	4"	3 1/2"	4 1/2"	3 1/2"	3"
FROM 120.1 TO 168.1	8"	7"	7"	4"	3"	3"	3"	2 1/2"	2 1/2"
FROM 168.2 TO 195.0	7"	5 1/2"	5 1/2"	2 1/2"	-	-	2 1/2"	2 1/2"	-

**ANCHOR SPACING LEGEND**

- (1) Max. ANCHOR SPCG. VALID FOR SPANS OF 7'-6" OR LESS.
- (2) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 7'-6" TO 9'-6".
- (3) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 9'-6" TO Max. ALLOWED.

+ USE ONLY TAPCON ANCHORS AT ALL WALL MOUNT INSTALLATION. USE TAPCON/CALK-IN ANCHORS AT FLOOR/CEILING INSTALLATION. SEE SHEETS 6 OF 6 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS INTO WOOD FRAME BLDGS. 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. (NOTE: Min. E. D. FOR CALK-IN ANCHORS IS 2 1/2"). THIS OPERATION SHALL ONLY BE PERFORMED WHEN REQUIRED SPACING RESULTS INTO A MINIMUM OF 3".

ACTUAL E. D. = EDGE DISTANCE	FACTOR
3"	.86
2 1/2"	.71
2"	.50



S = ANCHOR SPACING GIVEN ON SCHEDULE

**STAGGERED ANCHORS**

ANCHORS USED W/TRACK "A" (TOP & BOTTOM) SHALL BE INSTALLED STAGGERED AT Max. SPACINGS INDICATED ON SCHEDULES.

**TABLE 1:**

MINIMUM SEPARATION "S" BETWEEN GLASS AND SHUTTER FOR A GIVEN SHUTTER SPAN "L", FOR SHUTTERS INSTALLED WITHIN THE FIRST 30'-0" ABOVE GRADE OF A GIVEN BUILDING. 30'-0" ELEVATION SHALL BE MEASURED AT BOTTOM OF SHUTTER. SEPARATION "S" TO BE MEASURED AS INDICATED ON SECTION D, SHEET 4 OF 6.

SHUTTER SPAN "L" (ft.)	MINIMUM SEPARATION "S" (in.)
LESS OR EQUAL THAN 8'-2"	2 5/8"
> 8'-2" TO 12'-11"	3"

\* FOR SHUTTERS INSTALLED WITHIN THE FIRST 30'-0" ELEVATION OF BUILDING. SEE TABLE 1 FOR MINIMUM SEPARATION TO GLASS FOR SPANS SHORTER THAN THE MAXIMUM ALLOWED SHOWN ON SCHEDULE.

\*\* FOR SHUTTERS INSTALLED ABOVE 30'-0" ELEVATION OF BUILDING, MEASURED AT BOTTOM OF SHUTTER.

**TILTECO inc.**  
TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 30th. St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33169  
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EB-0006719  
WALTER A. TILLIT Jr., P. E.  
FLORIDA Lic. # 44167

**SUPER SHUTTER ACCORDION**

**HOMESHIELD STORMGUARD, LLC**

3585 E. 10th. COURT  
HIALEAH, FLORIDA 33013  
PH: (305) 691-2888, FAX: (305) 691-2244

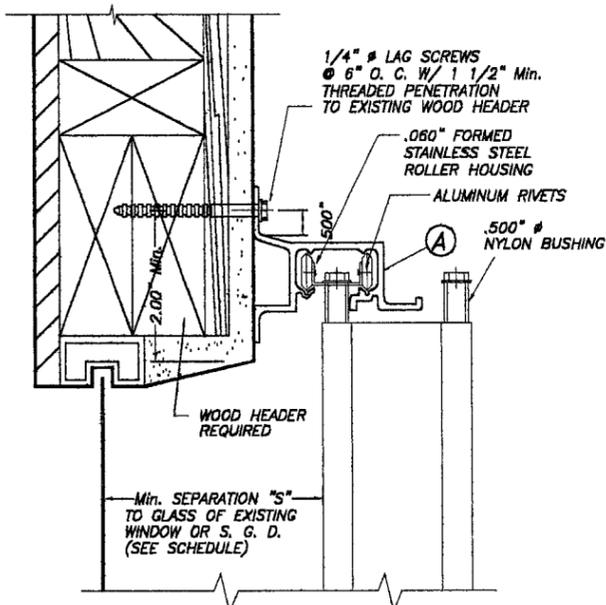
DRAWN BY: J.J.V.

8/22/05 DATE

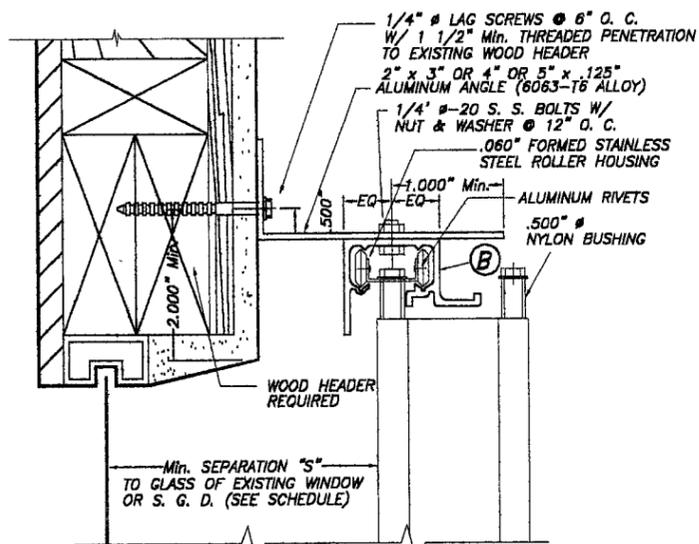
05-182 DRAWING No

SHEET 5 OF 6

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 02-528	8/22/05	3	-	-
2	-	-	4	-	-



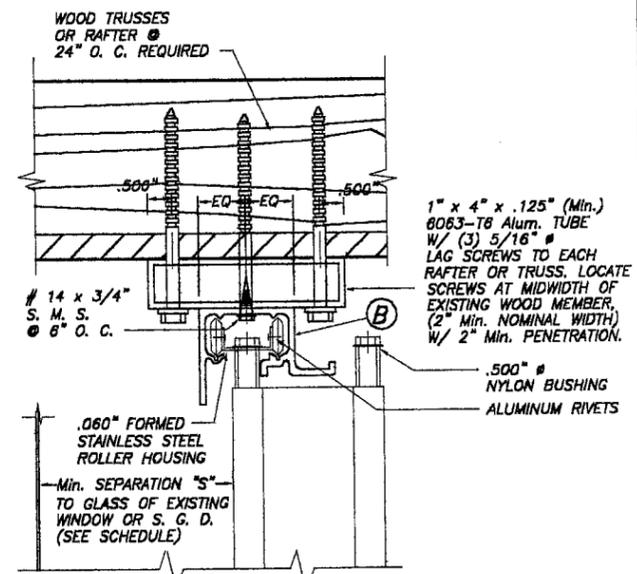
ALTERNATIVE 1



ALTERNATIVE 2

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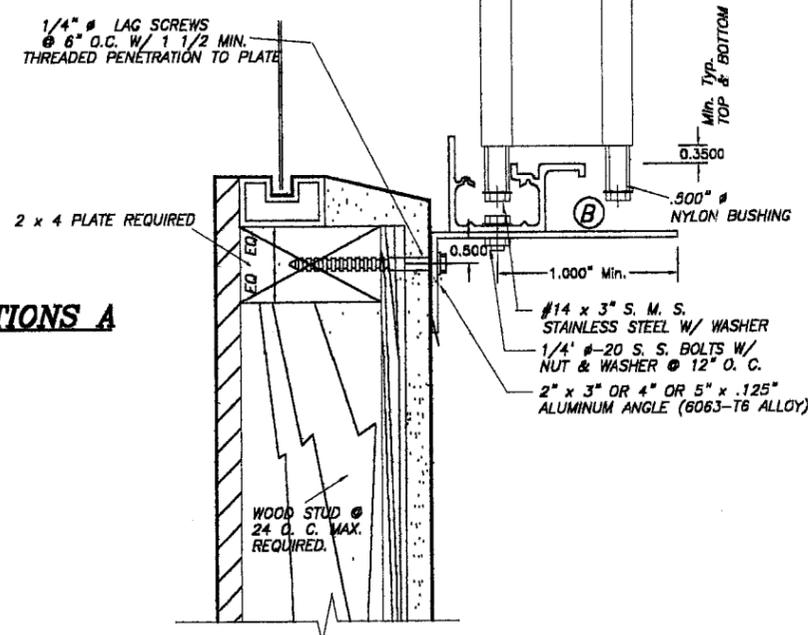
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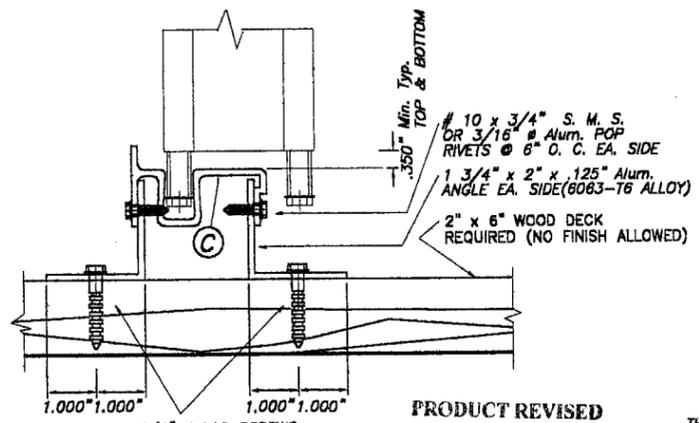
ALTERNATIVE 2 (LIMITED TO +80.0, -66.0 psf DESIGN LOAD)

WALL MOUNTING INSTALLATION - SECTIONS A

SCALE: 3/8" = 1"

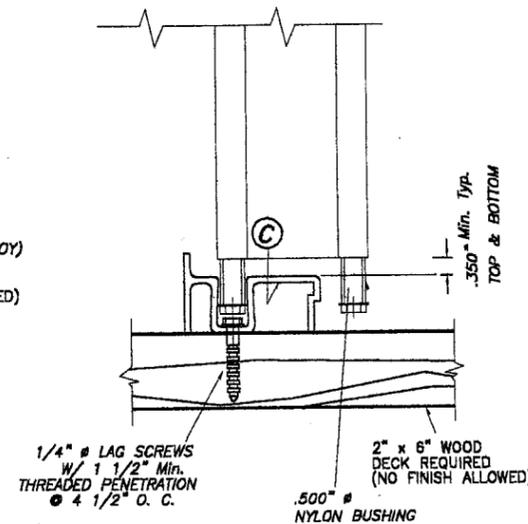


ALTERNATIVE 3



ALTERNATIVE 1

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ALTERNATIVE 3

CEILING/FLOOR MOUNTING INSTALLATION - SECTIONS B

SCALE: 3/8" = 1"

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

- NOTES:
- INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH MAXIMUM DESIGN LOAD LESS THAN OR EQUAL TO 75.0 p.s.f. AND 9'-0" Max. SHUTTER SPAN (EXCEPT AS NOTED).
  - 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.

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS

Handwritten signature and date: 9/8/05

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

<p>TILLIT TESTING &amp; ENGINEERING COMPANY          6355 N.W. 38th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33168          Phone : (305)871-1230 . Fax : (305)871-1231          EB-0006719          WALTER A. TILLIT Jr., P. E.          FLORIDA Lic. # 44167</p>		SUPER SHUTTER ACCORDION		DRAWN BY: J.J.V.	
		<p>HOMESHIELD STORMGUARD, LLC          3585 E. 10th. COURT          HIALEAH, FLORIDA 33013          PH:(305)691-2888, FAX:(305)691-2244</p>		8/22/05 DATE	
		05-182 DRAWING No			
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 02-928	8/22/05	3	-	-
2	-	-	4	-	-