



**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.buildingcodeonline.com](http://www.buildingcodeonline.com)

**NOTICE OF ACCEPTANCE (NOA)**

**Professional Shutters Corporation**  
**18617 S.W. 107 Avenue**  
**Miami, Florida 33157**

**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: "Mid-Rise Bertha" Aluminum Accordion Shutter System**

**APPROVAL DOCUMENT:** Drawing No. 05-237, titled "ASSA / Mid-Rise Bertha Accordion Shutter", sheets 1 through 9 of 9, and sheet 1A of 9, prepared by Tiltco, Inc., dated August 08, 2005, last revision #1 dated August 08, 2005, signed and sealed by Walter A. Tillit Jr., P.E. bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and Expiration date by 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 **revises NOA # 02-0313.04** and consists of this page 1, evidence submitted pages E-1 & E-2 as well as approval document mentioned above.

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



*Helmy A. Makar*  
 12/01/2005

**NOA No 05-1003.12**  
**Expiration Date: 03/13/2007**  
**Approval Date: 12/01/2005**

**Professional Shutters Corporation**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 99-0331.03**

**A. DRAWINGS**

1. *Drawing prepared by Tilteco Inc., titled "ASSA/Economy Accordion Shutter," Drawing No. 98-20, dated January 20, 1998, sheets 1 through 9 of 9, signed and sealed by Walter A. Tillit, Jr., P.E.*

**B. TESTS**

1. *See Association's generic approval under 96-0091.*

**C. CALCULATIONS**

1. *See Association's generic approval under 96-0091.*

**D. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 96-0091.*

**E. STATEMENTS**

1. *Release letter issued by the American Shutter Systems Association, Inc., dated March 24, 1999, certifying this product to meet the criteria of product tested and approved, and allowing Professional's Awning & Installation, Inc., to use the test results approved under Dade County Approval No. 96-0091, signed by Mr. John J. Cooper.*
2. *Acknowledgment letter by Professional's Awnings & Installation, Inc., dated April 22, 1998, signed by Mr. J. L. Vengho.*
3. *Letter by Tilteco Inc., dated March 15, 1999, certifying that Walter A. Tillit, P.E. is still in the engineering business, signed by Walter A. Tillit, P.E.*
4. *Letter issued to Mr. James Lee Vengho on March 16, 1999 signed by Mr. James Lee Vengho, indicating that the product has not changed since it was last approved.*

**F. OTHER**

1. *This approval renews NOA No. 98-0608.15, which was issued on July 30, 1998 with an expiration date of March 13, 1999.*

**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 02-0313.04**

**A. DRAWINGS**

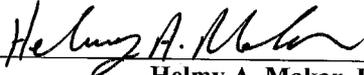
1. *None.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*



Helmy A. Makar, P. E.  
Product Control Examiner  
NOA No 05-1003.12  
Expiration Date: 03/13/2007  
Approval Date: 12/01/2005

**Professional Shutters Corporation**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**D. MATERIAL CERTIFICATIONS**

1. *None.*

**E. STATEMENTS**

1. *Statement letter from Professional Awning & Installation, Inc., dated February 22, 2002, signed by Mr. James L. Vergho, stating that the product has not changed.*
2. *Statement letter from Tilteco, Inc., dated March 08, 2002, signed and sealed by Walter A. Tillit Jr., P.E., stating that he is still in the engineering business.*
3. *Acceptance Letter issued to Mr. James Lee Vengho on April 04, 2002, returned signed by Mr. James Lee Vengho on April 10, 2002, indicating to issue the Notice of Acceptance as presented and reviewed.*

**3. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS:**

1. *Drawing No. 05-237, titled "ASSA / Mid-Rise Bertha Accordion Shutter", sheets 1 through 9 of 9, and sheet 1A of 9, prepared by Tilteco, Inc., dated August 08, 2005, last revision #1 dated August 08, 2005, signed and sealed by Walter A. Tillit Jr., P.E.*

**B. TESTS:**

1. *See Association's generic approval under 05-0236.*

**C. CALCULATIONS:**

1. *See Association's generic approval under 05-0236.*

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATION:**

1. *See Association's generic approval under 05-0236.*

**F. STATEMENTS**

1. *Letter from Tilteco, Inc., dated August 10, 2005, signed and sealed by Walter A. Tillit Jr., P.E., certifying that the drawing (No. 05-237) prepared for Professional Shutters Corporation, signed and sealed by Walter A. Tillit, Jr., P.E., is engineering wise identical to ASSA's generic drawing (No. 05-139).*



Helmy A. Makar, P. E.  
Product Control Examiner  
NOA No 05-1003.12  
Expiration Date: 03/13/2007  
Approval Date: 12/01/2005

**GENERAL NOTES:**

1. ACCORDION SHUTTER SHOWN ON THIS PRODUCT APPROVAL DOCUMENT HAS BEEN VERIFIED FOR CODE COMPLIANCE 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 COMPONENTS AND ANCHORS ON THIS P.A.D. AS TESTED WERE NOT OVER STRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. A DURATION FACTOR CD=1.60 WAS USED FOR VERIFICATION OF FASTENERS IN WOOD. ASSA/MID-RISE BERTHA ACCORDION SHUTTER ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1609.1.4 OF THE ABOVE MENTIONED CODE AS PER ATL REPORT # 0201.01-96 AND 0701.01-05, PER TAS-201, TAS-202 AND TAS-203 PROTOCOLS.

2. STAINLESS STEEL SHEET METAL SCREWS USED AT LOUVER PIN SHALL BE # 10 x 3", 410-HT MINIMUM SERIES W/135.0 ksi YIELD STRENGTH & 180 ksi TENSILE STRENGTH. SCREWS SHALL BE COATED WITH XYLAN 5000 SERIES FLUOROPOLYMER COATINGS AS MANUFACTURED BY WHITFORD Co, BOX 507, WEST CHESTER PA. 19381.

3. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALLOY.

4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 SERIES W/ 50 ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018.

5. ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.

6. BOLTS TO BE A.S.T.M. A-307 GALVANIZED OR AISI 304 SERIES STAINLESS STEEL WITH 35 ksi MINIMUM YIELD STRENGTH.

7. ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)

(A) TO EXISTING POURED CONCRETE:

- 1/4" Ø TAPCON ANCHORS, AS MANUFACTURED BY I.T.W. BUILDEX.
- 1/4" Ø ZAMAC NAILIN ANCHORS, AS MANUFACTURED BY POWERS FASTENERS, INC.
- 1/4" Ø x 7/8" CALK-IN AS MANUFACTURED BY POWERS FASTENERS, INC.

NOTES:

- A.1) MINIMUM EMBEDMENT OF TAPCON AND ZAMAC NAILIN ANCHORS INTO POURED CONCRETE IS 1 3/4".
- A.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" Ø-20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST.
- A.3) IN CASE THAT PRECAST STONE, PRECAST CONCRETE PANELS, OR PAVERS BE FOUND ON THE EXISTING WALL OR FLOOR, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES A.1) & A.2) ABOVE.

(B) TO EXISTING CONCRETE BLOCK WALL:

- 1/4" Ø TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX.
- 1/4" Ø ZAMAC NAILIN ANCHORS AS MANUFACTURED BY POWERS FASTENERS, INC.
- 1/4" Ø x 7/8" CALK-IN AS MANUFACTURED BY POWERS FASTENERS, INC.

NOTES:

- B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS, AND ZAMAC NAILIN ANCHORS INTO THE CONCRETE BLOCK UNIT SHALL BE 1 1/4".
- B.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE CONCRETE. BLOCK UNIT. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" Ø-20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST.
- B.3) IN CASE THAT PRECAST STONE OR PRECAST CONCRETE PANELS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES B.1) & B.2) ABOVE.

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

8. THIS ASSA/MID-RISE BERTHA ACCORDION SHUTTER SYSTEM IS PATENT PENDING. COMPONENTS OF THIS APPROVAL ARE COVERED IN WHOLE OR PART BY U.S. PATENT ISSUED TO EASTERN METAL SUPPLY, INC.

9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE.

10. SHUTTER'S MANUFACTURER LABEL SHALL BE PLACED ON THE EXPOSED SURFACE OF THE FEMALE LOCK SLAT (COMPONENT ①). ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABEL SHALL READ AS FOLLOWS:  
**PROFESSIONAL SHUTTER CO.**  
 MIAMI, FLORIDA  
 MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.

11. (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 PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.

(c) THIS PRODUCT APPROVAL DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.

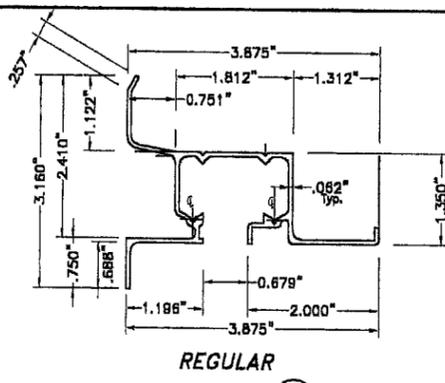
(d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D. ENGINEER OF RECORD, ACTING AS DELEGATED ENGINEER TO THE P.A.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

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

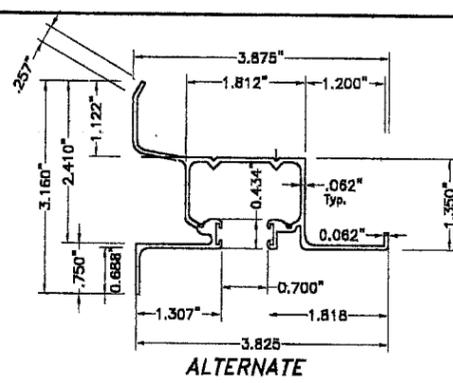
**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
 Acceptance No. 05-1003.12  
 Expiration Date 03/13/2007  
 By Helmut A. Miller  
 Miami Dade Product Control  
 Division

*(Signature)*  
**AUG 11 2005**

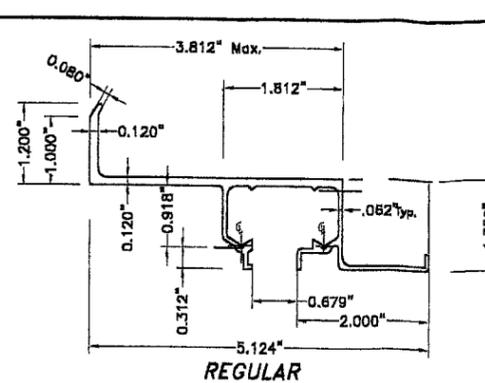
|  |             |   |         |                      |      |              |
|--|-------------|---|---------|----------------------|------|--------------|
| <br>TILLIT TESTING & ENGINEERING COMPANY<br>8398 N.W. 39th St., Ste. 306, VIRGINIA GARDENS, FLORIDA 33166<br>Phone: (305)871-1530 • Fax: (305)871-1531<br>EB-0006719<br>WALTER A. TILLIT Jr., P. E.<br>FLORIDA Lic. # 44167 |             | ASSA/MID-RISE BERTHA ACCORDION SHUTTER  |         | DRAWN BY:<br>J.J.V.  |      |              |
|  |             | PROFESSIONAL SHUTTER CO.<br>(ASSA # 42)<br>18617 SW 107 AVE.<br>MIAMI, FLORIDA 33157<br>PH:(305)278-1408, FAX:(305)278-1403 |         | 8/8/05<br>DATE       |      |              |
|  |             | F.B.C. (High Velocity Hurricane Zone)   |         | 05-237<br>DRAWING No |      |              |
| REV. NO  | DESCRIPTION | DATE  | REV. No | DESCRIPTION          | DATE | SHEET 1 OF 8 |
| 1  | OLD 98-20   | 8/8/05  | 3       | -                    | -    |              |
| 2  | -           | -   | 4       | -                    | -    |              |



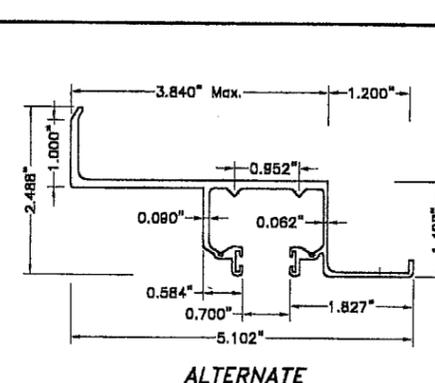
REGULAR



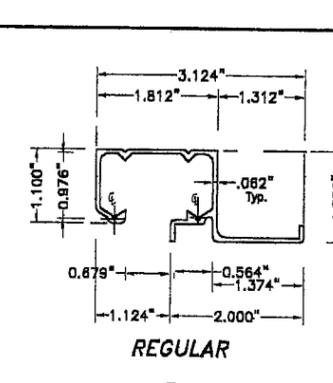
ALTERNATE



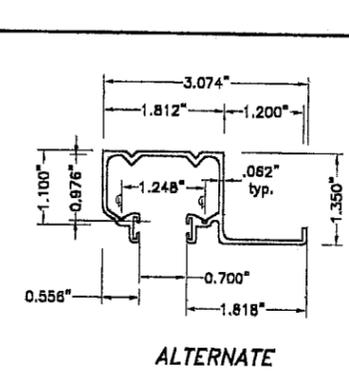
REGULAR



ALTERNATE



REGULAR

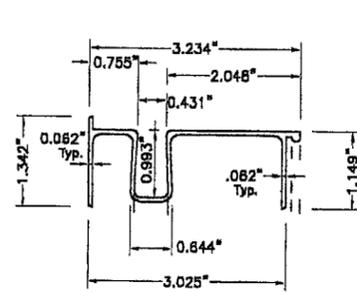


ALTERNATE

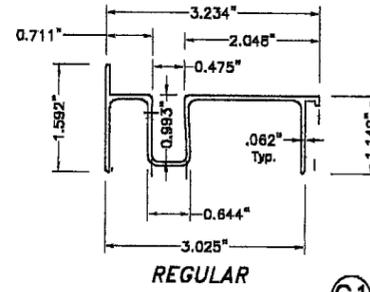
(A) HEADER-WALL MOUNT.  
(A) SILL-WALL MOUNT. (INVERTED USE)  
SCALE: 3/8" = 1"

(A1) HEADERS-WALL MOUNT.  
SCALE: 3/8" = 1"

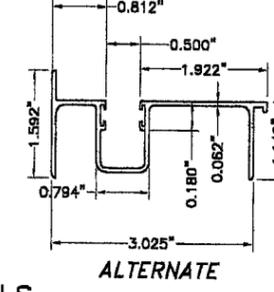
(B) HEADER CEILING MOUNT.  
SCALE: 3/8" = 1"



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

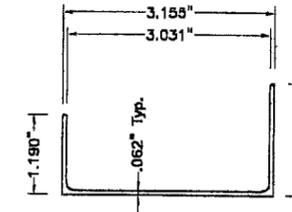


REGULAR

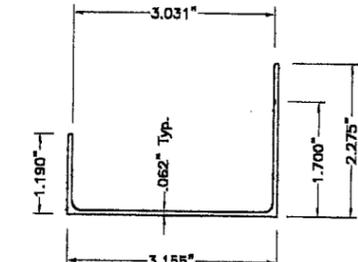


ALTERNATE

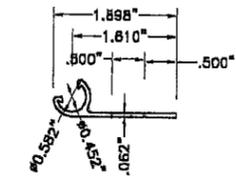
(C1) SILLS  
SCALE: 3/8" = 1"



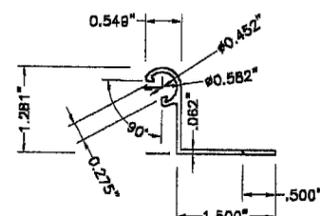
(D) SILL BOTTOM ADAPTER  
SCALE: 3/8" = 1"



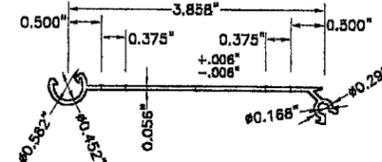
(D1) SILL BOTTOM ADAPTER  
SCALE: 3/8" = 1"



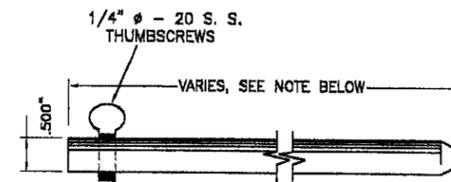
(E) 180° STARTER  
SCALE: 3/8" = 1"



(E1) 90° STARTER  
SCALE: 3/8" = 1"

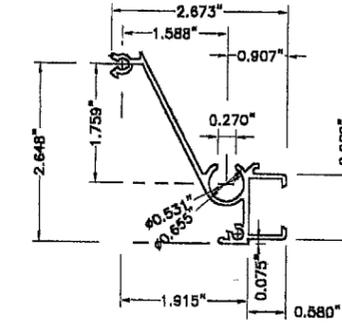


(F) LOUVER BLADE  
SCALE: 3/8" = 1"  
COVERED UNDER US PATENT # 5458179

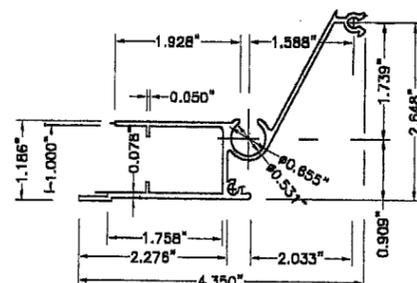


(G) LOCKING PIN  
SCALE: 3/8" = 1"

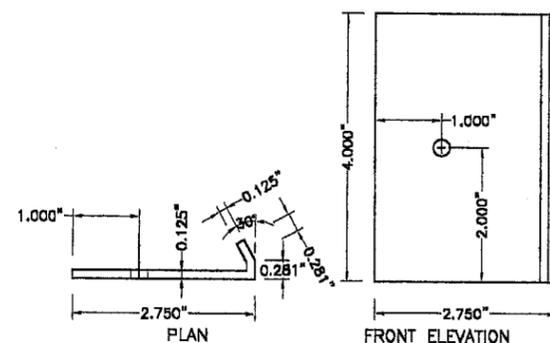
12" Min. FOR UP TO 9'-0" SHUTTER  
BLADE LENGTHS AND 24" Min. FOR  
SHUTTER BLADE LENGTHS GREATER THAN  
9'-0".



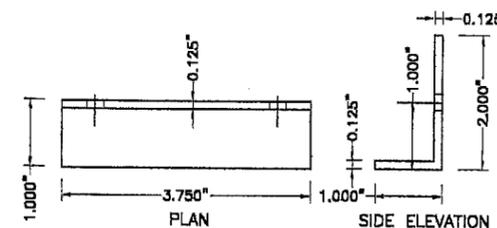
(H) MALE LOCK SLAT  
SCALE: 3/8" = 1"



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

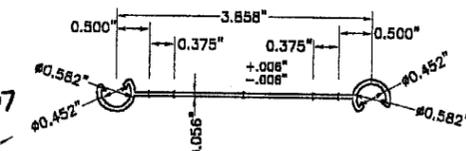


(J) OUTSIDE LOCKER # 1  
SCALE: 3/8" = 1"



(K) INSIDE LOCKER # 2  
SCALE: 3/8" = 1"

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 05-1003.12  
Expiration Date 03/13/2007  
By *Helmut A. Metter*  
Miami Dade Product Control  
Division



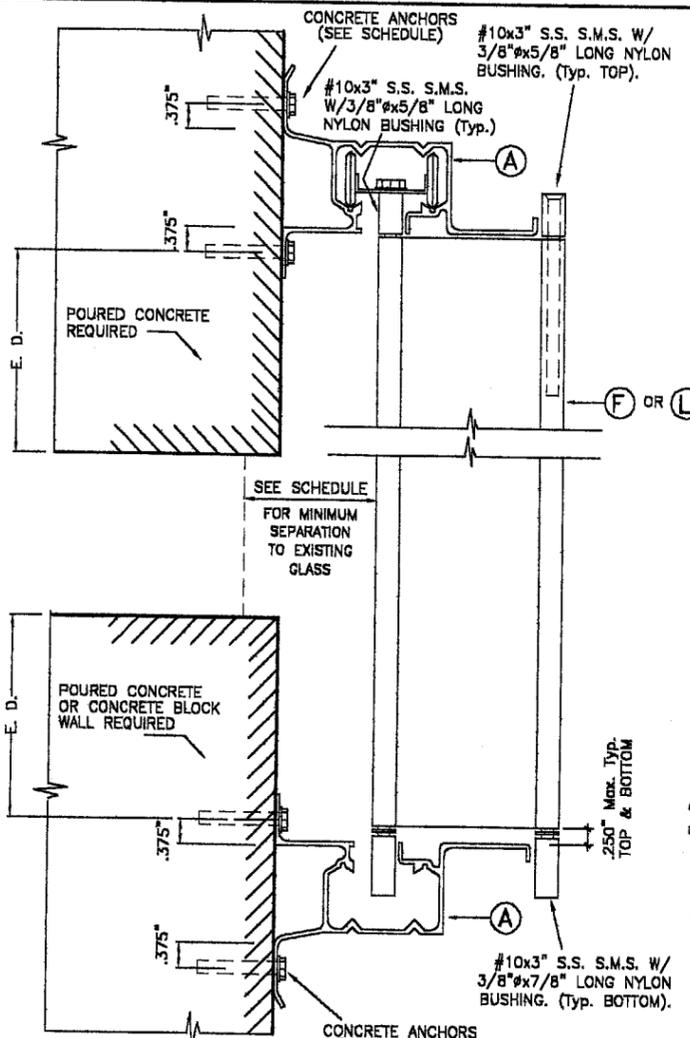
(L) FEMALE/FEMALE  
ECONO BLADE  
SCALE: 3/8" = 1"

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

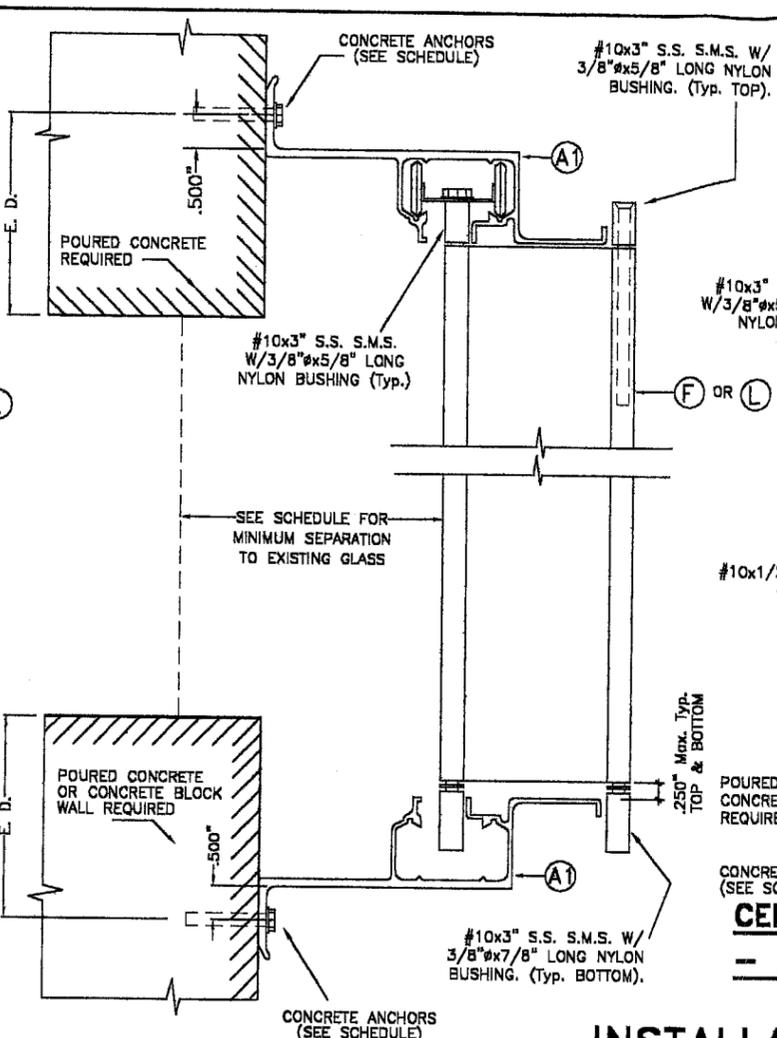
COMPONENTS

AUG 11 2005

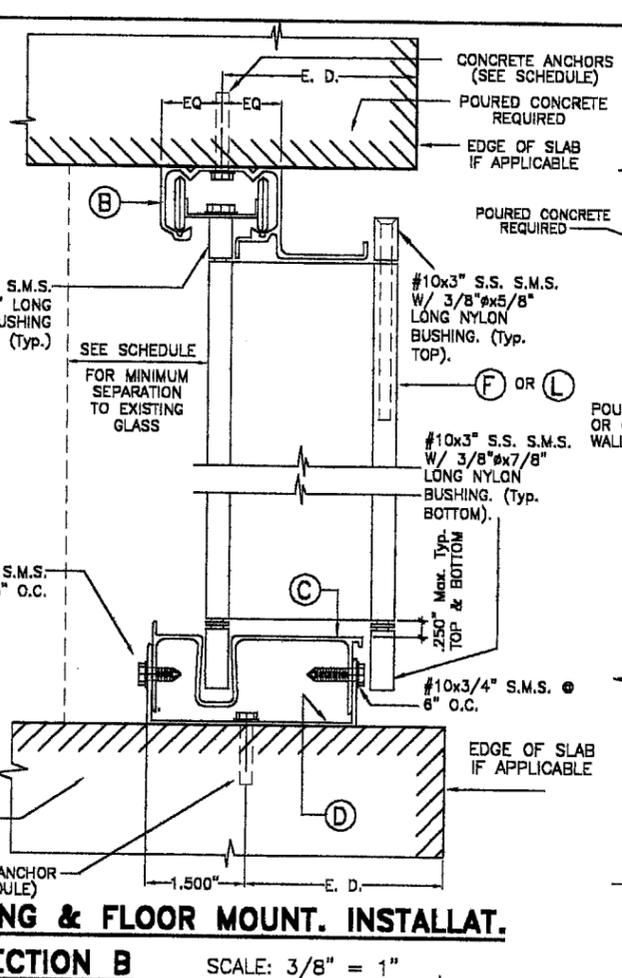
|   |             |   |                     |             |      |                      |
|---|-------------|---|---------------------|-------------|------|----------------------|
| <p>TILLIT TESTING &amp; ENGINEERING COMPANY<br/>8335 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33168<br/>Phone: (305)871-1830 Fax: (305)871-1831<br/>EB-0006719<br/>WALTER A. TILLIT Jr., P. E.<br/>FLORIDA Lic. # 44167</p> |             | ASSA/MID-RISE BERTHA ACCORDION SHUTTER  | DRAWN BY:<br>J.J.V. |             |      |                      |
|   |             | <p>PROFESSIONAL SHUTTER CO.<br/>(ASSA # 42)</p> <p>18817 SW 107 AVE.<br/>MIAMI, FLORIDA 33157<br/>PH:(305)278-1408, FAX:(305)278-1403</p> | 8/8/05<br>DATE      |             |      |                      |
| REV. NO   | DESCRIPTION | DATE  | REV. NO             | DESCRIPTION | DATE | 05-237<br>DRAWING No |
| 1   | OLD 98-20   | 8/8/05  | 3                   | -           | -    |                      |
| 2   | -           | -   | 4                   | -           | -    | SHEET 1A OF 9        |



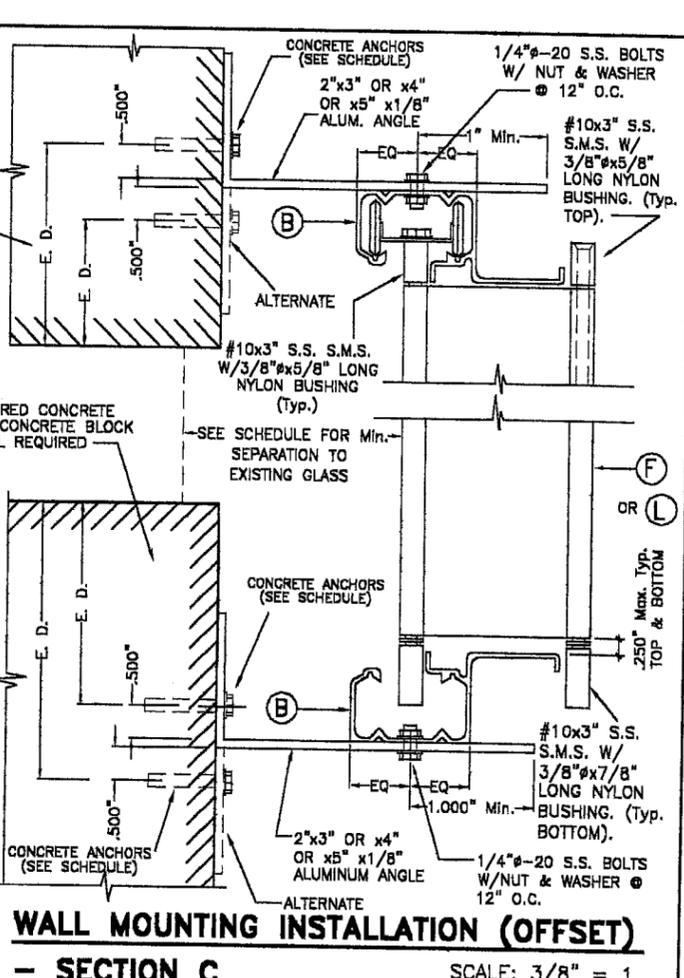
**WALL MOUNTING INSTALLATION**  
- SECTION A SCALE: 3/8" = 1"



**WALL MOUNTING INSTALLATION**  
- SECTION A1 SCALE: 3/8" = 1"

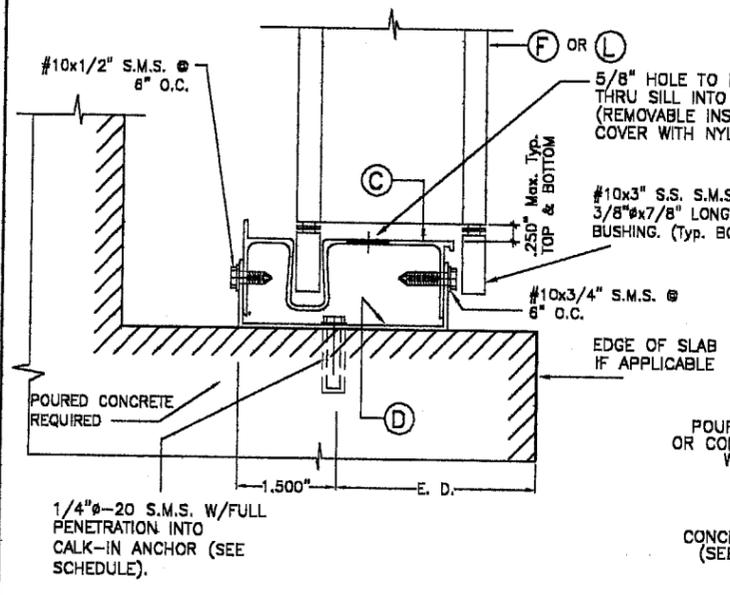


**CEILING & FLOOR MOUNT. INSTALLAT.**  
- SECTION B SCALE: 3/8" = 1"

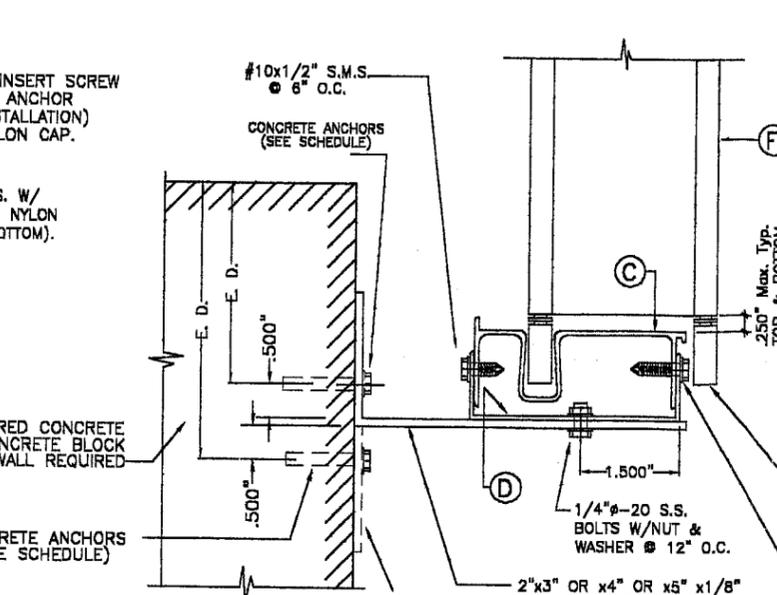


**WALL MOUNTING INSTALLATION (OFFSET)**  
- SECTION C SCALE: 3/8" = 1"

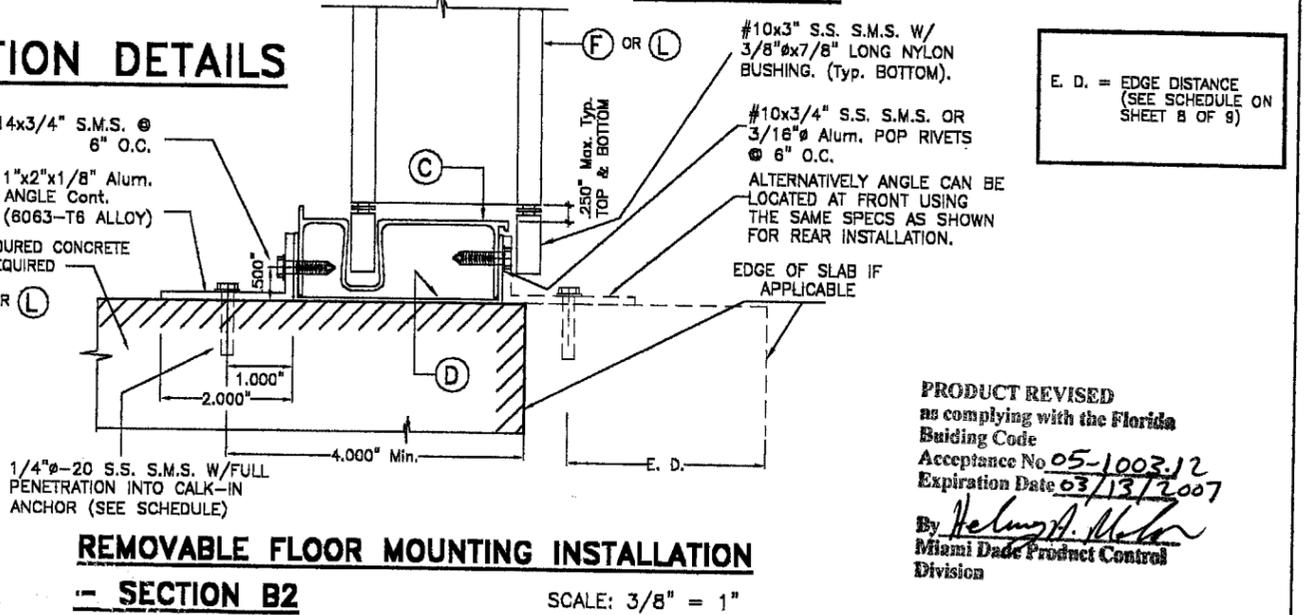
**INSTALLATION DETAILS**



**REMOVABLE FLOOR MOUNTING INSTALLATION**  
- SECTION B1 SCALE: 3/8" = 1"



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



**REMOVABLE FLOOR MOUNTING INSTALLATION**  
- SECTION B2 SCALE: 3/8" = 1"

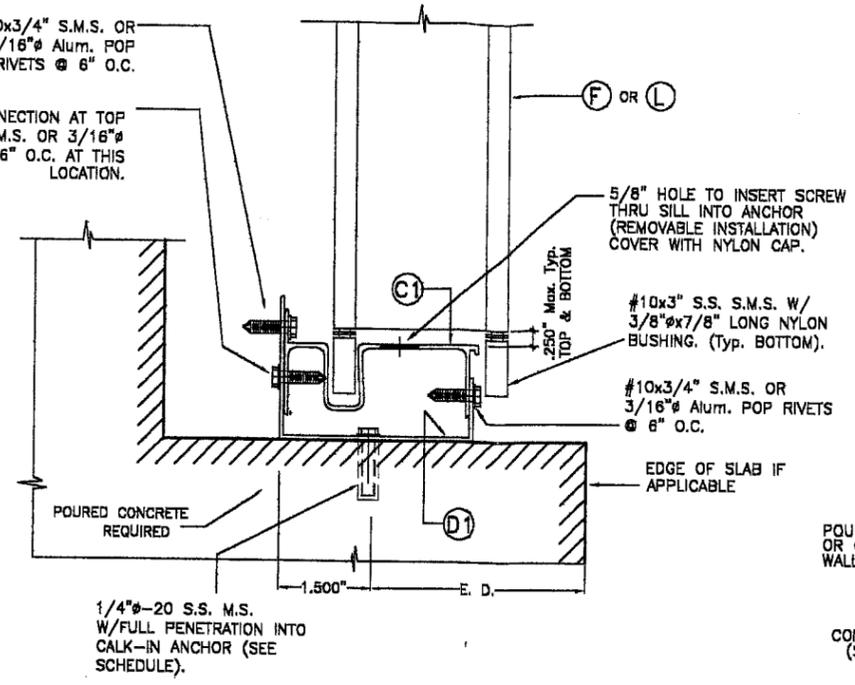
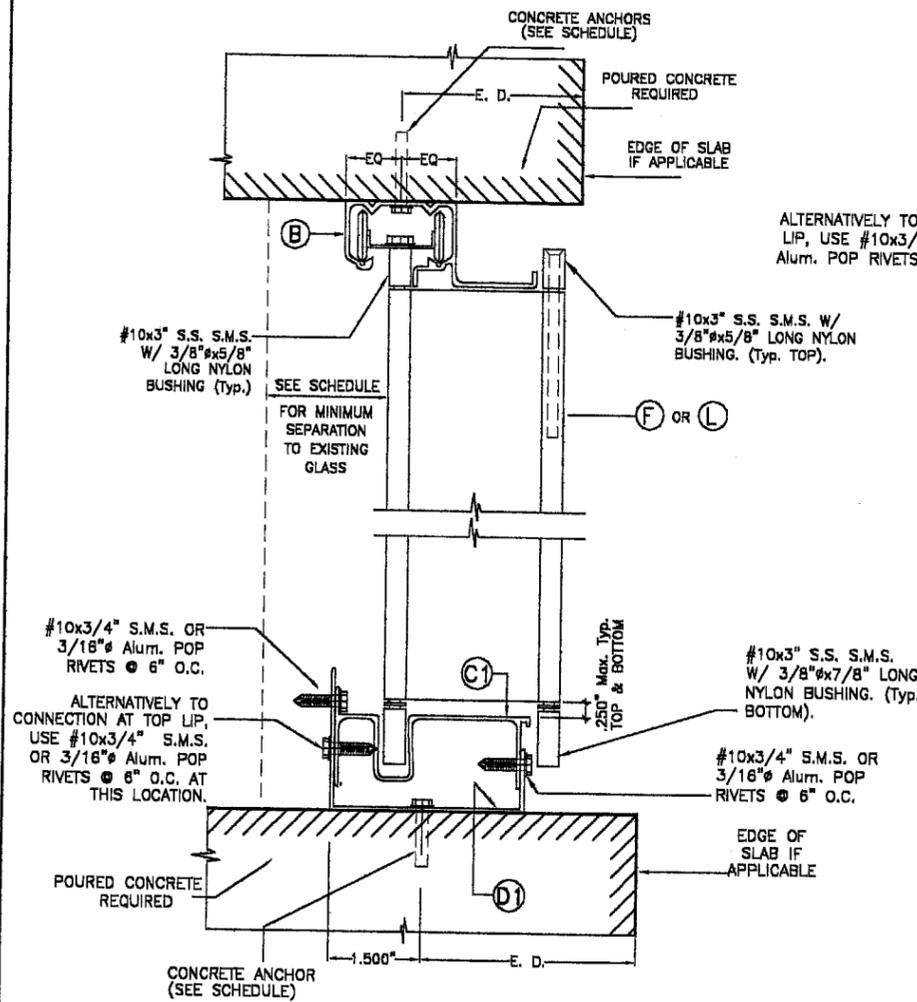
E. D. = EDGE DISTANCE (SEE SCHEDULE ON SHEET B OF 9)

PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No 05-1003.12  
Expiration Date 03/13/2007  
By *Walter A. Tillit Jr.*  
Miami Dade Product Control Division

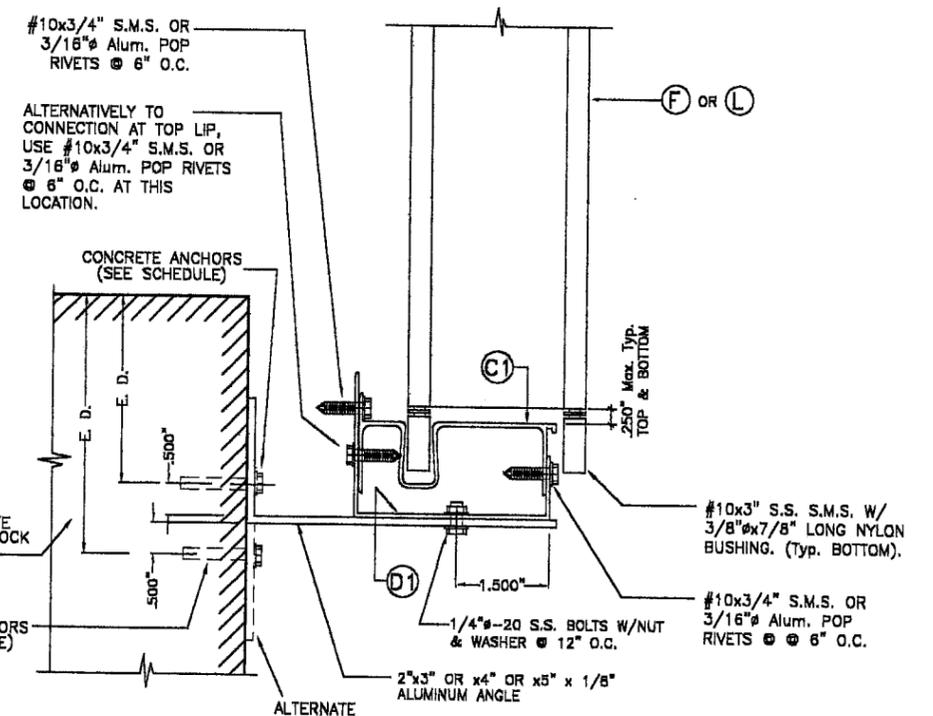
F.B.C. (High Velocity Hurricane Zone)

|   |  |   |  |                        |
|---|--|---|--|------------------------|
| <p>TILLIT TESTING &amp; ENGINEERING COMPANY<br/>5355 N.W. 36th St., Ste. 309, VIRGINIA GARDENS, FLORIDA 33168<br/>Phone: (305) 871-1530 Fax: (305) 871-1531<br/>EB-0006719<br/>WALTER A. TILLIT JR., P. E.<br/>FLORIDA Lic. # 44167</p> |  | ASSA/MID-RISE BERTHA ACCORDION SHUTTER  |  | DRAWN BY:<br>J.J.V.    |
|   |  | <p>PROFESSIONAL SHUTTER CO.<br/>(ASSA # 42)</p> <p>18617 SW 107 AVE.<br/>MIAMI, FLORIDA 33157<br/>PH:(305)278-1408, FAX:(305)278-1403</p> |  | 8/8/05<br>DATE         |
| <p>REV. NO. DESCRIPTION DATE REV. No. DESCRIPTION DATE</p> <p>1 OLD 98-20 8/8/05 3 - - -</p> <p>2 - - - 4 - - -</p>   |  | 05-237<br>DRAWING No  |  | 05-237<br>SHEET 2 OF 9 |

AUG 11 2005

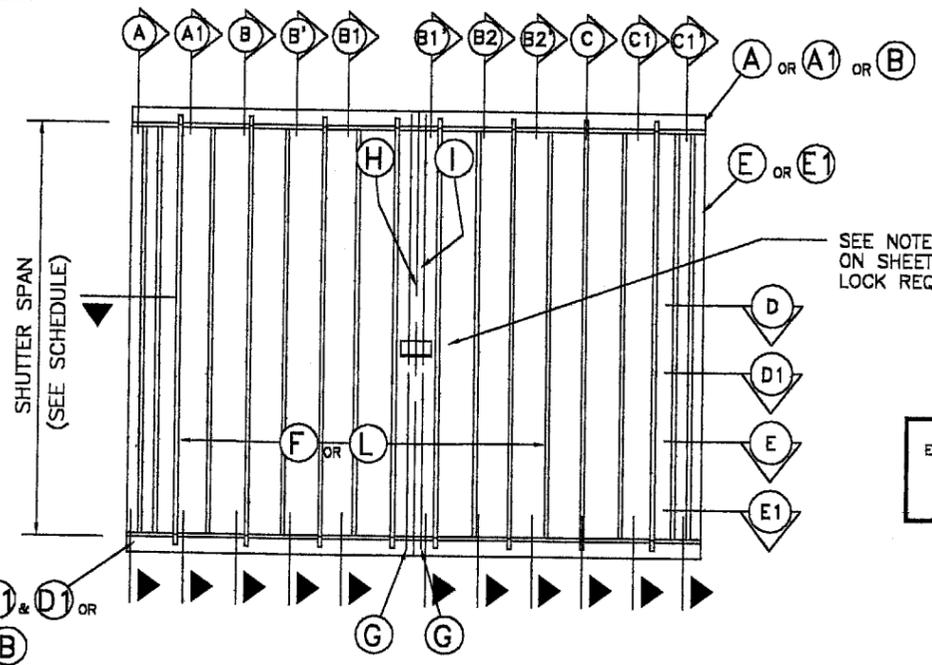


**REMOVABLE FLOOR MOUNTING INSTALLATION**  
- SECTION B1' SCALE: N.T.S.



**WALL MOUNTING INSTALLATION (OFFSET)**  
- SECTION C1' SCALE: N.T.S.

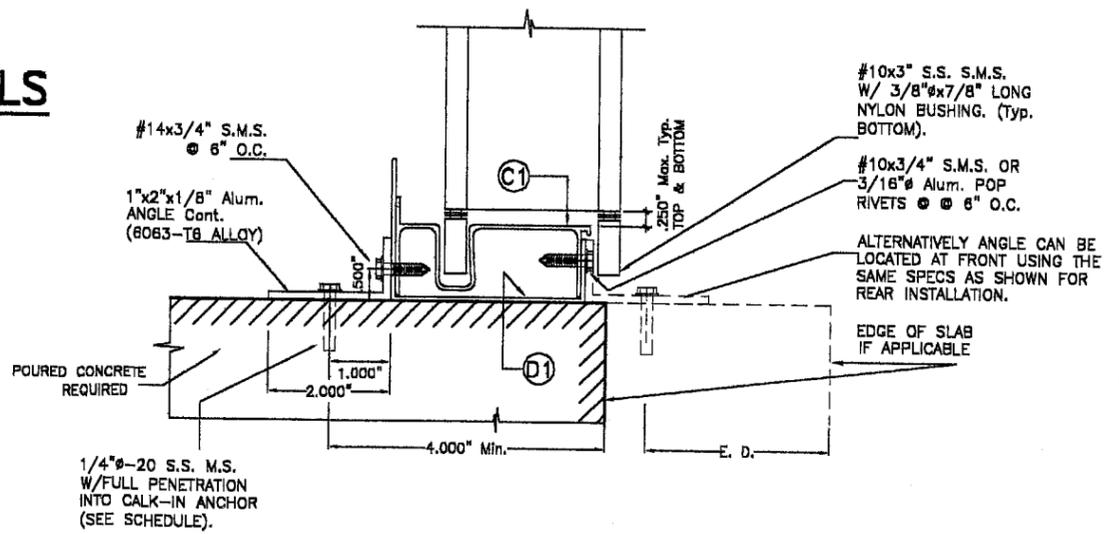
**CEILING & FLOOR MOUNTING INSTALLATION**  
- SECTION B' SCALE: N.T.S.



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

E. D. = EDGE DISTANCE (SEE SCHEDULE ON SHEET 9 OF 9)

**INSTALLATION DETAILS**

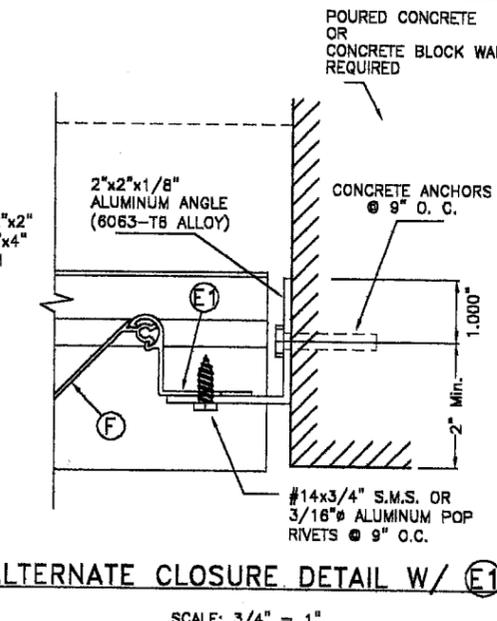
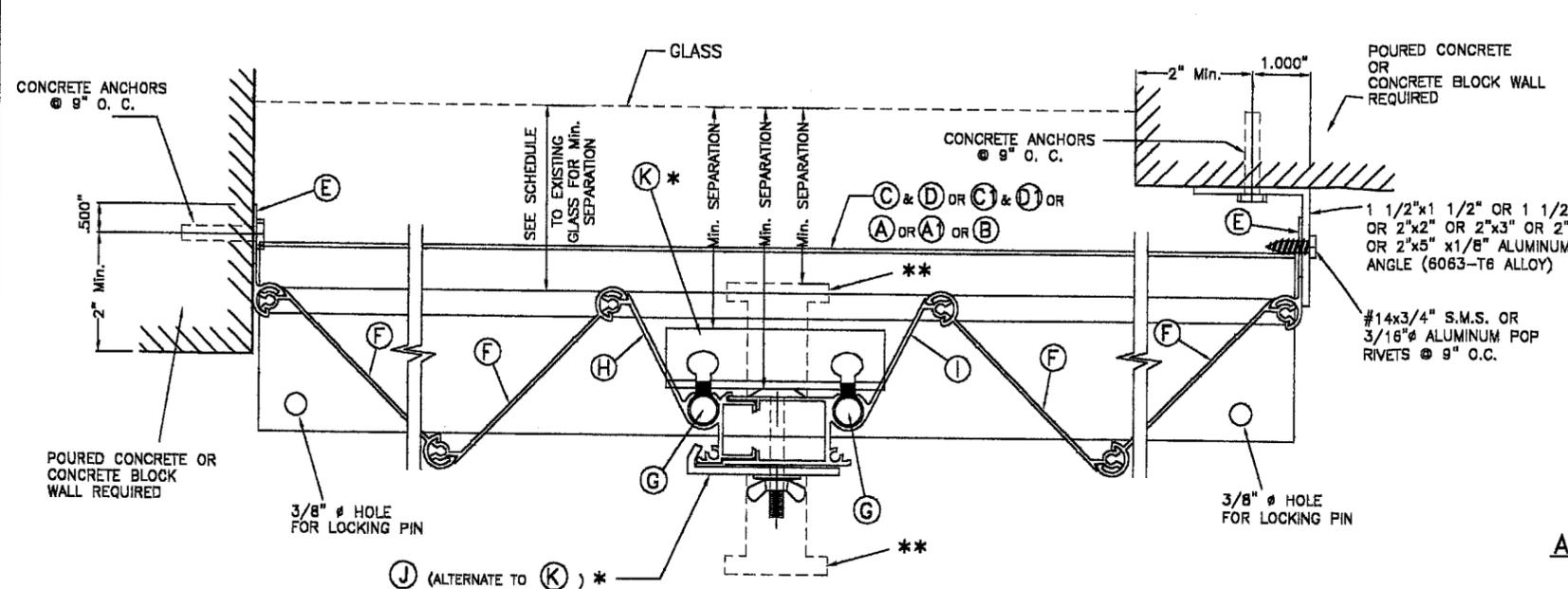


**REMOVABLE FLOOR MOUNTING INSTALLATION**  
- SECTION B2' SCALE: N.T.S.

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 05-1003.12 Expiration Date 03/13/2007  
By *Helmy H. Akbar*  
Miami Dade Product Control Division

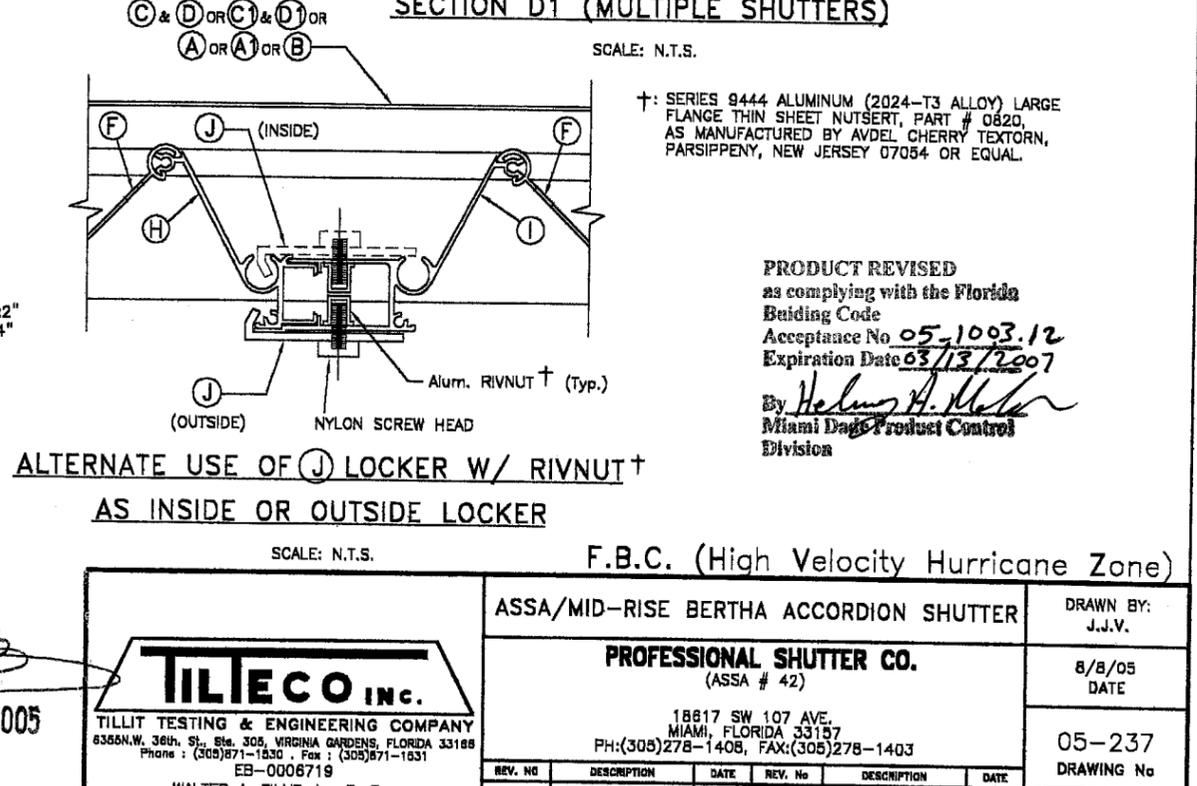
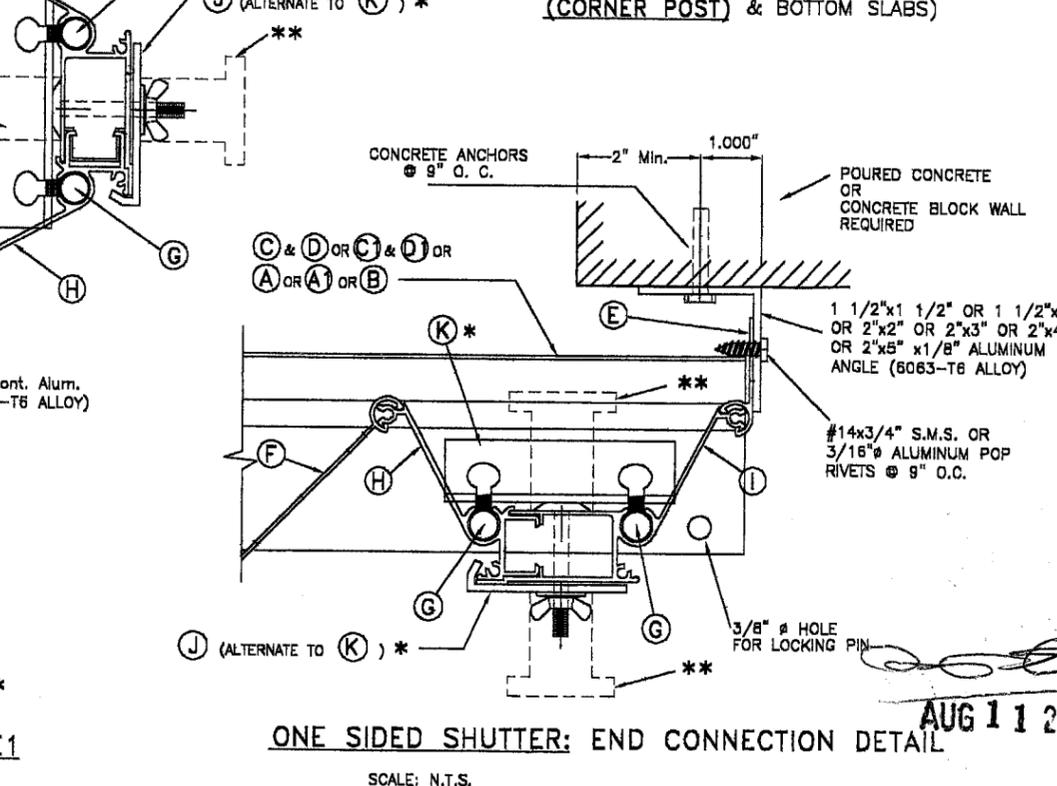
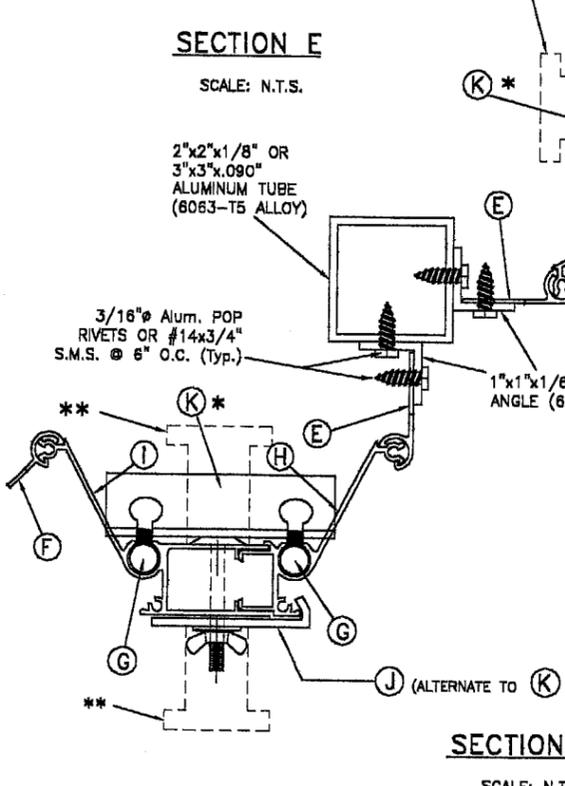
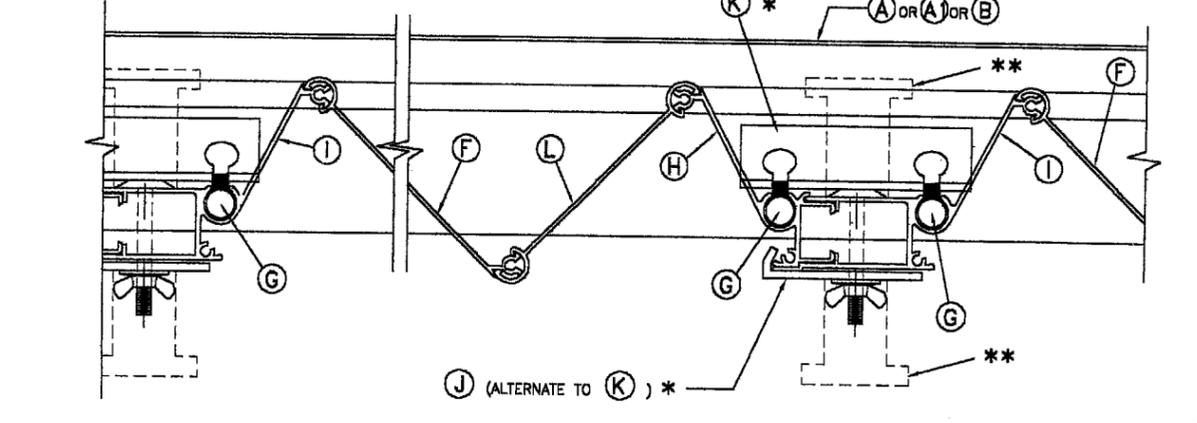
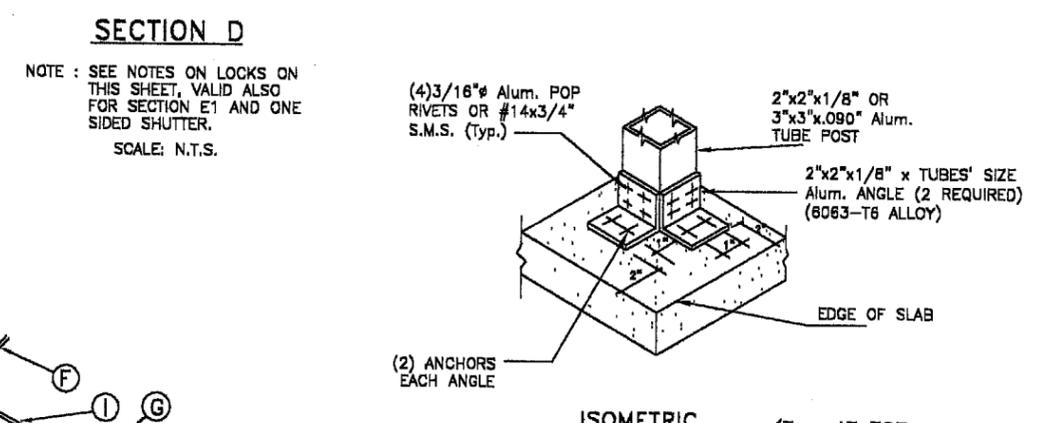
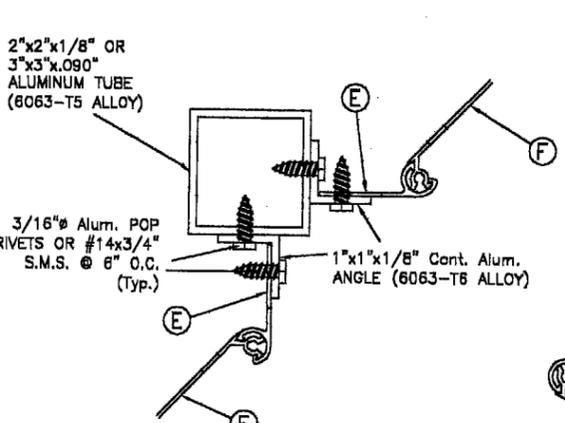
F.B.C. (High Velocity Hurricane Zone)

|   |  |   |  |                   |  |
|---|--|---|--|-------------------|--|
| <p>TILLIT TESTING &amp; ENGINEERING COMPANY<br/>6355N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33166<br/>Phone: (305)871-1530, Fax: (305)871-1531<br/>EB-0006719<br/>WALTER A. TILLIT Jr., P. E.<br/>FLORIDA Lic. # 44167</p> |  | ASSA/MID-RISE BERTHA ACCORDION SHUTTER  |  | DRAWN BY: J.J.V.  |  |
|   |  | <p>PROFESSIONAL SHUTTER CO.<br/>(ASSA # 42)</p> <p>18617 SW 107 AVE.<br/>MIAMI, FLORIDA 33157<br/>PH:(305)278-1408, FAX:(305)278-1403</p> |  | 8/8/05 DATE       |  |
| <p>AUG 11 2005</p>  |  | <p>REV. NO DESCRIPTION DATE REV. No DESCRIPTION DATE</p> <p>1 OLD 88-20 8/8/05 3 - -</p> <p>2 - - - 4 - -</p>                             |  | 05-237 DRAWING No |  |
|   |  |   |  | SHEET 3 OF 9      |  |



**NOTES ON LOCKS:**

- \* INSIDE LOCKER (K) OR OUTSIDE LOCKER (J) SHALL ALWAYS BE USED FOR ANY SPAN AT INSTALLATIONS WITHIN THE FIRST 30 FEET OF BUILDING, AND FOR SHUTTER SPANS GREATER THAN 8'-0", FOR INSTALLATIONS ABOVE 30 FEET ELEVATION OF BUILDING MEASURED AT BOTTOM OF SHUTTER. INSIDE LOCKER (K) SHALL BE ATTACHED TO (H) & (I) BY MEANS OF 2 THUMB SCREWS ONLY WHEN USING (K) LOCKER. OUTSIDE LOCKER (J) MAY BE USED AS AN INSIDE LOCKER IF ATTACHED TO (H) & (I) W/ 1/4"-20x1" LONG S.S. THREADED BOLT W/ 1/4"-20x5/8" INTERNALLY THREADED ALUMINUM RIVNUT. SEE INSTALLATION DETAIL ON THIS SHEET. OUTSIDE LOCKER (J) SHALL BE ATTACHED THRU (H) & (I) W/ 1/4"-20 S.S. SIDEWALK BOLT W/ 7/8" WING NUT OR W/ 1/4"-20x1" LONG S.S. THREADED BOLT W/ 1/4"-20x5/8" INTERNALLY THREADED ALUMINUM RIVNUT. SEE INSTALLATION DETAIL ON THIS SHEET.
- \*\* a). FOR INSTALLATIONS WITHIN THE FIRST 30 FEET ELEVATION OF BUILDING MEASURED AT BOTTOM OF SHUTTER AND IN ADDITION TO EITHER (K) OR (J) USED LOCKERS, A REGULAR T LOCK MAY BE USED FOR SECURITY PURPOSES AT ANY DESIRED LOCATION OF CENTERMATE (INSIDE OR OUTSIDE). WHEN USED INSIDE, MINIMUM SEPARATION TO GLASS SHALL ALSO BE VERIFIED FROM THE TIP OF SUCH T LOCK OR FROM THE OTHER SHUTTER COMPONENTS SHOWN ON SECTION D (WHICHEVER IS MORE CRITICAL). b). FOR INSTALLATIONS ABOVE 30 FEET ELEVATION OF BUILDING MEASURED AT BOTTOM OF SHUTTER AND SHUTTER SPANS UP TO 8'-0", ONE T LOCK MAY BE USED IN LIEU OF LOCKERS (K) OR (J) AT MIDSPAN OF CENTERMATE FACING OUTSIDE OR INSIDE. WHEN USED INSIDE, MINIMUM SEPARATION TO GLASS SHALL ALSO BE VERIFIED FROM THE TIP OF SUCH T LOCK OR FROM THE OTHER SHUTTER COMPONENTS SHOWN ON SECTION D (WHICHEVER IS MORE CRITICAL).



†: SERIES 9444 ALUMINUM (2024-T3 ALLOY) LARGE FLANGE THIN SHEET NUTSERT, PART # 0820, AS MANUFACTURED BY AVEL CHERRY TEXTON, PARSIPPANY, NEW JERSEY 07054 OR EQUAL.

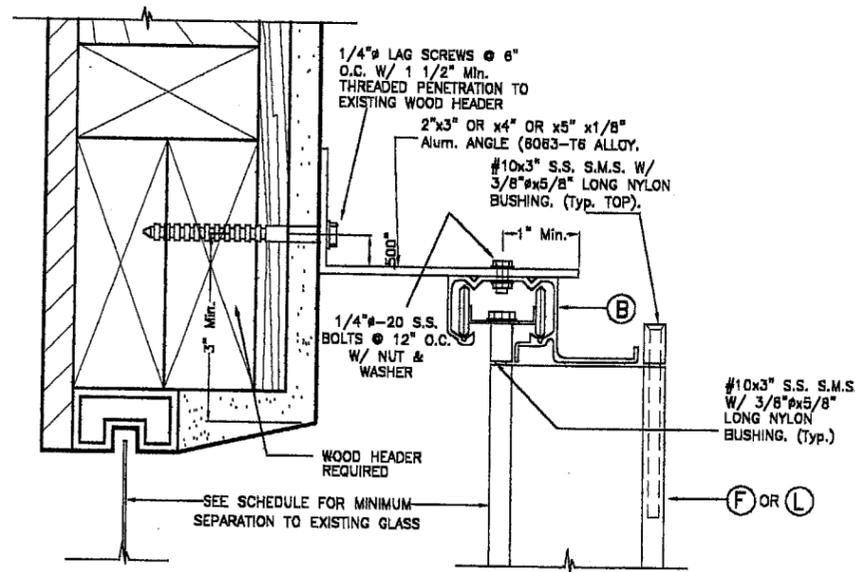
**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No 05-1003.12  
 Expiration Date 03/13/2007  
 By *Helmut H. Miller*  
 Miami Dade Product Control Division

AUG 11 2005

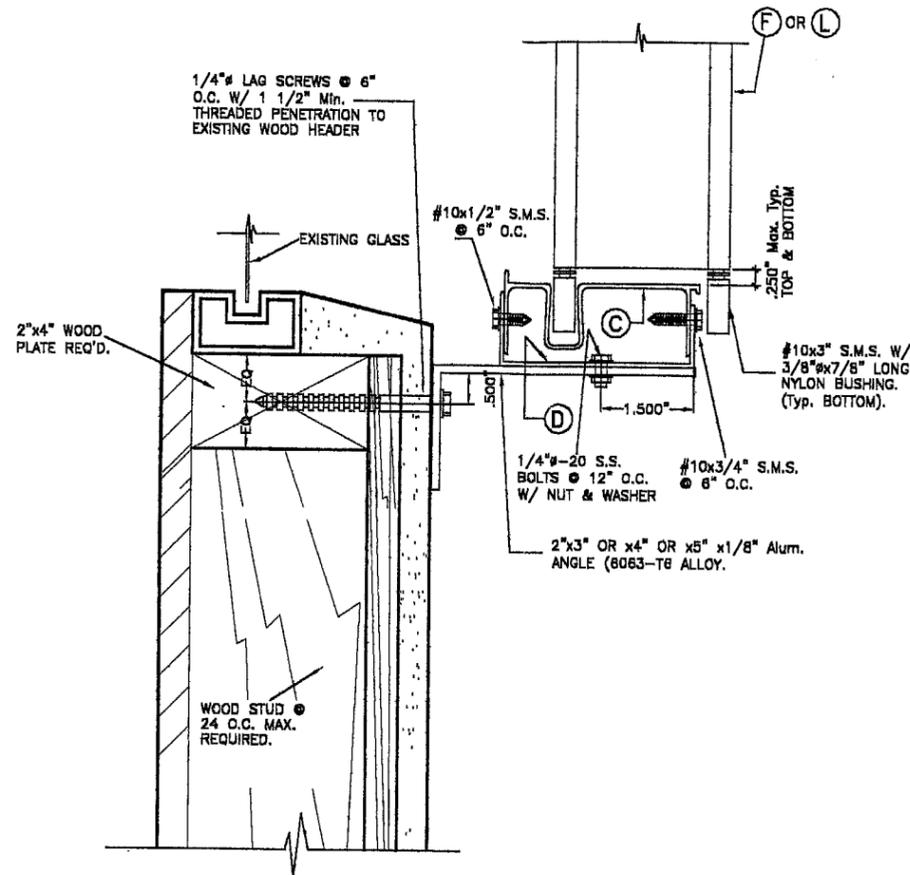
|   |             |  |         |                      |      |
|---|-------------|--|---------|----------------------|------|
|   |             | <b>ASSA/MID-RISE BERTHA ACCORDION SHUTTER</b>                                    |         | DRAWN BY:<br>J.J.V.  |      |
| TILLIT TESTING & ENGINEERING COMPANY<br>6366N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33189<br>Phone: (305)871-1830 Fax: (305)871-1831<br>EB-0006719 |             | <b>PROFESSIONAL SHUTTER CO.</b><br>(ASSA # 42)                                   |         | 8/8/05<br>DATE       |      |
| WALTER A. TILLIT Jr., P. E.<br>FLORIDA Lic. # 44167   |             | 18817 SW 107 AVE.<br>MIAMI, FLORIDA 33157<br>PH:(305)278-1408, FAX:(305)278-1403 |         | 05-237<br>DRAWING No |      |
| REV. NO   | DESCRIPTION | DATE   | REV. No | DESCRIPTION          | DATE |
| 1   | OLD 98-20   | 8/8/05   | 3       | -                    | -    |
| 2   | -           | -  | 4       | -                    | -    |

SHEET 4 OF 9

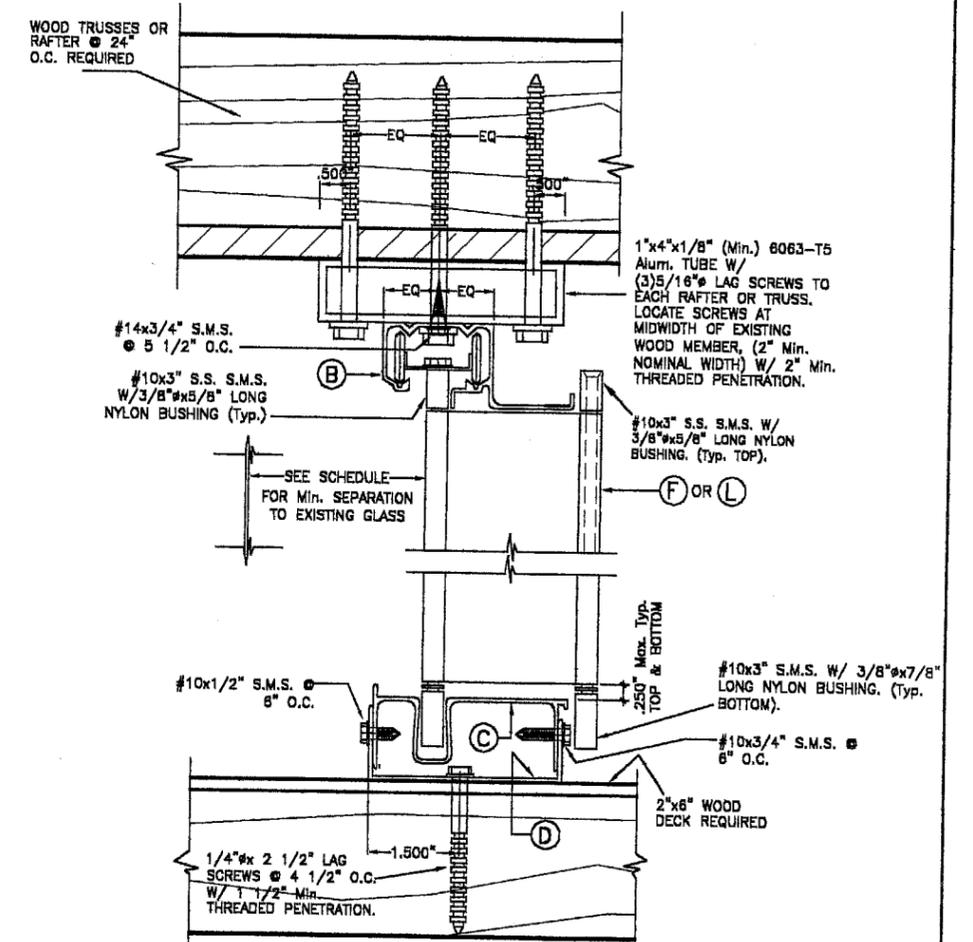
# INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS



**ALTERNATIVE 1**



**ALTERNATIVE 2**



**CEILING & FLOOR MOUNTING INSTALLATION**

**- SECTION B**

SCALE: N.T.S.

**NOTES:**

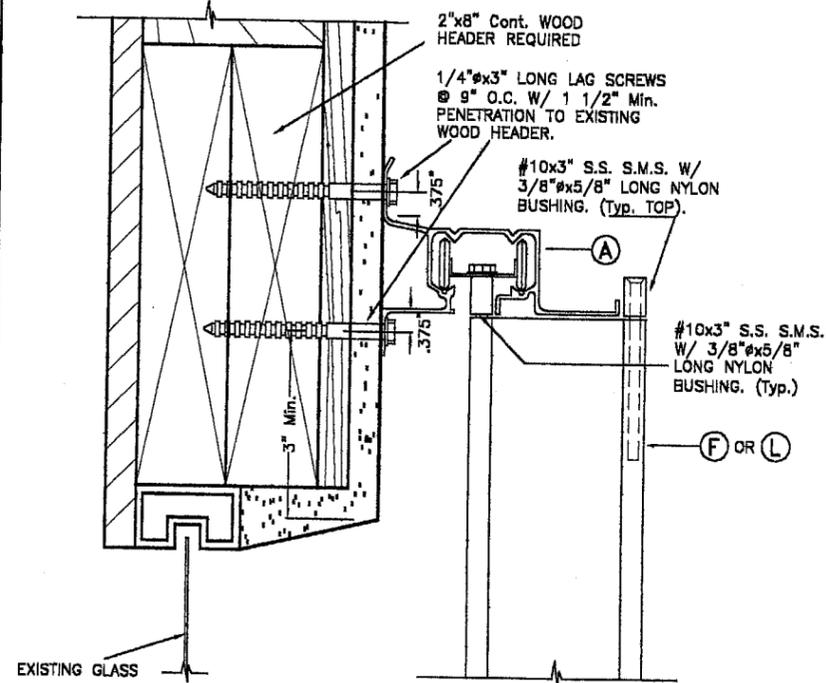
1. INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH DESIGN LOAD UP TO 75.3 p.s.f. AND 9'-0" Max. SHUTTER SPAN.
2. NEW 2" x 6" P. T. TO BE SOUTHERN PINE No. 2, SURFACED DRY WITH 19 % M. M. C. W/ SPECIFIC DENSITY OF 0.55.
3. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 05-1003.12  
Expiration Date 03/13/2007  
By *Walter A. Tillit Jr.*  
Miami Dade Product Control  
Division

AUG 1 1 2005

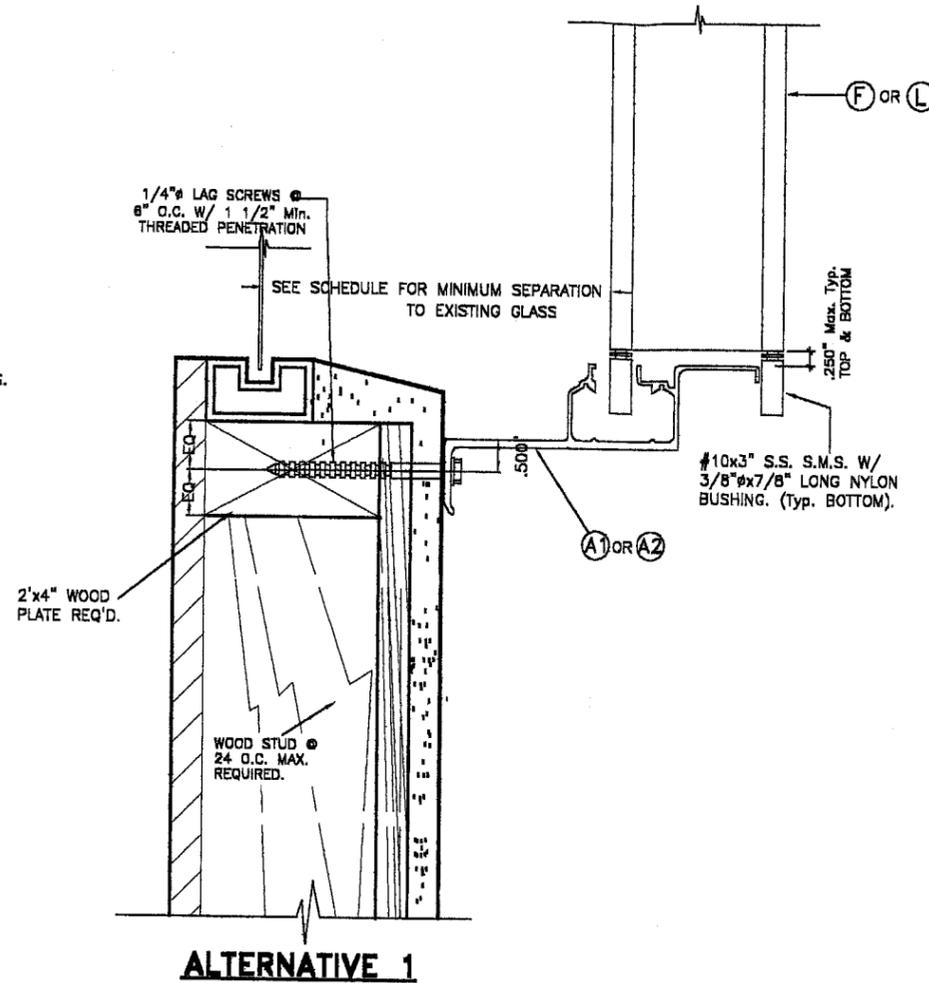
|  |  |  |  |
|--|--|--|--|
| <b>TILECO Inc.</b>   |  | F.B.C. (High Velocity Hurricane Zone)  |  |
| TILLIT TESTING & ENGINEERING COMPANY<br>6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33166<br>Phone: (305) 871-1530 Fax: (305) 871-1931<br>EB-0006719 |  | ASSA/MID-RISE BERTHA ACCORDION SHUTTER |  |
| WALTER A. TILLIT Jr., P. E.<br>FLORIDA Lic. # 44167  |  | DRAWN BY:<br>J.J.V.                    |  |
| 18617 SW 107 AVE.<br>MIAMI, FLORIDA 33157<br>PH:(305)278-1408, FAX:(305)278-1403   |  | 8/8/05<br>DATE                         |  |
| PROFESSIONAL SHUTTER CO.<br>(ASSA # 42)  |  | 05-237<br>DRAWING No                   |  |
| REV. NO. DESCRIPTION DATE REV. No. DESCRIPTION DATE  |  | SHEET 5 OF 9                           |  |
| 1 OLD 98-20 8/8/05 3 - -   |  |  |  |
| 2 - - - 4 - -  |  |  |  |

# INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS

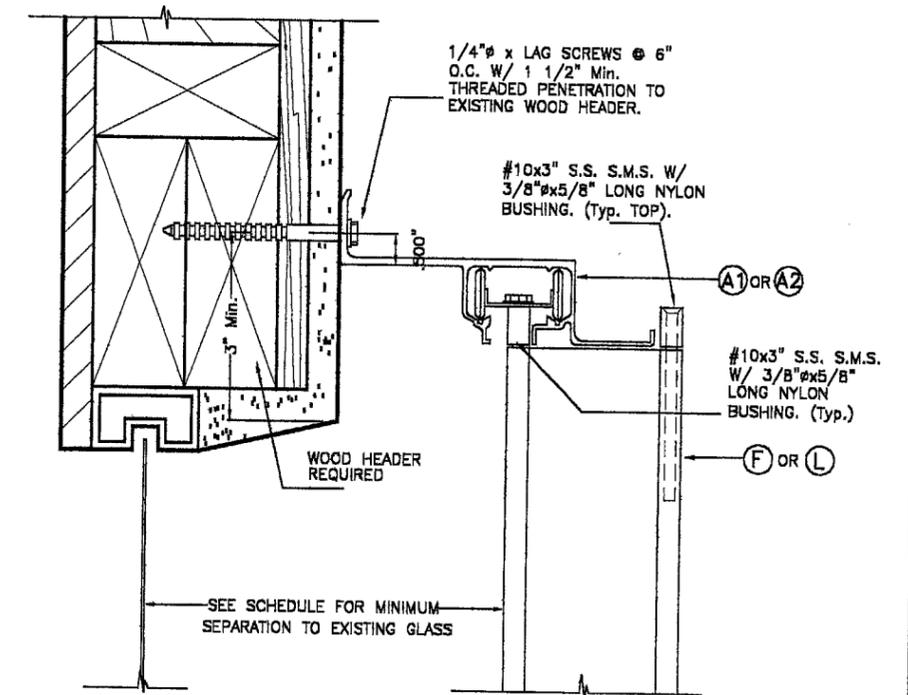


**WALL MOUNTING INSTALLATION – SECTION A1**

SCALE: N.T.S.



**ALTERNATIVE 1**



**ALTERNATIVE 2**

**WALL MOUNTING INSTALLATION (OFFSET) – SECTION A2**

SCALE: N.T.S.

**NOTES:**

1. INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH DESIGN LOAD UP TO 75.3 p.s.f. AND 9'-0" Max. SHUTTER SPAN.
2. NEW 2" x 6" P. T. TO BE SOUTHERN PINE No. 2, SURFACED DRY WITH 19 % M. M. C. W/ SPECIFIC DENSITY OF 0.55.
3. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 05-1003.12  
Expiration Date 03/13/2007  
By *Harvey A. Miller*  
Miami Dade Product Control  
Division

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

AUG 11 2005

|   |             |  |         |                      |              |
|---|-------------|--|---------|----------------------|--------------|
| <b>TILECO Inc.</b>  |             | ASSA/MID-RISE BERTHA ACCORDION SHUTTER   |         | DRAWN BY:<br>J.J.V.  |              |
| BILIT TESTING & ENGINEERING COMPANY<br>6156 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33168<br>Phone: (305)871-1830 Fax: (305)871-1531<br>EB-0006719 |             | <b>PROFESSIONAL SHUTTER CO.</b><br>(ASSA # 42)                                     |         | 8/8/05<br>DATE       |              |
| WALTER A. TILLIT Jr., P. E.<br>FLORIDA Lic. # 44167   |             | 18617 SW 107 AVE.<br>MIAMI, FLORIDA 33157<br>PH: (305)278-1408, FAX: (305)278-1403 |         | 05-237<br>DRAWING No |              |
| REV. NO   | DESCRIPTION | DATE   | REV. No | DESCRIPTION          | DATE         |
| 1   | OLD 88-20   | 8/8/05   | 3       | -                    | -            |
| 2   | -           | -  | 4       | -                    | -            |
|   |             |  |         |                      | SHEET 6 OF 9 |



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

(VALID FOR SECTIONS A, A1, B, B1, B2, C & C1 ON SHEET 2 OF 9).  
 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 (ft.) |         | MINIMUM SEPARATION TO GLASS (in.) |        |
|----------------------------------|--------------------------|---------|-----------------------------------|--------|
|                                  | *                        | **      | *                                 | **     |
| 45.1                             | 12'-0"                   | 13'-0"  | 4"                                | 2 1/2" |
| 47.8                             | 12'-0"                   | 12'-8"  | 4"                                | 2 1/2" |
| 49.0                             | 12'-0"                   | 12'-6"  | 4"                                | 2 1/2" |
| 50.5                             | 12'-0"                   | 12'-4"  | 4"                                | 2 1/2" |
| 52.0                             | 12'-0"                   | 12'-2"  | 4"                                | 2 1/2" |
| 52.4                             | 12'-0"                   | 12'-1"  | 4"                                | 2 1/2" |
| 55.0                             | 11'-10"                  | 11'-10" | 4"                                | 2 1/4" |
| 55.2                             | 11'-10"                  | 11'-10" | 4"                                | 2 1/4" |
| 55.6                             | 11'-4"                   | 11'-9"  | 4"                                | 2 1/4" |
| 57.2                             | 11'-4"                   | 11'-7"  | 4"                                | 2 1/4" |
| 58.6                             | 11'-4"                   | 11'-5"  | 4"                                | 2 1/4" |
| 58.8                             | 11'-4"                   | 11'-5"  | 4"                                | 2 1/4" |
| 59.5                             | 11'-4"                   | 11'-4"  | 4"                                | 2 1/4" |
| 59.7                             | 11'-4"                   | 11'-4"  | 4"                                | 2 1/8" |
| 61.5                             | 11'-2"                   | 11'-2"  | 4"                                | 2 1/8" |
| 61.8                             | 11'-1"                   | 11'-1"  | 4"                                | 2 1/8" |
| 61.9                             | 11'-1"                   | 11'-1"  | 4"                                | 2 1/8" |
| 63.4                             | 11'-0"                   | 11'-0"  | 4"                                | 2 1/8" |
| 63.6                             | 11'-0"                   | 11'-0"  | 4"                                | 2 1/8" |
| 63.7                             | 11'-0"                   | 11'-0"  | 4"                                | 2 1/8" |
| 66.9                             | 10'-8"                   | 10'-8"  | 4"                                | 2"     |
| 67.0                             | 10'-8"                   | 10'-8"  | 4"                                | 2"     |

| MAXIMUM DESIGN LOAD "W" (p.s.f.) | MAXIMUM PANEL SPAN (ft.) |        | MINIMUM SEPARATION TO GLASS (in.) |    |
|----------------------------------|--------------------------|--------|-----------------------------------|----|
|                                  | *                        | **     | *                                 | ** |
| 67.5                             | 10'-8"                   | 10'-8" | 4"                                | 2" |
| 70.1                             | 10'-6"                   | 10'-6" | 4"                                | 2" |
| 71.1                             | 10'-5"                   | 10'-5" | 4"                                | 2" |
| 71.4                             | 10'-4"                   | 10'-4" | 4"                                | 2" |
| 71.5                             | 10'-4"                   | 10'-4" | 4"                                | 2" |
| 72.8                             | 10'-3"                   | 10'-3" | 4"                                | 2" |
| 75.1                             | 10'-1"                   | 10'-1" | 4"                                | 2" |
| 75.2                             | 10'-1"                   | 10'-1" | 4"                                | 2" |
| 75.3                             | 10'-1"                   | 10'-1" | 4"                                | 2" |
| 77.0                             | 10'-0"                   | 10'-0" | 3 1/2"                            | 2" |
| 77.5                             | 9'-11"                   | 9'-11" | 3 1/2"                            | 2" |
| 78.8                             | 9'-10"                   | 9'-10" | 3 1/2"                            | 2" |
| 80.7                             | 9'-9"                    | 9'-9"  | 3 1/2"                            | 2" |
| 81.5                             | 9'-8"                    | 9'-8"  | 3 1/2"                            | 2" |
| 82.5                             | 9'-8"                    | 9'-8"  | 3 1/2"                            | 2" |
| 83.4                             | 9'-7"                    | 9'-7"  | 3 1/2"                            | 2" |
| 86.2                             | 9'-5"                    | 9'-5"  | 3 1/2"                            | 2" |
| 86.7                             | 9'-5"                    | 9'-5"  | 3 1/2"                            | 2" |
| 86.8                             | 9'-5"                    | 9'-5"  | 3 1/2"                            | 2" |
| 88.5                             | 9'-4"                    | 9'-4"  | 3 1/2"                            | 2" |
| 90.3                             | 9'-3"                    | 9'-3"  | 3 1/2"                            | 2" |
| 90.8                             | 9'-2"                    | 9'-2"  | 3 1/2"                            | 2" |

| MAXIMUM DESIGN LOAD "W" (p.s.f.) | MAXIMUM PANEL SPAN (ft.) |        | MINIMUM SEPARATION TO GLASS (in.) |    |
|----------------------------------|--------------------------|--------|-----------------------------------|----|
|                                  | *                        | **     | *                                 | ** |
| 91.4                             | 9'-2"                    | 9'-2"  | 3 1/2"                            | 2" |
| 92.7                             | 8'-1"                    | 8'-1"  | 3 1/2"                            | 2" |
| 93.8                             | 8'-0"                    | 8'-0"  | 2 7/8"                            | 2" |
| 94.8                             | 8'-0"                    | 8'-0"  | 2 7/8"                            | 2" |
| 96.6                             | 8'-11"                   | 8'-11" | 2 7/8"                            | 2" |
| 98.8                             | 8'-11"                   | 8'-11" | 2 7/8"                            | 2" |
| 97.7                             | 8'-10"                   | 8'-10" | 2 7/8"                            | 2" |
| 100.5                            | 8'-9"                    | 8'-9"  | 2 7/8"                            | 2" |
| 101.5                            | 8'-8"                    | 8'-8"  | 2 7/8"                            | 2" |
| 103.7                            | 8'-7"                    | 8'-7"  | 2 7/8"                            | 2" |
| 106.5                            | 8'-6"                    | 8'-6"  | 2 7/8"                            | 2" |
| 108.8                            | 8'-5"                    | 8'-5"  | 2 7/8"                            | 2" |
| 110.6                            | 8'-4"                    | 8'-4"  | 2 7/8"                            | 2" |
| 111.0                            | 8'-4"                    | 8'-4"  | 2 7/8"                            | 2" |
| 114.1                            | 8'-2"                    | 8'-2"  | 2 7/8"                            | 2" |
| 116.5                            | 8'-2"                    | 8'-2"  | 2 7/8"                            | 2" |
| 116.8                            | 8'-1"                    | 8'-1"  | 2 7/8"                            | 2" |
| 117.6                            | 8'-1"                    | 8'-1"  | 2 7/8"                            | 2" |
| 119.7                            | 8'-0"                    | 8'-0"  | 2 7/8"                            | 2" |
| 120.0                            | 8'-0"                    | 8'-0"  | 2 7/8"                            | 2" |
| 121.2                            | 7'-10"                   | 7'-10" | 2 7/8"                            | 2" |
| 122.5                            | 7'-9"                    | 7'-9"  | 2 7/8"                            | 2" |

| MAXIMUM DESIGN LOAD "W" (p.s.f.) | MAXIMUM PANEL SPAN (ft.) |        | MINIMUM SEPARATION TO GLASS (in.) |    |
|----------------------------------|--------------------------|--------|-----------------------------------|----|
|                                  | *                        | **     | *                                 | ** |
| 125.3                            | 7'-7"                    | 7'-7"  | 2 7/8"                            | 2" |
| 125.8                            | 7'-6"                    | 7'-6"  | 2 7/8"                            | 2" |
| 126.7                            | 7'-6"                    | 7'-6"  | 2 7/8"                            | 2" |
| 129.6                            | 7'-4"                    | 7'-4"  | 2 7/8"                            | 2" |
| 130.9                            | 7'-3"                    | 7'-3"  | 2 7/8"                            | 2" |
| 131.6                            | 7'-2"                    | 7'-2"  | 2 7/8"                            | 2" |
| 134.3                            | 7'-1"                    | 7'-1"  | 2 7/8"                            | 2" |
| 136.2                            | 6'-11"                   | 6'-11" | 2 7/8"                            | 2" |
| 137.9                            | 6'-10"                   | 6'-10" | 2 7/8"                            | 2" |
| 140.7                            | 6'-9"                    | 6'-9"  | 2 7/8"                            | 2" |
| 142.8                            | 6'-7"                    | 6'-7"  | 2 7/8"                            | 2" |
| 143.5                            | 6'-7"                    | 6'-7"  | 2 7/8"                            | 2" |
| 147.0                            | 6'-5"                    | 6'-5"  | 2 7/8"                            | 2" |
| 148.4                            | 6'-4"                    | 6'-4"  | 2 7/8"                            | 2" |
| 152.6                            | 6'-2"                    | 6'-2"  | 2 7/8"                            | 2" |
| 153.1                            | 6'-2"                    | 6'-2"  | 2 7/8"                            | 2" |
| 156.8                            | 6'-0"                    | 6'-0"  | 2 7/8"                            | 2" |
| 157.5                            | 6'-0"                    | 6'-0"  | 2 7/8"                            | 2" |
| 157.8                            | 6'-0"                    | 6'-0"  | 2 7/8"                            | 2" |
| 160.8                            | 5'-11"                   | 5'-11" | 2 7/8"                            | 2" |
| 161.7                            | 5'-10"                   | 5'-10" | 2 7/8"                            | 2" |
| 164.4                            | 5'-9"                    | 5'-9"  | 2 7/8"                            | 2" |

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

## MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING (in.) SCHEDULE. + (VALID FOR SECTIONS A, A1, B, B1, B2, C & C1 ON SHEET 2 OF 9).

| MAXIMUM DESIGN LOAD "W" (p.s.f.) | WALL MOUNTING INSTALLATION AT TOP OR BOTTOM (TO CONCRETE) |        |        | WALL MOUNTING INSTALLATION AT TOP OR BOTTOM (TO MASONRY) |        |        | FLOOR/CEILING MOUNTING INSTALLATION TOP OR 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                | 9"  | 9"     | 9"     | 9"   | 9"     | 3 1/2" | 9"  | 8 1/2" | 6"     |
| FROM 61.9 TO 75.3                | 9"  | 9"     | 6 1/2" | 9"   | 5 1/2" | -      | 9"  | 7"     | 5 1/2" |
| FROM 75.4 TO 91.4                | 9"  | 7 1/2" | 4 1/2" | 8"   | 2 1/2" | -      | 9"  | 6"     | 5"     |
| FROM 91.5 TO 120.0               | 9"  | 3 1/2" | 3 1/2" | 6"   | -      | -      | 7 1/2"  | 4 1/2" | 4 1/2" |
| FROM 120.1 TO 168.1              | 5 1/2"  | 3 1/2" | -      | -  | -      | -      | 5 1/2"  | 4 1/2" | -      |
| FROM 168.2 TO 226.3              | 3 1/2"  | 4 1/2" | -      | -  | -      | -      | 4 1/2"  | 4 1/2" | -      |

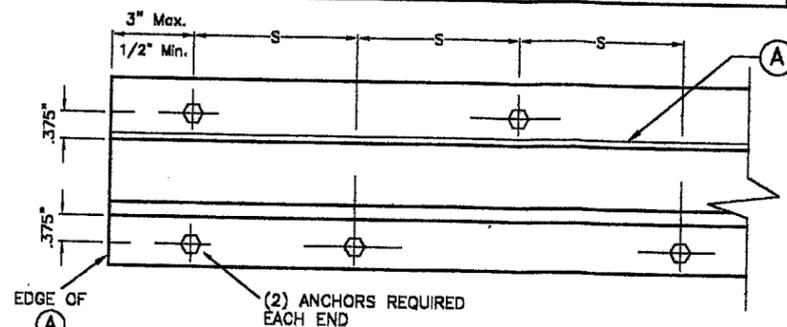
### ANCHOR SPACING LEGEND

- (1) Max. ANCHOR SPCG. VALID FOR SPANS OF 5'-0" OR LESS.
- (2) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 5'-0" TO 8'-6".
- (3) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 8'-6" TO Max. ALLOWED.

+ USE TAPCON ANCHORS, ZAMAC NAILIN & CALK-INS FOR INSTALLATIONS W/ DESIGN LOADS UP TO 75.3 p.s.f.  
 USE ONLY TAPCON ANCHORS & CALK-INS FOR INSTALLATIONS W/ DESIGN LOADS GREATER THAN 75.3 p.s.f.  
 MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3" EDGE DISTANCE. FOR E. D. LESS THAN 3", 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" O.C.

| ACTUAL E. D. = EDGE DISTANCE | FACTOR | TAPCON OR CALK-IN | TAPCON OR CALK-IN             |
|------------------------------|--------|-------------------|-------------------------------|
| 2 1/2"                       | .75    | ZAMAC NAILIN      | TAPCON OR CALK-IN             |
| 2"                           | .50    | UP TO 75.3 p.s.f. | > 75.3 p.s.f. TO 226.3 p.s.f. |

### ANCHOR LEGENDS



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 BETWEEN GLASS AND SHUTTER FOR A GIVEN SHUTTER SPAN, 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 TO BE MEASURED AS INDICATED ON SECTION D, SHEET 4 OF 9.

| SHUTTER SPAN (ft.)       | MINIMUM SEPARATION (in.) |
|--------------------------|--------------------------|
| LESS OR EQUAL THAN 9'-0" | 2 7/8"                   |
| > 9'-0" TO 10'-0"        | 3 1/2"                   |
| > 10'-0" TO 12'-0"       | 4"                       |

- \* 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.

*[Signature]*  
 AUG 11 2005

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No 05-1003.12  
 Expiration Date 03/13/2007

By *[Signature]*  
 Miami Desk Product Control  
 Division

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

| <br>TILLIT TESTING & ENGINEERING COMPANY<br>6355N.W. 38th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33166<br>Phone: (305)971-1830, Fax: (305)971-1831<br>EB-0006719<br>WALTER A. TILLIT, Jr., P. E.<br>FLORIDA Lic. # 44167   | ASSA/MID-RISE BERTHA ACCORDION SHUTTER<br>DRAWN BY:<br>J.J.V.   |  |         |             |             |      |   |           |        |   |   |   |   |   |   |   |   |   |              |
|--|---|--|---------|-------------|-------------|------|---|-----------|--------|---|---|---|---|---|---|---|---|---|--------------|
|  | PROFESSIONAL SHUTTER CO.<br>(ASSA # 42)<br>18617 SW 107 AVE.<br>MIAMI, FLORIDA 33157<br>PH:(305)278-1408, FAX:(305)278-1403 | 8/8/05<br>DATE<br>05-237<br>DRAWING No |         |             |             |      |   |           |        |   |   |   |   |   |   |   |   |   |              |
| <table border="1" style="width: 100%; font-size: small;"> <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 98-20</td> <td>8/8/05</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 98-20 | 8/8/05 | 3 | - | - | 2 | - | - | 4 | - | - | SHEET 8 OF 9 |
| REV. NO  | DESCRIPTION   | DATE                                   | REV. No | DESCRIPTION | DATE        |      |   |           |        |   |   |   |   |   |   |   |   |   |              |
| 1  | OLD 98-20   | 8/8/05                                 | 3       | -           | -           |      |   |           |        |   |   |   |   |   |   |   |   |   |              |
| 2  | -   | -                                      | 4       | -           | -           |      |   |           |        |   |   |   |   |   |   |   |   |   |              |

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

(VALID FOR SECTIONS B', B1', B2' & C1' ON SHEET 3 OF 9).  
 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 (ft.) |         | MINIMUM SEPARATION TO GLASS (in.) |        |
|----------------------------------|--------------------------|---------|-----------------------------------|--------|
|                                  | *                        | **      | *                                 | **     |
| 45.1                             | 12'-0"                   | 13'-3"  | 4"                                | 3"     |
| 47.8                             | 12'-0"                   | 13'-1"  | 4"                                | 3"     |
| 49.0                             | 12'-0"                   | 13'-0"  | 4"                                | 3"     |
| 50.5                             | 12'-0"                   | 12'-11" | 4"                                | 3"     |
| 52.0                             | 12'-0"                   | 12'-10" | 4"                                | 3"     |
| 52.4                             | 12'-0"                   | 12'-10" | 4"                                | 3"     |
| 55.0                             | 12'-0"                   | 12'-7"  | 4"                                | 3"     |
| 55.2                             | 12'-0"                   | 12'-7"  | 4"                                | 3"     |
| 55.6                             | 12'-0"                   | 12'-6"  | 4"                                | 3"     |
| 57.2                             | 12'-0"                   | 12'-4"  | 4"                                | 2 7/8" |
| 58.6                             | 12'-0"                   | 12'-2"  | 4"                                | 2 7/8" |
| 58.8                             | 12'-0"                   | 12'-2"  | 4"                                | 2 7/8" |
| 59.5                             | 12'-0"                   | 12'-1"  | 4"                                | 2 7/8" |
| 59.7                             | 12'-0"                   | 12'-1"  | 4"                                | 2 7/8" |
| 61.5                             | 11'-11"                  | 11'-11" | 4"                                | 2 3/4" |
| 61.8                             | 11'-10"                  | 11'-10" | 4"                                | 2 3/4" |
| 61.9                             | 11'-10"                  | 11'-10" | 4"                                | 2 3/4" |
| 63.4                             | 11'-9"                   | 11'-9"  | 4"                                | 2 3/4" |
| 63.6                             | 11'-8"                   | 11'-8"  | 4"                                | 2 3/4" |
| 63.7                             | 11'-8"                   | 11'-8"  | 4"                                | 2 3/4" |
| 66.9                             | 11'-5"                   | 11'-5"  | 4"                                | 2 3/4" |
| 67.0                             | 11'-5"                   | 11'-5"  | 4"                                | 2 3/4" |

| MAXIMUM DESIGN LOAD "W" (p.s.f.) | MAXIMUM PANEL SPAN (ft.) |         | MINIMUM SEPARATION TO GLASS (in.) |        |
|----------------------------------|--------------------------|---------|-----------------------------------|--------|
|                                  | *                        | **      | *                                 | **     |
| 67.5                             | 11'-4"                   | 11'-4"  | 4"                                | 2 1/2" |
| 70.1                             | 11'-2"                   | 11'-2"  | 4"                                | 2 1/2" |
| 71.1                             | 11'-1"                   | 11'-1"  | 4"                                | 2 1/2" |
| 71.4                             | 11'-0"                   | 11'-0"  | 4"                                | 2 1/2" |
| 71.5                             | 11'-0"                   | 11'-0"  | 4"                                | 2 1/2" |
| 72.9                             | 10'-11"                  | 10'-11" | 4"                                | 2 1/2" |
| 75.1                             | 10'-9"                   | 10'-9"  | 4"                                | 2 1/2" |
| 75.2                             | 10'-8"                   | 10'-8"  | 4"                                | 2 1/2" |
| 75.3                             | 10'-8"                   | 10'-8"  | 4"                                | 2 1/2" |
| 77.0                             | 10'-8"                   | 10'-8"  | 4"                                | 2 1/2" |
| 77.5                             | 10'-7"                   | 10'-7"  | 4"                                | 2 3/8" |
| 78.8                             | 10'-6"                   | 10'-6"  | 4"                                | 2 3/8" |
| 80.7                             | 10'-5"                   | 10'-5"  | 4"                                | 2 3/8" |
| 81.5                             | 10'-4"                   | 10'-4"  | 4"                                | 2 3/8" |
| 82.5                             | 10'-3"                   | 10'-3"  | 4"                                | 2 3/8" |
| 83.4                             | 10'-3"                   | 10'-3"  | 4"                                | 2 3/8" |
| 86.2                             | 10'-0"                   | 10'-0"  | 3 1/2"                            | 2 3/8" |
| 86.7                             | 10'-0"                   | 10'-0"  | 3 1/2"                            | 2 3/8" |
| 86.8                             | 10'-0"                   | 10'-0"  | 3 1/2"                            | 2 3/8" |
| 88.5                             | 9'-11"                   | 9'-11"  | 3 1/2"                            | 2 1/4" |
| 90.3                             | 9'-10"                   | 9'-10"  | 3 1/2"                            | 2 1/4" |
| 90.8                             | 9'-10"                   | 9'-10"  | 3 1/2"                            | 2 1/4" |

| MAXIMUM DESIGN LOAD "W" (p.s.f.) | MAXIMUM PANEL SPAN (ft.) |        | MINIMUM SEPARATION TO GLASS (in.) |        |
|----------------------------------|--------------------------|--------|-----------------------------------|--------|
|                                  | *                        | **     | *                                 | **     |
| 91.4                             | 9'-9"                    | 9'-9"  | 3 1/2"                            | 2 1/4" |
| 92.7                             | 9'-8"                    | 9'-8"  | 3 1/2"                            | 2 1/4" |
| 93.8                             | 9'-8"                    | 9'-8"  | 3 1/2"                            | 2 1/4" |
| 94.8                             | 9'-7"                    | 9'-7"  | 3 1/2"                            | 2 1/4" |
| 96.6                             | 9'-6"                    | 9'-6"  | 3 1/2"                            | 2 1/4" |
| 96.8                             | 9'-6"                    | 9'-6"  | 3 1/2"                            | 2 1/8" |
| 97.7                             | 9'-5"                    | 9'-5"  | 3 1/2"                            | 2 1/8" |
| 100.5                            | 9'-4"                    | 9'-4"  | 3 1/2"                            | 2 1/8" |
| 101.5                            | 9'-3"                    | 9'-3"  | 3 1/2"                            | 2 1/8" |
| 103.7                            | 9'-2"                    | 9'-2"  | 3 1/2"                            | 2 1/8" |
| 106.5                            | 9'-0"                    | 9'-0"  | 2 1/2"                            | 2 1/8" |
| 108.8                            | 8'-11"                   | 8'-11" | 2 1/2"                            | 2 1/8" |
| 110.6                            | 8'-11"                   | 8'-11" | 2 1/2"                            | 2 1/8" |
| 114.1                            | 8'-9"                    | 8'-9"  | 2 1/2"                            | 2"     |
| 116.5                            | 8'-7"                    | 8'-7"  | 2 1/2"                            | 2"     |
| 118.9                            | 8'-6"                    | 8'-6"  | 2 1/2"                            | 2"     |
| 117.6                            | 8'-6"                    | 8'-6"  | 2 1/2"                            | 2"     |
| 119.7                            | 8'-4"                    | 8'-4"  | 2 1/2"                            | 2"     |
| 120.0                            | 8'-4"                    | 8'-4"  | 2 1/2"                            | 2"     |
| 121.2                            | 8'-3"                    | 8'-3"  | 2 1/2"                            | 2"     |
| 122.5                            | 8'-2"                    | 8'-2"  | 2 1/2"                            | 2"     |

| MAXIMUM DESIGN LOAD "W" (p.s.f.) | MAXIMUM PANEL SPAN (ft.) |        | MINIMUM SEPARATION TO GLASS (in.) |    |
|----------------------------------|--------------------------|--------|-----------------------------------|----|
|                                  | *                        | **     | *                                 | ** |
| 125.3                            | 8'-0"                    | 8'-0"  | 2 1/2"                            | 2" |
| 125.8                            | 7'-11"                   | 7'-11" | 2 1/2"                            | 2" |
| 126.7                            | 7'-11"                   | 7'-11" | 2 1/2"                            | 2" |
| 129.6                            | 7'-8"                    | 7'-8"  | 2 1/2"                            | 2" |
| 130.9                            | 7'-8"                    | 7'-8"  | 2 1/2"                            | 2" |
| 131.6                            | 7'-7"                    | 7'-7"  | 2 1/2"                            | 2" |
| 134.3                            | 7'-5"                    | 7'-5"  | 2 1/2"                            | 2" |
| 136.2                            | 7'-4"                    | 7'-4"  | 2 1/2"                            | 2" |
| 137.9                            | 7'-3"                    | 7'-3"  | 2 1/2"                            | 2" |
| 140.7                            | 7'-1"                    | 7'-1"  | 2 1/2"                            | 2" |
| 142.8                            | 7'-0"                    | 7'-0"  | 2 1/2"                            | 2" |
| 143.5                            | 6'-11"                   | 6'-11" | 2 1/2"                            | 2" |
| 147.0                            | 6'-10"                   | 6'-10" | 2 1/2"                            | 2" |
| 148.4                            | 6'-9"                    | 6'-9"  | 2 1/2"                            | 2" |
| 152.6                            | 6'-8"                    | 6'-8"  | 2 1/2"                            | 2" |
| 153.1                            | 6'-6"                    | 6'-6"  | 2 1/2"                            | 2" |
| 156.8                            | 6'-4"                    | 6'-4"  | 2 1/2"                            | 2" |
| 157.5                            | 6'-4"                    | 6'-4"  | 2 1/2"                            | 2" |
| 157.8                            | 6'-4"                    | 6'-4"  | 2 1/2"                            | 2" |
| 160.6                            | 6'-2"                    | 6'-2"  | 2 1/2"                            | 2" |
| 161.7                            | 6'-2"                    | 6'-2"  | 2 1/2"                            | 2" |
| 164.4                            | 6'-1"                    | 6'-1"  | 2 1/2"                            | 2" |

| MAXIMUM DESIGN LOAD "W" (p.s.f.) | MAXIMUM PANEL SPAN (ft.) |        | MINIMUM SEPARATION TO GLASS (in.) |    |
|----------------------------------|--------------------------|--------|-----------------------------------|----|
|                                  | *                        | **     | *                                 | ** |
| 165.2                            | 6'-0"                    | 6'-0"  | 2 1/2"                            | 2" |
| 168.1                            | 5'-11"                   | 5'-11" | 2 1/2"                            | 2" |
| 168.7                            | 5'-11"                   | 5'-11" | 2 1/2"                            | 2" |
| 170.0                            | 5'-10"                   | 5'-10" | 2 1/2"                            | 2" |
| 175.6                            | 5'-8"                    | 5'-8"  | 2 1/2"                            | 2" |
| 176.6                            | 5'-8"                    | 5'-8"  | 2 1/2"                            | 2" |
| 180.3                            | 5'-6"                    | 5'-6"  | 2 1/2"                            | 2" |
| 188.0                            | 5'-4"                    | 5'-4"  | 2 1/2"                            | 2" |
| 195.2                            | 5'-1"                    | 5'-1"  | 2 1/2"                            | 2" |
| 197.2                            | 5'-1"                    | 5'-1"  | 2 1/2"                            | 2" |
| 199.1                            | 5'-0"                    | 5'-0"  | 2 1/2"                            | 2" |
| 204.7                            | 4'-11"                   | 4'-11" | 2 1/2"                            | 2" |
| 211.3                            | 4'-9"                    | 4'-9"  | 2 1/2"                            | 2" |
| 216.9                            | 4'-7"                    | 4'-7"  | 2 1/2"                            | 2" |
| 221.6                            | 4'-6"                    | 4'-6"  | 2 1/2"                            | 2" |
| 226.3                            | 4'-5"                    | 4'-5"  | 2 1/2"                            | 2" |

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

(VALID FOR SECTIONS B', B1', B2' & C1' ON SHEET 3 OF 9).

| MAXIMUM DESIGN LOAD "W" (p.s.f.) | WALL MOUNTING INSTALLATION AT TOP OR BOTTOM (TO CONCRETE) |        |        | WALL MOUNTING INSTALLATION AT TOP OR BOTTOM (TO MASONRY) |        |        | FLOOR/CEILING MOUNTING INSTALLATION TOP OR 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                | 9"  | 9"     | 9"     | 9"   | 9"     | 3 1/2" | 9"  | 8 1/2" | 6"     |
| FROM 61.9 TO 75.3                | 9"  | 9"     | 6 1/2" | 9"   | 5 1/2" | -      | 9"  | 7"     | 5 1/2" |
| FROM 75.4 TO 91.4                | 9"  | 7 1/2" | 4 1/2" | 8"   | 2 1/2" | -      | 9"  | 6"     | 5"     |
| FROM 91.5 TO 120.0               | 9"  | 3 1/2" | 3 1/2" | 6"   | -      | -      | 7 1/2"  | 4 1/2" | 4 1/2" |
| FROM 120.1 TO 168.1              | 5 1/2"  | 3 1/2" | -      | -  | -      | -      | 5 1/2"  | 4 1/2" | -      |
| FROM 168.2 TO 226.3              | 3 1/2"  | 4 1/2" | -      | -  | -      | -      | 4 1/2"  | 4 1/2" | -      |

#### ANCHOR SPACING LEGEND

- (1) Max. ANCHOR SPCG. VALID FOR SPANS OF 5'-0" OR LESS.
- (2) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 5'-0" TO 8'-6".
- (3) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 8'-6" TO Max. ALLOWED.

+ USE TAPCON ANCHORS, ZAMAC NAILIN & CALK-INS FOR INSTALLATIONS W/ DESIGN LOADS UP TO 75.3 p.s.f.  
 USE ONLY TAPCON ANCHORS & CALK-INS FOR INSTALLATIONS W/ DESIGN LOADS GREATER THAN 75.3 p.s.f.  
 MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3" EDGE DISTANCE. FOR E. D. LESS THAN 3", 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" O.C.

| ACTUAL E. D. = | FACTOR | TAPCON OR CALK-IN | TAPCON OR CALK-IN             |
|----------------|--------|-------------------|-------------------------------|
| EDGE DISTANCE  |        |                   |                               |
| 2 1/2"         | .75    | UP TO 75.3 p.s.f. | > 75.3 p.s.f. TO 226.3 p.s.f. |
| 2"             | .50    |                   |                               |

ANCHOR LEGENDS

**TABLE 1:**

MINIMUM SEPARATION BETWEEN GLASS AND SHUTTER FOR A GIVEN SHUTTER SPAN, 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 TO BE MEASURED AS INDICATED ON SECTION D, SHEET 4 OF 9.

| SHUTTER SPAN (ft.)       | MINIMUM SEPARATION (in.) |
|--------------------------|--------------------------|
| LESS OR EQUAL THAN 9'-0" | 2 1/2"                   |
| > 9'-0" TO 10'-0"        | 3 1/2"                   |
| > 10'-0" TO 12'-0"       | 4"                       |

PRODUCT REVISED  
 as complying with the Florida Building Code  
 Acceptance No 05-1003.12  
 Expiration Date 03/13/2007  
 By *Helmut A. Miller*  
 Miami Dade Product Control Division

- \* 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.

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

|  |  |                      |
|--|--|----------------------|
| <b>TILECO Inc.</b>   | ASSA/MID-RISE BERTHA ACCORDION SHUTTER   | DRAWN BY:<br>J.J.V.  |
| TILLIT TESTING & ENGINEERING COMPANY<br>3955 N.W. 30th St., Ste. 305, VIRGINIA GARDENS, FLORIDA 33166<br>Phone: (305)871-1830 Fax: (305)871-1831<br>EG-0006719 | <b>PROFESSIONAL SHUTTER CO.</b><br>(ASSA # 42)                                     | 8/8/05<br>DATE       |
| WALTER A. TILLIT Jr., P. E.<br>FLORIDA Lic. # 44167  | 18817 SW 107 AVE.<br>MIAMI, FLORIDA 33157<br>PH: (305)278-1408, FAX: (305)278-1403 | 05-237<br>DRAWING No |
| AUG 11 2005  | REV. No DESCRIPTION DATE REV. No DESCRIPTION DATE                                  | SHEET 9 OF 9         |