

GENERAL NOTES:

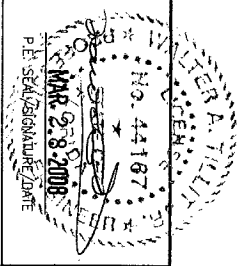
1. BAHAMA/COLONIAL SHUTTER SYSTEMS SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAVE BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2007 EDITION OF THE FLORIDA BUILDING CODE. THESE SHUTTER SYSTEMS SHALL ONLY BE INSTALLED AT NON HIGH VELOCITY HURRICANE ZONES. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE ABOVE MENTIONED CODE. FOR A BASIC WINDSPED AS REQUIRED BY THE JURISDICTION WHERE THESE SHUTTERS WILL BE INSTALLED, AND FOR A DIRECTIONALITY FACTOR $K_d=0.85$. IN ACCORDANCE W/ ASCE 7-05 STANDARD.
2. SHUTTERS: ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1609.1.2 OF THE ABOVE MENTIONED CODE AS PER TAB-201, TAB-202 & TAB-203 AS PER ESTIMATION TESTING LAB. REPORT # 3846, 3849, 3852 (BAHAMA SHUTTER) AND 3838, 3842, & 3844 (COLONIAL SHUTTER).
3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY AND TEMPER, WITH $F_y = 35.0$ ksi MINIMUM FOR FRAME MEMBERS INCLUDING RODS AND $F_y = 25.0$ ksi FOR ALL OTHER COMPONENTS (UNLESS OTHERWISE NOTED). THE THICKNESS OF ALL EXTRUSIONS SHALL BE AS SHOWN ON THIS DRAWING WITH STANDARD TOLERANCES IN ACCORDANCE WITH THE ALUMINUM STANDARDS AND DATA 2005 EDITION, ALUMINUM ASSOCIATION INCORPORATED, WASHINGTON D.C.
4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50078 WITH 50 ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH.
5. ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.
6. BOLTS TO BE ASTM A-307 GALVANIZED STEEL OR AISI 304 SERIES STAINLESS STEEL WITH 35 ksi MINIMUM YIELD STRENGTH.
7. ALL WELDING OF ALUMINUM MEMBERS TO CONFORM WITH THE AMERICAN WELDING SOCIETY A.W.S. D.1.2 REGULATIONS. USE E-5556 OR 5356 ELECTRODES. USE CERTIFIED WELDERS.
8. ANCHORS TO WALL SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):
 - (A) TO EXISTING POURED CONCRETE: ($f'_c = 3320$ psi Min.)
 - 1/4" TAPCON ANCHORS MANUFACTURED BY EICO FASTENING SYSTEMS LLC.
 - 1/4"x7/8" CALK-IN ANCHORS MANUFACTURED BY POWERS FASTENERS, INC.
 - 1/4"x7/8" EICO male & female PANELMATE MANUFACTURED BY EICO FASTENING SYSTEMS LLC.

NOTES:
 (A.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS AND EICO PANELMATE INTO POURED CONCRETE IS 1 3/4".
 (A.2) CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO POURED CONCRETE.
 NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED.
 1/4"-20 SCREW USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXISTS AND 1" MINIMUM FOR WALLS WITH NO STUCCO.
 (A.3) IN CASE THAT PRECAST STONE, PRECAST CONCRETE OR BRICK PANELS, VENEER OR PAVERS BE FOUND ON EXISTING WALL, 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 (ASTM C-90) BLOCK WALL:
 - 1/4" TAPCON ANCHORS MANUFACTURED BY EICO FASTENING SYSTEMS LLC.
 - 1/4"x7/8" CALK-IN ANCHORS MANUFACTURED BY POWERS FASTENERS, INC.
 - 1/4"x7/8" EICO male & female PANELMATE MANUFACTURED BY EICO FASTENING SYSTEMS LLC.

NOTES:
 (B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS AND EICO PANELMATE INTO CONCRETE BLOCK UNIT SHALL BE 1 1/4".
 (B.2) CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO CONCRETE BLOCK UNIT.
 NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED.
 1/4"-20 SCREW USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXISTS AND 1" MINIMUM FOR WALLS WITH NO STUCCO.
 (B.3) IN CASE THAT PRECAST STONE, PRECAST CONCRETE OR BRICK PANELS, VENEER OR PAVERS BE FOUND ON 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 ANCHORS MANUFACTURER.

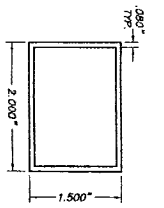


22008 TILTECO, INC.
TILTECO INC.
 TILT TESTING & ENGINEERING COMPANY
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 Phone: (954) 871-1530 Fax: (954) 971-1531
 e-mail: tilt@tilteco.com
 EB-0005719
 WALTER A. TILT, Jr., P. E.
 FLORIDA Lic. # 44187

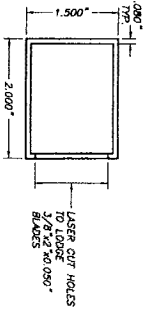
| | | |
|---|------------------|-----------------------|
| COMBINATION DRAWING: BAHAMA SHUTTER (SHEETS 4 THRU 8 OF 17) COLONIAL SHUTTER (SHEETS 9 THRU 14 OF 17) BAHAMA/COLONIAL (COMMON SHEETS 1, 2, 3, 15, 16 & 17) | | L.C./R.E. DRAWN BY |
| BAHAMA / COLONIAL SHUTTER | | 03/28/08 |
| COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC. 7525 HOLLEY CIRCLE PANAMA CITY BEACH, FL 32408 Phone: (850) 248-2040 Fax: (850) 248-2041 | | 08-250 DRAWING NO |
| REV. NO. | DESCRIPTION | DATE |
| 1 | Q.D. DWG. 08-250 | 03/28/08 |
| 2 | | |

9. SHUTTER MAY REMAIN OPEN FOR NON HURRICANE CONDITIONS CORRESPONDING TO A MAXIMUM SUSTAINED WIND SPEED OF 74 MPH, AS DESIGNATED BY THE NATIONAL HURRICANE CENTER OR U.S. WEATHER BUREAU. OWNER TO BE RESPONSIBLE FOR SHUTTER MUST BE CLOSED, HURRICANE POSITION WHEN WIND SPEED EXCEEDS 74 MPH. OWNER TO BE RESPONSIBLE FOR PROVIDING A SUITABLE PLATFORM OR BALCONY WHEN SECURING SHUTTERS DURING HURRICANE WARNINGS.
10. BAHAMA/COLONIAL SHUTTER'S SECURE PASS THROUGH ROD-BLADE ANCHOR-SYSTEM IS **PATENT PENDING**.
11. 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.
12. CONTRACTOR TO SEAL/CALK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION.
13. OWNER TO BE RESPONSIBLE FOR PROVIDING A SUITABLE PLATFORM OR BALCONY WHEN SECURING UNIT DURING HURRICANE WARNINGS.
14. BAHAMA/COLONIAL SHUTTER INSTALLATION SHALL COMPLY WITH SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.
15. (a) THIS P.E.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.E.D.
 (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS P.E.D. PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
 (c) THIS P.E.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
 (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.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
 (e) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

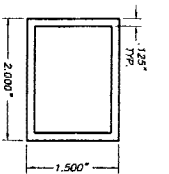
F.B.C. (N.H.V.H.Z.)



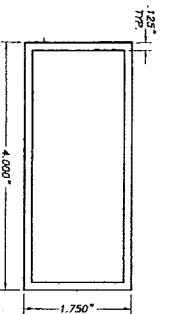
A) HORIZONTAL FRAME
ALUMINUM EXTRUSION



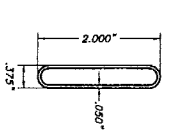
A1) SIDE FRAME
ALUMINUM EXTRUSION



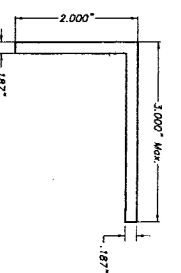
A2) MULLION
ALUMINUM EXTRUSION



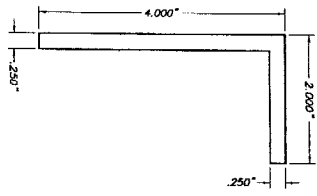
B) CORNER INSERT
ALUMINUM EXTRUSION



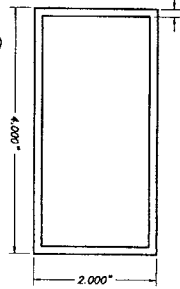
C) SHUTTER BLADE
ALUMINUM EXTRUSION



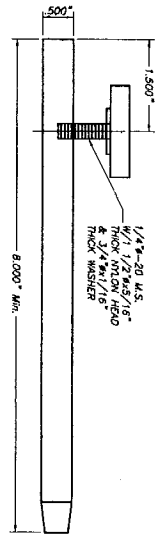
D) 1 1/4" Max. BUILD-OUT
EXTERIOR ALUM. BRACKET (4" LONG)
ALUMINUM EXTRUSION



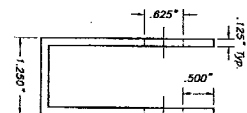
E) VERTICAL LOCK ROD
ALUM. BRACKET (6" LONG)
ALUMINUM EXTRUSION



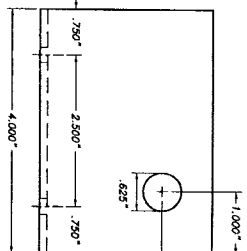
F) STORM BAR
ALUMINUM EXTRUSION



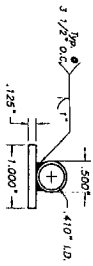
G) HORIZONTAL LOCK ROD
ALUMINUM EXTRUSION



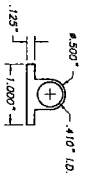
H) 1" BOTTOM B.O. \"U\" BRACKET
FLUSH MOUNT \"U\" BRACKET
ALUMINUM EXTRUSION



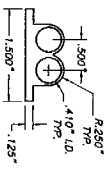
I) VERTICAL LOCK ROD
ALUMINUM EXTRUSION



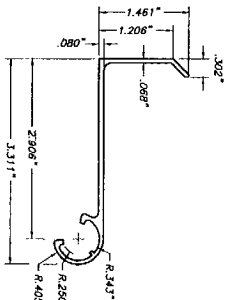
J) SINGLE VERTICAL ROD CLAMP
(Cont. 8" Min.)
ALUMINUM EXTRUSIONS



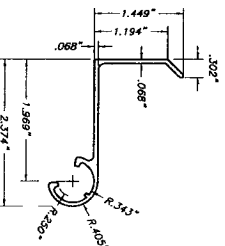
J1) OPTIONAL EXTRUDED
SINGLE VERTICAL ROD CLAMP
(Cont. 8" Min.)
ALUMINUM EXTRUSION



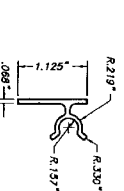
J2) EXTRUDED DOUBLE
VERTICAL ROD CLAMP
(Cont. 8" Min.)
ALUMINUM EXTRUSION



K) 1" B.O. FEMALE HINGE
ALUMINUM EXTRUSION

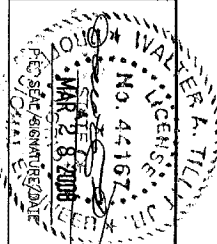


K1) FLUSH MOUNT
FEMALE HINGE



L) MALE HINGE
ALUMINUM EXTRUSION

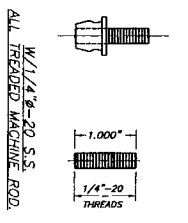
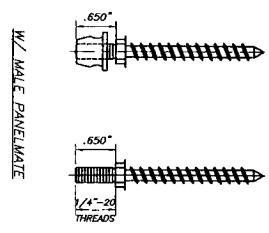
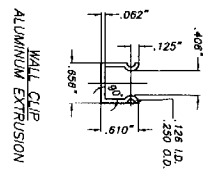
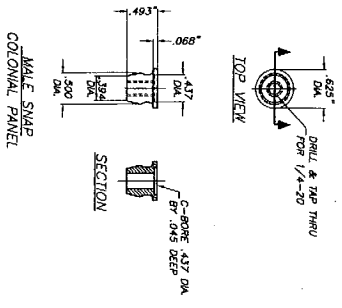
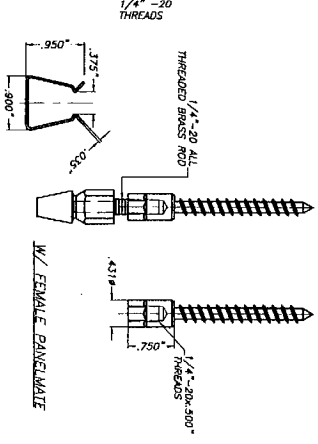
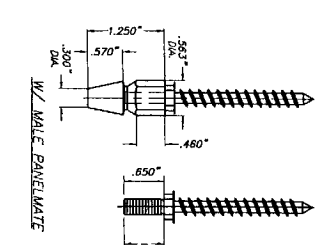
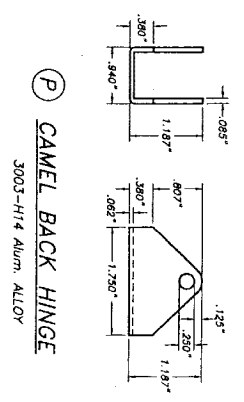
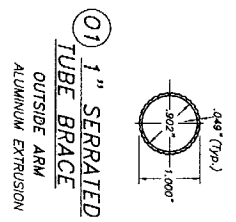
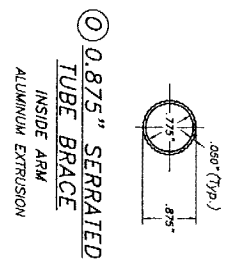
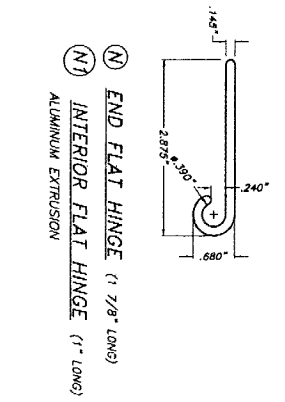
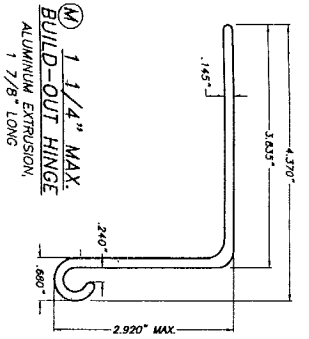
COMPONENTS



ILITECO INC.
TILT TESTING & ENGINEERING COMPANY
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Phone: (305) 871-1330 Fax: (305) 871-1331
e-mail: iliteco@iliteco.com
WALTER BA - 0008719 P. E.
FLORIDA Lic. # 14467

| | | | |
|---|--|------------|--|
| BAHAMA / COLONIAL SHUTTER | | L.G./R.E. | |
| COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC. | | DRAWN BY | |
| 7529 HOLEY CIRCLE | | DATE | |
| PANAMA CITY BEACH, FL 32408 | | 03/28/08 | |
| Phone: (850) 249-2042 Fax: (850) 249-2041 | | DATE | |
| 08-250 | | DRAWING No | |
| SHEET 2 OF 17 | | | |

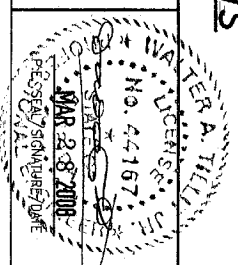
F.B.C. (NHVHZ)



① SPRING TEMPERED BRASS "U" CHANNEL (1" LONG)
& 1/4" ELCO TEXTRON MALE OR FEMALE PANELMATE
ANCHOR W/ 360 BRASS THREADED NUT

② ALTERNATE ALUMINUM "U" CHANNEL (1" LONG)
& 1/4" Ø ELCO TEXTRON MALE PANELMATE
ANCHOR OR W/ 1/4" Ø-20 S.S. MACHINE ROD

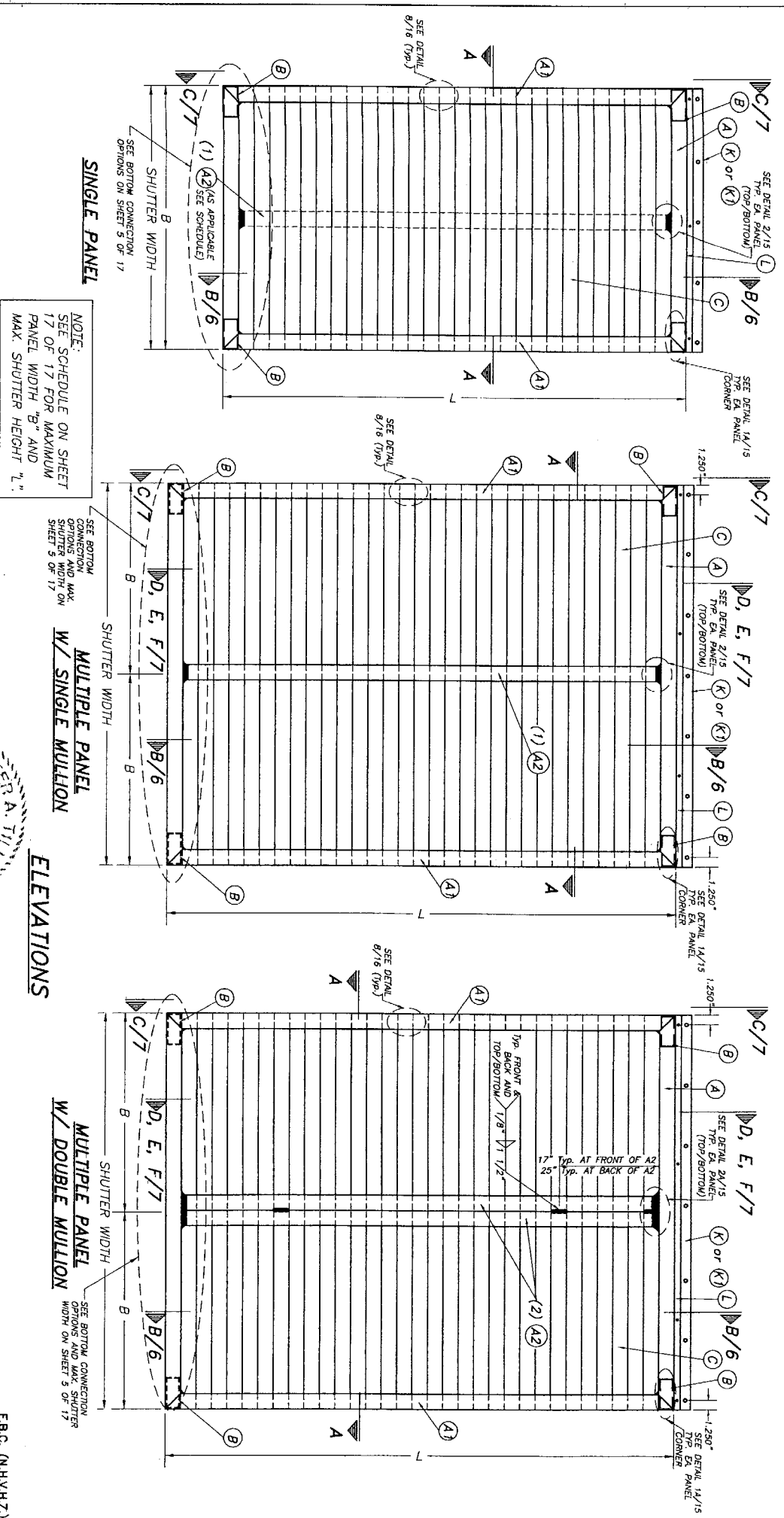
COMPONENTS



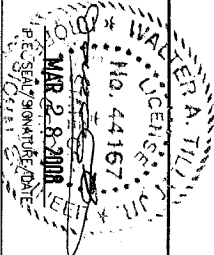
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TILTECO INC.
 TILTI TESTING & ENGINEERING COMPANY
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 Email: tilteco@tilteco.com
 WALTER A. TILL, P.E.
 FLORIDA Lic. # 44167

| | | |
|---|-----------------|-----------|
| BAHAMA / COLONIAL SHUTTER | | L.G./R.E. |
| COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC. | | DRAWN BY |
| 7525 HOLLY CIRCLE | | DATE |
| PALMBAHAMA CITY BEACH, FL 33408 | | |
| Phone: (850) 249-2040 Fax: (850) 249-2041 | | |
| REV. NO. | DESCRIPTION | DATE |
| 1 | 0.0 0.0 0.0-0.0 | 8/27/08 |
| 2 | | |
| 3 | | |
| SHEET 3 OF 17 | | |

F.B.C. (N.H.V.H.Z.)



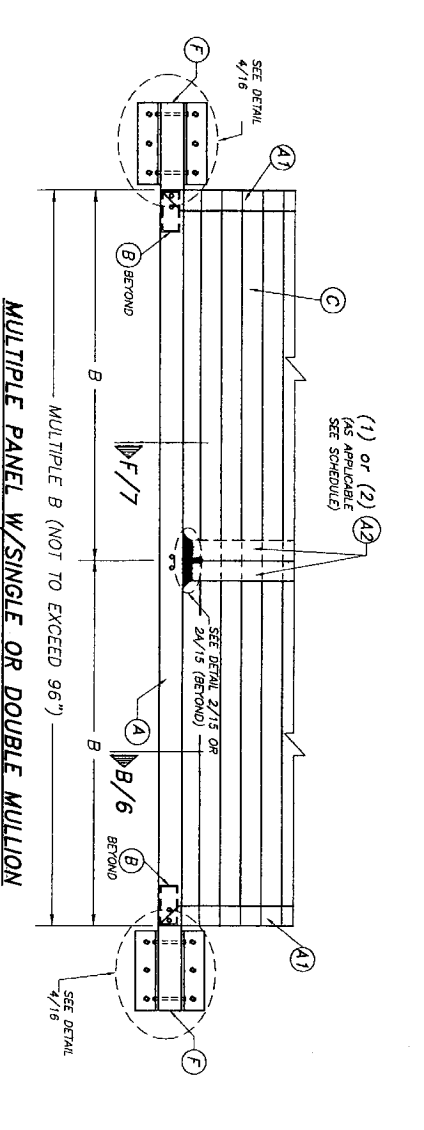
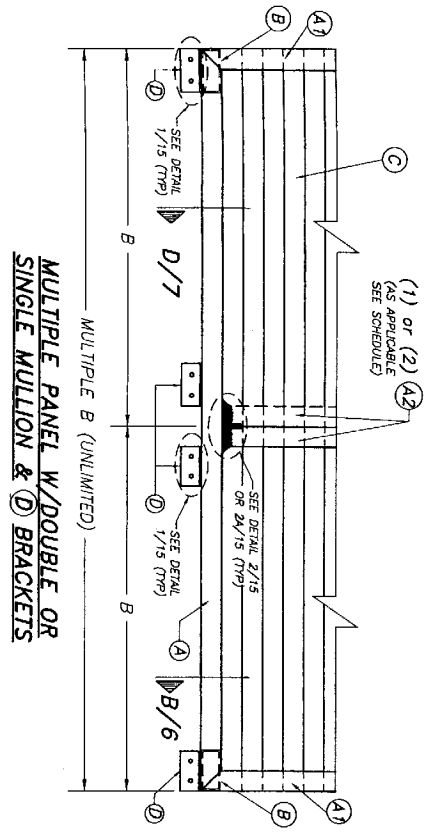
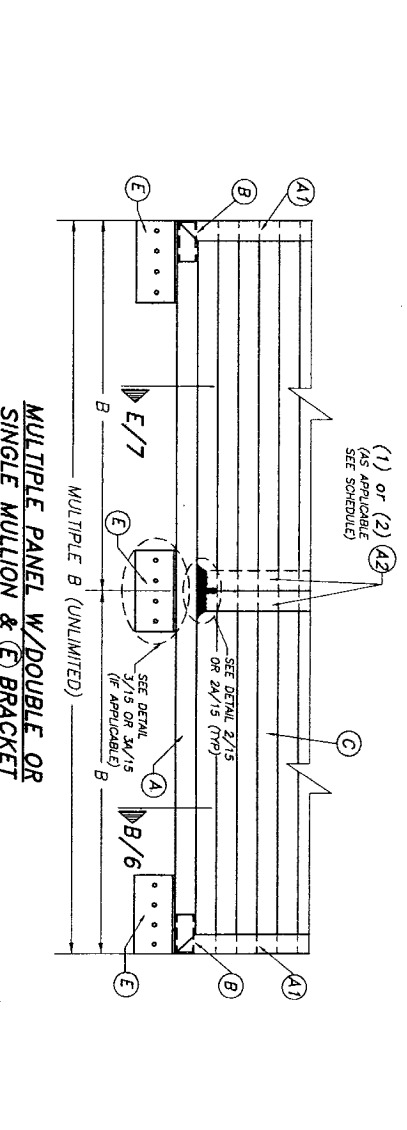
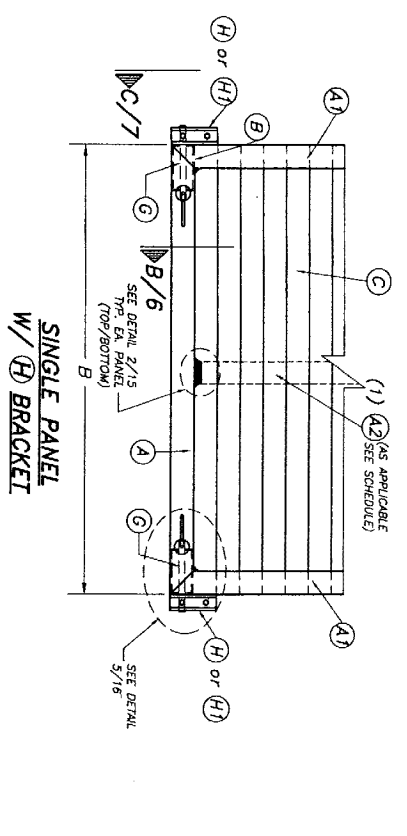
ELEVATIONS



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 TILTIT TESTING & ENGINEERING COMPANY
 6325 N.W. 36th St., Ste. 305, Virginia Gardens, Tualatin, OR 97146
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 e-mail: tiltiteco@tilteco.com
 WALTER A. TILLIE, P.E.
 TILTECO, INC.
 FLORIDA LIC. # 44167

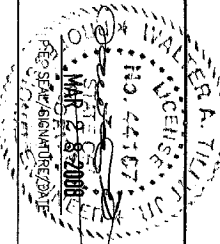
| | | |
|---|-----------------|---------------|
| BAHAMIA SHUTTER | | L.G./R.E. |
| DRAWN BY | | DATE |
| COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC. | | 03/28/08 |
| 7325 HOLLY CIRCLE | | 08-250 |
| PANAMA CITY BEACH, FL 32408 | | DRAWING NO |
| Phone: (850) 249-2040 - Fax: (850) 249-2041 | | SHEET 4 OF 17 |
| REV. NO. | DESCRIPTION | DATE |
| 1 | QAD 2962 08-250 | 8/20/08 |
| 2 | | |

F.B.C. (M.H.V.H.Z.)



NOTES:
 1. TENANT JOINTLY W/ MANUFACTURER MUST SELECT BRACKET TYPE OR STORM BAR FOR CONNECTION TO WALL.
 2. SEE SCHEDULE ON SHEET 17 OF 17 FOR MAXIMUM PANEL WIDTH "B".

OPTIONS FOR BOTTOM CONNECTIONS (ELEVATIONS)



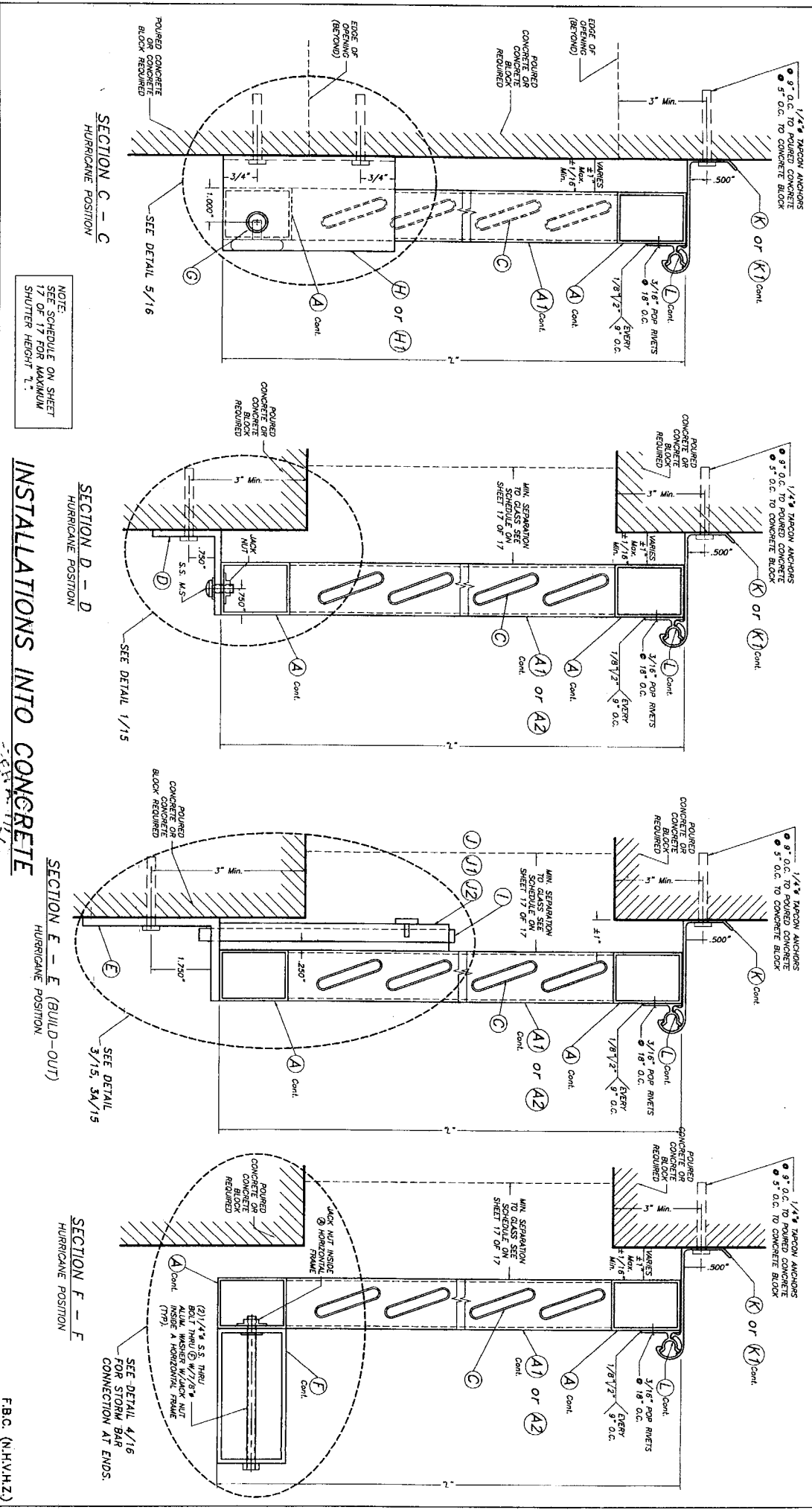
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TILTECO INC.
 TILIT TESTING & ENGINEERING COMPANY
 330 N.W. 38th St., Ste. 305, Virginia Gardens, Florida 33166
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 Phone : (950) 249-2040 Fax : (950) 249-2041

| | | | | |
|----------|-----------------|----------|----|---------|
| REV. NO. | DESCRIPTION | DATE | BY | CHK. BY |
| 1 | OLD DWG. OR-254 | 12/27/08 | | |
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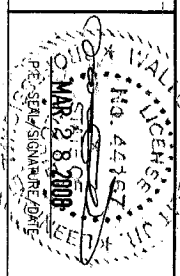
DATE: 03/28/08
 DRAWING NO: 08-250
 SHEET 5 OF 17

F.B.C. (N.H.V.H.Z.)



NOTE:
SEE SCHEDULE ON SHEET
17 OF 17 FOR MAXIMUM
SHUTTER HEIGHT 'L'.

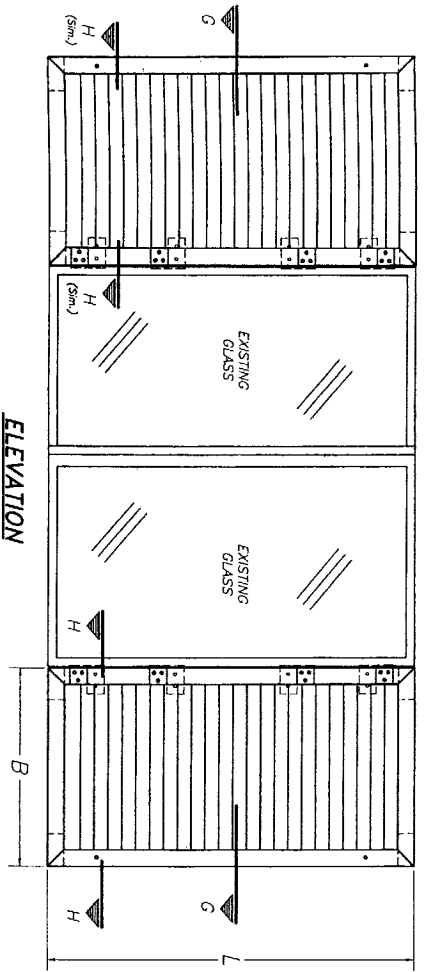
INSTALLATIONS INTO CONCRETE



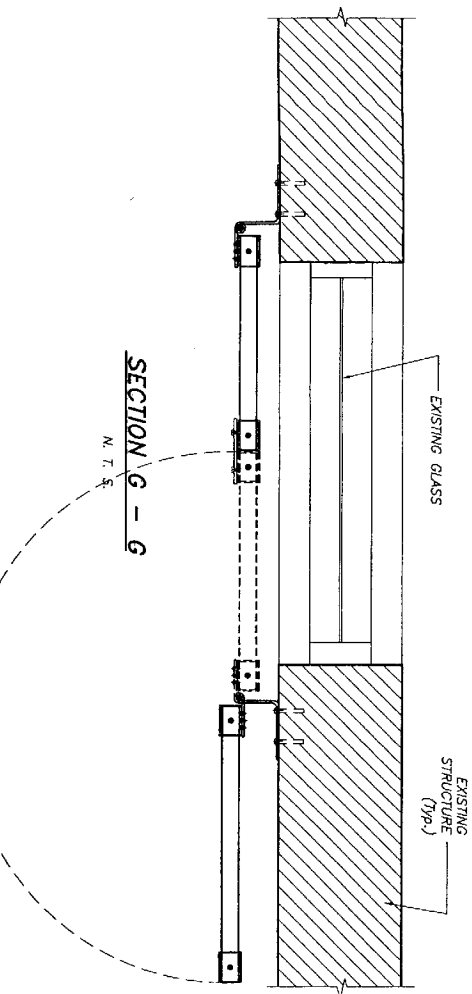
©2008 TILTECO, INC.
TILTECO INC.
 TILT TESTING & ENGINEERING COMPANY
 6305 N.W. 39th St., 5th. Fl., Boca Raton, Florida 33436
 Phone: (561) 871-1530 Fax: (561) 871-1531
 e-mail: tilteco@ttilteco.com
 WALTER EB-0008719 P. E.
 FLORIDA LIC # 44467

| | | | |
|---|-----------------|-------------|----|
| BAHAMIA SHUTTER | | J.L.G./S.E. | |
| COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC. | | DRAWN BY | |
| 7325 HOLEY CIRCLE | | DATE | |
| DANVILLE, VA 24240 | | 03-250 | |
| Phone: (850) 249-2040 Fax: (850) 249-2041 | | DRAWING NO | |
| REV. NO. | DESCRIPTION | DATE | BY |
| 1 | Q.D. 249-08-151 | 03/20/08 | J |
| 2 | | | |
| SHEET 7 OF 17 | | | |

F.B.C. (N.H.V.H.Z.)

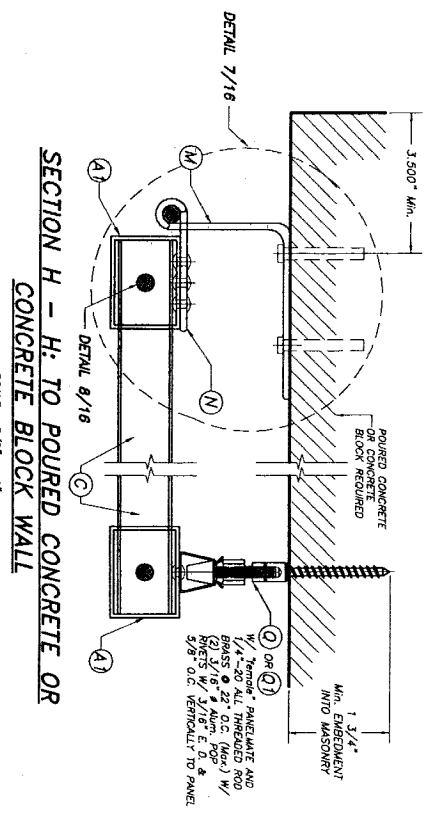


ELEVATION
N.T.S.

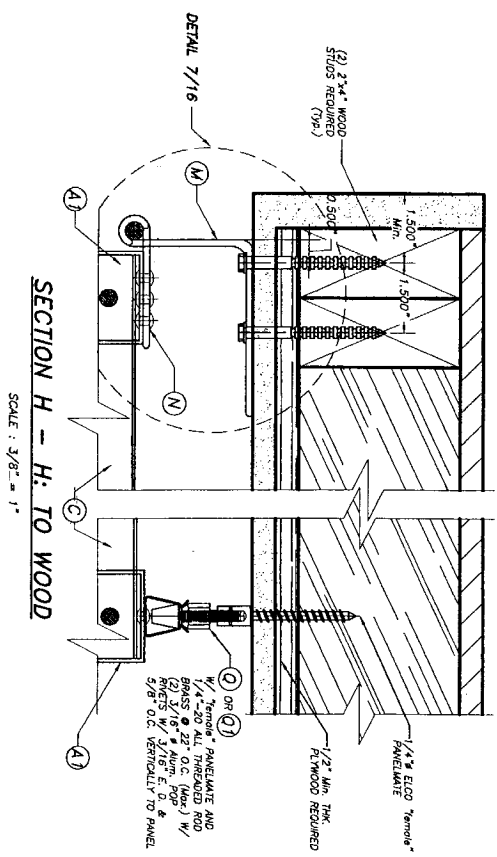


SECTION G - G
N.T.S.

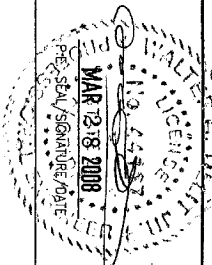
DOUBLE PANEL: OPEN POSITION (74 m.p.h. MAX. WIND SPEED)



SECTION H - H: TO POURED CONCRETE OR CONCRETE BLOCK WALL
SCALE: 3/8" = 1"



SECTION H - H: TO WOOD
SCALE: 3/8" = 1"

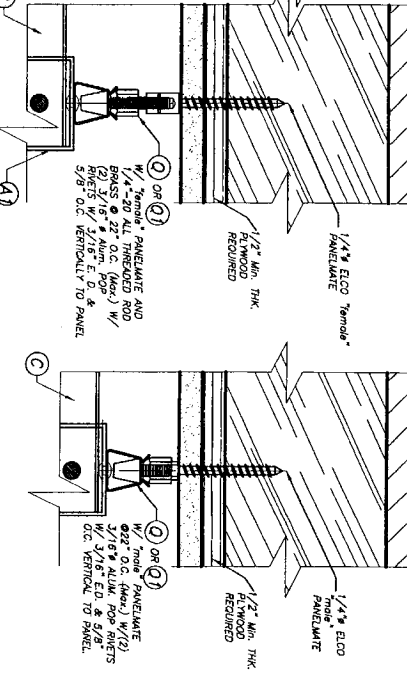
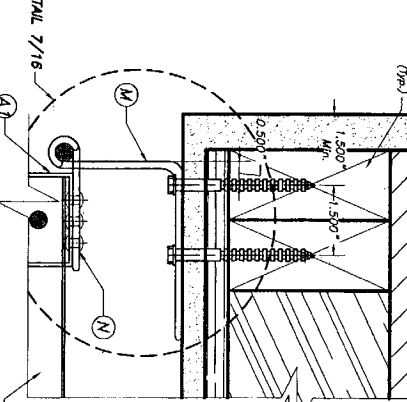
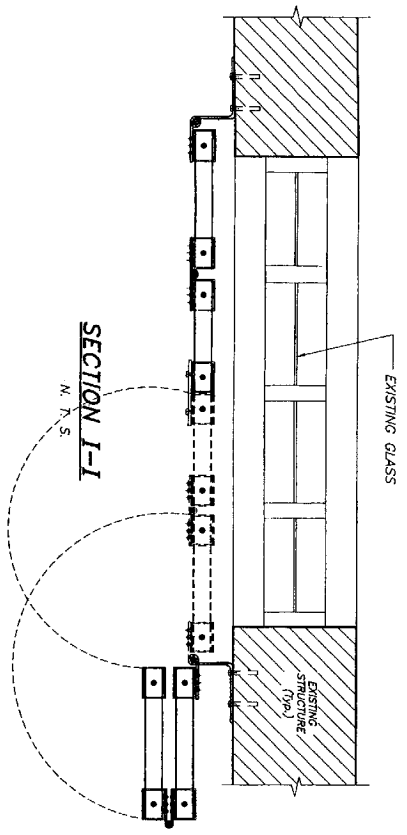
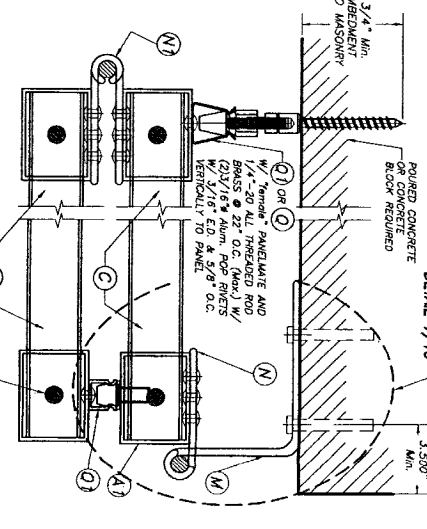
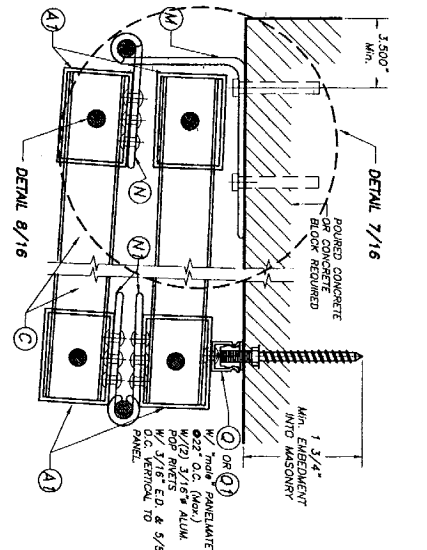
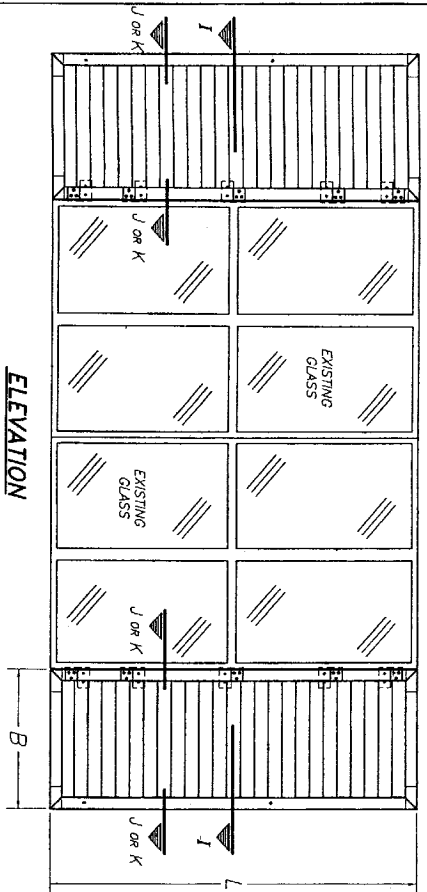


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 6355 N.W. 24th St., Ste. 305, Mirna Gardens, Florida 33166
 Phone: (305) 871-1500 Fax: (305) 871-1531
 E-mail: ET@TULLITT.COM
 WALTER A. TULLITT, P. E.
 FLORIDA LIC. # 44187

COLONIAL SHUTTER
 COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC.
 7253 HOLLEY CIRCLE
 PANAMA CITY BEACH, FL 32408
 Phone: (850) 248-2040 Fax: (850) 248-2041

| REV. NO. | DESCRIPTION | DATE | REV. NO. | DESCRIPTION | DATE |
|----------|----------------|----------|----------|-------------|------|
| 1 | QAD DWG 02-231 | 03/28/08 | 1 | REVISION | |
| 2 | | | 2 | | |

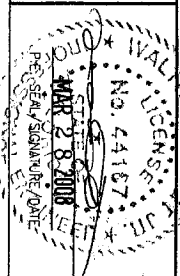
L.G./R.E.
 DRAWN BY
 DATE 03/28/08
 08-250
 DRAWING NO
 SHEET 9 OF 17



QUADRUPLE PANEL: OPEN POSITION

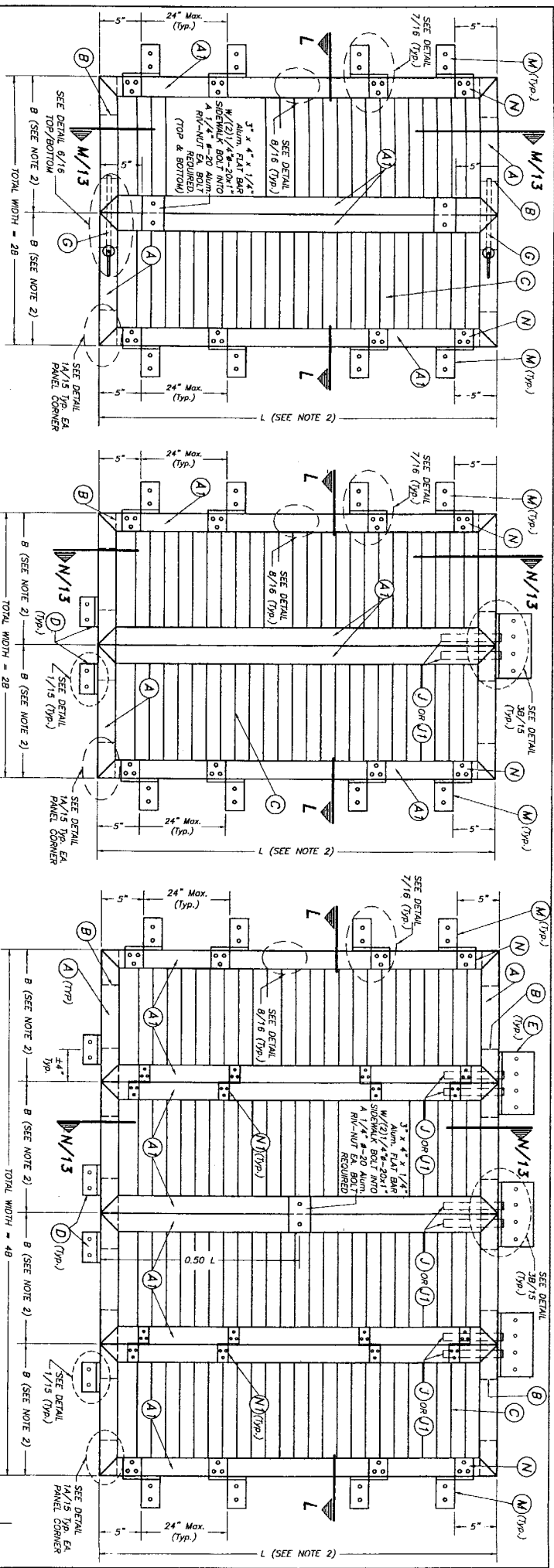
(74 m.p.h. MAX. WIND SPEED)

F.B.C. (M.H.V.H.Z.)



TILECO, INC.
 TILT UP TESTING & ENGINEERING COMPANY
 6335 N.W. 38th St., Suite 208, Miramar, Florida 33166
 Phone: (305) 871-1530, Fax: (305) 871-1531
 e-mail: tileco@tillco.com
 WALTERS - D003719 P. E.
 FLORIDA Lic. # 44187

| | | | |
|---|----------------|----------------|----|
| COLONIAL SHUTTER | | L.G./R.E. | |
| DRAWN BY | | DATE | |
| 7295 HOLLER CIRCLE | | 03/28/08 | |
| COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC. | | DATE | |
| Phone: (352) 249-2040, Fax: (352) 249-2041 | | 08-250 | |
| DRAWING NO. | | SHEET 10 OF 17 | |
| REV. NO. | DESCRIPTION | DATE | BY |
| 1 | 0.0.250 OR 2.5 | 02/20/08 | W |



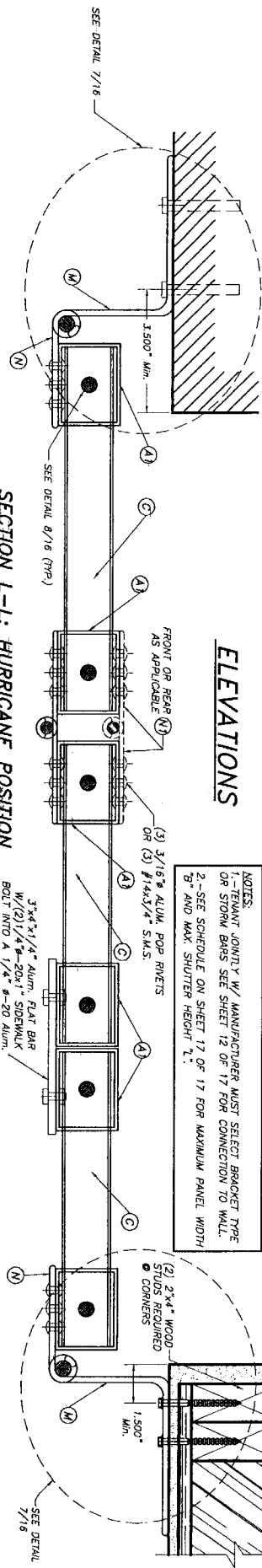
DOUBLE PANEL W/O BRACKETS

DOUBLE PANEL W/ BRACKETS

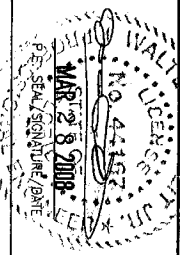
QUADRUPLE PANEL W/BRACKETS

ELEVATIONS

NOTES:
 1.-TEMP. JOINTS W/ MANUFACTURER MUST SELECT BRACKET TYPE OR STORM BARS SEE SHEET 12 OF 17 FOR CONNECTION TO WALL.
 2.-SEE SCHEDULE ON SHEET 17 OF 17 FOR MAXIMUM PANEL WIDTH.
 'B' AND MAX. SHUTTER HEIGHT 'L'.

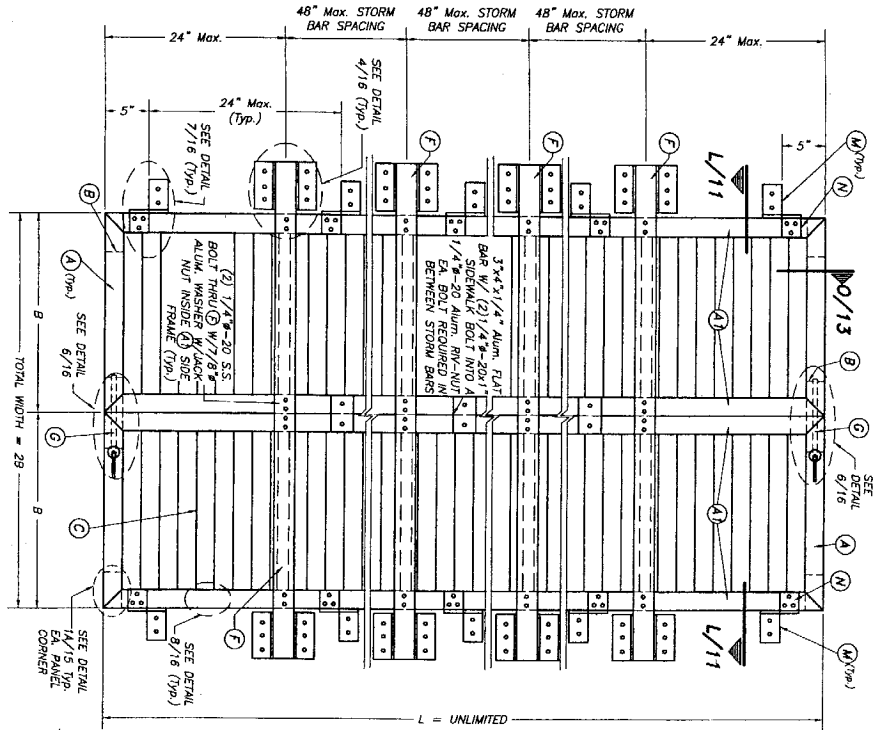


SECTION I-I: HURRICANE POSITION



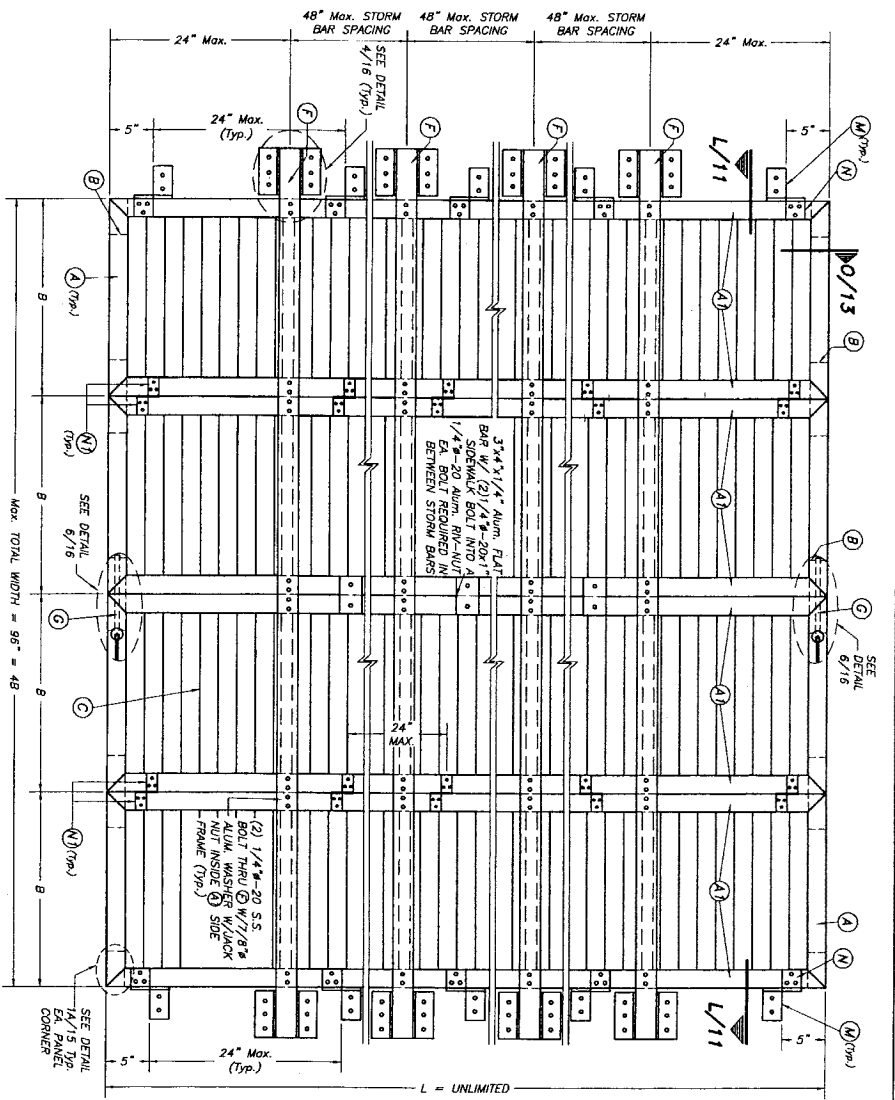
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TILTECO INC.
 TILTECO TESTING & ENGINEERING COMPANY
 6345 N.W. 36th St., 9th. 303, MIAMI GARDENS, FLORIDA 33166
 Phone : (305) 971-1330 Fax : (305) 971-1331
 e-mail: info@tilteco.com
 WALTER A. THULL, INC. P. E.
 FLORIDA, Lic. # 44187

COLONIAL SHUTTER
 COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC.
 7525 HOLLY CIRCLE
 PANAMA CITY BEACH, FL 32408
 Phone : (850) 249-2040 Fax : (850) 249-2041
 e-mail: info@csis.com
 L.G./R.E. DATE 08-25-08
 DRAWN BY DATE
 SHEET 11 OF 17



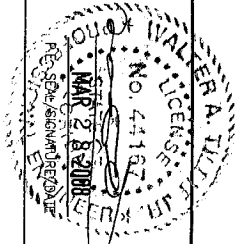
DOUBLE PANEL W/STORM BARS

NOTE:
SEE SCHEDULE ON SHEET 17 OF 17
FOR MAXIMUM PANEL WIDTH "9"



QUADRUPLE PANEL W/STORM BARS

ELEVATIONS



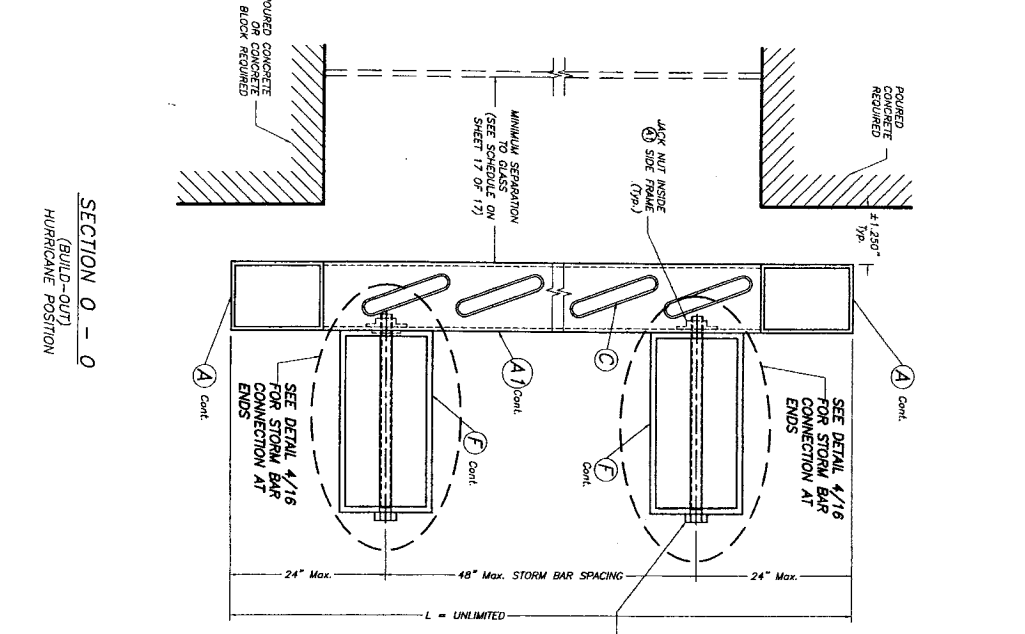
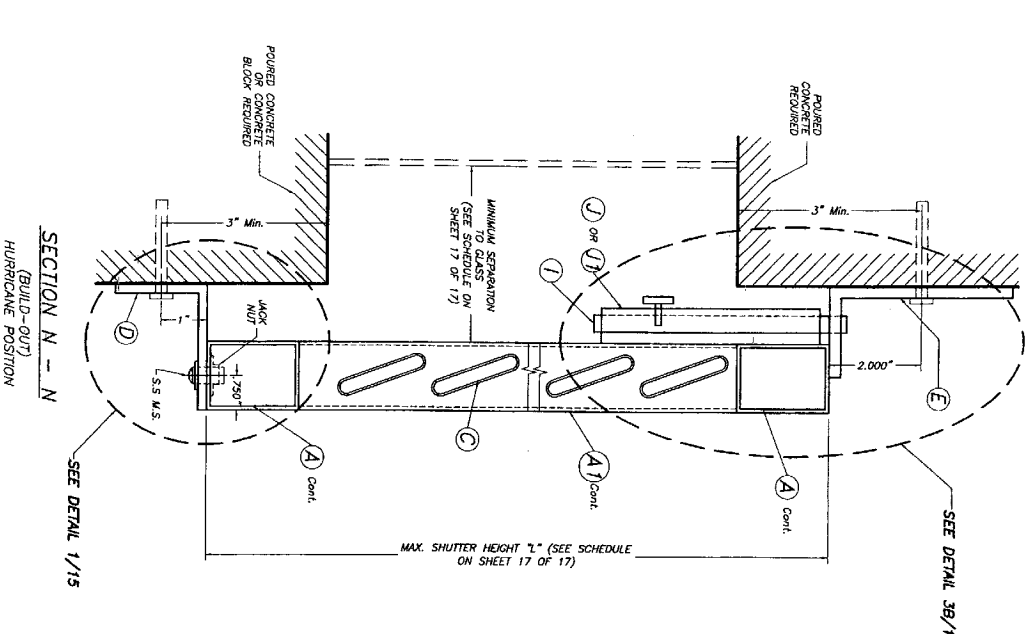
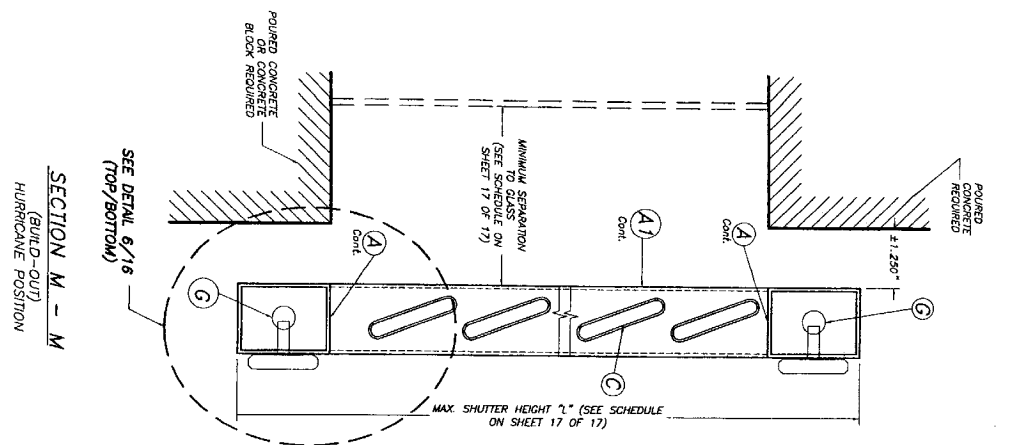
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 6325 N.W. 36th St., Suite 205, Virginia Gardens, Florida 33186
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 e-mail: tilteco@tdi.com
 WALTER A. TILLET, P. E.
 FLORIDA Lic # 44187

COLONIAL SHUTTER
 L.S./R.E.
 DRAWN BY
 03/28/08
 DATE
 08-250
 DRAWING NO
 SHEET 12 OF 17

COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC.
 2924 HOLLIST CIRCLE
 PANAMA CITY BEACH, FL 32408
 Phone : (850) 248-2040 Fax : (850) 248-2041

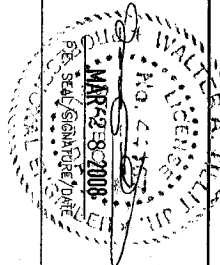
| REV. NO. | DESCRIPTION | DATE | REV. NO. | DESCRIPTION | DATE |
|----------|------------------|----------|----------|-------------|------|
| 1 | Q.D. 502 (P. 23) | 02/20/08 | 1 | | |

F.B.C. (N.H.V.H.Z.)



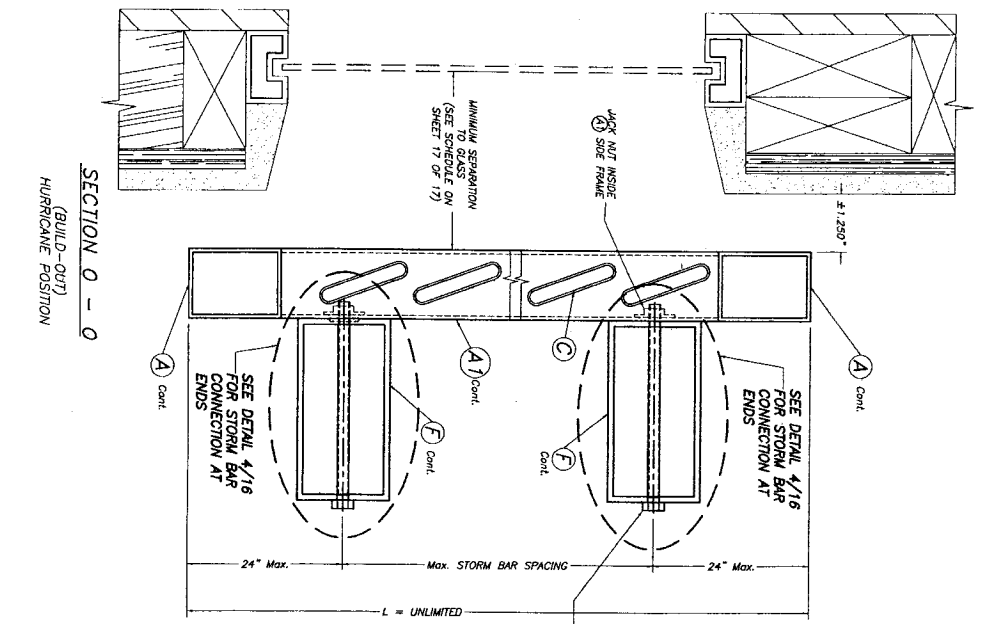
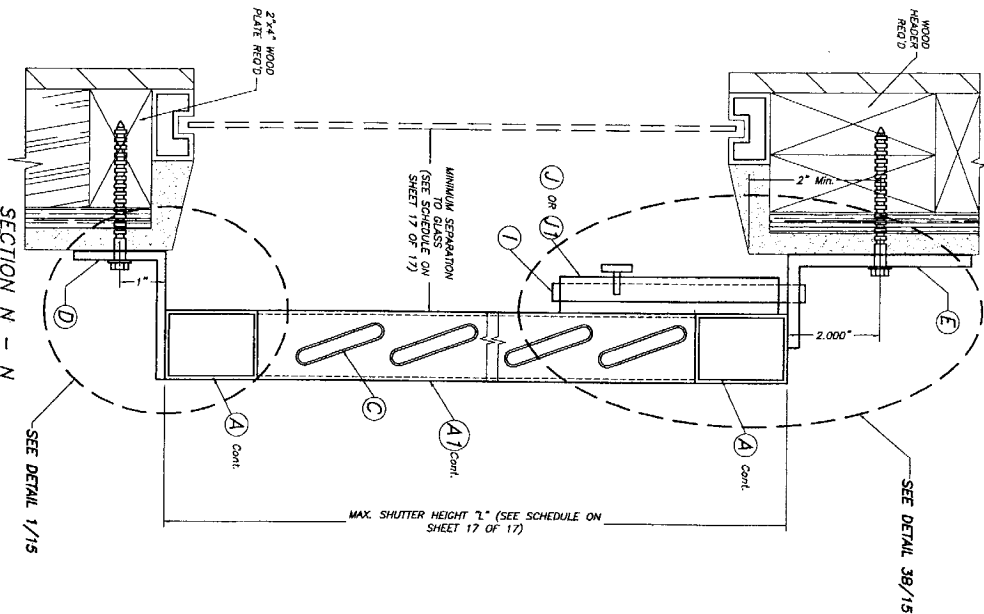
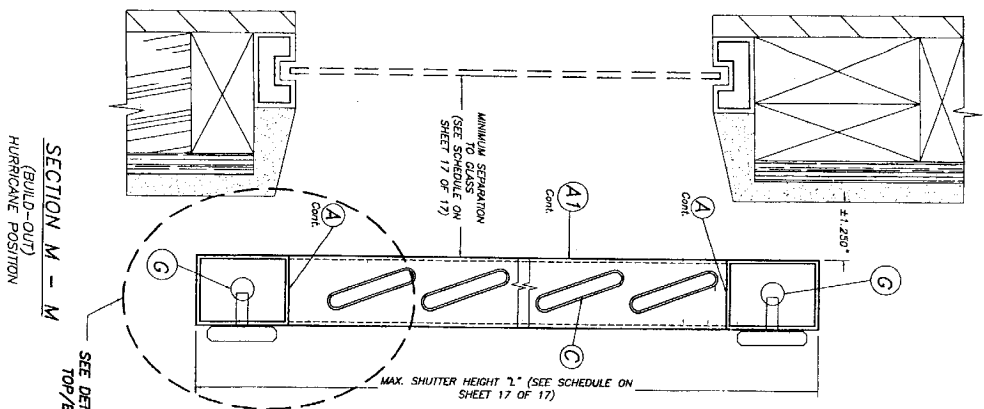
INSTALLATIONS INTO CONCRETE

F.B.C. (N.H.V.H.Z.)



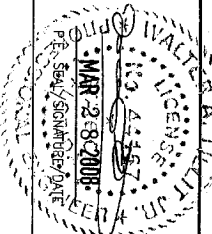
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 6335 N.W. 39th St., Ste. 303, Virginia Gardens, Florida 33166
 Phone : (305) 871-1530, Fax : (305) 871-1531
 e-mail: tilteco@001.com
 WALTER, ES-0009719 P. E.
 FLORIDA Lic. # 44187

| | | |
|--|-------------|------------|
| COLONIAL SHUTTER | | L.G./R.E. |
| DRAWN BY | | DATE |
| 03/28/08 | | |
| COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC. | | 08-250 |
| 7933 LOCUST CIRCLE | | DRAWING NO |
| PALMVALE COUNTRY BEACH, FL 32908 | | |
| Phone : (850) 248-2040, Fax : (850) 248-2041 | | |
| REV. NO. | DESCRIPTION | DATE |
| 1 | AS SHOWN | 03/28/08 |
| 2 | REVISED | |
| 3 | REVISED | |
| SHEET 13 OF 17 | | |



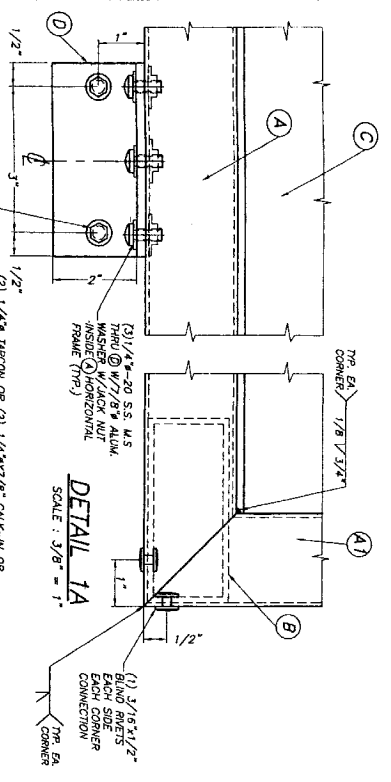
INSTALLATIONS INTO WOOD

F.B.C. (N.H.V.H.Z.)



TILECO INC.
 TILLET TESTING & ENGINEERING COMPANY
 5335 N.W. 35th St., Suite 205, Virginia Gardens, Florida 33166
 Phone : (305) 871-1250 Fax : (305) 871-1331
 e-mail: tileco@tdc.com
 WALTER A. TILLET, P. E.
 FLORIDA LIC. # 44487

| | | | |
|---|----------------|---|----|
| COLONIAL SHUTTER | | L.S./R.E. | |
| DRAWN BY | | DATE | |
| 03/28/08 | | 08-250 | |
| DRAWING NO | | SHEET 14 OF 17 | |
| COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC. | | 7325 VOLET CIRCLE | |
| PANAMA CITY, FL 32408 | | Phone : (850) 249-2040 Fax : (850) 249-2041 | |
| REV. NO. | DESCRIPTION | DATE | BY |
| 1 | OLD DWG 08-250 | 02/20/08 | |

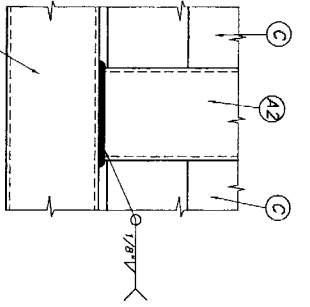


DETAIL 1
SCALE: 3/8" = 1"

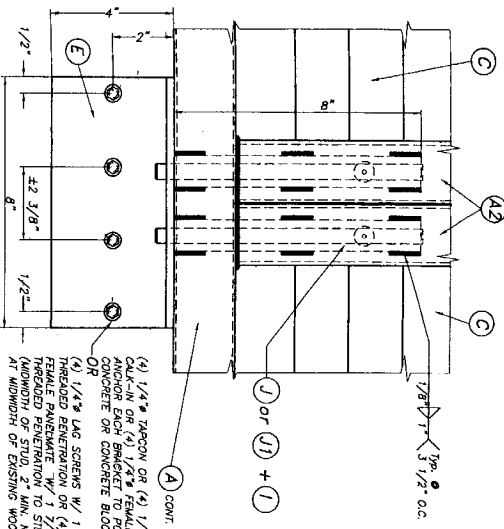
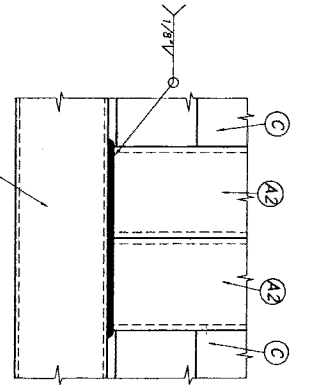
- (1) 3/16x1/2" BLIND NUTS EACH SIDE CORNER CONNECTION
- (2) 1/4" TIEBOLTS OR (2) 1/4"x2/8" CALK-IN OR (2) 1/4" FEMALE PANELMATE ANCHOR BRACKET TO POURED CONCRETE OR CONCRETE BLOCK
- OR
- (2) 1/4" LAG SCREWS W/ 1 1/2" MIN. THREADED PENETRATOR OR (2) 1/4" ELOO FEMALE PANELMATE W/ 1 1/2" MIN. THREADED PENETRATOR TO STUD (MIN. NOMINAL) OR AT MIDWIDTH OF EXISTING WOOD PLATE

DETAIL 1A
SCALE: 3/8" = 1"

DETAIL 2
SINGLE MILLION AT MULTIPLE PANELS
SCALE: 3/8" = 1"

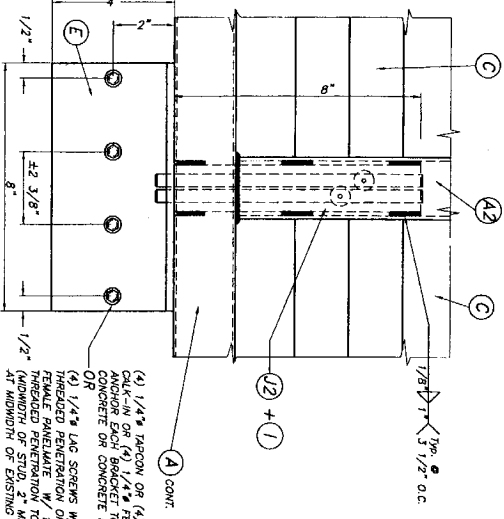


DETAIL 2A
DOUBLE MILLION AT MULTIPLE PANELS
SCALE: 3/8" = 1"



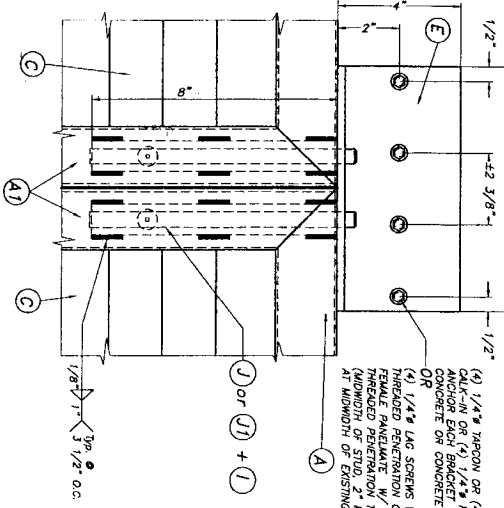
DETAIL 3
SCALE: 1/4" = 1"

- (4) 1/4" TIEBOLTS OR (4) 1/4"x2/8" CALK-IN OR (4) 1/4" FEMALE PANELMATE ANCHOR EACH BRACKET TO POURED CONCRETE OR CONCRETE BLOCK
- OR
- (4) 1/4" LAG SCREWS W/ 1 1/2" MIN. THREADED PENETRATOR OR (4) 1/4" ELOO FEMALE PANELMATE W/ 1 1/2" MIN. THREADED PENETRATOR TO STUD (MIN. NOMINAL) OR AT MIDWIDTH OF EXISTING WOOD PLATE



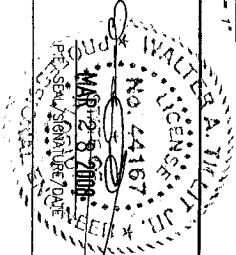
DETAIL 3A
SCALE: 1/4" = 1"

- (4) 1/4" TIEBOLTS OR (4) 1/4"x2/8" CALK-IN OR (4) 1/4" FEMALE PANELMATE ANCHOR EACH BRACKET TO POURED CONCRETE OR CONCRETE BLOCK
- OR
- (4) 1/4" LAG SCREWS W/ 1 1/2" MIN. THREADED PENETRATOR OR (4) 1/4" ELOO FEMALE PANELMATE W/ 1 1/2" MIN. THREADED PENETRATOR TO STUD (MIN. NOMINAL) OR AT MIDWIDTH OF EXISTING WOOD PLATE



DETAIL 3B
SCALE: 1/4" = 1"

- (4) 1/4" TIEBOLTS OR (4) 1/4"x2/8" CALK-IN OR (4) 1/4" FEMALE PANELMATE ANCHOR EACH BRACKET TO POURED CONCRETE OR CONCRETE BLOCK
- OR
- (4) 1/4" LAG SCREWS W/ 1 1/2" MIN. THREADED PENETRATOR OR (4) 1/4" ELOO FEMALE PANELMATE W/ 1 1/2" MIN. THREADED PENETRATOR TO STUD (MIN. NOMINAL) OR AT MIDWIDTH OF EXISTING WOOD PLATE



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 6355 N.W. 36th St., 3rd. Fl., Miramar, Florida 33186
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 e-mail: tilteco@tilteco.com
 WALTER A. TILLET, P. E.
 License No. 44167
 FLORIDA Lic. # 44167

BAHAMA / COLONIAL SHUTTER
 L.G./R.E. DRAWN BY
 03/28/08 DATE
COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC.
 7254 HOLIST ORGLE
 PANAMA CITY BEACH, FL 32408
 Phone: (850) 248-2040, Fax: (850) 248-2041

| REV. NO. | DESCRIPTION | DATE | BY | CHK. BY | REVISION | DATE |
|----------|------------------|----------|----|---------|----------|------|
| 1 | Q.D. SH. OR. SH. | 03/28/08 | | | | |

08-250 DRAWING NO
 SHEET 15 OF 17

F.B.C. (N.H.V.H.Z.)

BAHAMA SHUTTER SCHEDULE

SCHEDULE # 1
SINGLE PANEL FOR A
CORRESPONDING DESIGN PRESSURE

| | | | | |
|---------------------|---|------------------------------|---------------------------------|-------------------|
| BAHAMA SHUTTER TYPE | | | | |
| | SINGLE PANEL ELEVATION W/O BRACKETS (SHEET 9 OF 12) | | | |
| | DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM PANEL WIDTH "B" (IN) | MAXIMUM SHUTTER HEIGHT "L" (IN) | MT. MULLION REQ'D |
| +65.00, -65.00 | 36" | 76" | NO | 3" |
| +65.00, -65.00 | 42" | 76" | YES | 3" |

SCHEDULE # 2
MULTIPLE PANEL FOR A
CORRESPONDING DESIGN PRESSURE

| | | | | | |
|---------------------|---------------------------------|------------------------------|---------------------------------|------------------|-------------------|
| BAHAMA SHUTTER TYPE | | | | | |
| | MULTIPLE PANEL ELEVATION | | | | |
| | DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM PANEL WIDTH "B" (IN) | MAXIMUM SHUTTER HEIGHT "L" (IN) | BRACKETS ALLOWED | STORM BAR ALLOWED |
| +70.00, -70.00 | 24" | 66" | YES | YES | 3" |
| +60.00, -60.00 | 36" | 54" | YES | NO | 3" |
| +60.00, -60.00 | 36" | 54" | YES | YES | 3" |

COLONIAL SHUTTER SCHEDULE

SCHEDULE # 1
DOUBLE PANEL FOR A
CORRESPONDING DESIGN PRESSURE

| | | | | |
|-----------------------|--|------------------------------|---------------------------------|----------------------------------|
| COLONIAL SHUTTER TYPE | | | | |
| | DOUBLE PANEL ELEVATION W/O STORM BAR W/O BRACKETS & W/O HORIZONTAL LOOK ROD TOP/BOTTOM (SHEET 11 OF 12) | | | |
| | DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM PANEL WIDTH "B" (IN) | MAXIMUM SHUTTER HEIGHT "L" (IN) | MINIMUM SEPARATION TO GLASS (IN) |
| +66.00, -66.00 | 21" | 48" | 3" | |

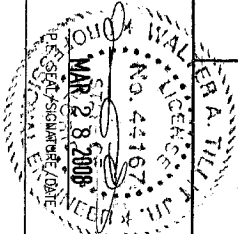
SCHEDULE # 2
DOUBLE & QUADRUPLE PANEL FOR A
CORRESPONDING DESIGN PRESSURE

| | | | | |
|-----------------------|---|------------------------------|---------------------------------|----------------------------------|
| COLONIAL SHUTTER TYPE | | | | |
| | DOUBLE & QUADRUPLE PANEL ELEVATION W/O STORM BAR AND W/O BRACKETS (SHEET 11 OF 12) | | | |
| | DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM PANEL WIDTH "B" (IN) | MAXIMUM SHUTTER HEIGHT "L" (IN) | MINIMUM SEPARATION TO GLASS (IN) |
| +55.0, -55.0 | 24" | 100" | 3" | |

SCHEDULE # 3
DOUBLE & QUADRUPLE PANEL FOR A
CORRESPONDING DESIGN PRESSURE

| | | | | |
|-----------------------|---|------------------------------|--------------------------------|----------------------------------|
| COLONIAL SHUTTER TYPE | | | | |
| | DOUBLE & QUADRUPLE PANEL ELEVATION W/ STORM BAR BUT W/O BRACKETS (SHEET 12 OF 12) | | | |
| | DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM PANEL WIDTH "B" (IN) | MAXIMUM STORM BAR SPACING (IN) | MINIMUM SEPARATION TO GLASS (IN) |
| +66.00, -66.00 | 24" | 48" | 3" | |

F.B.C. (N.H.V.H.Z.)



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 TILIT TESTING & ENGINEERING COMPANY
 6355 N.W. 36th St., Ste. 205, Miramar, Florida 33186
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 e-mail: tilteco@tdi.com
 WALTER A. TILLET, P. E.
 537-0025719
 Florida Lic. # 44167

BAHAMA / COLONIAL SHUTTER
 L.C./R.E.
 DRAWN BY
 DATE
 03/28/08
 08-250
 DRAWING NO
 SHEET 17 OF 17

COASTAL SHUTTER SYSTEMS INTERNATIONAL, INC.
 7558 JUDICE CIRCLE
 PANAMA CITY BEACH, FL 32408
 Phone: (904) 249-2040 Fax: (904) 249-2041

| REV. NO. | DESCRIPTION | DATE | BY | CHK. BY |
|----------|-------------|---------|----|---------|
| 1 | Q.D. 5/9/05 | 5/20/05 | | |