



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

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

**CONTRACTOR ENFORCEMENT DIVISION**  
(305) 375-2966 FAX (305) 375-2908

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

**PRODUCT CONTROL NOTICE OF ACCEPTANCE**

**Folding Shutter Corporation**  
**7089 Hemstreet Place**  
**West Palm Beach ,FL 33413**

Your application for Notice of Acceptance (NOA) of:  
**"Impact" Aluminum Bahama Shutter**

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

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

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

**ACCEPTANCE NO.: 01-0216.03**  
**EXPIRES: 11/15/2006**

Raul Rodriguez  
Chief Product Control Division

**THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL CONDITIONS**  
**BUILDING CODE & PRODUCT REVIEW COMMITTEE**

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

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

**APPROVED: 11/15/2001**

**Folding Shutter Corporation**

**ACCEPTANCE No. :** 01-0216.03

**APPROVED :** 11/15/2001

**EXPIRES :** 11/15/2006

**NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS**

**1. SCOPE**

This approves an Extruded Aluminum Bahama Shutter, as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code, 1994 Edition for Miami-Dade County, for the locations where the pressure requirements, as determined by SFBC Chapter 23, do not exceed the Design Pressure Rating values indicated in the approved drawings.

**2. PRODUCT DESCRIPTION**

This Extruded Aluminum Bahama Shutter and its components shall be constructed in strict compliance with the following documents: Drawing No. 1018, titled "Impact Bahama Shutter", prepared by W. W. Schaefer Engineering & Consulting, P.A., dated December 08, 2000, signed and sealed by Warren W. Schaefer, P.E. on October 22, 2001, sheets 1 through 10 of 10, bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division. These documents shall hereinafter be referred to as the approved drawings.

**3. LIMITATIONS**

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

**4. INSTALLATION**

This Extruded Aluminum Bahama Shutter and its components shall be installed in strict compliance with the approved drawings.

**5. LABELING**

Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved".

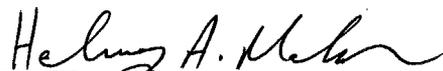
**6. BUILDING PERMIT REQUIREMENTS**

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

**6.1.1** This Notice of Acceptance.

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

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



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

**Folding Shutter Corporation**

**ACCEPTANCE No. :** 01-0216.03

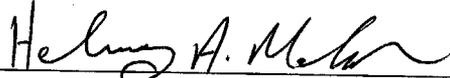
**APPROVED :** 11/15/2001

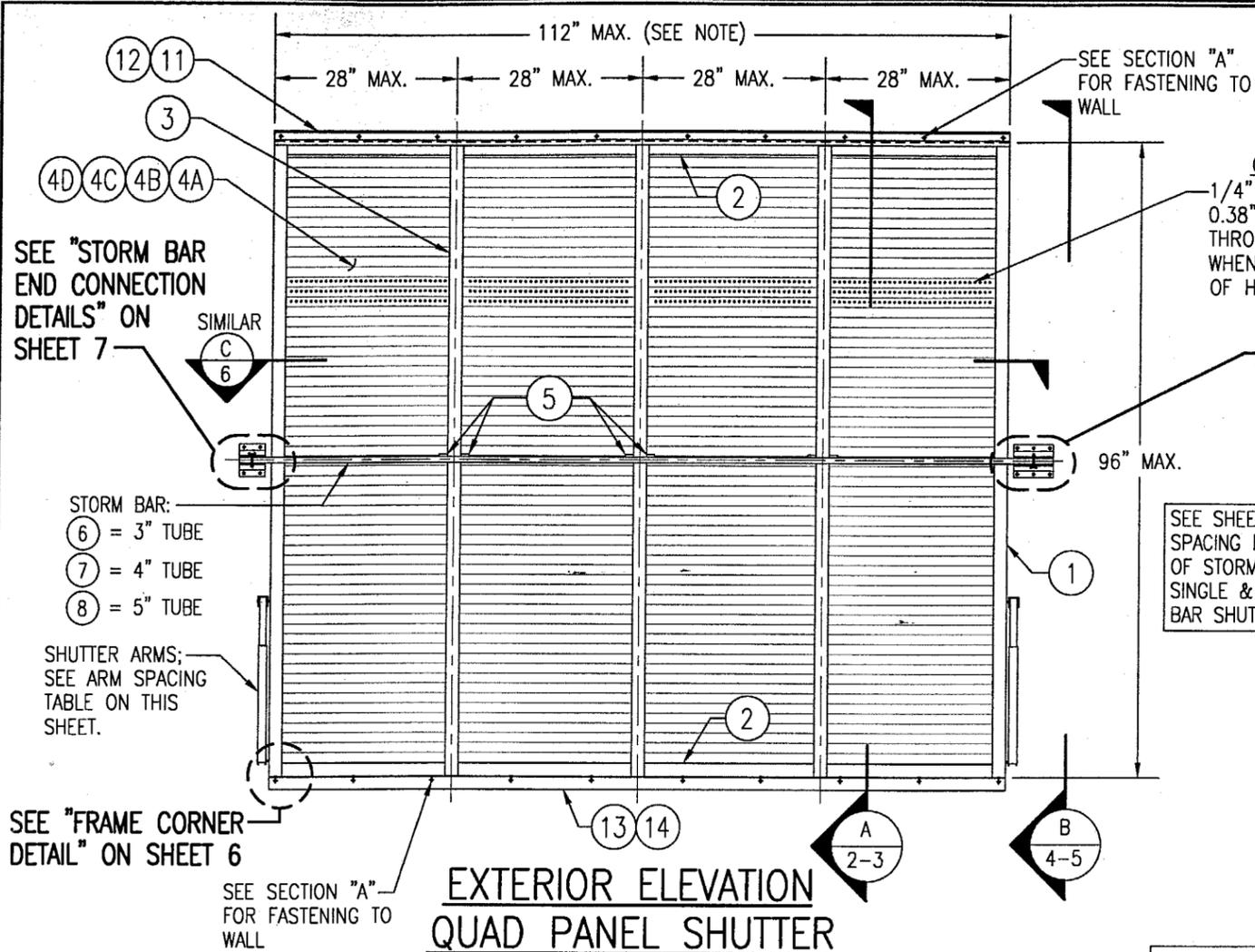
**EXPIRES :** 11/15/2006

**NOTICE OF ACCEPTANCE: STANDARD CONDITIONS**

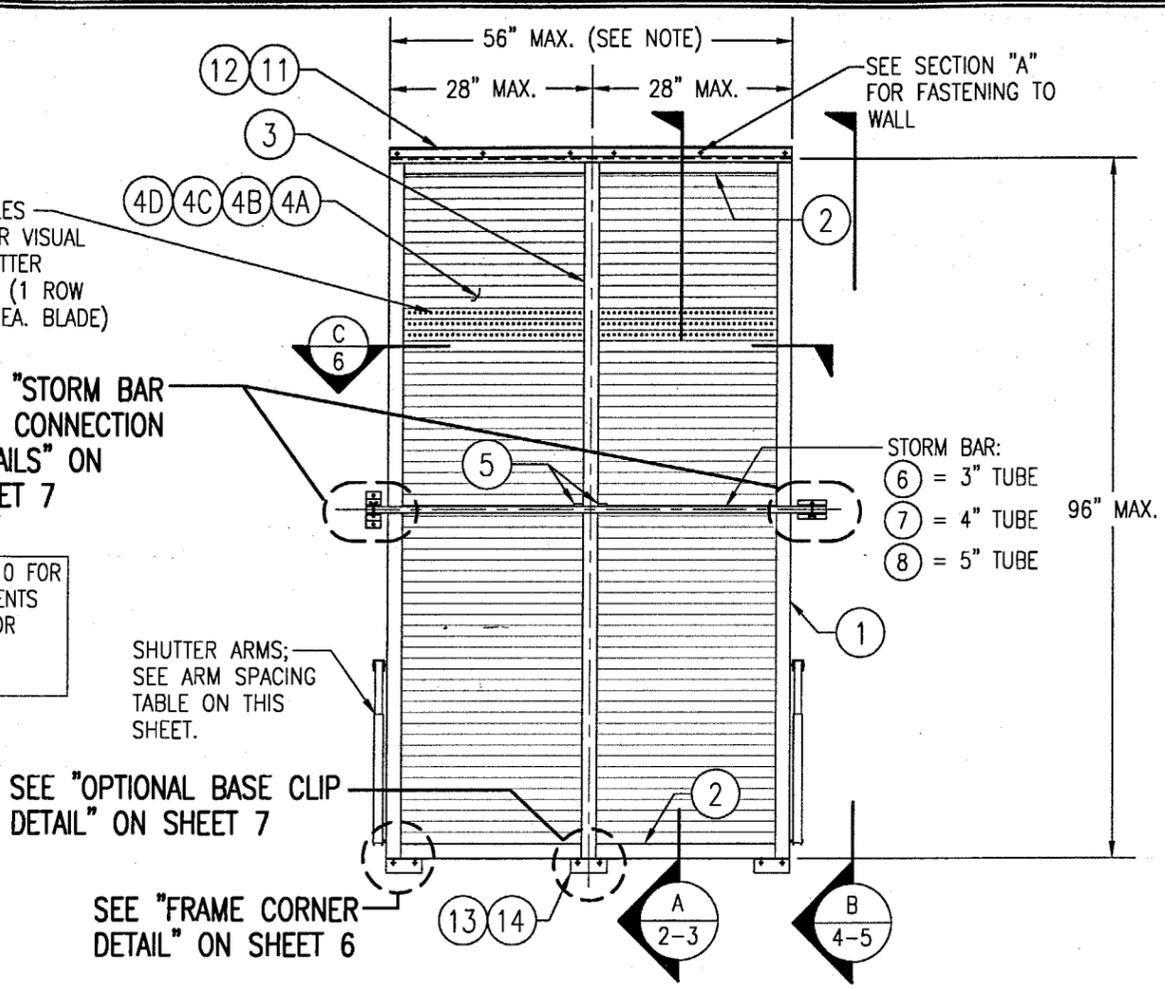
1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documents, including test-supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the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

**END OF THIS ACCEPTANCE**

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



**EXTERIOR ELEVATION  
QUAD PANEL SHUTTER**  
SCALE: 1/2"=1'-0"



**EXTERIOR ELEVATION  
DOUBLE PANEL SHUTTER**  
SCALE: 1/2"=1'-0"

MAX. ALLOWABLE DESIGN WIND LOADS	
POSITIVE	NEGATIVE
80 PSF	80 PSF

SEE SHUTTER ELEVATIONS ON SHEET 9 & STORM BAR LOAD TABLES ON SHEETS 10 FOR LOADS AS CONTROLLED BY SHUTTER SPAN & STORM BAR SPACING.

ARM SPACING TABLE	
SHUTTER HEIGHT	MAXIMUM SPACING
48" OR LESS	56"
49" < h < 60"	45"
61" < h < 72"	38"
73" < h < 84"	32"
85" < h < 96"	28"

VALUES IN THIS TABLE ARE BASED ON PRESSURES RESULTING FROM WIND SPEEDS UP TO 75 MPH

NOTE: SINGLE & THREE PANEL SHUTTERS ARE ALSO PART OF THIS APPROVAL.

NOTE: THE NUMBER OF PANELS IS GOVERNED BY:  
 1. IF STORM BARS ARE REQUIRED, ANY NUMBER OF PANELS MAY BE USED PROVIDING THE OVERALL SHUTTER WIDTH DOES NOT EXCEED 112" & THE PANEL WIDTHS DO NOT EXCEED 28".  
 2. IF NO STORM BARS ARE REQUIRED, ANY NUMBER OF PANELS MAY BE USED & THE SHUTTER OVERALL WIDTH MAY BE INFINITE PROVIDING THE PANEL WIDTHS DO NOT EXCEED 28".

STORM BAR NOTE: THE NUMBER OF STORM BARS REQUIRED WITH EACH SHUTTER TYPICALLY VARIES FROM 1 TO 3 & IS DEPENDENT ON SHUTTER SIZE & REQUIRED DESIGN PRESSURE. SEE ELEVATION SKETCHES & LOAD TABLES ON SHEETS 9 & 10 FOR STORM BAR REQUIREMENTS.

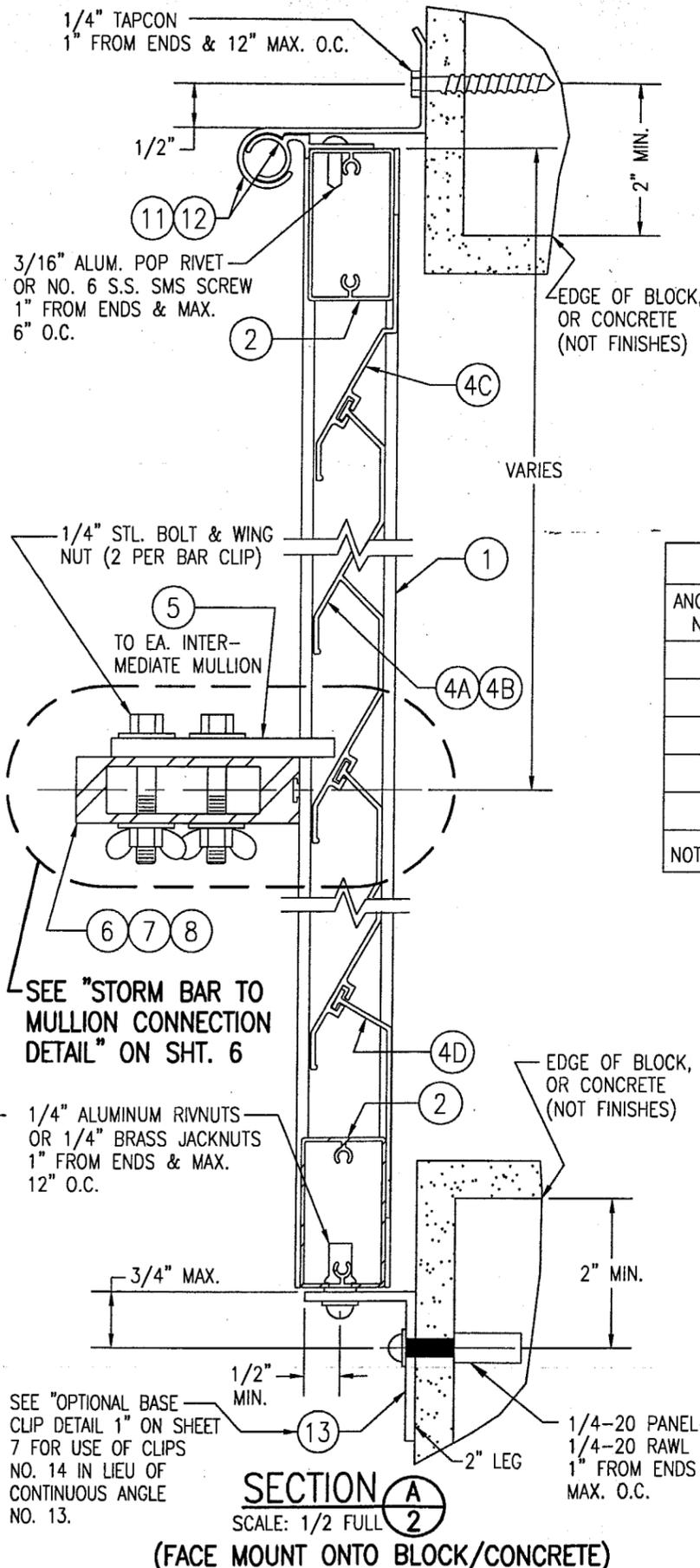
NOTE: ALL 2 PANEL SHUTTERS REQUIRE JUST 1 ARM AT EACH SIDE!!

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
 DATE: 11/15/2001  
 BY: Warren W. Schaefer, P.E.  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 01-0216-03

**GENERAL NOTES:**

- ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T5 ALLOY UNLESS SHOWN OTHERWISE ON THESE DRAWINGS.
- IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS SUPERIMPOSED BY THE SHUTTERS.
- THESE SHUTTER SYSTEMS ARE DESIGNED TO WITHSTAND WIND PRESSURES, IN THE OPEN POSITION, RESULTING FROM WIND SPEEDS UP TO 75 MPH IN ACCORDANCE WITH THE SOUTH FLORIDA BUILDING CODE 1994 EDITION (THE SHUTTER MUST BE CLOSED WHEN WIND SPEEDS ARE IN EXCESS OF 75 MPH). WHEN CLOSED, THE OWNER SHALL BE RESPONSIBLE FOR SECURING THE SHUTTER AS REQ'D.
- THESE SHUTTER SYSTEMS HAVE BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE SOUTH FLORIDA BUILDING CODE 1994 EDITION AND DADE COUNTY PROTOCOLS PA-201, 202 & 203.
- EACH SHUTTER SHALL HAVE A LEGABLE & READILY VISIBLE MARKING INSTRUCTING THE OWNER/TENNANT TO SECURE THE SHUTTER WITH BRACKETS & STORM BARS, PER THESE APPROVED DRAWINGS, DURING PERIODS OF HURRICANE WARNINGS.
- EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED AS FOLLOWS:  
 FOLDING SHUTTER CORPORATION  
 WEST PALM BEACH, FLORIDA  
 MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
- ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI.
- ALL WOOD SUBSTRATE SHALL HAVE MIN. G = 0.55 DENSITY.
- SHUTTERS MUST BE PLACED SUCH THAT THE MINIMUM DISTANCE BETWEEN THE SHUTTER AND THE GLASS IT PROTECTS IS 3.25".

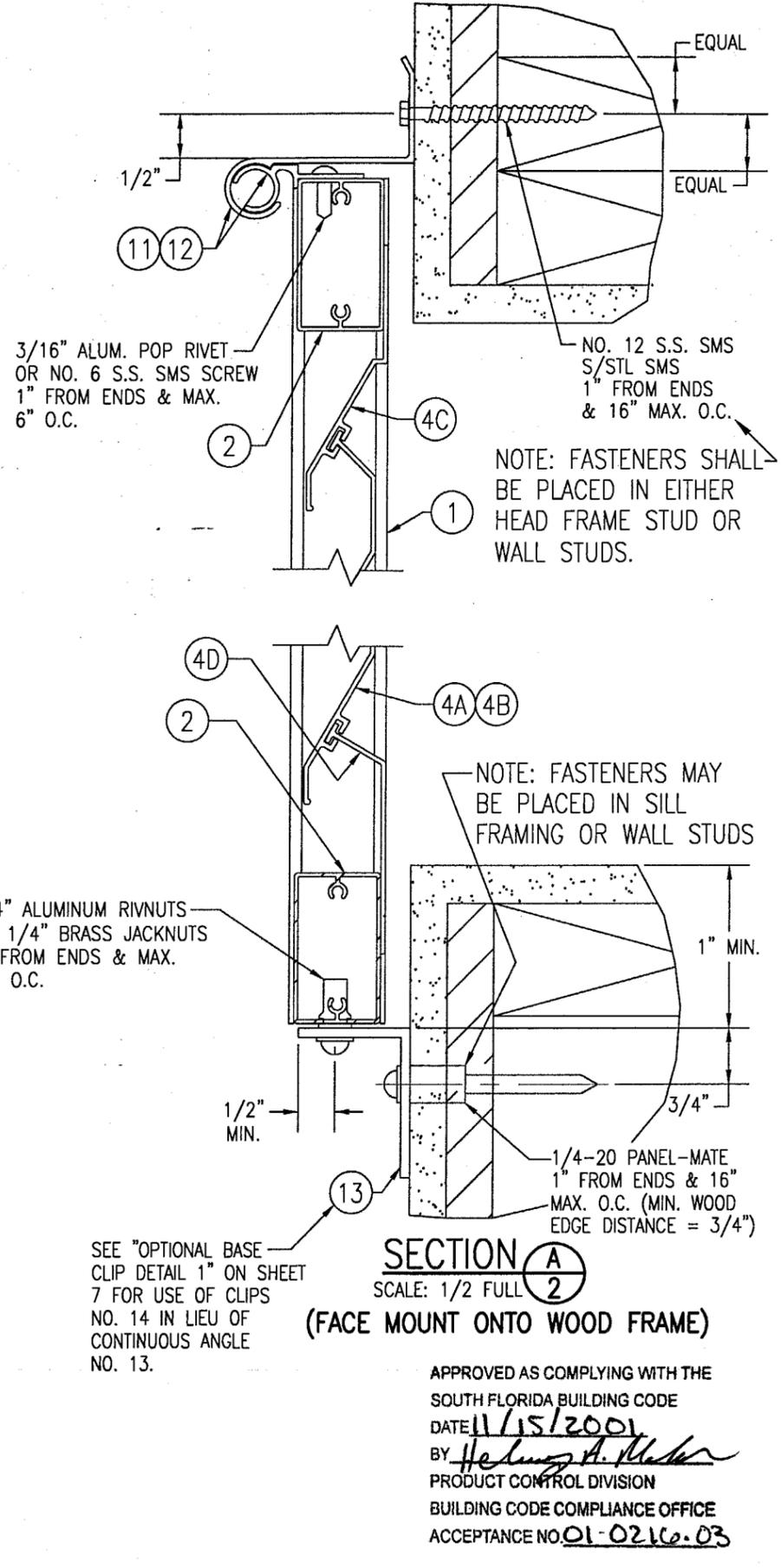
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 12/08/00
DATE	
BY	
REVISION DESCRIPTION	
NO.	
IMPACT BAHAMA SHUTTER (DADE)	
MANUFACTURER	
FOLDING SHUTTER CORPORATION	
7089 HEMSTREET PLACE	
WEST PALM BEACH, FLORIDA 33413	
561-683-4811	
CONSULTANTS	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.	
600 SANDTREE DRIVE, SUITE 203B	
PALM BEACH GARDENS, FL 33403	
PHONE: 561-775-4902 FAX: 561-775-4903	
DRAWING TITLE	
OCT 22 2001	
CERTIFICATION	
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1018	REV.
SHEET NO. 1	OF 10



**ANCHOR SCHEDULE**

ANCHOR NO.	ANCHOR TYPE	SUBSTRATE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.
A	NO. 12 S.S. SMS SCREW	WOOD	1 1/2"	3/4"
B	1/4" TAPCON	CONCRETE/BLOCK	1 3/4"	3"
C	1/4-20 RAWL CAULK-IN	CONCRETE/BLOCK	7/8"	3"
D	1/4-20 PANELMATE (MALE OR FEMALE)	WOOD	1 7/8"	3/4"
E	1/4-20 PANELMATE (MALE OR FEMALE)	CONCRETE/BLOCK	1 1/4"	3"

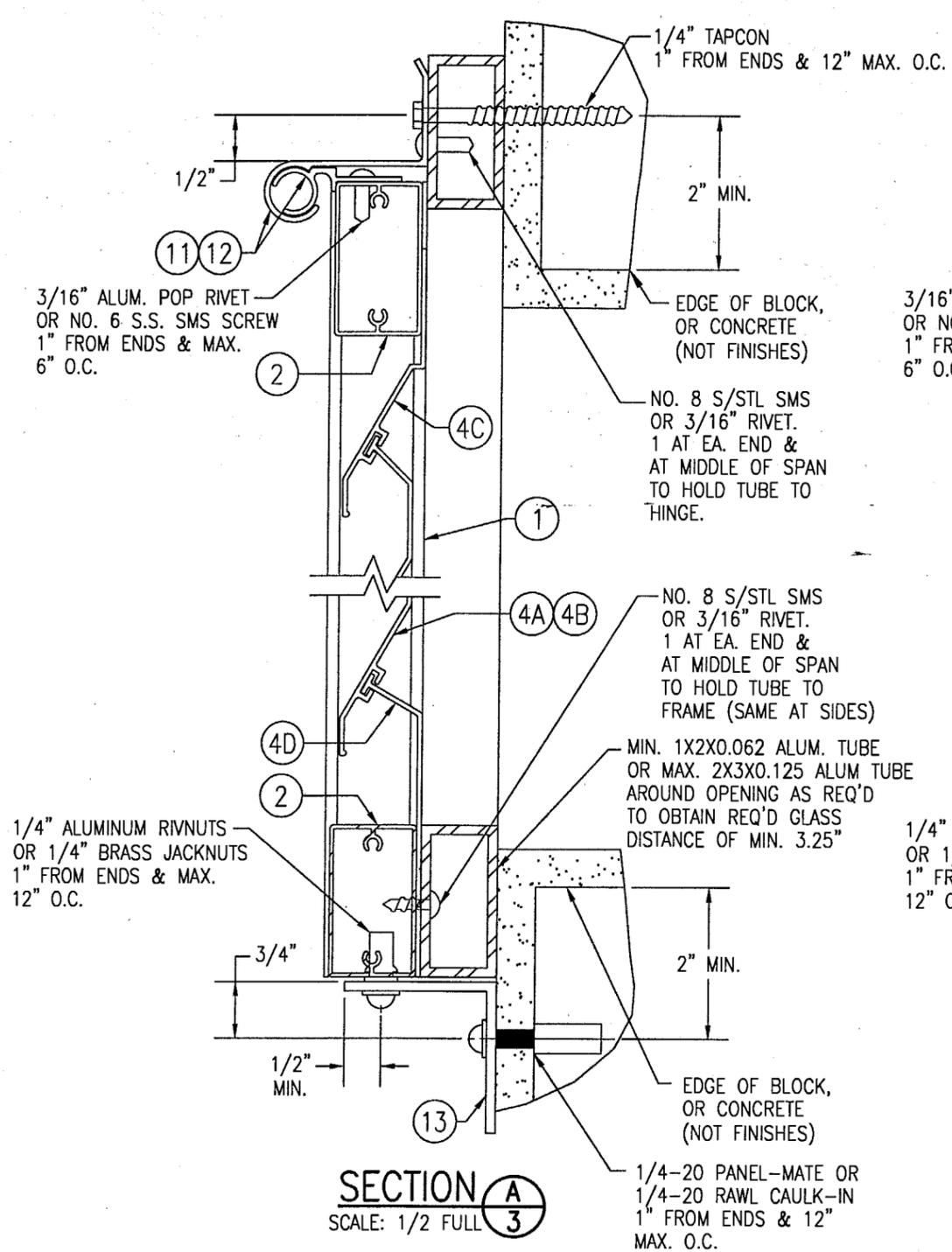
NOTE: 1/4" STL. OR S.S. BOLTS SHALL BE USED WITH ANCHORS C, D & E.



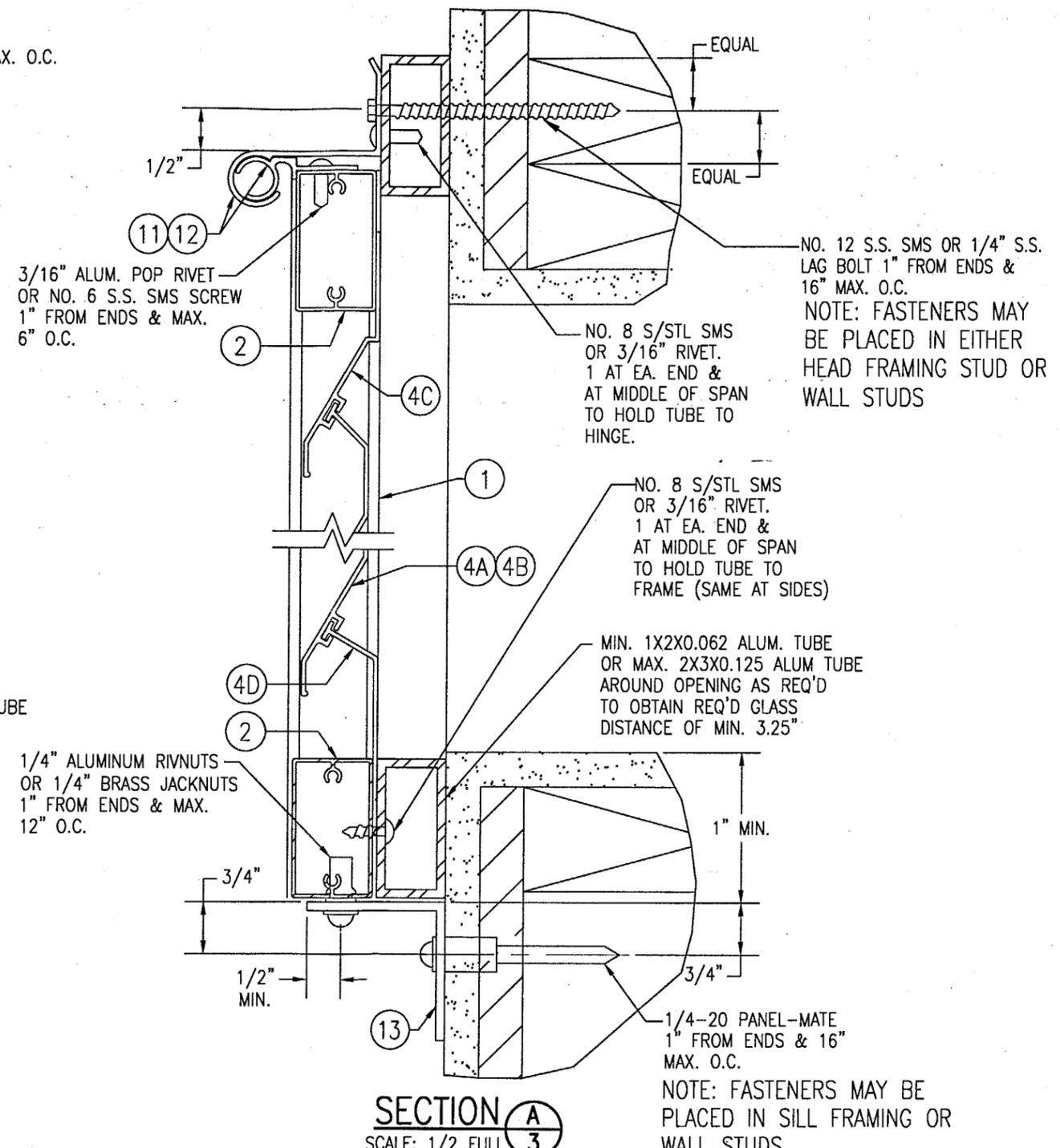
**SECTION A**  
SCALE: 1/2 FULL  
(FACE MOUNT ONTO WOOD FRAME)

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE 11/15/2001  
BY *Warren W. Schaefer*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 01-0216-03

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-2	DATE: 12/08/00
DATE	BY
REVISION DESCRIPTION	NO.
<b>IMPACT BAHAMA SHUTTER (DADE)</b>	
MANUFACTURER <b>FOLDING SHUTTER CORPORATION</b> 7089 HEMSTREET PLACE WEST PALM BEACH, FLORIDA 33413 561-683-4811	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
DRAWING TITLE	CERTIFICATION
OCT 22 2001	OCT 22 2001
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1018	REV.
SHEET NO. 2	OF 10



(BUILD-OUT MOUNT ONTO BLOCK/CONCRETE)



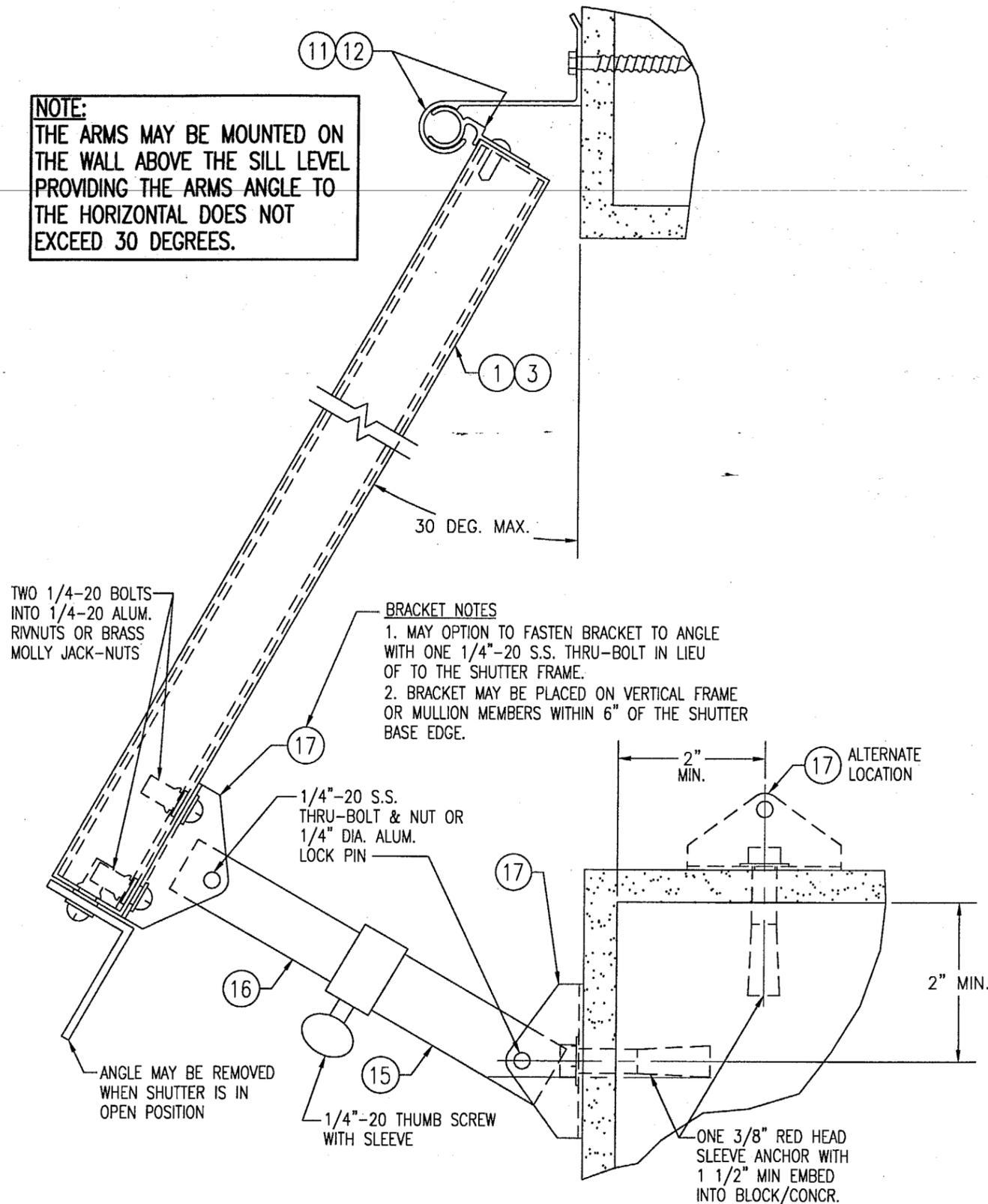
(BUILD-OUT MOUNT ONTO WOOD FRAME)

FOR FASTENER EDGE DISTANCE & SPACING  
REQUIREMENTS, SEE SHEET 2.

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE 11/15/2001  
BY *Warren W. Schaefer*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 01-0216-03

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 12/08/00
DATE	
BY	
REVISION DESCRIPTION	
NO.	
IMPACT BAHAMA SHUTTER (DADE)	
MANUFACTURER FOLDING SHUTTER CORPORATION 7089 HEMSTREET PLACE WEST PALM BEACH, FLORIDA 33413 561-683-4811	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
CERTIFICATION OCT 22 2001	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1018	REV.
SHEET NO. 3	OF 10

**NOTE:**  
THE ARMS MAY BE MOUNTED ON THE WALL ABOVE THE SILL LEVEL PROVIDING THE ARMS ANGLE TO THE HORIZONTAL DOES NOT EXCEED 30 DEGREES.

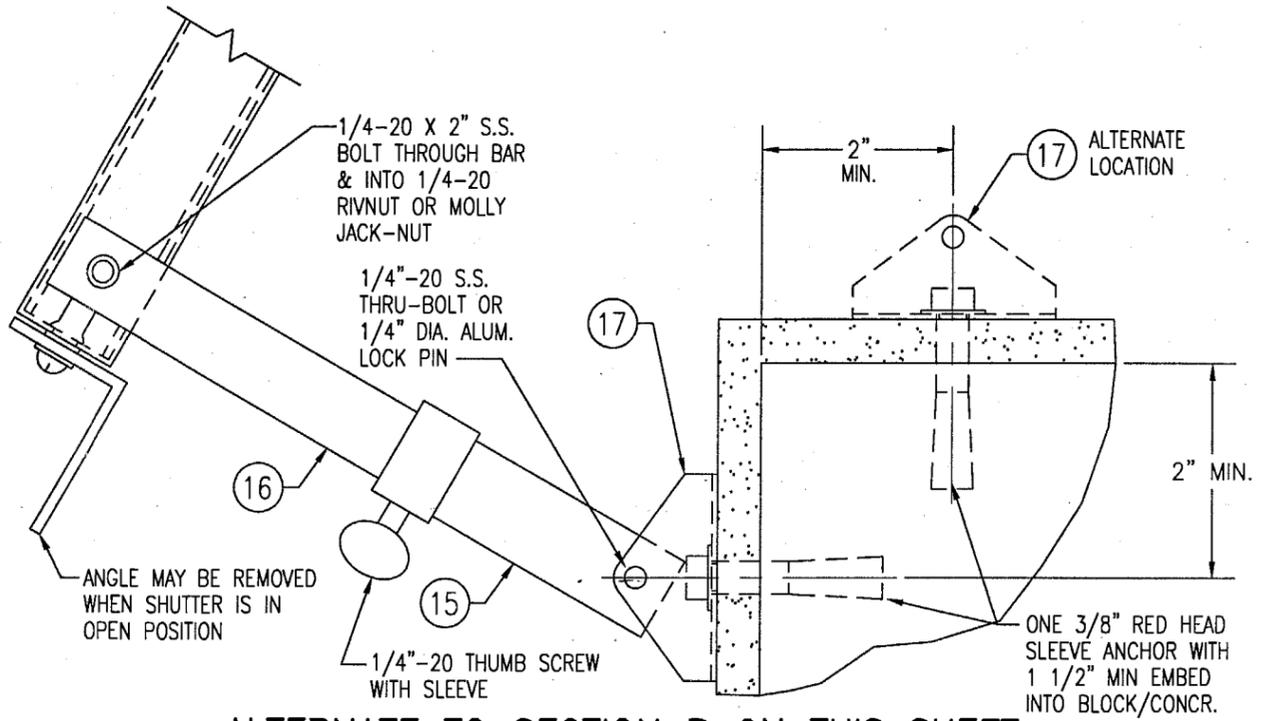


**BRACKET NOTES**

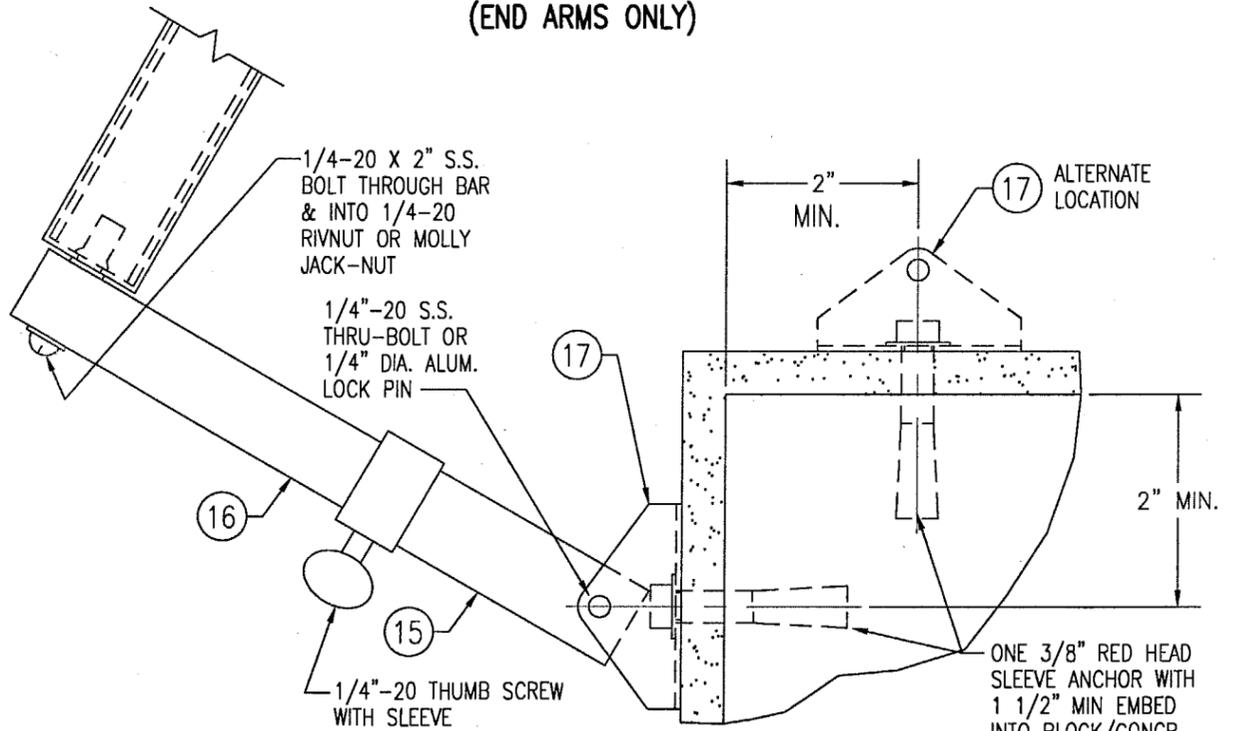
1. MAY OPTION TO FASTEN BRACKET TO ANGLE WITH ONE 1/4"-20 S.S. THRU-BOLT IN LIEU OF TO THE SHUTTER FRAME.
2. BRACKET MAY BE PLACED ON VERTICAL FRAME OR MULLION MEMBERS WITHIN 6" OF THE SHUTTER BASE EDGE.

**SECTION B**  
SCALE: 1/2 FULL

(OPEN SHUTTER AT FACE MOUNT CONDITION TO BLOCK/CONCRETE)  
SEE "ARM SPACING TABLE" ON SHEET 1 FOR SPACING OF ARMS



**ALTERNATE TO SECTION B ON THIS SHEET**  
(END ARMS ONLY)



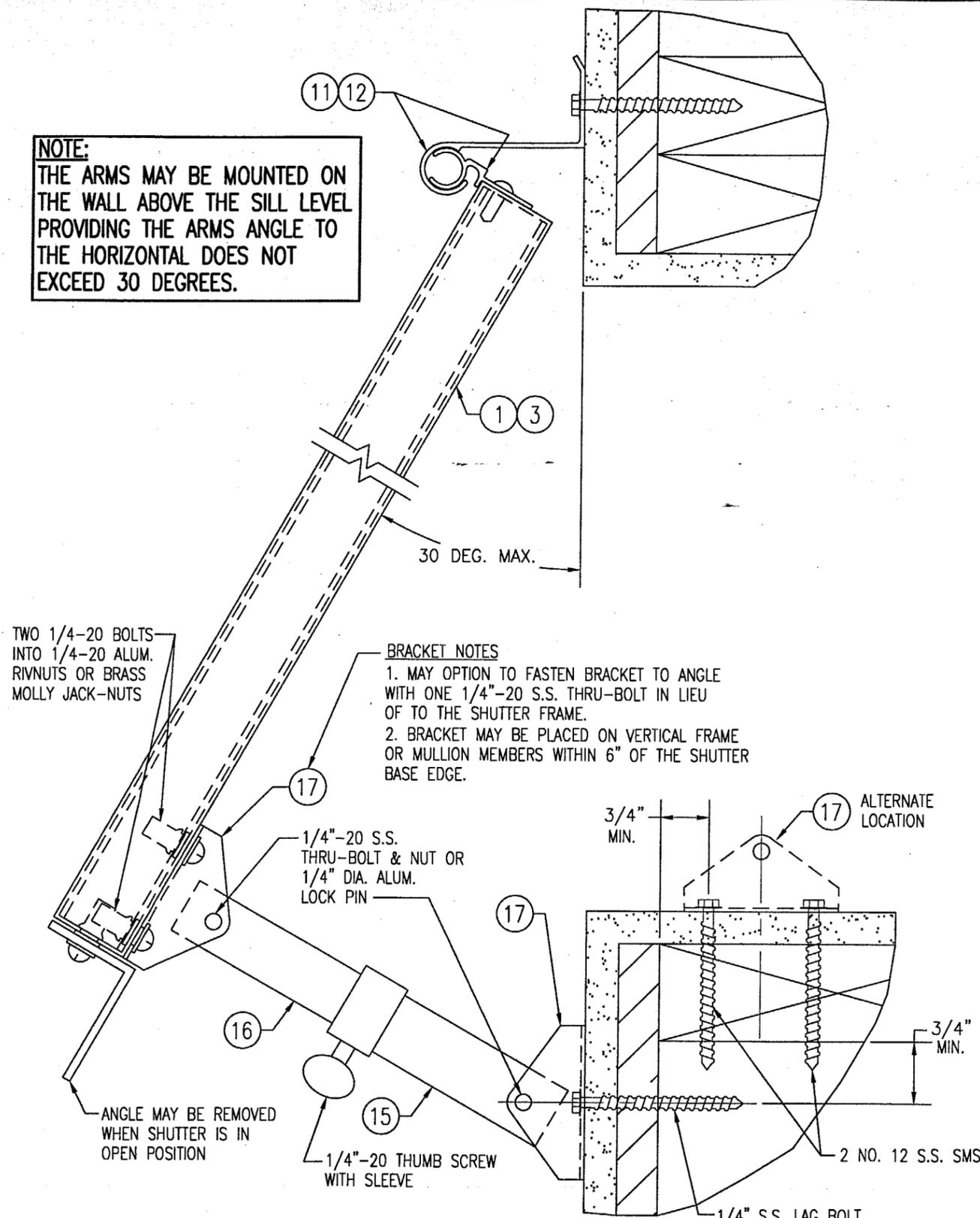
**ALTERNATE TO SECTION B ON THIS SHEET**

FOR FASTENER EDGE DISTANCE & SPACING REQUIREMENTS, SEE SHEET 2.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
DATE 11/15/2001  
BY *Warren W. Schaefer*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 01-0216.03

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 12/08/00
DATE	BY
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>IMPACT BAHAMA SHUTTER (DADE)</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b>	MANUFACTURER <b>FOLDING SHUTTER CORPORATION</b>
600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	7089 HEMSTREET PLACE WEST PALM BEACH, FLORIDA 33413 561-683-4811
CERTIFICATION <b>OCT 22 2001</b>	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. <b>1018</b>	REV.
SHEET NO. <b>4</b>	OF <b>10</b>

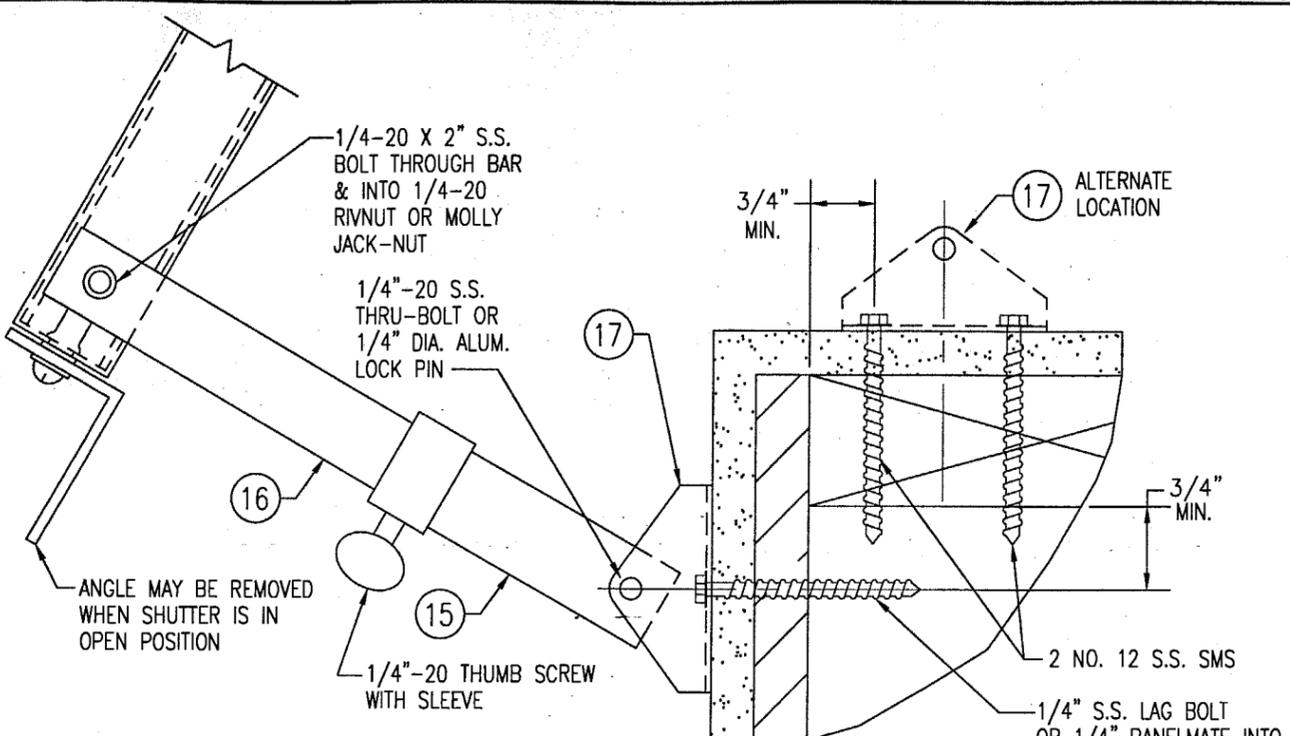
**NOTE:**  
THE ARMS MAY BE MOUNTED ON THE WALL ABOVE THE SILL LEVEL PROVIDING THE ARMS ANGLE TO THE HORIZONTAL DOES NOT EXCEED 30 DEGREES.



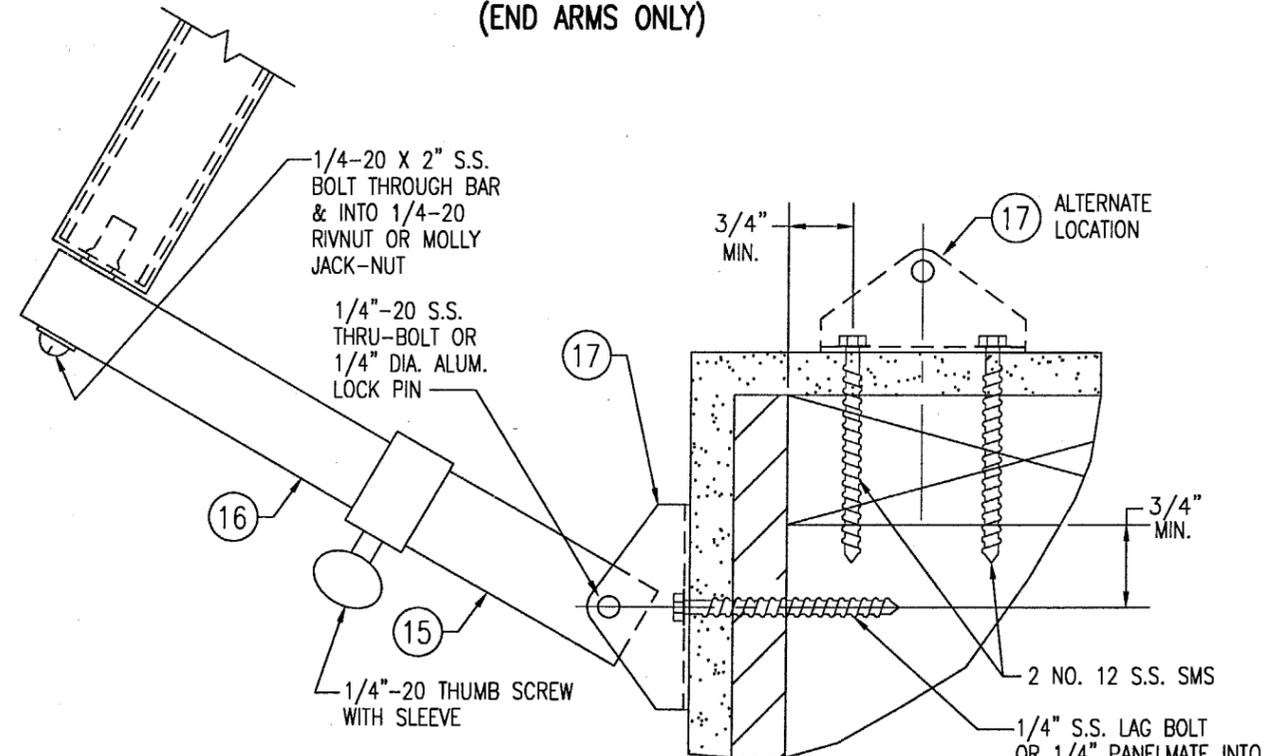
**BRACKET NOTES**  
1. MAY OPTION TO FASTEN BRACKET TO ANGLE WITH ONE 1/4"-20 S.S. THRU-BOLT IN LIEU OF TO THE SHUTTER FRAME.  
2. BRACKET MAY BE PLACED ON VERTICAL FRAME OR MULLION MEMBERS WITHIN 6" OF THE SHUTTER BASE EDGE.

**SECTION B**  
SCALE: 1/2 FULL

(OPEN SHUTTER AT FACE MOUNT CONDITION TO WOOD FRAMING)  
SEE "ARM SPACING TABLE" ON SHEET 1 FOR SPACING OF ARMS



**ALTERNATE TO SECTION B ON THIS SHEET**  
(END ARMS ONLY)

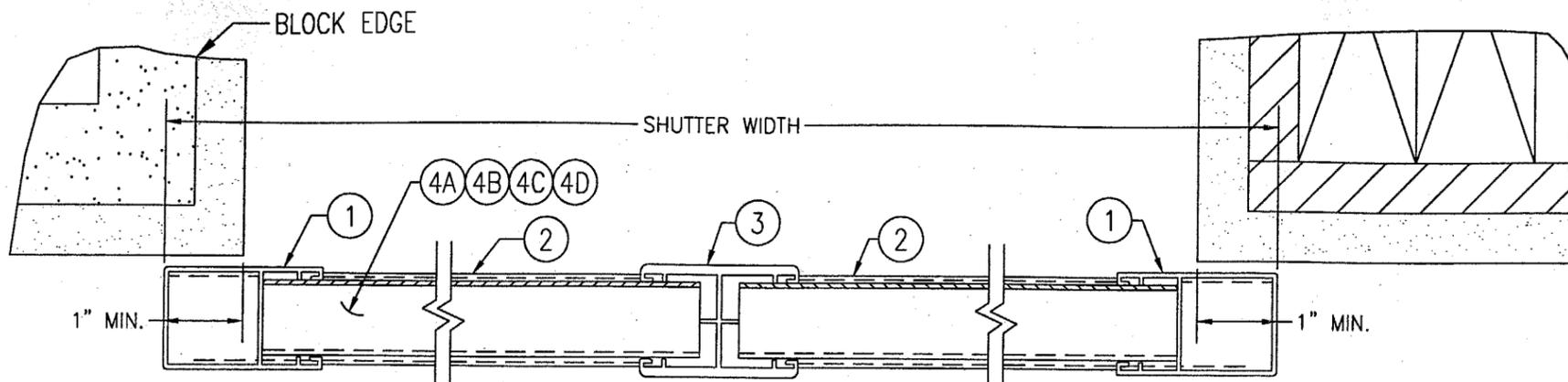


**ALTERNATE TO SECTION B ON THIS SHEET**

FOR FASTENER EDGE DISTANCE & SPACING REQUIREMENTS, SEE SHEET 2.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
DATE 11/15/2001  
BY *Warren W. Schaefer*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 01-0216.03

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 12/08/00
DATE	BY
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>IMPACT BAHAMA SHUTTER (DADE)</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b>	MANUFACTURER <b>FOLDING SHUTTER CORPORATION</b>
600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
7089 HEMSTREET PLACE WEST PALM BEACH, FLORIDA 33413 561-683-4811	
CERTIFICATION <b>OCT 22 2001</b>	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. <b>1018</b>	REV.
SHEET NO. <b>5</b>	OF <b>10</b>

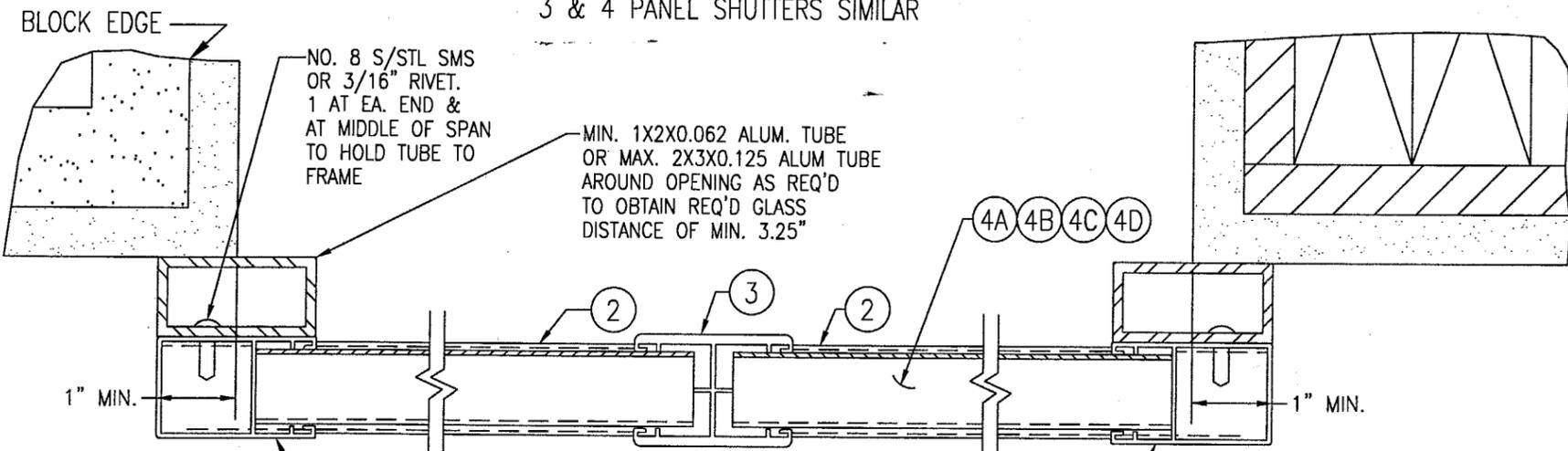


**BLOCK OPENING**

**SECTION C FLUSH MOUNT**  
SCALE: 1/2 FULL

**WOOD FRAMED OPENING**

STORM BAR & ARMS NOT SHOWN FOR CLARITY!  
3 & 4 PANEL SHUTTERS SIMILAR

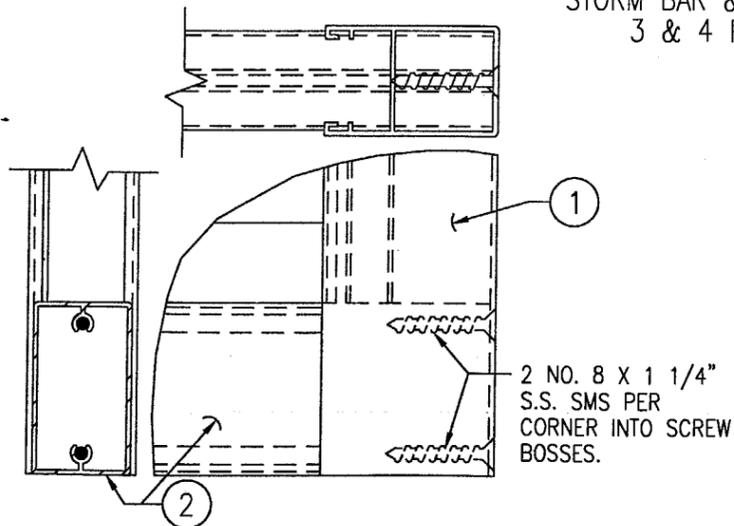


**BLOCK OPENING**

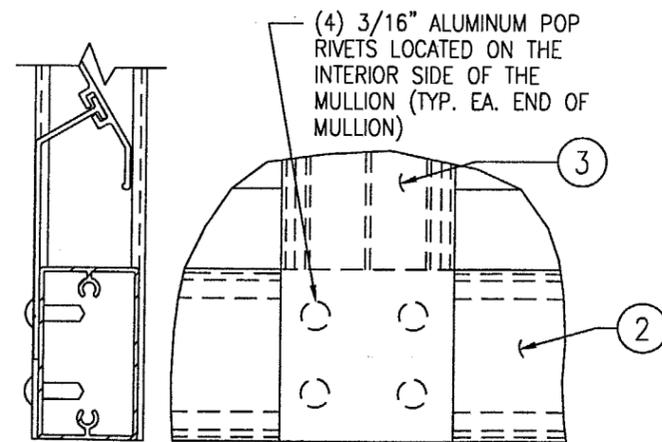
**SECTION C BUILD-OUT**  
SCALE: 1/2 FULL

**WOOD FRAMED OPENING**

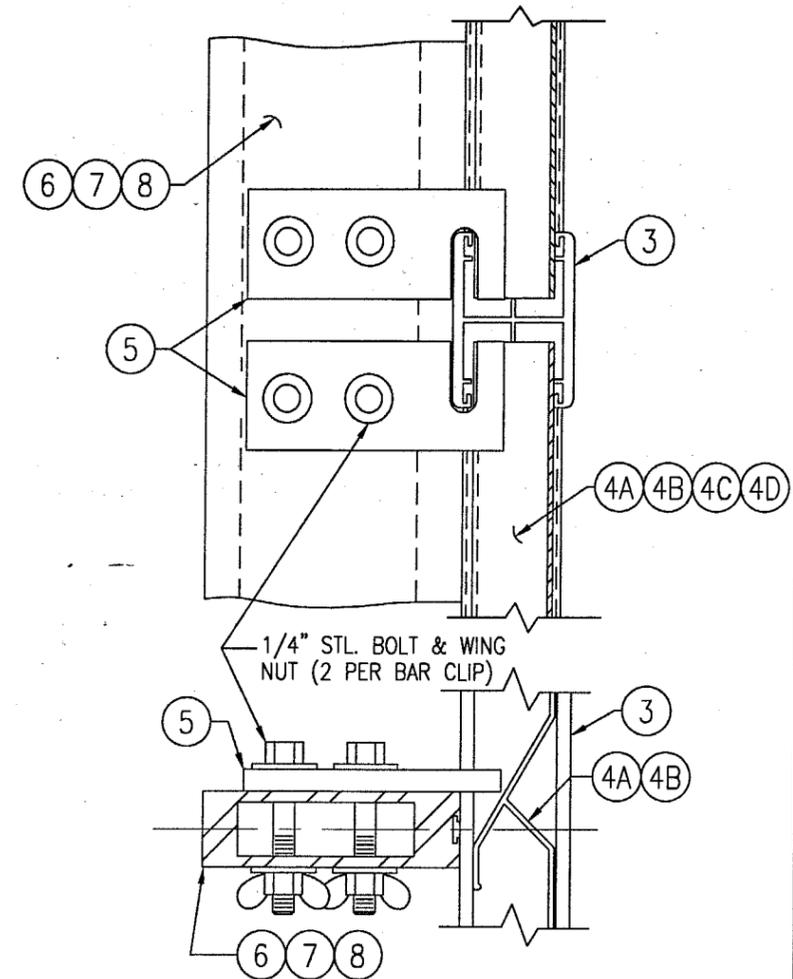
STORM BAR & ARMS NOT SHOWN FOR CLARITY!  
3 & 4 PANEL SHUTTERS SIMILAR



**FRAME CORNER DETAIL**  
SCALE: 1/2 FULL SIZE



**MULLION END DETAIL**  
SCALE: 1/2 FULL SIZE



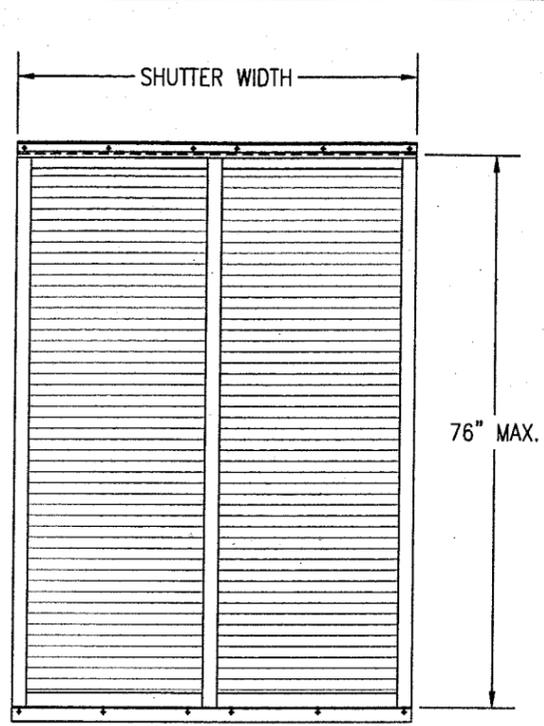
**STORM BAR TO FRAME CONNECTION DETAIL**  
SCALE: 1/2 FULL

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE 11/15/2001  
BY *Warren W. Schaefer*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 01-0216.03

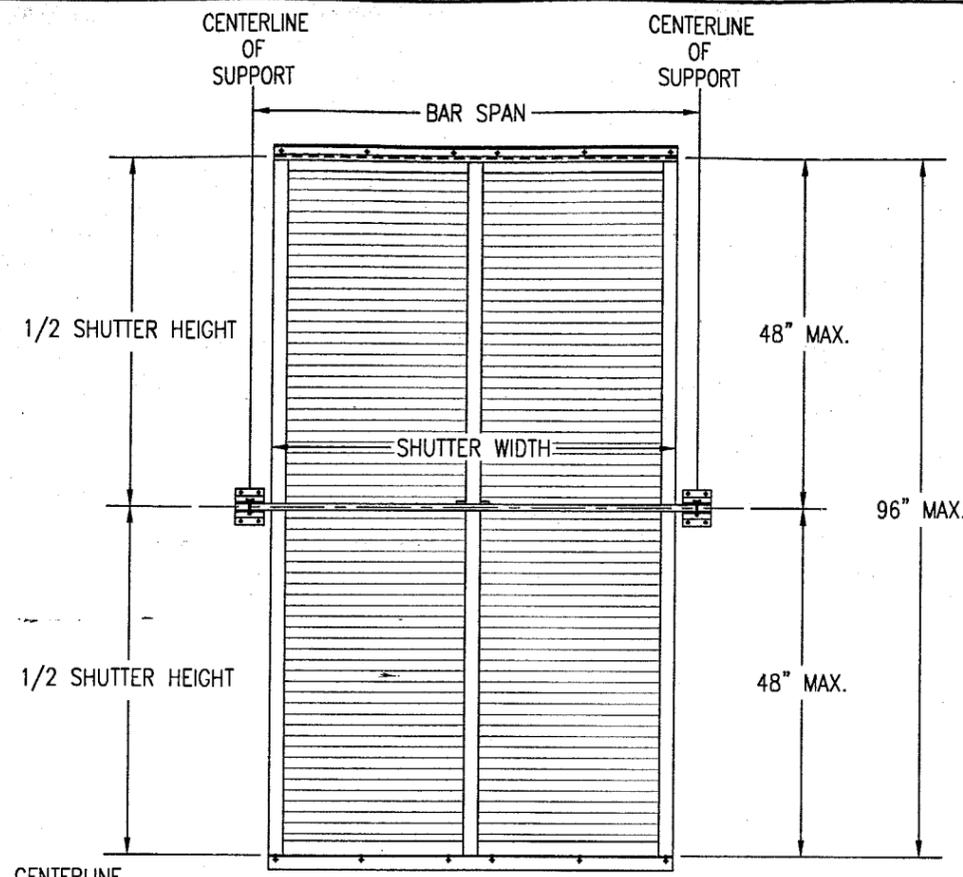
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 12/08/00
NO.	REVISION DESCRIPTION
DATE	BY
DRAWING TITLE <b>IMPACT BAHAMA SHUTTER (DADE)</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b>	
MANUFACTURER <b>FOLDING SHUTTER CORPORATION</b>	
7089 HEMSTREET PLACE WEST PALM BEACH, FLORIDA 33413 561-683-4811	
600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
CERTIFICATION	01-22-2001
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1018	REV.
SHEET NO. 6 OF 10	



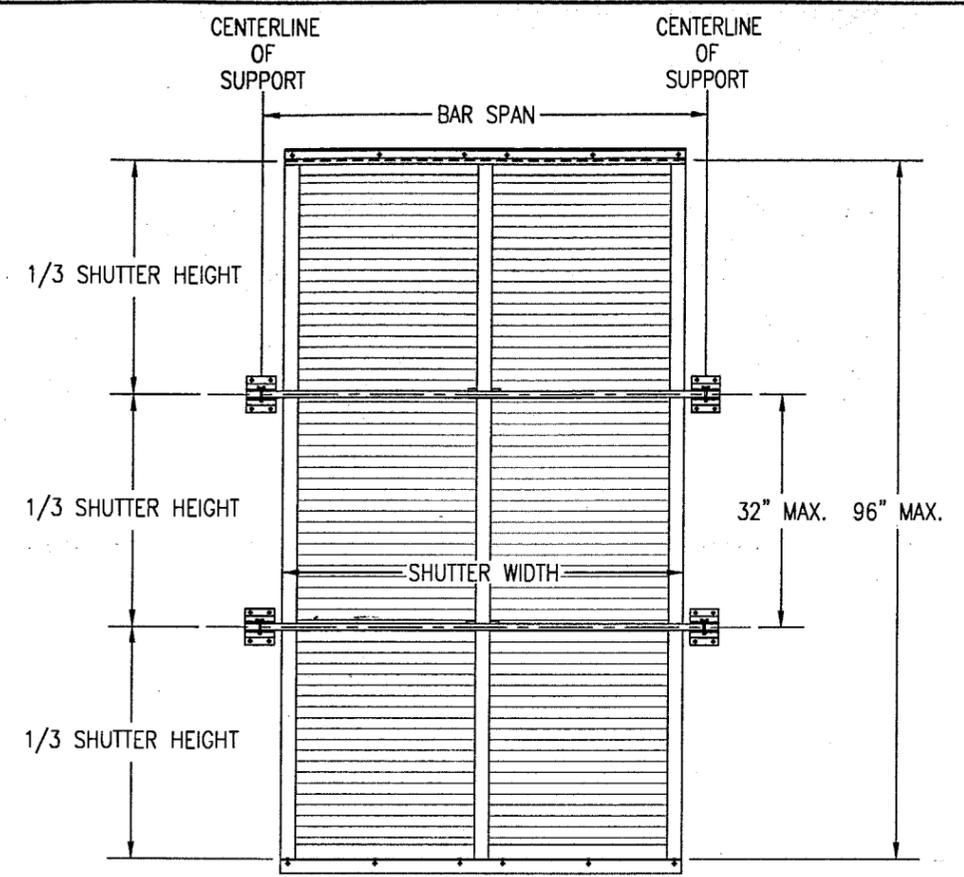




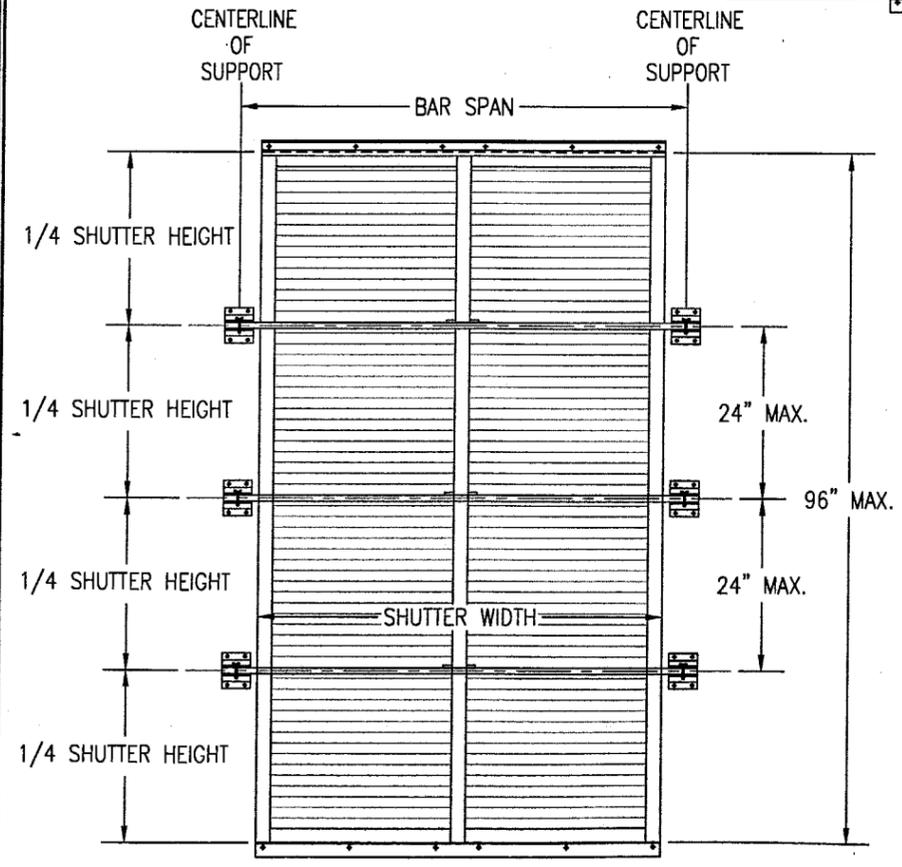
**NO BARS**  
(SINGLE SPAN SHUTTER)



**SINGLE BAR**  
(TWO SPAN SHUTTER)



**TWO BARS**  
(THREE SPAN SHUTTER)



**THREE BARS**  
(FOUR SPAN SHUTTER)

**ALLOWABLE PRESSURE TABLE  
FOR SINGLE SPAN SHUTTERS  
(NO BARS)**

SHUTTER HEIGHT	PRESSURE (PSF)	
	POS	NEG
58.5" & LESS	65.0	65.0
60"	65.0	65.0
62"	62.0	62.0
64"	58.2	58.2
66"	54.7	54.7
68"	51.6	51.6
70"	47.9	48.7
72"	42.8	46.0
74"	38.4	43.5
76"	34.5	40.0

**NOTE:**

1. ALL SHUTTERS MUST BE PLACED A MIN. DISTANCE OF 3.25" AWAY FROM THE GLASS.

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE 11/15/2001  
BY Warren W. Schaefer, P.E.  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 01-0216.03

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 12/08/00
NO.	REVISION DESCRIPTION
DATE	BY
DRAWING TITLE <b>IMPACT BAHAMA SHUTTER (DADE)</b>	
MANUFACTURER <b>FOLDING SHUTTER CORPORATION</b> 7089 HEMSTREET PLACE WEST PALM BEACH, FLORIDA 33413 561-683-4811	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
DRAWING NO. <b>1018</b>	
SHEET NO. <b>9 OF 10</b>	

CERTIFICATION  
**OCT 22 2001**  
WARREN W. SCHAEFER, P.E.  
P.E. NO. 44135

**PRESSURE LOAD TABLE FOR STORM BARS & BAR END CONNECTIONS**

SHUTTER WIDTH (IN)	HEIGHT OR BAR SPACING (IN)	ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY BARS			ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY BAR END CONNECTIONS				
		3" BAR	4" BAR	5" BAR	CONN "A" & "B"		CONN "C"		CONN "D"
					WOOD/BLOCK/CONC	WOOD	BLOCK/CONC	BLOCK/CONC	
30	48	80.0	80.0	80.0	80.0	80.0	80.0	80.0	
36	42	80.0	80.0	80.0	80.0	80.0	80.0	80.0	
	48	80.0	80.0	80.0	70.1	80.0	80.0	80.0	
42	36	80.0	80.0	80.0	80.0	80.0	80.0	80.0	
	42	80.0	80.0	80.0	68.7	80.0	80.0	80.0	
48	48	80.0	80.0	80.0	60.1	80.0	80.0	80.0	
	30	80.0	80.0	80.0	80.0	80.0	80.0	80.0	
48	36	80.0	80.0	80.0	70.1	80.0	80.0	80.0	
	42	80.0	80.0	80.0	60.1	80.0	80.0	80.0	
48	48	80.0	80.0	80.0	52.6	80.0	80.0	80.0	
	24	80.0	80.0	80.0	80.0	80.0	80.0	80.0	
54	30	80.0	80.0	80.0	74.8	80.0	80.0	80.0	
	36	80.0	80.0	80.0	62.3	80.0	80.0	80.0	
54	42	80.0	80.0	80.0	53.4	80.0	80.0	80.0	
	48	80.0	80.0	80.0	46.8	80.0	80.0	80.0	
60	24	80.0	80.0	80.0	80.0	80.0	80.0	80.0	
	30	80.0	80.0	80.0	67.3	80.0	80.0	80.0	
60	36	80.0	80.0	80.0	56.1	80.0	80.0	80.0	
	42	80.0	80.0	80.0	47.0	80.0	80.0	80.0	
60	48	80.0	80.0	80.0	42.1	80.0	80.0	80.0	
	24	80.0	80.0	80.0	76.5	80.0	80.0	80.0	
66	30	80.0	80.0	80.0	61.2	80.0	80.0	80.0	
	36	80.0	80.0	80.0	51.0	80.0	80.0	80.0	
66	42	80.0	80.0	80.0	43.7	80.0	80.0	80.0	
	48	78.3	80.0	80.0	38.3	80.0	79.1	80.0	
72	24	80.0	80.0	80.0	70.1	80.0	80.0	80.0	
	30	80.0	80.0	80.0	56.1	80.0	80.0	80.0	
72	36	80.0	80.0	80.0	46.8	80.0	80.0	80.0	
	42	76.9	80.0	80.0	40.1	80.0	80.0	80.0	
72	48	67.3	80.0	80.0	35.1	80.0	72.5	80.0	
	24	80.0	80.0	80.0	64.7	80.0	80.0	80.0	
78	30	80.0	80.0	80.0	51.8	80.0	80.0	80.0	
	36	74.1	80.0	80.0	43.2	80.0	80.0	80.0	
78	42	63.5	80.0	80.0	37.0	80.0	76.5	80.0	
	48	55.6	80.0	80.0	32.4	80.0	67.0	80.0	
84	24	80.0	80.0	80.0	60.1	80.0	80.0	80.0	
	30	68.3	80.0	80.0	48.1	80.0	80.0	80.0	
84	36	56.9	80.0	80.0	40.1	80.0	80.0	80.0	
	42	48.8	80.0	80.0	34.4	80.0	71.1	80.0	
84	48	42.7	72.0	80.0	30.1	80.0	62.2	80.0	
	24	53.4	80.0	80.0	56.1	80.0	80.0	80.0	
90	30	42.7	80.0	80.0	44.9	80.0	80.0	80.0	
	36	35.6	74.9	80.0	37.4	80.0	77.4	80.0	
90	42	30.5	64.2	80.0	32.1	80.0	66.3	80.0	
	48	26.7	56.2	80.0	28.1	78.4	58.0	80.0	

1. ALL PRESSURES ARE FOR BOTH POSITIVE & NEGATIVE AND ARE PSF.
2. REF. SHEET 7 FOR CONNECTION TYPES & DETAILS.

**PRESSURE LOAD TABLE FOR STORM BARS & BAR END CONNECTIONS**

SHUTTER WIDTH (IN)	HEIGHT OR BAR SPACING (IN)	ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY BARS			ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY BAR END CONNECTIONS				
		3" BAR	4" BAR	5" BAR	CONN "A" & "B"		CONN "C"		CONN "D"
					WOOD/BLOCK/CONC	WOOD	BLOCK/CONC	BLOCK/CONC	
96	24	42.3	80.0	80.0	52.6	80.0	80.0	80.0	
	30	33.8	71.2	80.0	42.1	80.0	80.0	80.0	
	36	28.2	59.4	80.0	35.1	80.0	72.5	80.0	
	42	-	50.9	80.0	30.1	80.0	62.2	80.0	
102	48	-	44.5	78.5	26.3	73.5	54.4	80.0	
	24	-	71.4	80.0	49.5	80.0	80.0	80.0	
	30	-	57.1	80.0	39.6	80.0	80.0	80.0	
	36	-	47.6	80.0	33.0	80.0	68.3	80.0	
108	42	-	40.8	72.0	28.3	79.1	58.5	80.0	
	48	-	35.7	63.0	-	69.2	51.2	76.8	
	24	-	58.0	80.0	46.8	80.0	80.0	80.0	
	30	-	46.4	80.0	37.4	80.0	77.4	80.0	
112	36	-	38.7	68.2	31.2	80.0	64.5	80.0	
	42	-	33.1	58.4	26.7	74.7	55.3	80.0	
	48	-	29.0	51.1	-	65.3	48.4	72.5	
	24	-	50.7	80.0	45.1	80.0	80.0	80.0	
112	30	-	40.6	71.6	36.1	80.0	74.6	80.0	
	36	-	33.8	59.7	30.1	80.0	62.2	80.0	
	42	-	29.0	51.1	25.8	72.0	53.3	80.0	
	48	-	-	44.7	-	63.0	46.6	69.9	

**LOAD TABLE INSTRUCTIONS:**

1. SELECT AN OVERALL SHUTTER SIZE (TOTAL WIDTH & HEIGHT).
2. DETERMINE THE REQUIRED DESIGN WIND PRESSURE FOR THE SHUTTER.
3. IF THE SHUTTER HEIGHT IS LESS THAN OR EQUAL TO 76", GO TO "PRESSURE TABLE FOR SINGLE SPAN SHUTTERS" ON SHEET 9 AND COMPARE THE REQUIRED DESIGN PRESSURE TO THE ALLOWABLE PRESSURES IN THE TABLE. IF ALLOWABLE PRESSURE IS EQUAL TO OR GREATER THAN THAT REQUIRED, NO BAR IS REQUIRED & YOU ARE FINISHED. IF ALLOWABLE PRESSURE IS LESS THAN REQUIRED, STORM BAR(S) ARE NEEDED, SO CONTINUE TO NUMBER 4 BELOW.
4. IF BARS ARE REQUIRED, GO TO LOAD TABLES ON THIS SHEET.
5. GO TO APPLICABLE SHUTTER WIDTH IN TABLE AND CHOOSE THE DESIRED BAR SPACING.
6. GO ACROSS THE TABLE AND CHOOSE THE BAR AND CONNECTION WHO'S ALLOWABLE PRESSURE IS GREATER THAN OR EQUAL TO THE REQUIRED PRESSURE. IF THE DESIRED BAR AND/OR CONNECTION TYPE DOES NOT MEET THE REQUIRED SHUTTER DESIGN PRESSURE, CHOOSE ANOTHER BAR SPACING AND CHECK THE BAR TYPE & CONNECTION AGAIN. REPEAT UNTIL DESIRED & CORRECT BAR & CONNECTION TYPE ARE DETERMINED (NOTE THAT THE LESSER PRESSURE OF THE BAR, CONNECTION TYPE, OR MAXIMUM ALLOWABLE OF +/-80 PSF SHALL CONTROL THE SHUTTER).

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
 DATE 11/15/2001  
 BY *Warren W. Schaeffer*  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 01-0216-03

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-24		DATE: 12/08/00	
DATE	BY	REVISION DESCRIPTION	NO.
DRAWING TITLE: <b>IMPACT BAHAMA SHUTTER (DADE)</b> MANUFACTURER: <b>FOLDING SHUTTER CORPORATION</b> 7089 HEMSTREET PLACE WEST PALM BEACH, FLORIDA 33413 561-683-4811			
CONSULTANTS: <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 2035 PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903			
CERTIFICATION		OCT 22 2001 <i>Warren W. Schaeffer</i> WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1018		REV.	
SHEET NO. 10		OF 10	