Southern Extrusion, Inc.

3401 W. NAVY BLVD. PENSACOLA, FL. 32505

EXTRUDED ALUMINUM BAHAMA HURRICANE SHUTTER "IMPACT"

Evaluated For Use In The State of Texas

The panel storm shutter system described herein complies with the 2006 International Residential Code (IRC), section R301.2.1.2 and the 2006 International Building Code (IBC), section 1609.1.2 with Texas revisions subject to the following conditions:

1. This system has been tested and evaluated as a large missile impact protective system for installation in the Seaward, Inland I and Inland II areas. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E1996.
2. Positive and negative design pressures to be used with these drawings shall be determined by others for specific jobs in accordance with the local governing code.
3. The system detailed herein is generic and does not provide information for a specific site. The details herein cover connection to wood, concrete and CMU substrates. If site conditions deviate from the conditions detailed herein, a licensed engineer or registered architect shall prepare site specific documents to be used in conjunction with this document.
4. All extrusions shall be 6063-T6 aluminum alloy, unless noted otherwise. All tolerances shall be in accordance with ADM 2005.
5. All bolts & washers shall be corrosion resistant in compliance with Section 1716.1 of the 2006 Texas Revisions to the 2006 IBC and in compliance with Section R325.1 of the 2006 Texas Revisions to the 2006 IRC.
6. Permit holder shall verify the adequacy of the existing structure to withstand new superimposed loads.
7. Storm panels have been designed and tested to the maximum spans and loads shown on these drawings.

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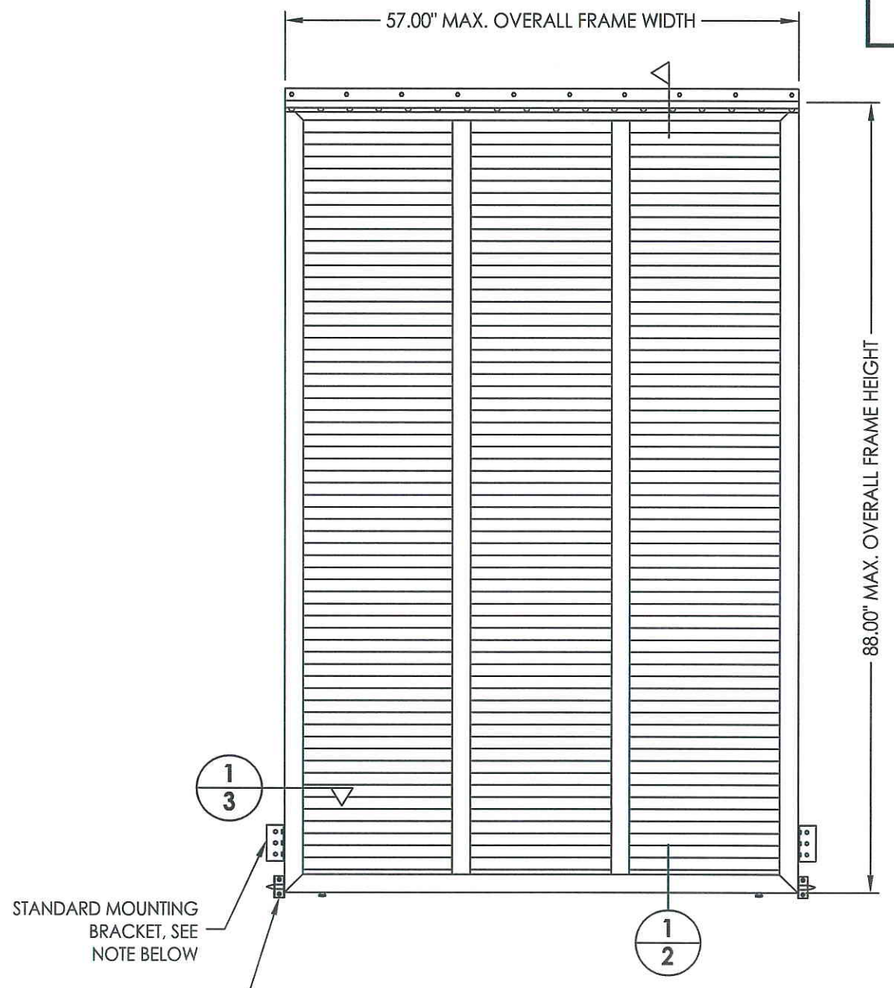
1	Typical elevation, design pressures & general notes
2	Vertical cross sections masonry & stud construction
3	Horizontal cross sections masonry & stud construction
4	Anchoring locations - stud installation
5	Anchor locations - masonry installation
6	Bill of materials & components



MAX. FRAME DIMENSION	DESIGN PRESSURE (PSF)	
	POSITIVE	NEGATIVE
57.00" x 88.00"	+80.0	-80.0

NOTE:
THE ELEVATION ABOVE SHOWS BOTH THE STANDARD MOUNTING BRACKET AND THE OPTIONAL PIN LATCH (ONLY ONE IS REQUIRED).

STATE OF TEXAS · LYNDON F. SCHMIDT · 104123 · LICENSED PROFESSIONAL ENGINEER

1.2.10

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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: SOUTHERN EXTRUSIONS EXTRUDED ALUMINUM BAHAMA HURRICANE SHUTTER

PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO.	DATE	BY	REVISIONS

DATE: 8/03/09
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4029
SHEET 1 OF 6

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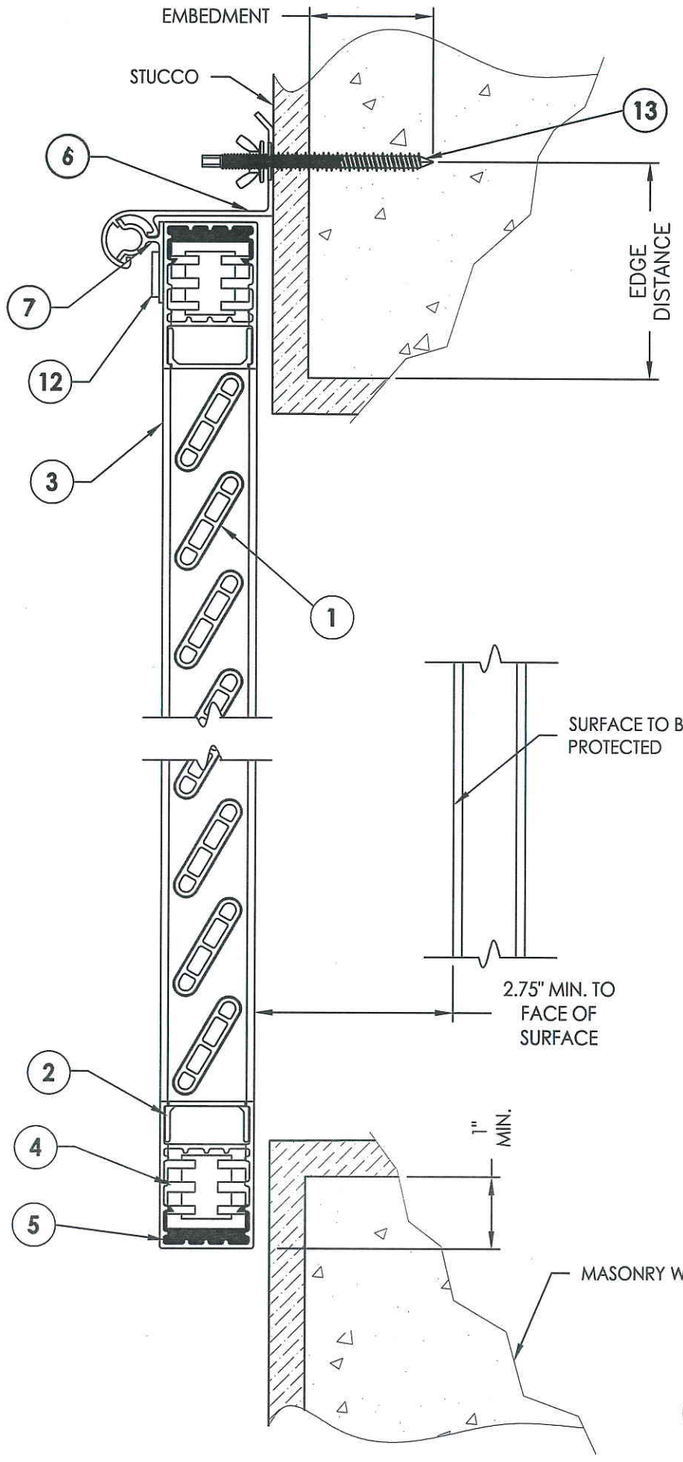
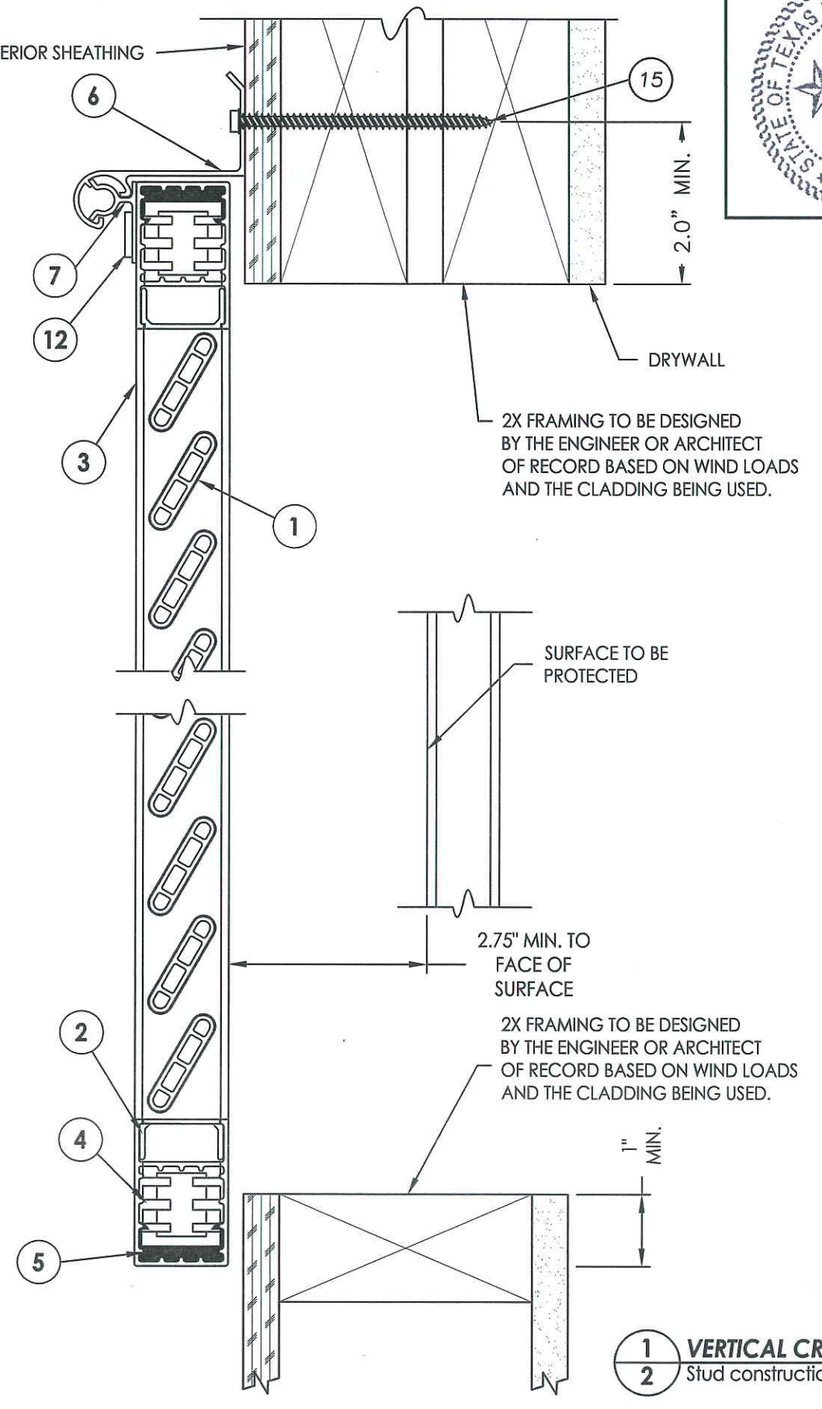


1/2 **VERTICAL CROSS SECTION**
Masonry construction



1/2 **VERTICAL CROSS SECTION**
Stud construction

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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: *SOUTHERN EXTRUSIONS EXTRUDED ALUMINUM BAHAMA HURRICANE SHUTTER*

PART OR ASSEMBLY: *VERTICAL CROSS SECTIONS MASONRY & STUD CONSTRUCTION*

NO.	DATE	REVISIONS	BY

DATE: 8/03/09
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
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SHEET 2 OF 6

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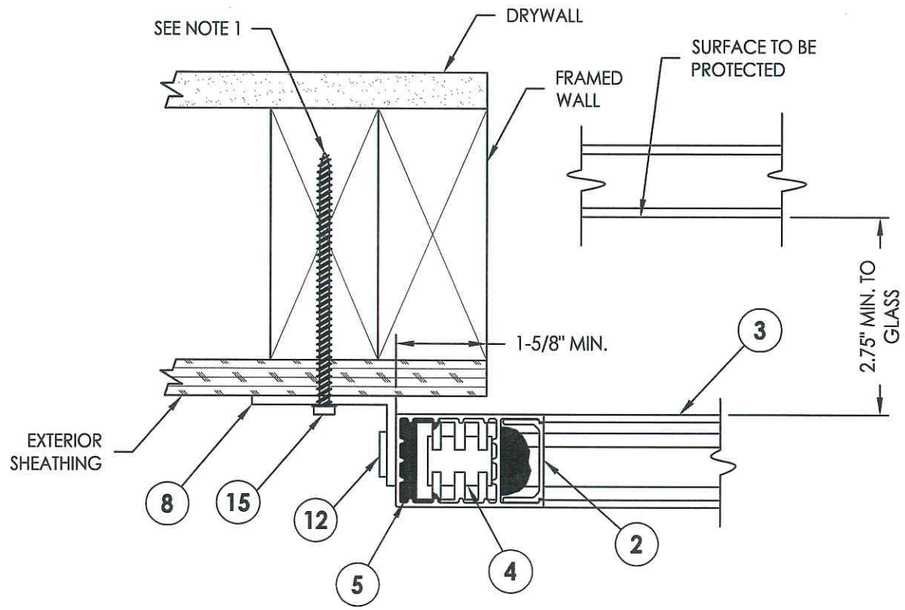
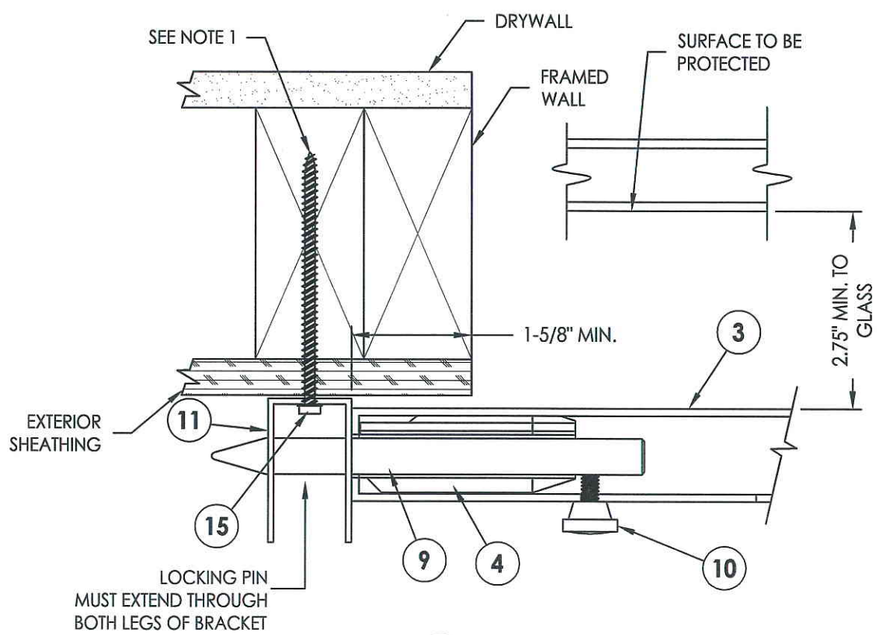
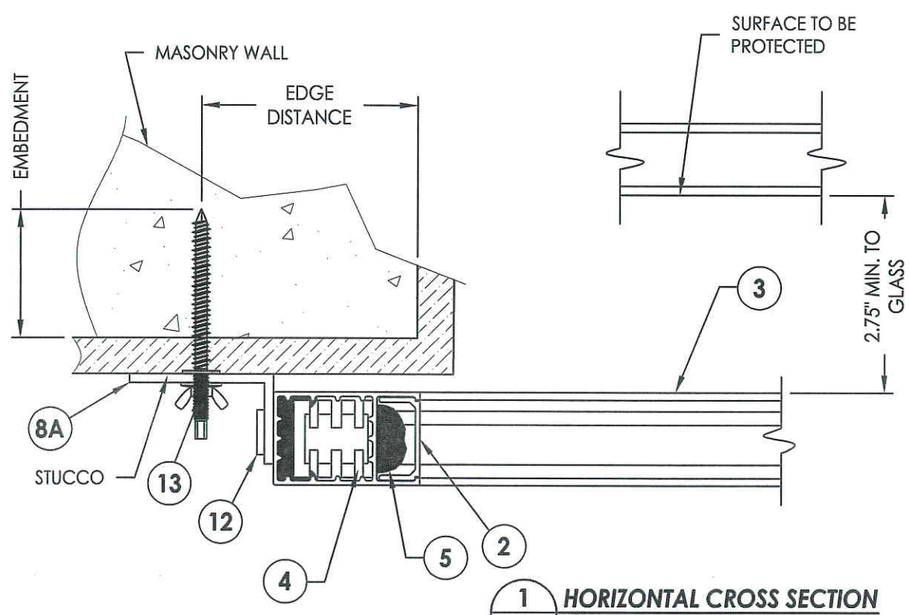


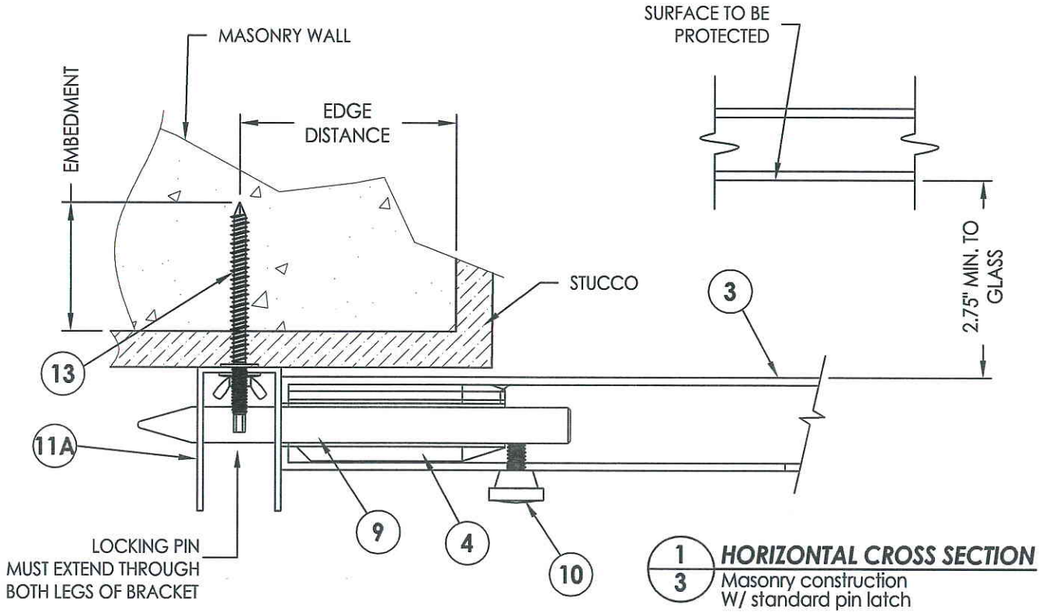
1/3 **HORIZONTAL CROSS SECTION**
Stud construction
W/ optional mounting bracket



1/3 **HORIZONTAL CROSS SECTION**
Stud construction
W/ standard pin latch



1/3 **HORIZONTAL CROSS SECTION**
Masonry construction
W/ optional mounting bracket



1/3 **HORIZONTAL CROSS SECTION**
Masonry construction
W/ standard pin latch

NOTE 1:
INSTALLERS SHALL INSURE THE SCREWS INSTALLED INTO STUD WALL CONSTRUCTION DO NOT FALL ON STUD INTERFACE JOINTS

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12-1-10

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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:
SOUTHERN EXTRUSIONS
EXTRUDED ALUMINUM
BAHAMA HURRICANE SHUTTER

PART OR ASSEMBLY:
HORIZONTAL CROSS SECTIONS
MASONRY & STUD CONSTRUCTION

NO.	DATE	BY	REVISIONS

DATE: 8/03/09
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4029
SHEET 3 OF 6

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THIS SIDE SHOWN ANCHORED
WITH STANDARD PIN LATCH

ANCHORING LOCATION
STUD INSTALLATION

THIS SIDE SHOWN ANCHORED
WITH OPTIONAL MOUNTING BRACKET

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PRODUCT:
EXTRUDED ALUMINUM
BAHAMA HURRICANE SHUTTER

PART OR ASSEMBLY:
ANCHORING LOCATIONS
STUD INSTALLATION

NO.	DATE	BY
REVISIONS		

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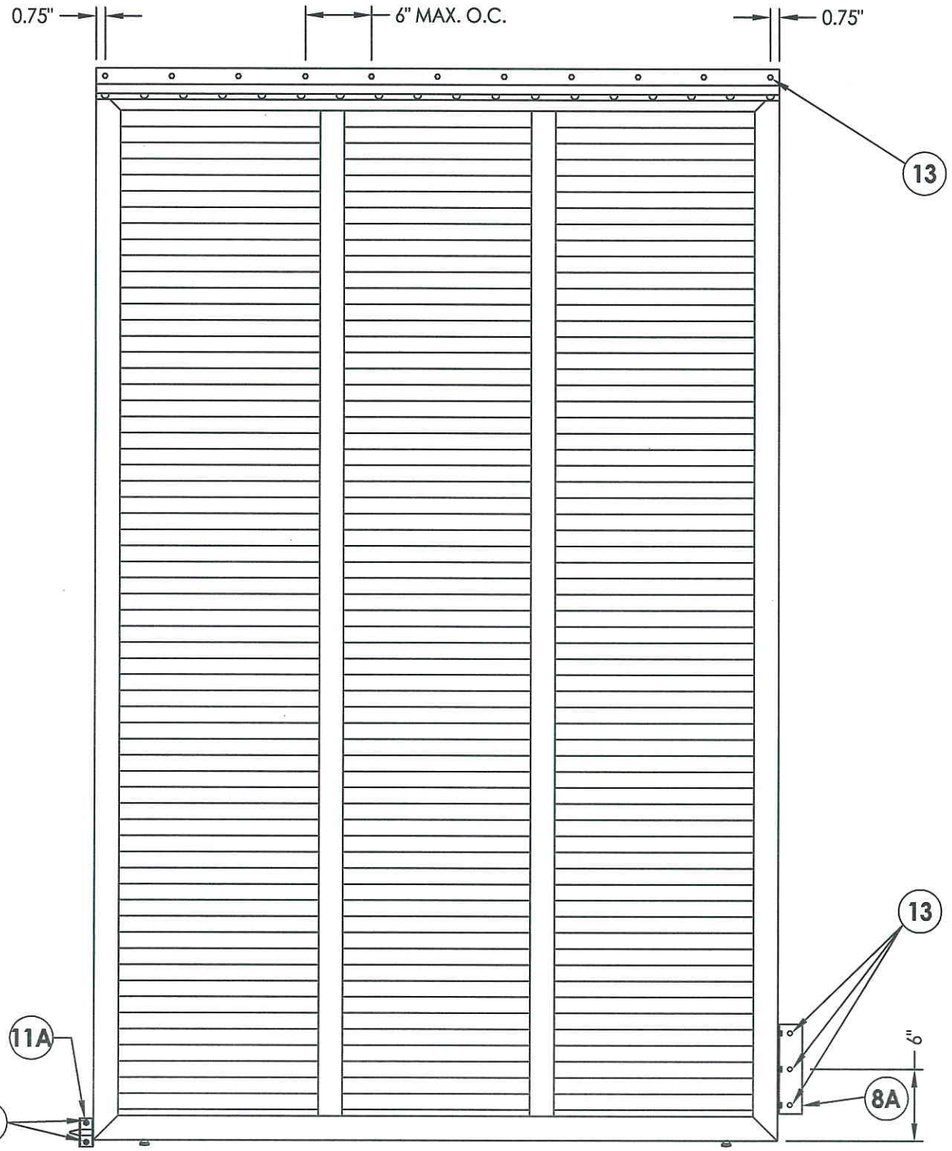
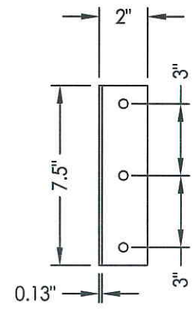


THIS SIDE SHOWN ANCHORED WITH STANDARD PIN LATCH (STANDARD LATCH PIN CAN BE USED ON MASONRY INSTALLATIONS WHERE THE DP REQUIREMENT IS DP <= 55 PSF)

ANCHORING LOCATION MASONRY INSTALLATION

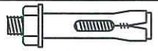
THIS SIDE SHOWN ANCHORED WITH OPTIONAL MOUNTING BRACKET FOR MASONRY



8A ***MOUNTING BRACKET - MASONRY***
Extruded aluminum
6063-T6

13 ***MASONRY ANCHOR SCHEDULE***

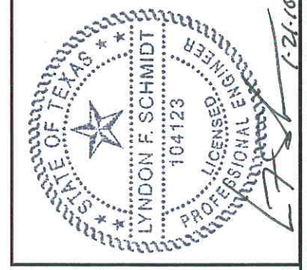
CONCRETE CONFORMING TO ACI 301	ANCHOR
	1/4" SAMMY'S SSC TAPCON SG EM = 1.75" CL = 3" ED = 1.25" (3,295 PSI MIN. CONC.)
	1/4"Ø ITW RED HEAD DYNABOLT SLEEVE ANCHOR EM = 1.125" CL = 3" ED = 1.5" (3000 PSI MIN. CONC.)
	1/4" ALL POINTS SOLID-SET ANCHOR EM = 0.875" CL = 3" ED = 2" (3,000 PSI MIN. CONC.)
	1/4" ITW TAPCON EM = 1.75" CL = 3.0" ED = 1.0" (3192 PSI MIN.CONC.)

HOLLOW BLOCK CONFORMING TO ASTM C90	ANCHOR
	1/4" SAMMY'S SSC TAPCON SG EM = 1.25" CL = 3" ED = 2.5"
	 1/4"Ø ITW RED HEAD DYNABOLT SLEEVE ANCHOR EM = 1.125" CL = 3" ED = 1.5"
	1/4" ALL POINTS SOLID-SET ANCHOR EM = 0.875" CL = 3" ED = 2"

EM = MINIMUM EMBEDMENT (PENETRATION)

CL = MINIMUM CENTER TO CENTER ANCHOR SPACING

ED = EDGE DISTANCE



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PRODUCT:
SOUTHERN EXTRUSIONS
EXTRUDED ALUMINUM
BAHAMA HURRICANE SHUTTER

PART OR ASSEMBLY:
ANCHORING LOCATIONS
MASONRY INSTALLATION

NO.	DATE	BY	REVISIONS

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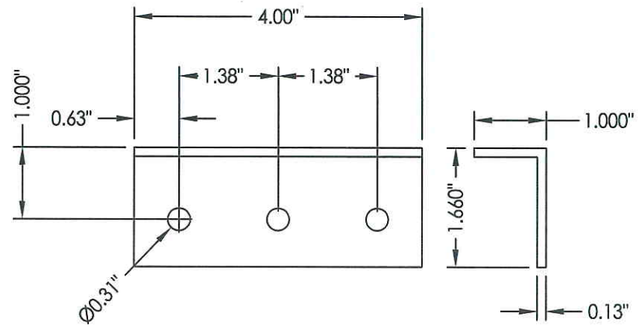
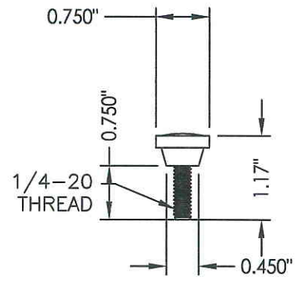
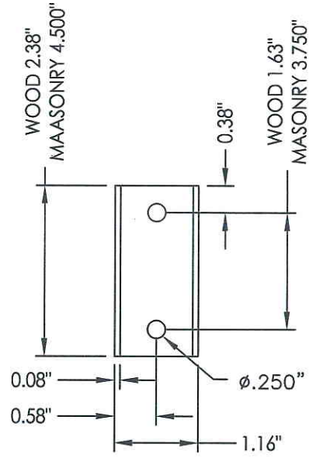
BILL OF MATERIALS		
1	LOUVER 6063-T6 0.060"	ALUM.
2	LOUVER/INSERT 6063-T6 0.060"	ALUM.
3	STILE/RAIL 6063-T6 0.060"	ALUM.
4	NYLON CORNER KEY	NYLON
5	STRUCTURAL ADHESIVE	-
6	FEMALE HINGE	ALUM.
7	MALE HINGE	ALUM.
8	MOUNTING BRACKET WOOD	ALUM.
8A	MOUNTING BRACKET MASONRY	ALUM.
9	LOCKING PIN	ALUM.
10	THUMB SCREW	STEEL
11	LATCH WOOD	ALUM.
11A	LATCH MASONRY	ALUM.
12	3/16" DIA. POP RIVET	ALUM.
13	ANCHOR - SEE MASONRY ANCHOR SCHEDULE	STEEL
14	VERTICAL SUPPORT SLAT	ALUM.
15	#12 X 3-1/2" HEX HEAD SHEET METAL SCREW	STEEL



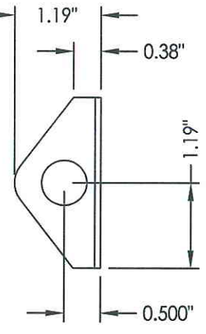
8 MOUNTING BRACKET – WOOD
EXTRUDED ALUMINUM
6063–T6



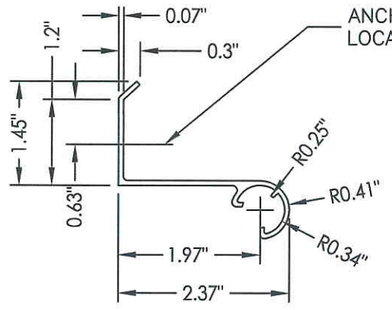
10 THUMB SCREW
STEEL



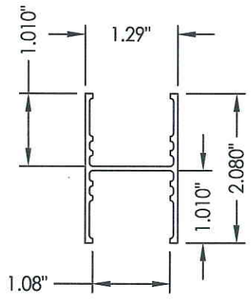
11 LATCH WOOD
ALUMINUM 6063–T6



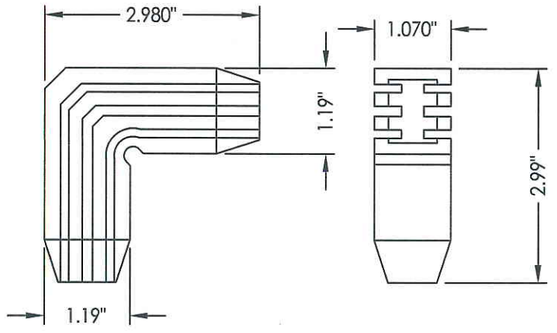
11A LATCH MASONRY
ALUMINUM 6063–T6



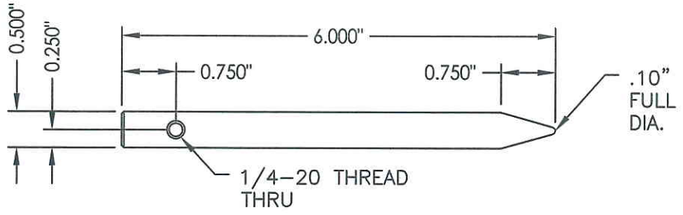
6 FEMALE HINGE
EXTRUDED ALUMINUM
6063–T6



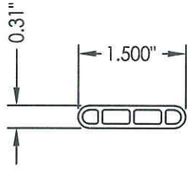
14 VERTICAL SUPPORT SLAT
ALUMINUM 6063–T6



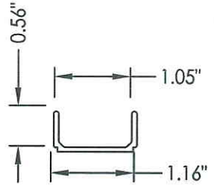
4 NYLON CORNER KEY



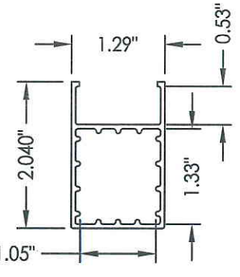
9 LOCKING PIN
ALUMINUM 6063–T6



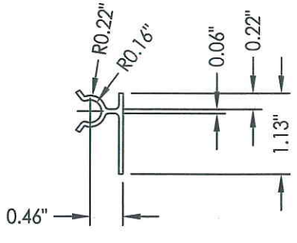
1 LOUVER
EXTRUDED ALUMINUM
6063–T6
0.060" TYP. WALL THK.



2 LOUVER/INSERT
EXTRUDED 6063–T6
0.060" TYP. WALL THK.



3 STILE/RAIL
EXTRUDED ALUMINUM
6063–T6
0.060" TYP. WALL THK.



7 MALE HINGE
EXTRUDED ALUMINUM
6063–T6

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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: SOUTHERN EXTRUSIONS EXTRUDED ALUMINUM BAHAMA HURRICANE SHUTTER

PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

NO.	DATE	BY
REVISIONS		

DATE: 8/03/09
SCALE: N.T.S.
DWG. BY: JK
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DRAWING NO.: TX–4029
SHEET 6 OF 6

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