Southern Extrusion, Inc.

3401 W. NAVY BLVD. PENSACOLA, FL. 32505

EXTRUDED ALUMINUM BAHAMA HURRICANE SHUTTER "IMPACT"

MAX. FRAME DIMENSION	DESIGN PRESSURE (PSF)	
	POSITIVE	NEGATIVE
96.00" x 96.00"	+50.0	-55.0

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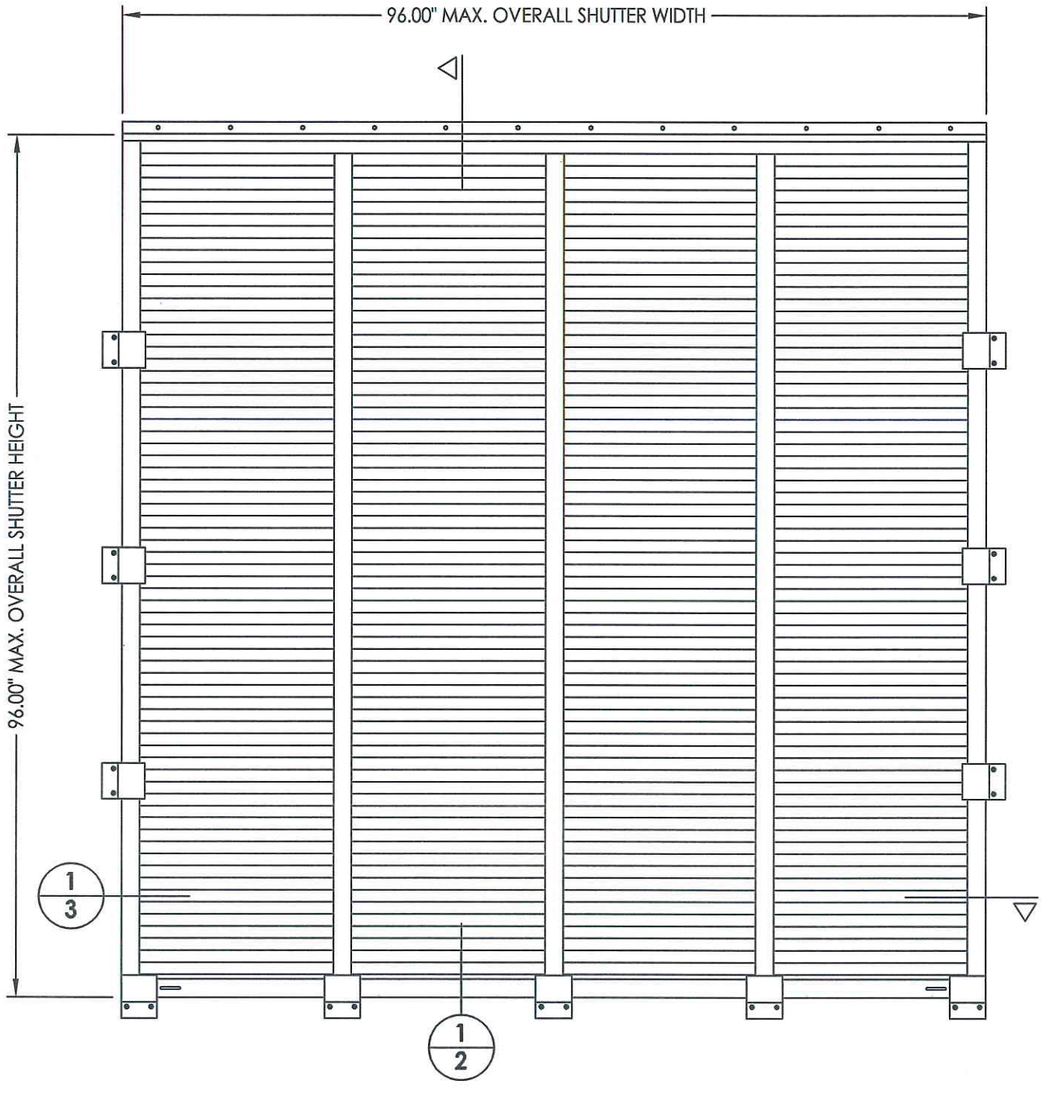
SHEET#	DESCRIPTION
1	Typical elevation, design pressures & general notes
2	Vertical cross sections masonry & stud construction
3	Horizontal cross sections masonry & stud construction
4	Anchoring locations 2x stud installation
5	Anchoring locations masonry installation
6	Bill of materials & components



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

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RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
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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	REVISIONS	BY

DATE: 08/03/09
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4030
SHEET 1 OF 6

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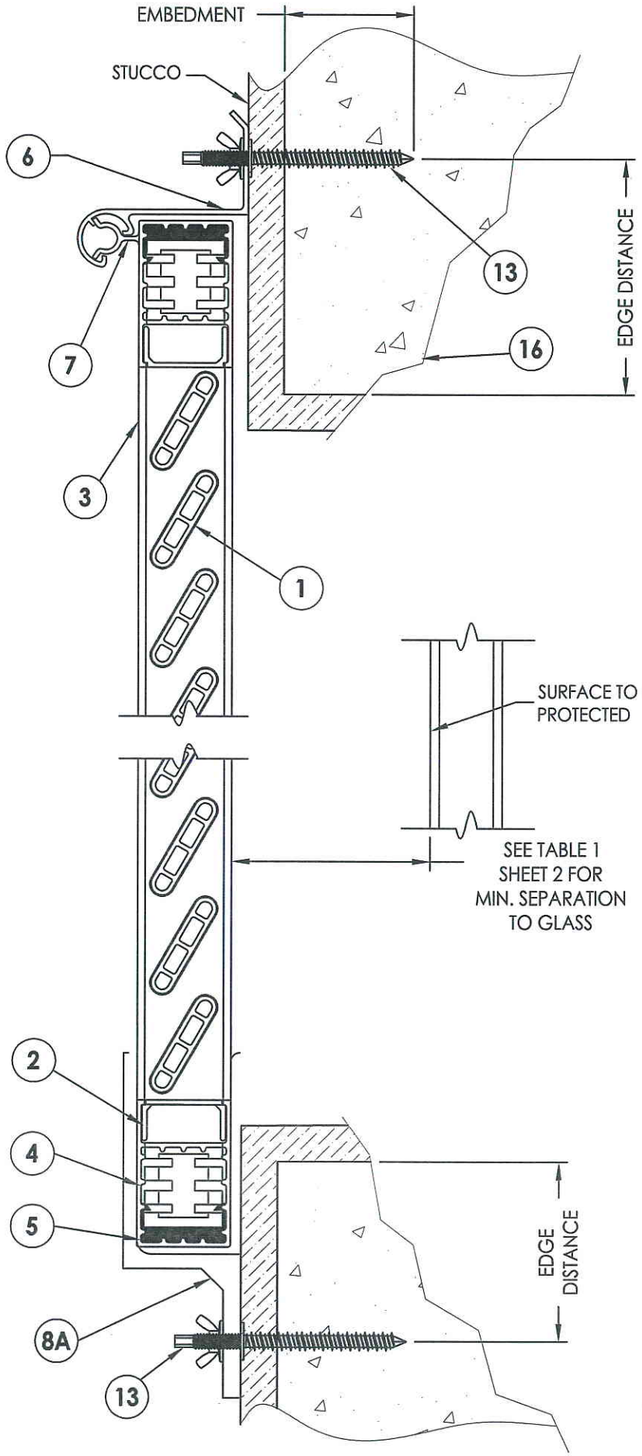
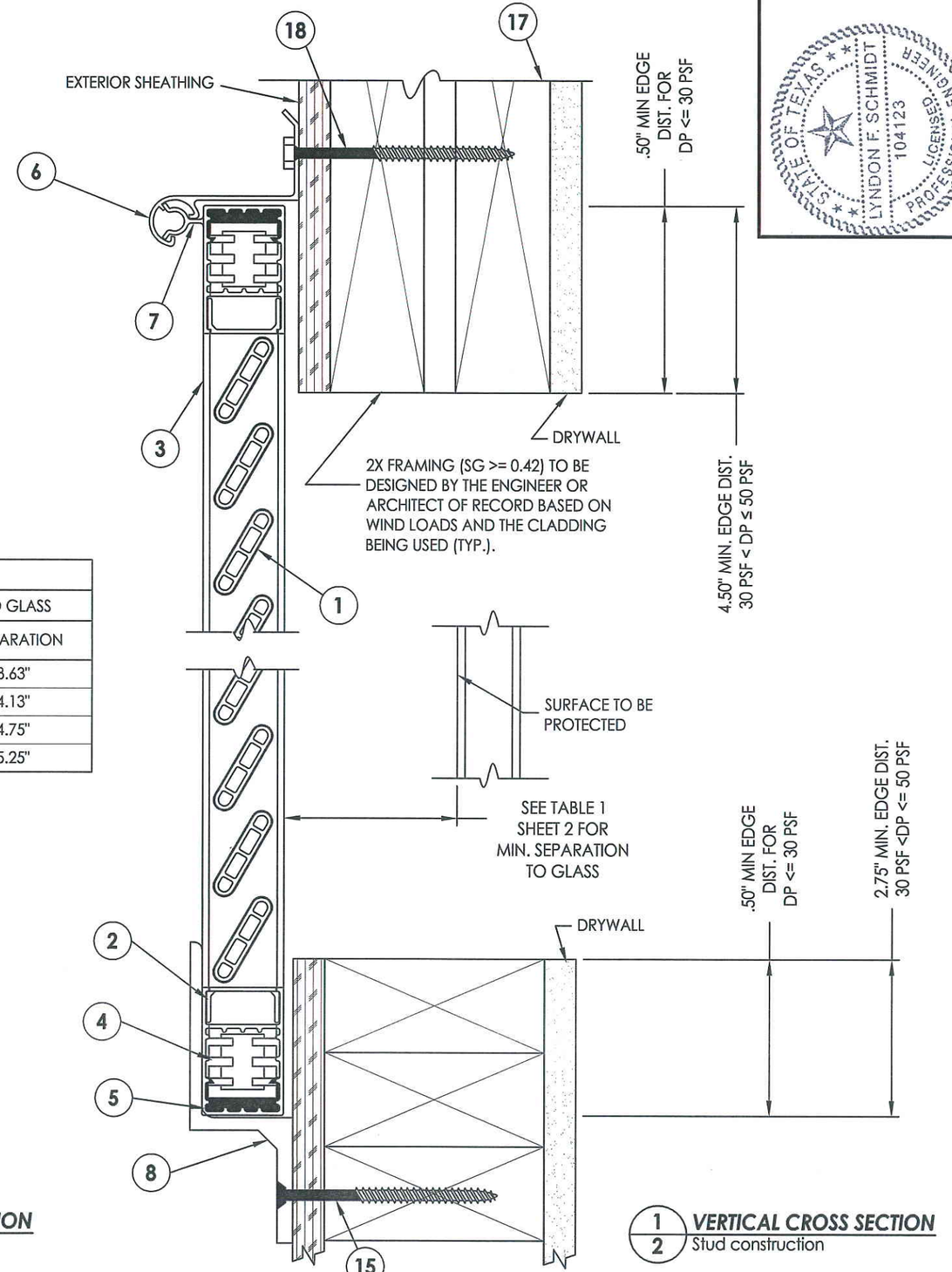


TABLE 1	
MIN. SEPARATION TO GLASS	
D.P. (PSF)	SEPARATION
±35.0	3.63"
±40.0	4.13"
±45.0	4.75"
±50.0	5.25"

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



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

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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
DRAWING NO.: TX-4030
SHEET 2 OF 6

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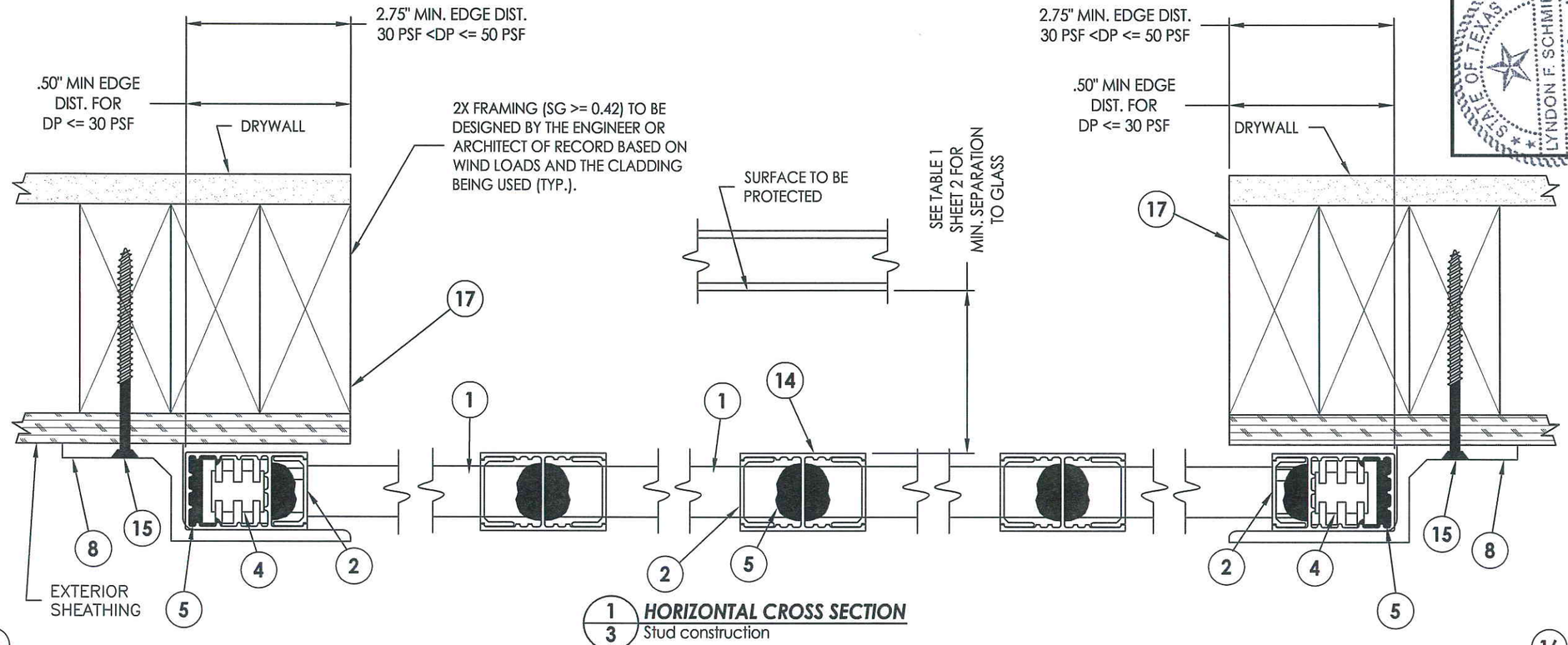
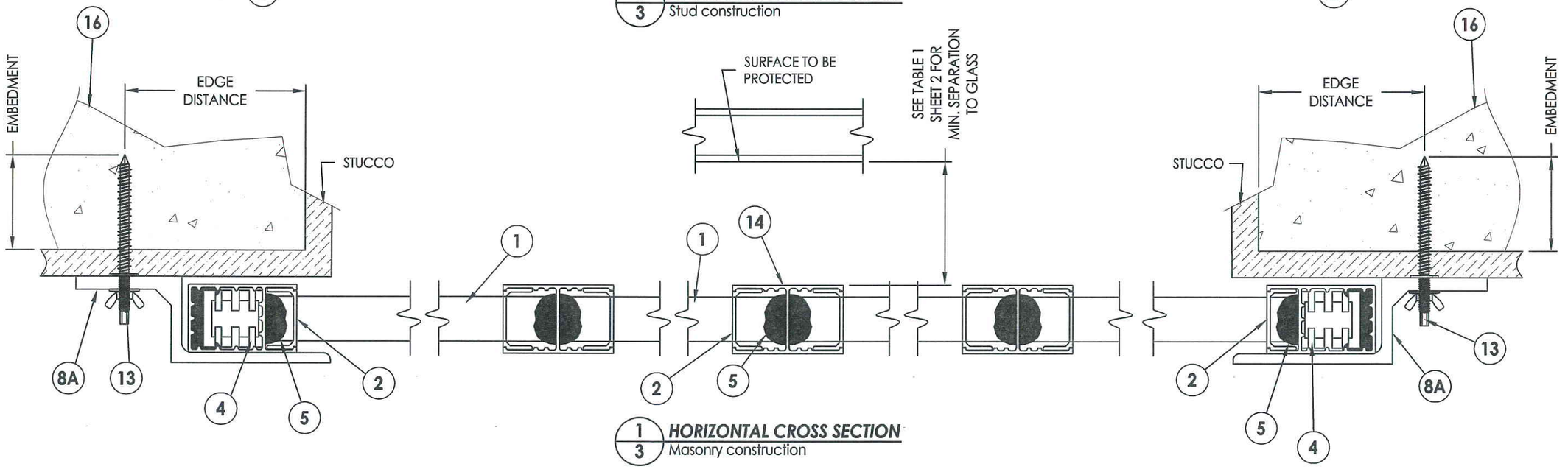


1/3 **HORIZONTAL CROSS SECTION**
Stud construction



1/3 **HORIZONTAL CROSS SECTION**
Masonry 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:
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-4030
SHEET 3 OF 6

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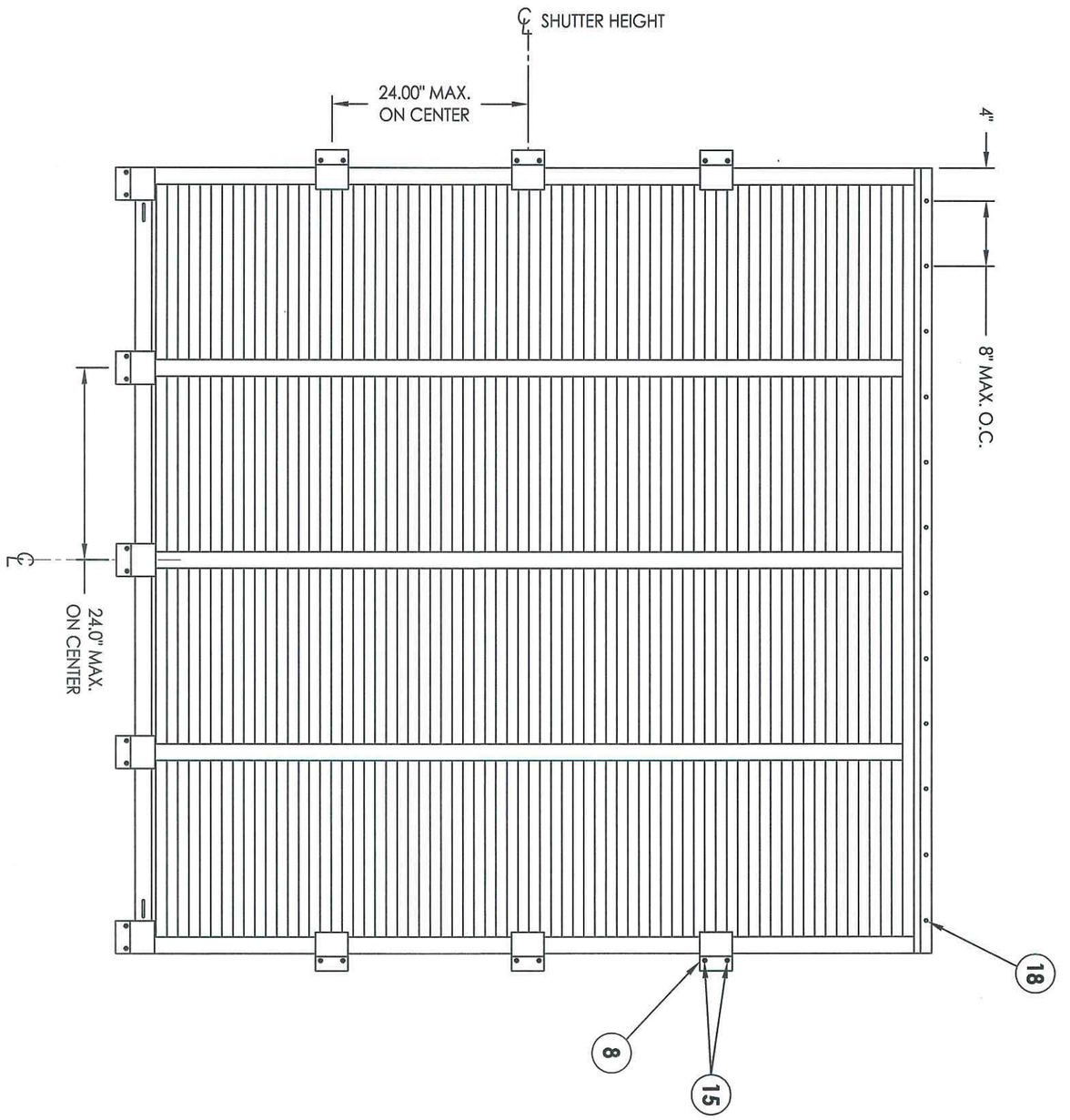

ANCHORING STUD CONSTRUCTION

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SHEET	4 OF 6
DRAWING NO.:	TX-4030
CHK. BY:	LFS
DWG. BY:	JK
SCALE:	N.T.S.
DATE:	8/03/09

NO.	DATE	REVISIONS	BY

PRODUCT:
SOUTHERN EXTRUSIONS
EXTRUDED ALUMINUM
BAHAMA HURRICANE SHUTTER

PART OR ASSEMBLY:
ANCHORING LOCATIONS
2X STUD INSTALLATION

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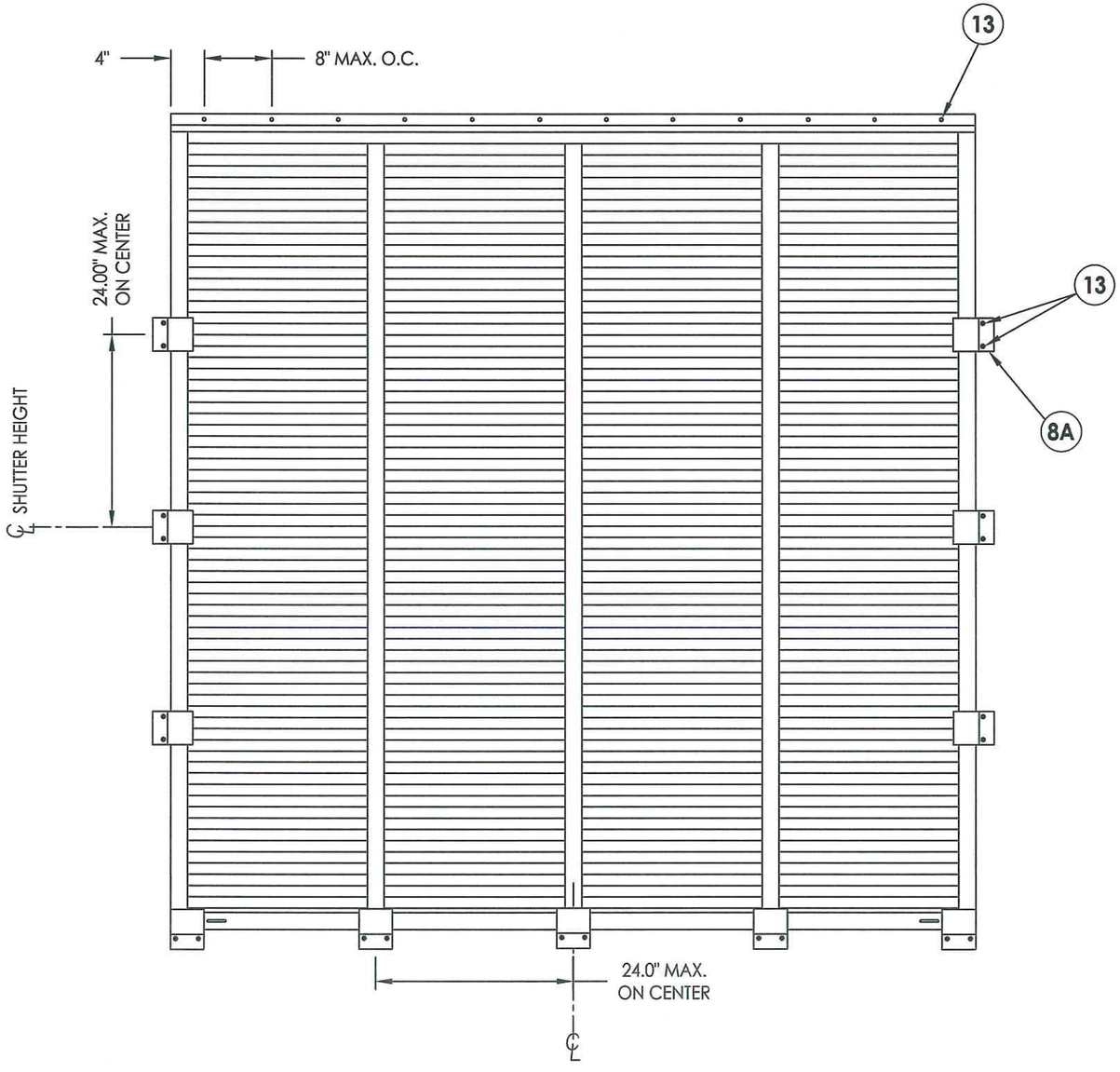

ANCHORING MASONRY CONSTRUCTION

13 MASONRY ANCHOR SCHEDULE

CONCRETE CONFORMING TO ACI 301	HOLLOW BLOCK CONFORMING TO ASTM C90
ANCHOR	**ANCHOR**
1/4" SAMMY'S SSC TAPCON SG EM = 1.75" CL = 3" ED = 1.25" (3,295 PSI MIN. CONC.)	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" (3000 PSI MIN. CONC.)	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" (3,000 PSI MIN. CONC.)	1/4" ALL POINTS SOLID-SET ANCHOR EM = 0.875" CL = 3" ED = 2"
1/4" ITW TAPCON EM = 1.75" CL = 3.0" ED = 1.0" (3192 PSI MIN.CONC.)	

EM = MINIMUM EMBEDMENT (PENETRATION)

CL = MINIMUM CENTER TO CENTER ANCHOR SPACING

ED = EDGE DISTANCE

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07-12-09

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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:
SOUTHERN EXTRUSIONS
EXTRUDED ALUMINUM
BAHAMA HURRICANE SHUTTER

PART OR ASSEMBLY:
ANCHORING LOCATIONS MASONRY INSTALLATION

NO.	DATE	BY	REVISIONS

DATE: 8/03/09
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4030
SHEET 5 OF 6

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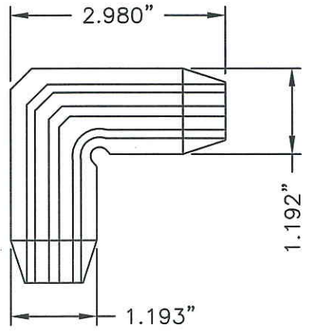
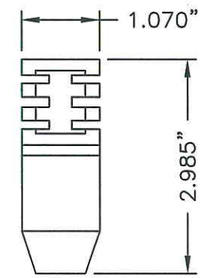
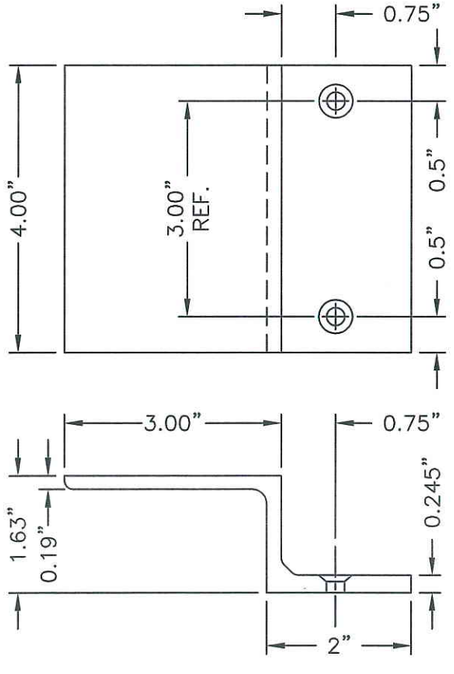
BILL OF MATERIALS		
1	LOUVER 6063-T6 0.060"	ALUM.
2	LOUVER/INSERT 6063-T6 0.060"	ALUM.
3	STILE/RAIL 6063-T6 0.060"	ALUM.
4	EXTRUDED NYLON CORNER KEY	ALUM.
5	STRUCTURAL ADHESIVE	-
6	FEMALE HINGE	ALUM.
7	MALE HINGE TOP RAIL	ALUM.
8	MOUNTING BRACKET WOOD	ALUM.
8A	MOUNTING BRACKET MASONRY	ALUM.
8B	MOUNTING BRACKET MASONRY	ALUM.
12	3/16" DIA. POP RIVET	ALUM.
13	ANCHORS - SEE MASONRY ANCHOR SCHEDULE	STEEL
14	VERTICAL SUPPORT SLAT	ALUM.
15	#14 X 3-1/2" PFH WOOD SCREW	STEEL
16	MASONRY	CONCRETE
17	2X FRAMING	WOOD
18	1/4" X 4" H.H. LAG SCREW	STEEL

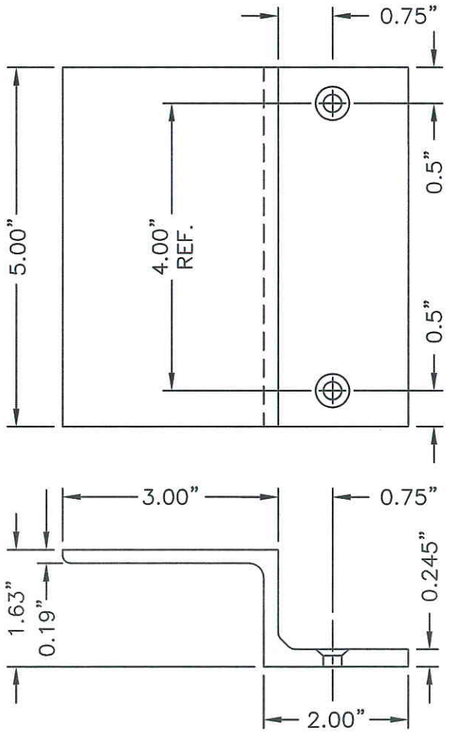


4 EXTRUDED NYLON CORNER KEY

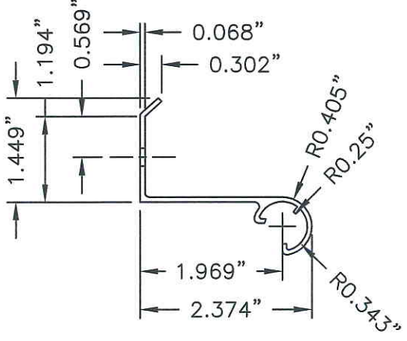




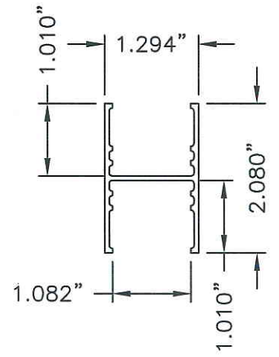
8 MOUNTING BRACKET
ALUMINUM 6063–T6
WOOD FRAME INSTALLATION



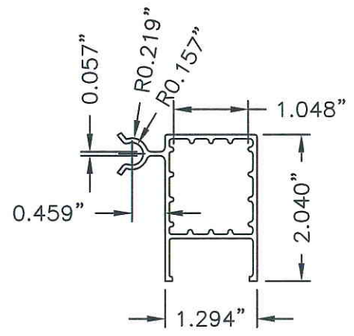
8A MOUNTING BRACKET
ALUMINUM 6063–T6
MASONRY INSTALLATION



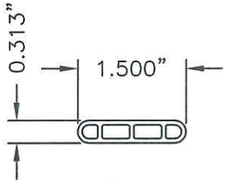
6 FEMALE HINGE
EXTRUDED ALUMINUM
6063–T6



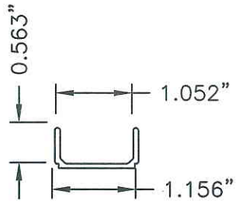
14 VERTICAL SUPPORT SLAT
ALUMINUM 6063–T6
.060" TYP. WALL THK.



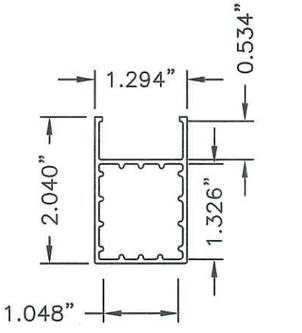
7 MALE HINGE TOP RAIL
EXTRUDED ALUMINUM
6063–T6
0.060" TYP. WALL THK.



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.

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CERTIFICATE OF REGISTRATION # F-11852

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

1.24.10

PRODUCT: SOUTHERN EXTRUSIONS EXTRUDED ALUMINUM BAHAMA HURRICANE SHUTTER
PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

NO.	DATE	BY
REVISIONS		

DATE: 02/21/07
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4030
SHEET 6 OF 6

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