Southern Extrusion, Inc.

3401 W. NAVY BLVD. PENSACOLA, FL. 32505

EXTRUDED ALUMINUM COLONIAL 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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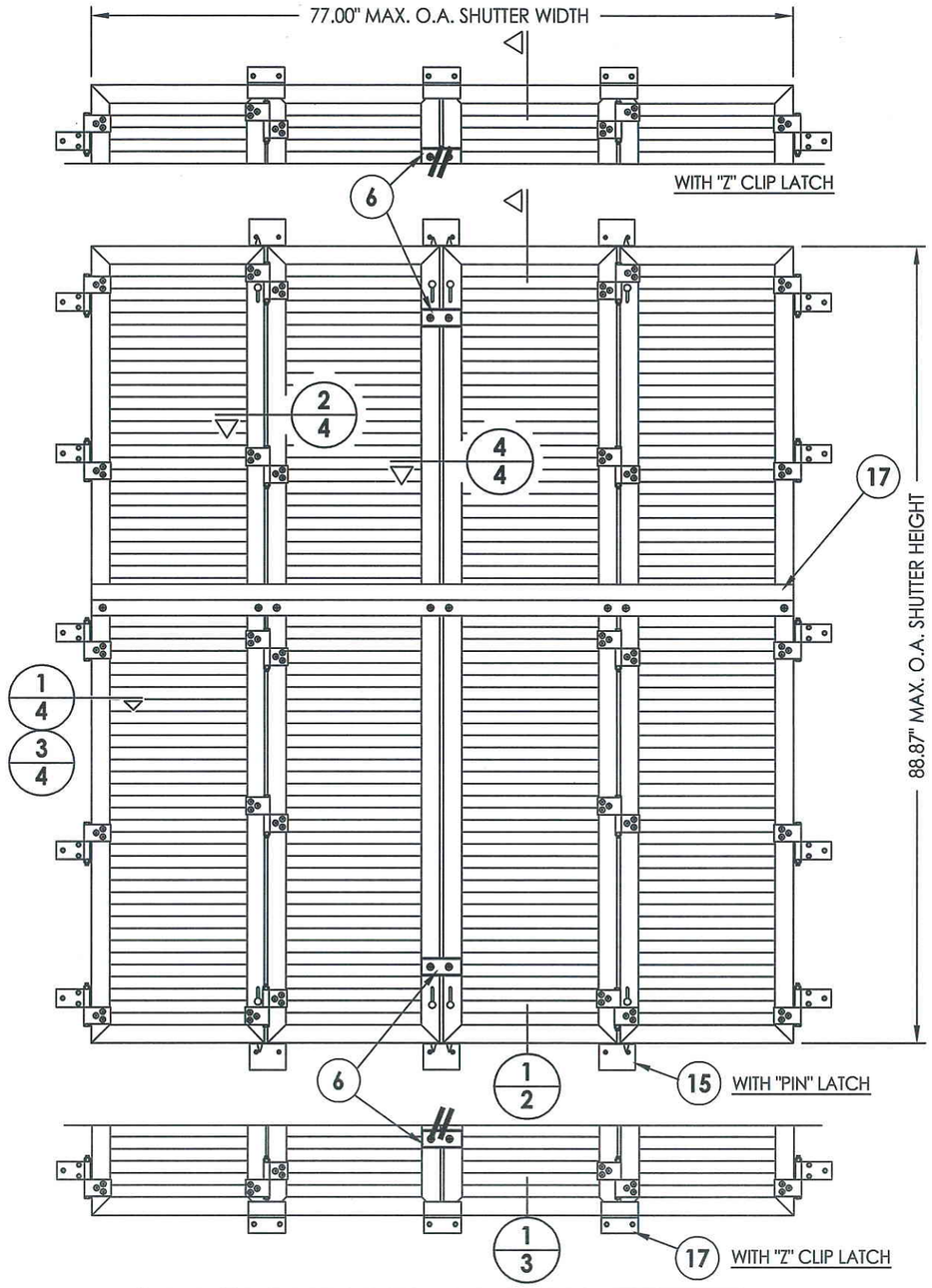
5	Anchoring locations masonry and stud installation
6	Anchoring locations masonry and stud installation
7	Bill of materials & components



LATCH TYPE	MAX. FRAME DIMENSION	DESIGN PRESSURE (PSF)	
		POSITIVE	NEGATIVE
"PIN"	77.00" X 88.87"	+65.0	-65.0
"Z" CLIP	77.00" X 88.87"	+80.0	-90.0

STATE OF TEXAS — LYNDON F. SCHMIDT — 104123 — LICENSED PROFESSIONAL ENGINEER — 1-21-10

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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 COLONIAL HURRICANE SHUTTER

PART OR ASSEMBLY: TYPICAL ELEVATIONS, 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-4032
SHEET 1 OF 7

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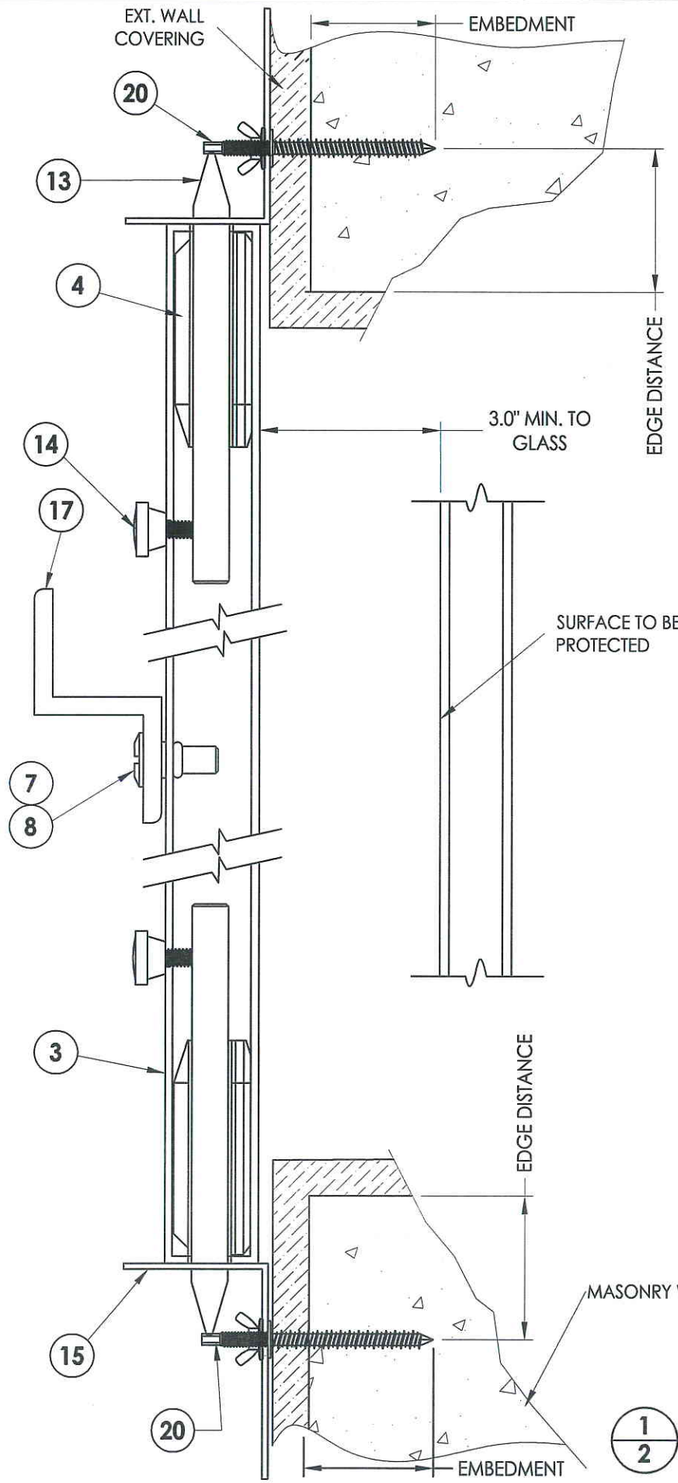
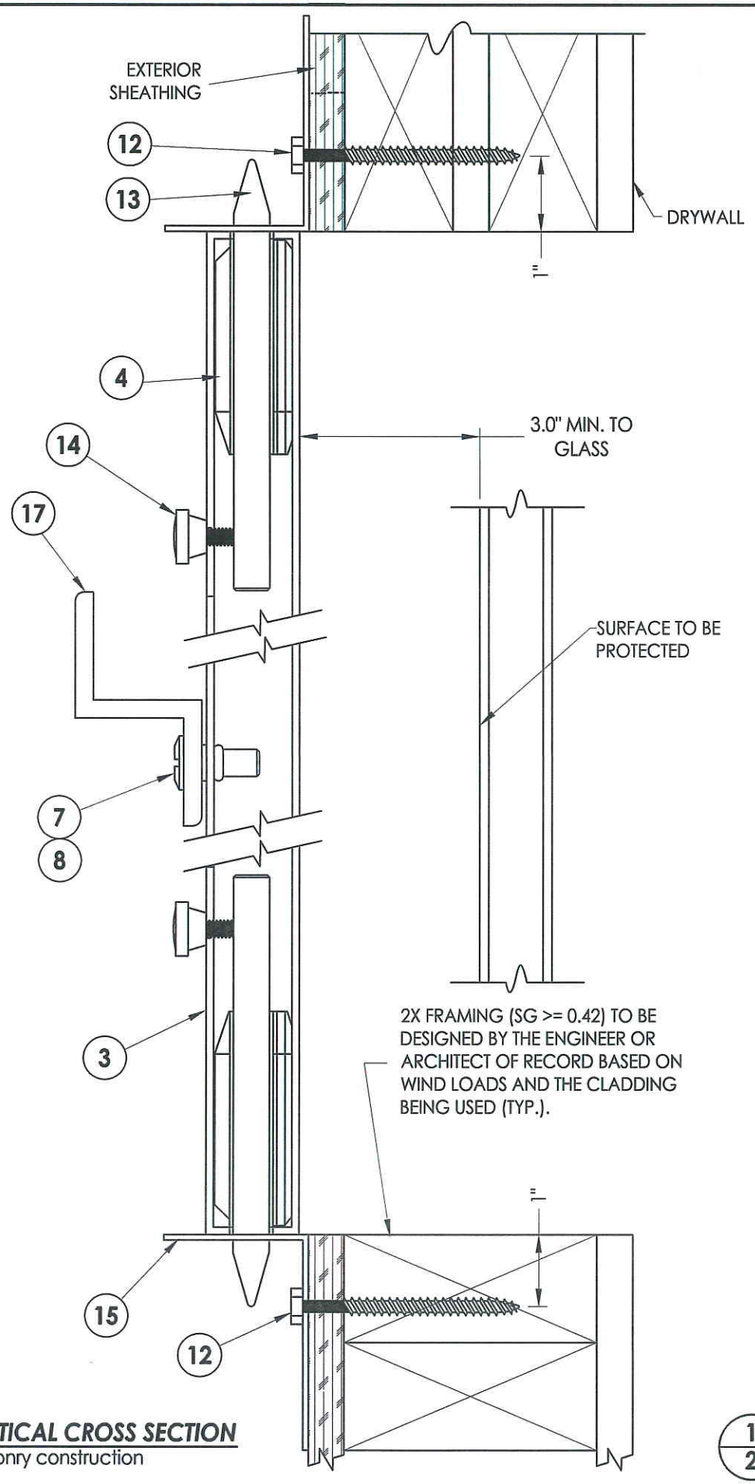


1 / 2 **VERTICAL CROSS SECTION**
Masonry construction



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

20 MASONRY ANCHOR SCHEDULE

CONCRETE CONFORMING TO ACI 301	ANCHOR	HOLLOW BLOCK CONFORMING TO ASTM C90	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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PRODUCT: SOUTHERN EXTRUSIONS EXTRUDED ALUMINUM COLONIAL HURRICANE SHUTTER

PART OR ASSEMBLY: VERTICAL CROSS SECTIONS MASONRY & STUD CONSTRUCTION

NO.	DATE	BY
REVISIONS		

DATE: 8/03/09
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
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SHEET 2 OF 7

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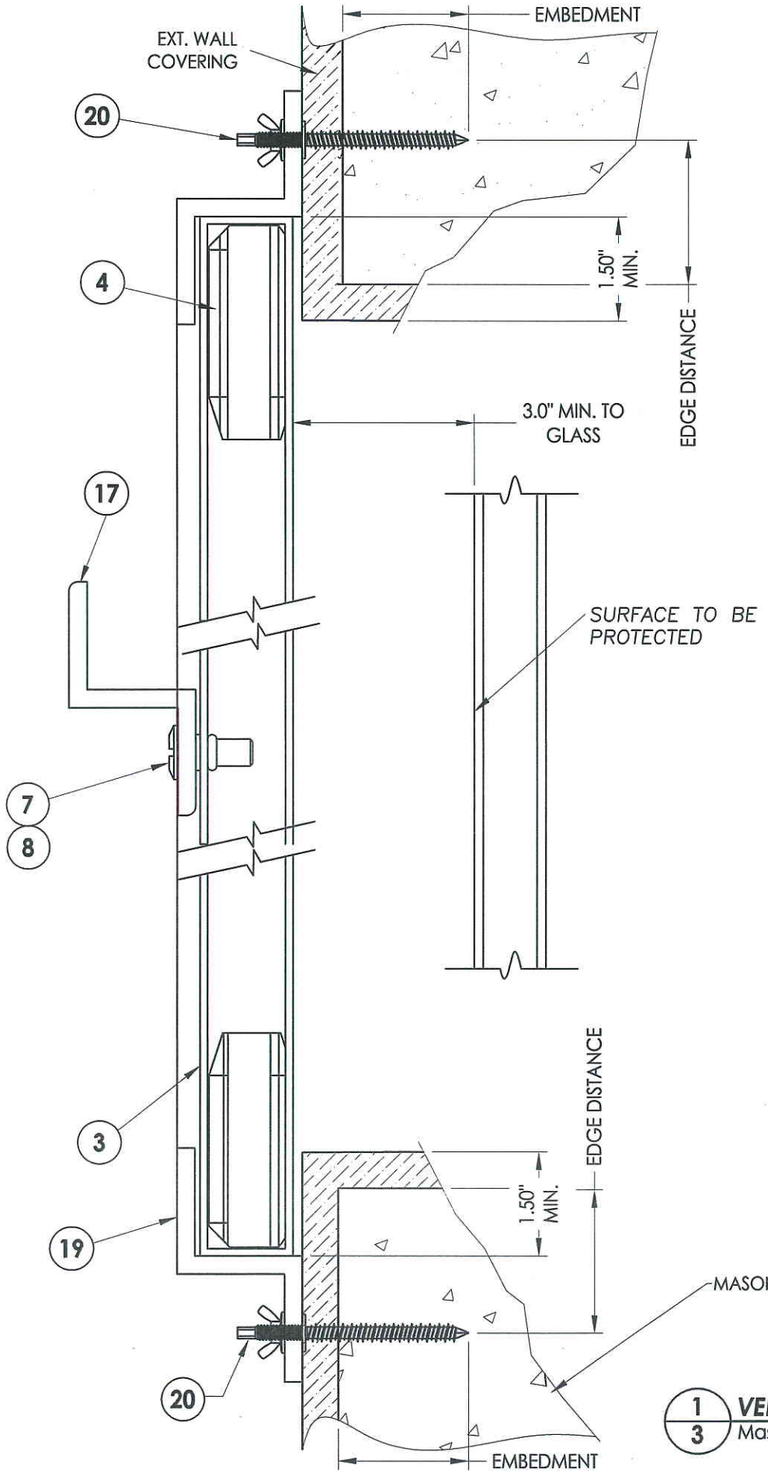
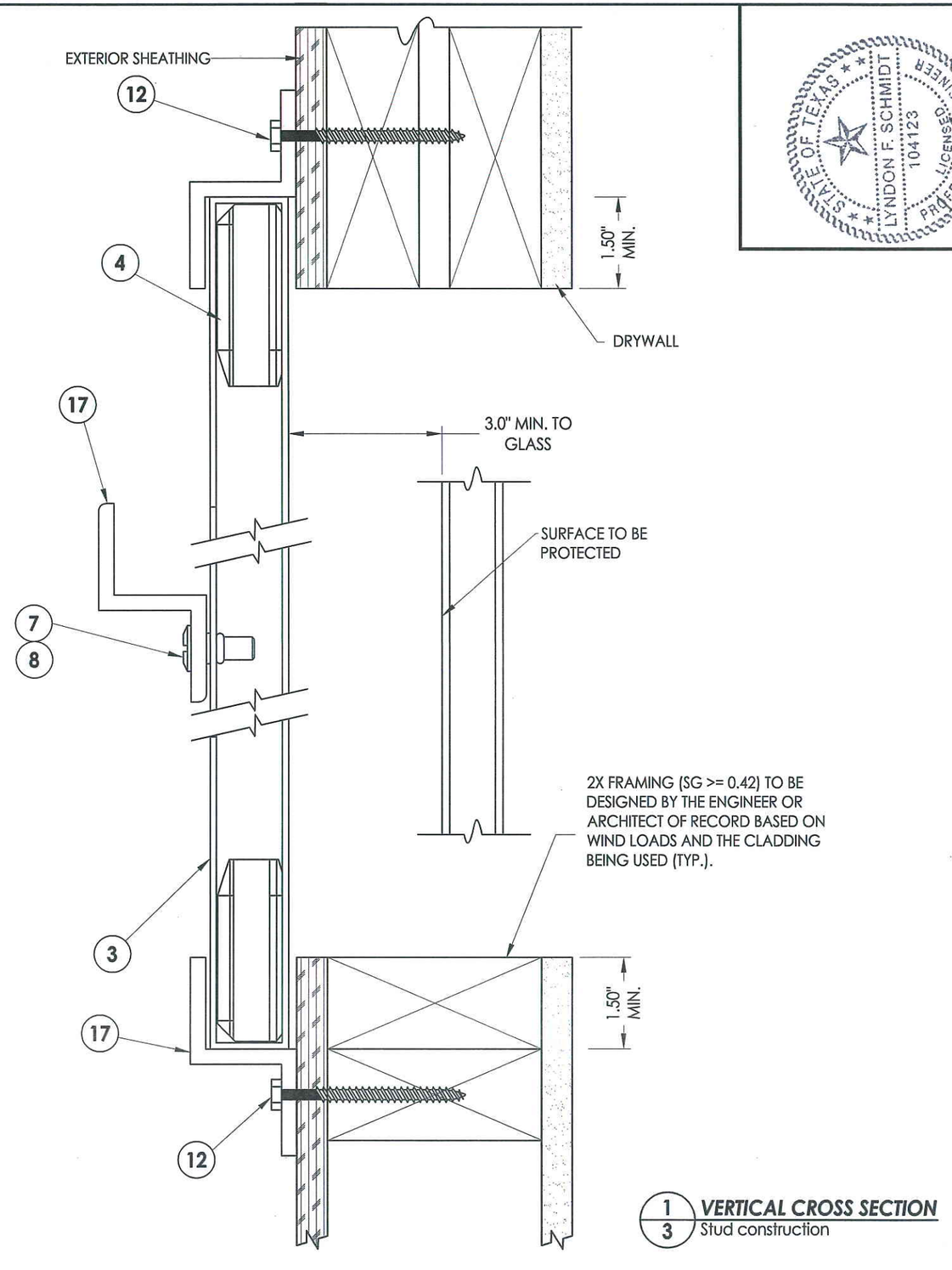


1/3 **VERTICAL CROSS SECTION**
Masonry construction



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

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1-26-10

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EXTRUDED ALUMINUM
COLONIAL HURRICANE SHUTTER

PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS
MASONRY & STUD CONSTRUCTION

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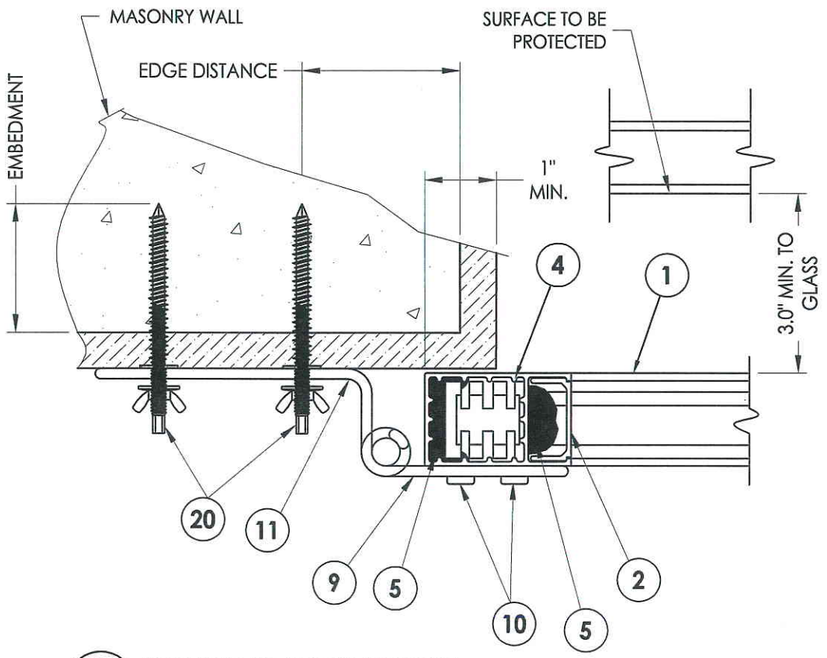
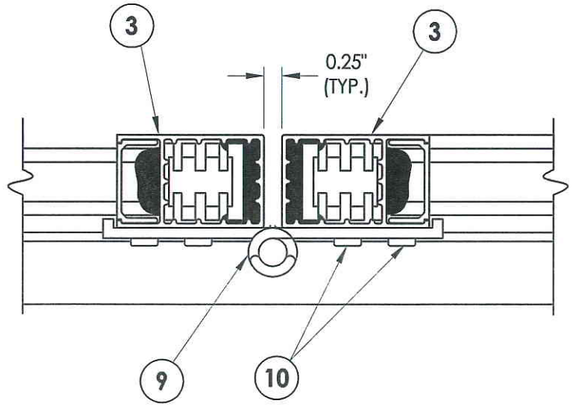
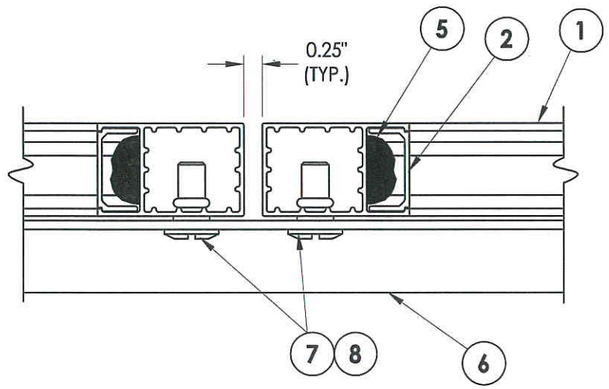


1/4 HORIZONTAL CROSS SECTION
Masonry construction

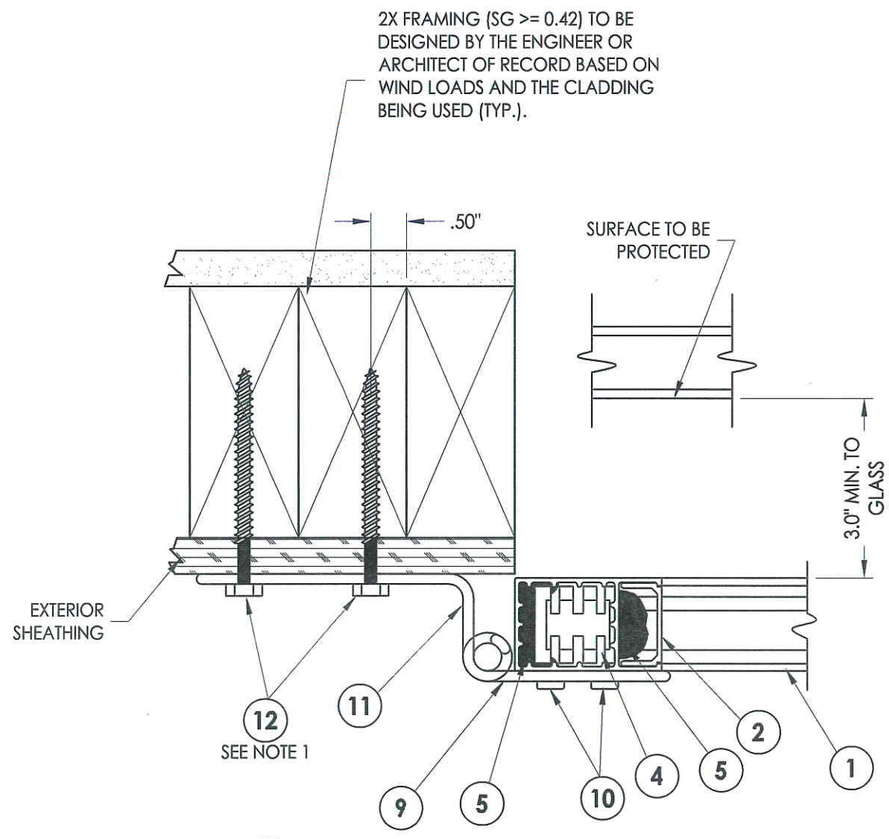


2/4 HORIZONTAL CROSS SECTION



4/4 HORIZONTAL CROSS SECTION

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



3/4 HORIZONTAL CROSS SECTION
Stud construction

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LICENSED PROFESSIONAL ENGINEER
1-21-10

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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:
SOUTHERN EXTRUSIONS
EXTRUDED ALUMINUM
COLONIAL HURRICANE SHUTTER

PART OR ASSEMBLY:
HORIZONTAL CROSS SECTIONS
MASONRY & STUD CONSTRUCTION

NO.	DATE	BY
REVISIONS		

DATE: 8/03/09
SCALE: N.T.S.
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CHK. BY: LFS
DRAWING NO.: TX-4032
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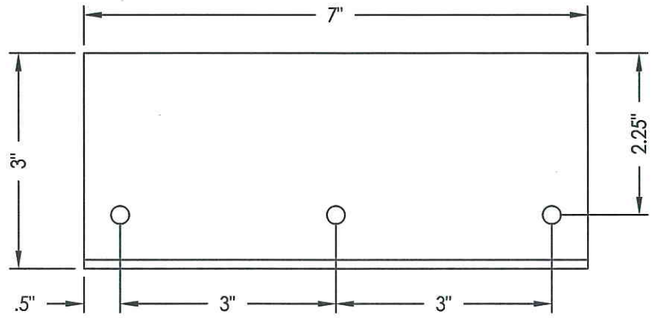
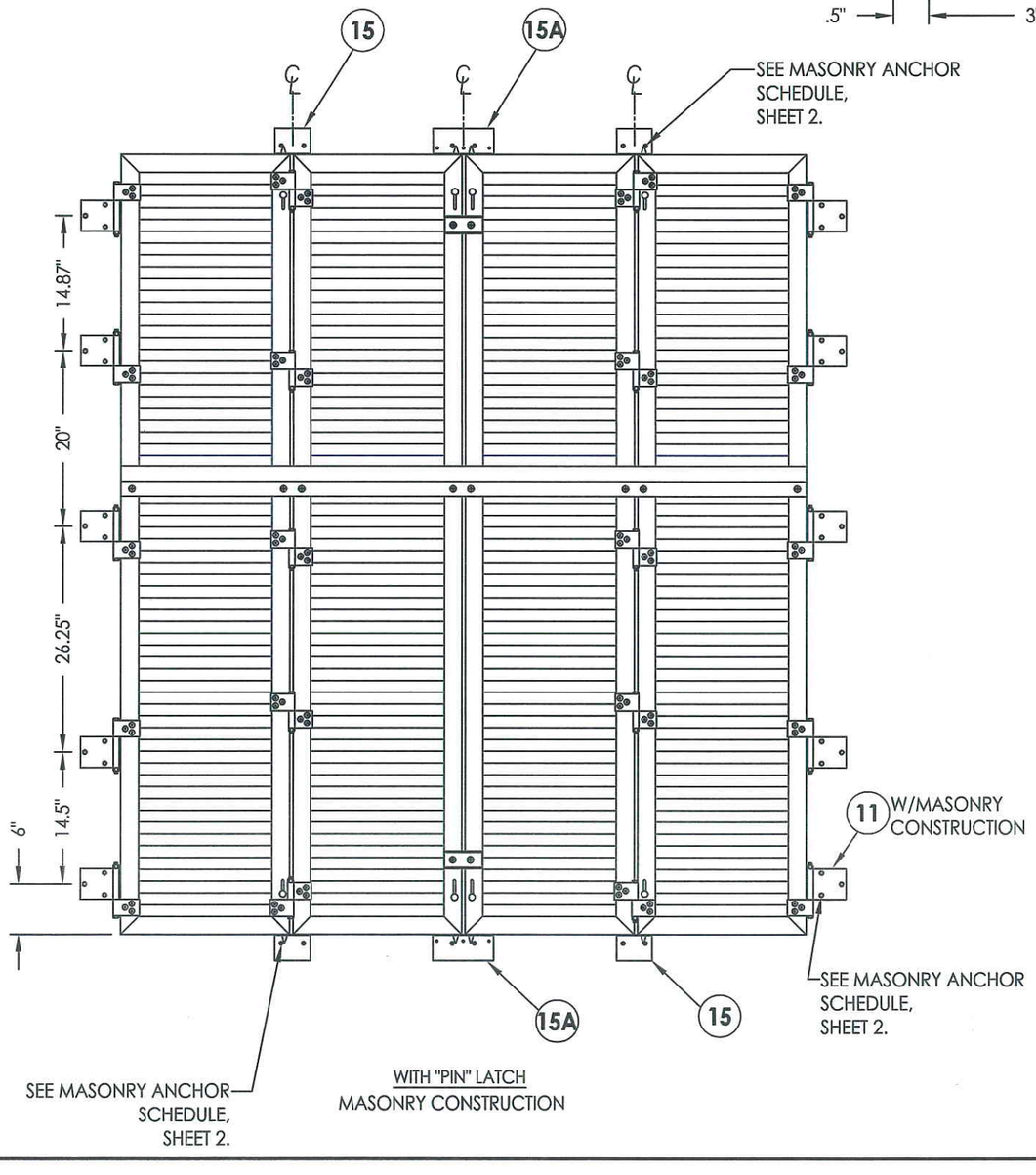
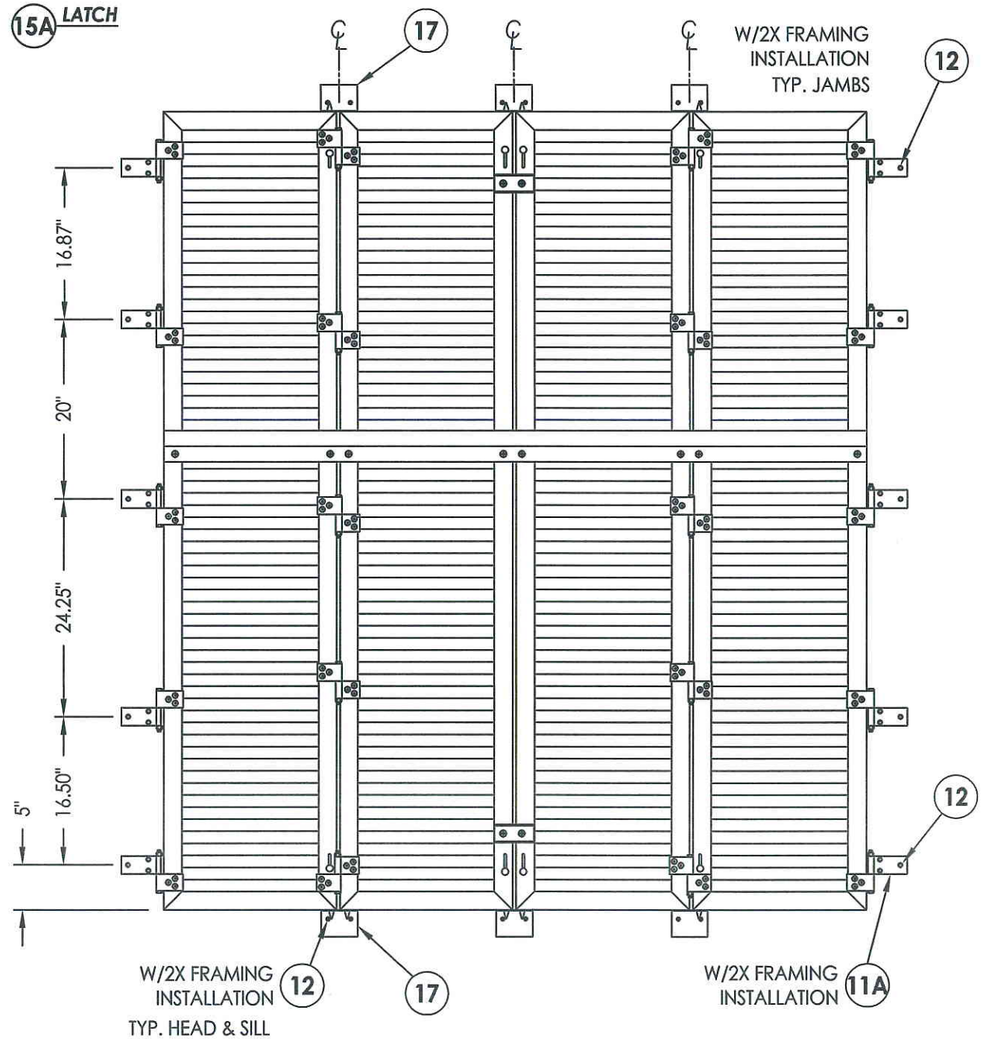


15A LATCH



WITH "PIN" LATCH
MASONRY CONSTRUCTION



WITH "PIN" LATCH
2X STUD CONSTRUCTION

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PRODUCT:
SOUTHERN EXTRUSIONS
EXTRUDED ALUMINUM
COLONIAL HURRICANE SHUTTER

PART OR ASSEMBLY:
ANCHORING LOCATIONS
MASONRY & STUD INSTALLATION

NO.	DATE	REVISIONS	BY

DATE: 8/03/09
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CHK. BY: LFS
DRAWING NO.: TX-4032
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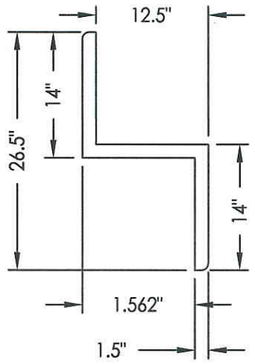
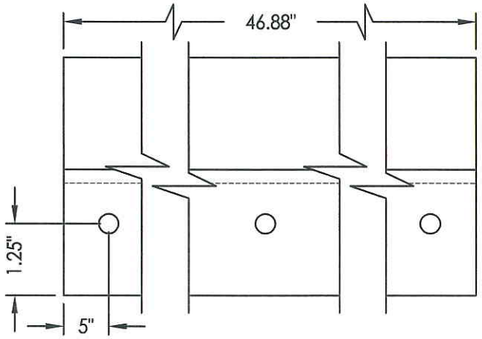
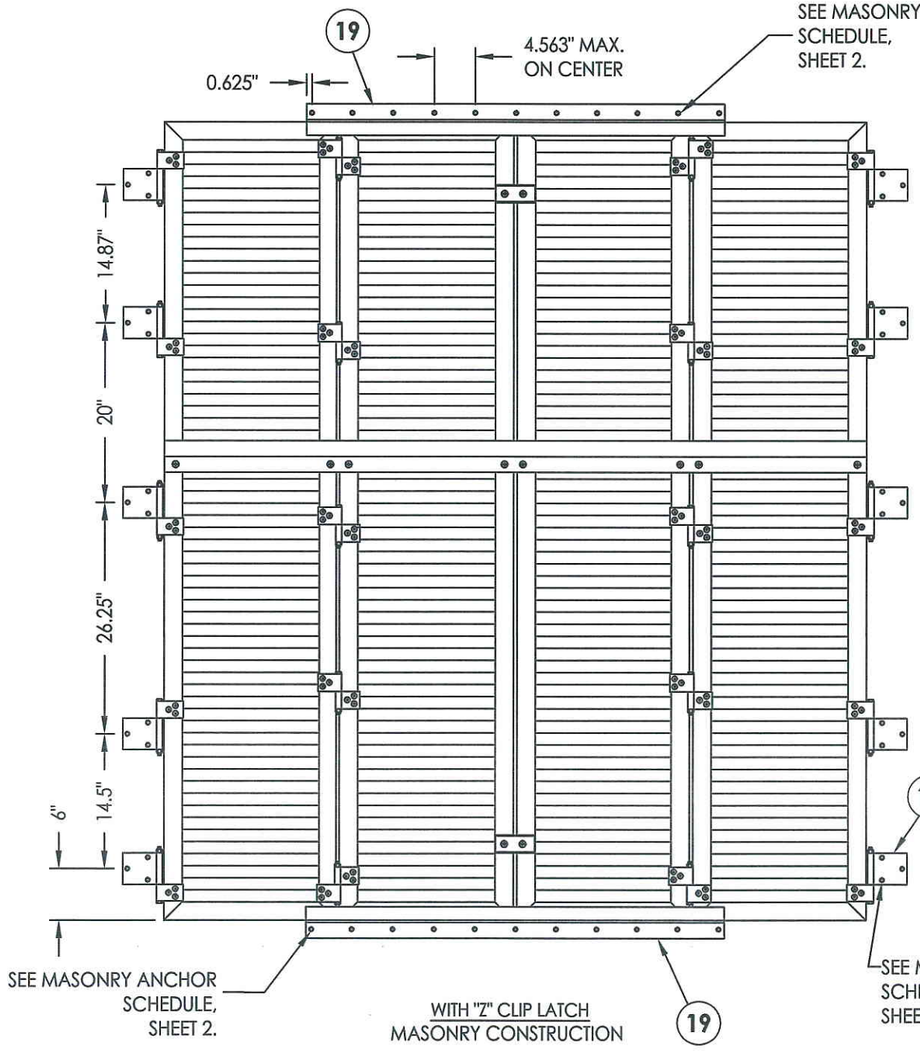
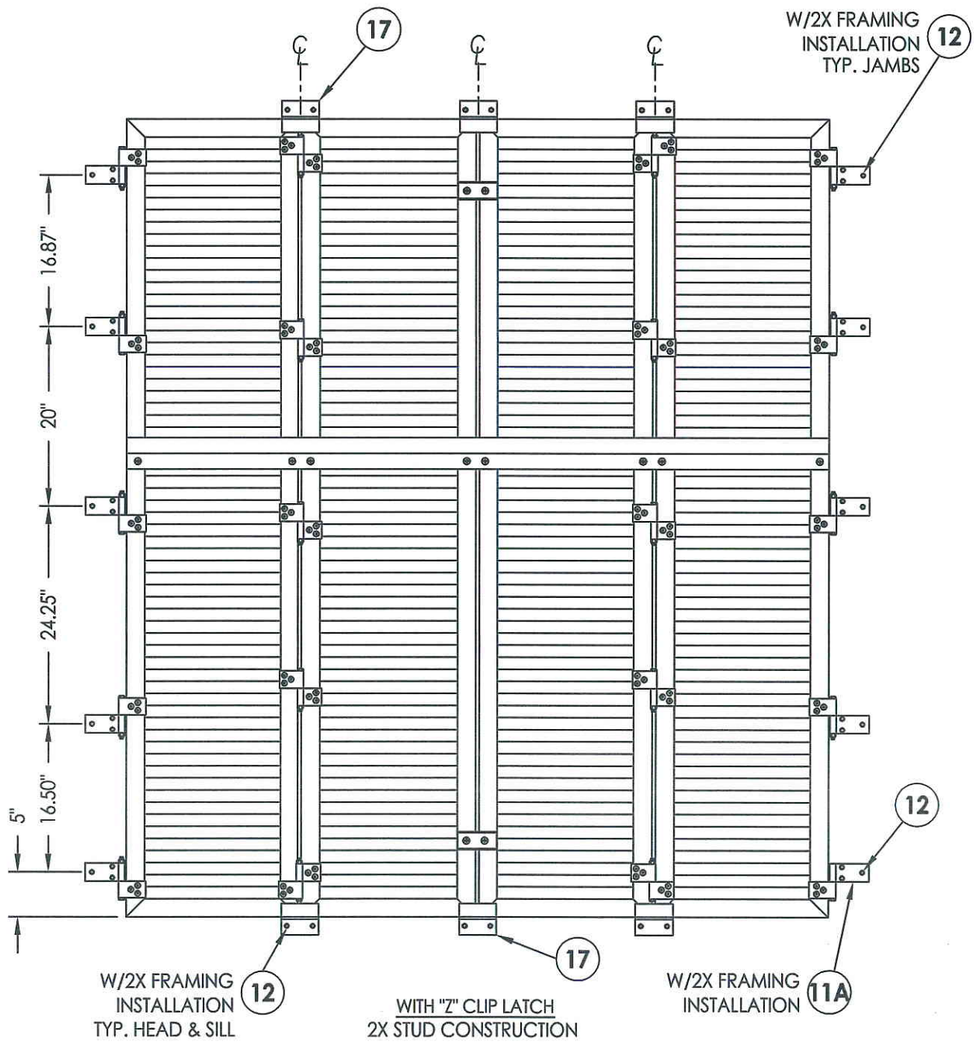




19 ***"Z" CLIP EXTENDED LATCH***
ALUMINUM 6063-T6





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PROFESSIONAL
ENGINEER
1.26.10

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

PRODUCT:
SOUTHERN EXTRUSIONS
EXTRUDED ALUMINUM
COLONIAL HURRICANE SHUTTER

PART OR ASSEMBLY:
ANCHORING LOCATIONS
MASONRY & STUD INSTALLATION

NO.	DATE	BY
	REVISIONS	

DATE: 8/03/09
SCALE: N.T.S.
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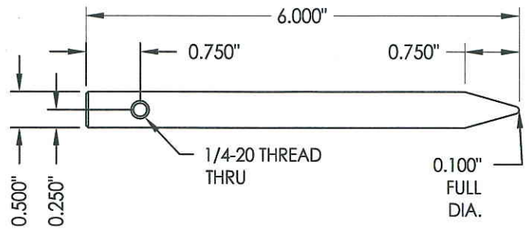
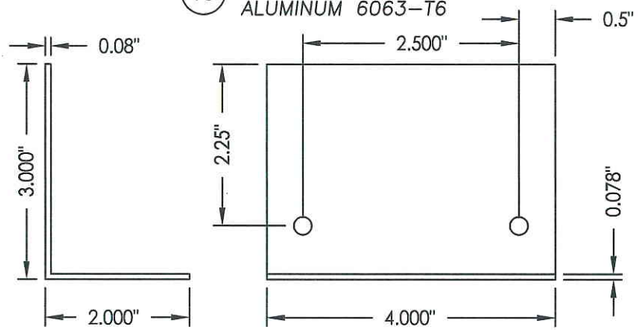
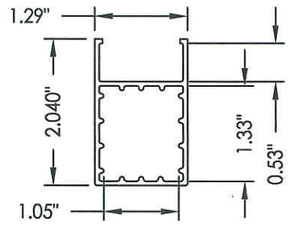
BILL OF MATERIALS		
1	LOUVER 6063-T6 0.060"	ALUM.
2	LOUVER/INSERT 6063-T6 0.060"	ALUM.
3	STILE/RAIL 6063-T6 0.060"	ALUM.
4	NYLON CORNER KEY	NYLON
5	STRUCTURAL ADHESIVE	-
6	STORM BAR 6063-T6	ALUM.
7	1/4-20 x 1" SIDEWALK BOLT	STEEL
8	1/4-20 RIV-NUT	ALUM.
9	FLAT HINGE	ALUM.
10	3/16" DIA. POP RIVET	ALUM.
11	SINGLE HINGE MASONRY	ALUM.
11A	SINGLE HINGE WOOD	ALUM.
12	1/4" x 3" H.H. LAG SCREW	STEEL
13	LOCKING PIN	ALUM.
14	THUMB SCREW	STEEL
15	LATCH	ALUM.
17	"Z" CLIP	ALUM.
19	"Z" CLIP EXTENDED LATCH	ALUM.
20	ANCHOR - SEE MASONRY ANCHOR SCHEDULE	STEEL



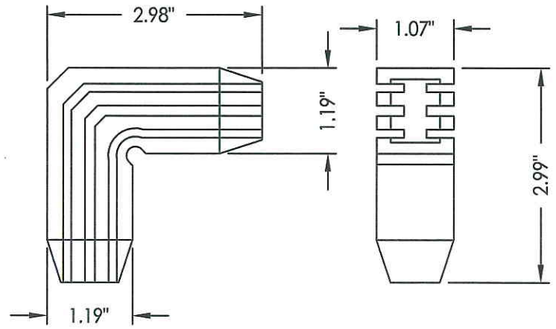
13 LOCKING PIN
ALUMINUM 6063–T6



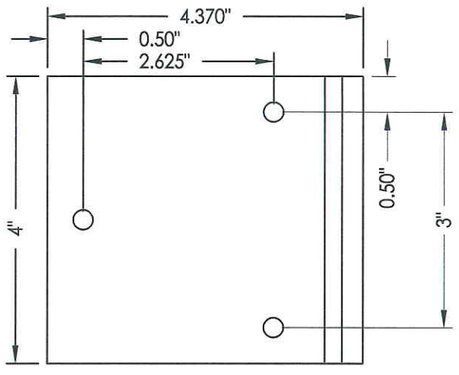
15 LATCH
ALUMINUM 6063–T6



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

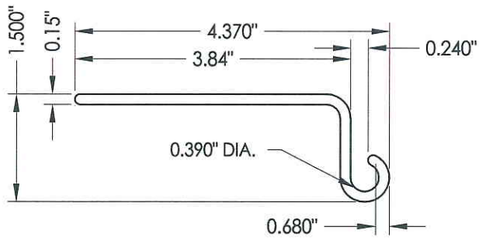


4 NYLON CORNER KEY

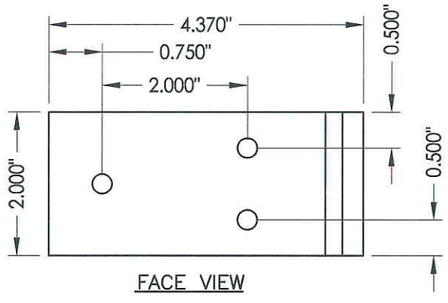


FACE VIEW

11 SINGLE HINGE MASONRY
EXTRUDED ALUMINUM
6063–T6

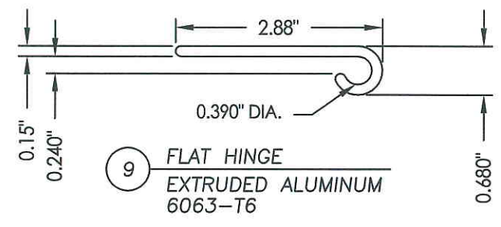


11 11A SINGLE HINGE
EXTRUDED ALUMINUM
6063–T6

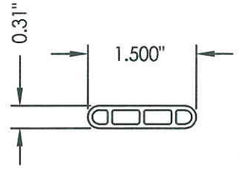


FACE VIEW

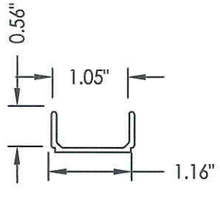
11A SINGLE HINGE WOOD
EXTRUDED ALUMINUM
6063–T6



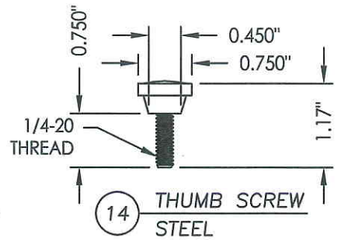
9 FLAT HINGE
EXTRUDED ALUMINUM
6063–T6



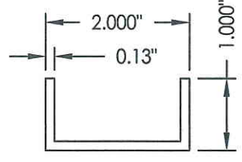
1 LOUVER
EXTRUDED ALUMINUM
6063–T6
0.060" TYP. WALL THK.



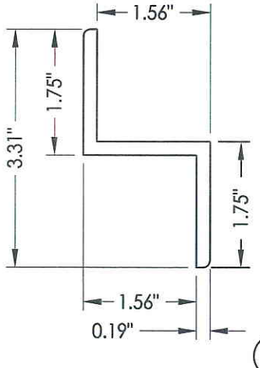
2 LOUVER/INSERT
EXTRUDED ALUMINUM
6063–T6
0.060" TYP. WALL THK.

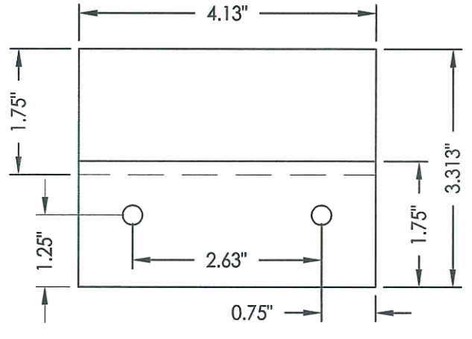


14 THUMB SCREW
STEEL



6 STORM BAR
EXTRUDED ALUMINUM
6063–T6





17 "Z" CLIP
ALUMINUM 6063–T6

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CERTIFICATE OF REGISTRATION # F-11852

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

PRODUCT: SOUTHERN EXTRUSIONS EXTRUDED ALUMINUM COLONIAL HURRICANE SHUTTER

PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

NO.	DATE	BY
REVISIONS		

DATE: 8/03/09
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4032
SHEET 7 OF 7

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