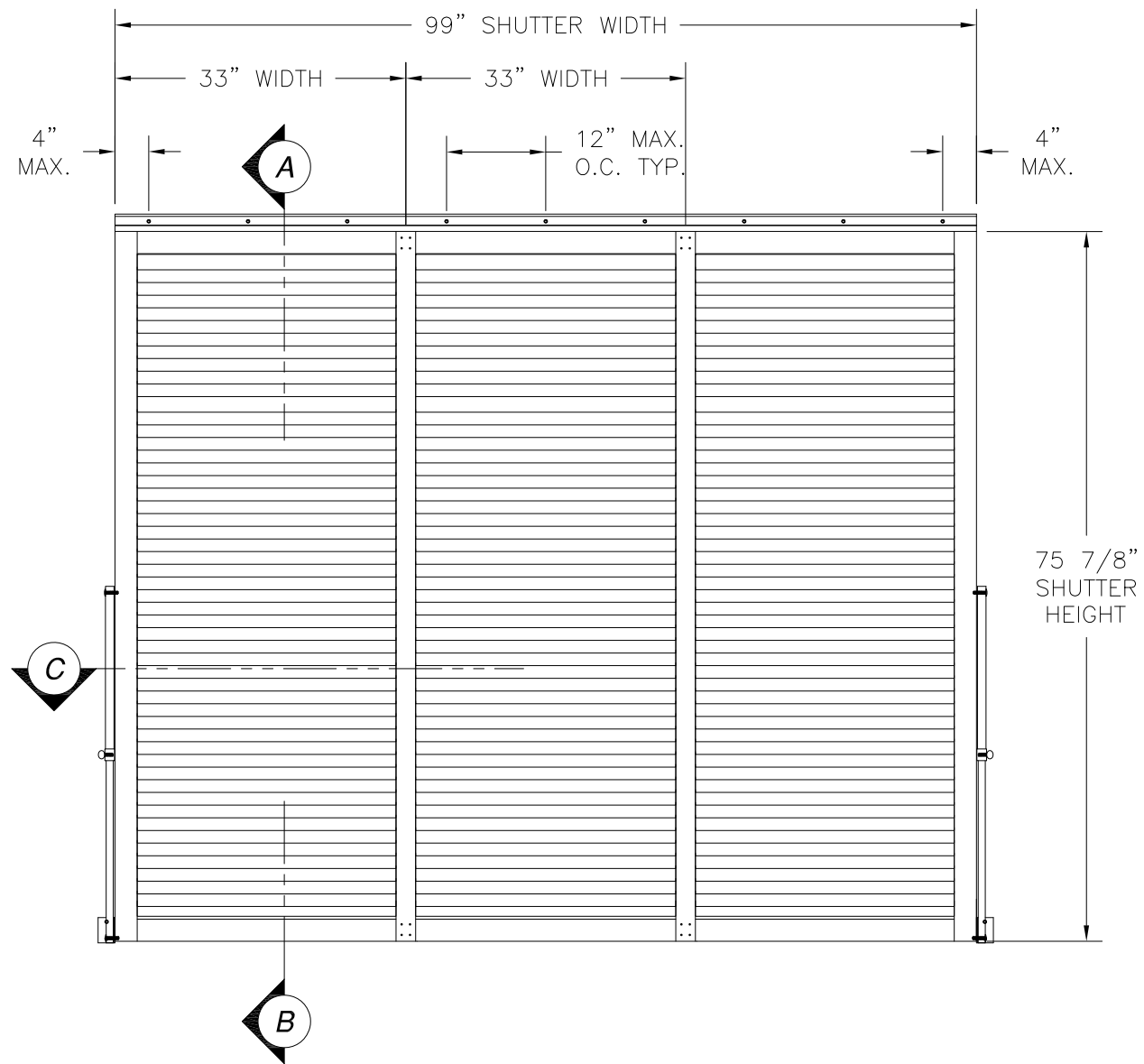


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NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE.
2. WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND MASONRY OPENING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3. ALLOWABLE STRESS INCREASE OF $\frac{1}{3}$ WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR $C_d=1.6$ WAS USED FOR WOOD ANCHOR CALCULATIONS.
4. SHUTTER FRAME: 6063-T6.
BLADE MATERIAL: 6061-T6.
5. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
6. FOR ANCHORING INTO MASONRY USE $\frac{1}{4}$ " ITW TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A $1 \frac{3}{4}$ " MINIMUM EMBEDMENT INTO SUBSTRATE WITH 3" MINIMUM EDGE DISTANCE AND 2" MINIMUM SEPARATION. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
7. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK OR THROUGH BRICK VEENER INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A $1 \frac{3}{4}$ " MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
8. ALL FASTENERS TO BE CORROSION RESISTANT.
9. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
 - 9.1. WOOD - MINIMUM SPECIFIC GRAVITY OF $G=0.42$
 - 9.2. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
 - 9.3. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).

BAHAMA SHUTTER - DOUBLE MULLED
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±45.0PSF	LARGE AND SMALL MISSILE IMPACT

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1 - 2	ELEVATIONS AND NOTES
3 - 4	BILL OF MATERIALS AND COMPONENTS
5 - 6	CROSS SECTIONS
7 - 11	INSTALLATION DETAILS

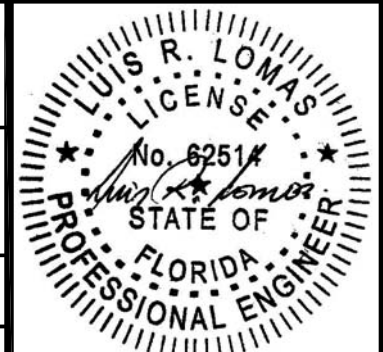
LAS ENTERPRISES
2413 L & A ROAD
METAIRIE, LA 70001

BAHAMA SHUTTER
LARGE & SMALL MISSILE IMPACT RATED
DOUBLE MULLED ELEVATION AND NOTES

DRAWN: TJH	DWG NO. 08-01233	REV B
SCALE NTS	DATE 04/14/11	SHEET 1 OF 11

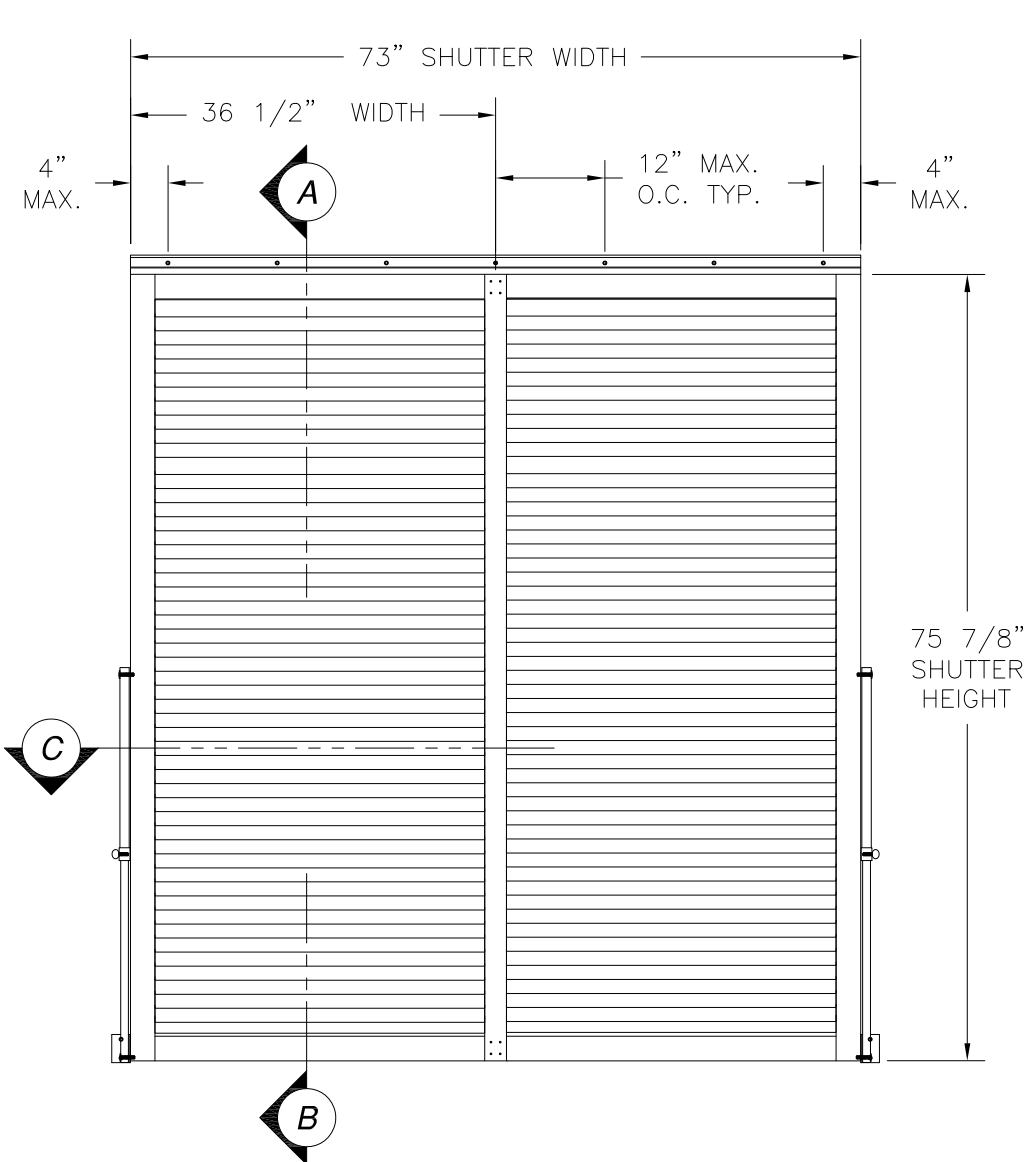
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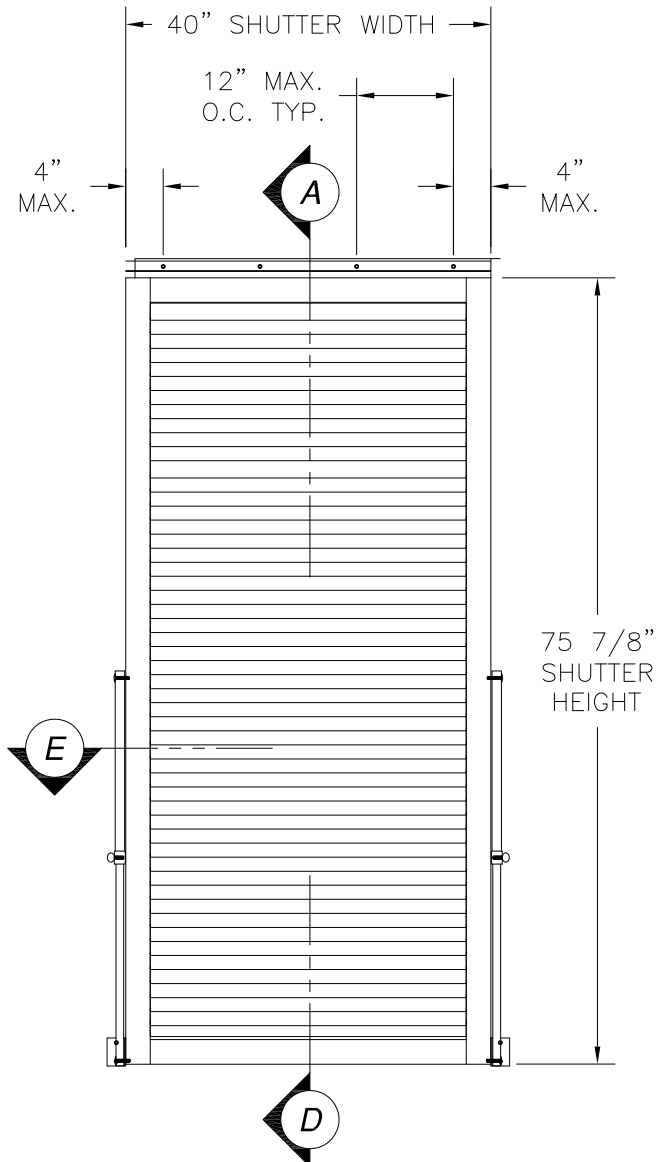
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BAHAMA SHUTTER - SINGLE MULLED
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±45.0PSF	LARGE AND SMALL MISSILE IMPACT



BAHAMA SHUTTER - SINGLE PANEL
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±50.0PSF	LARGE AND SMALL MISSILE IMPACT

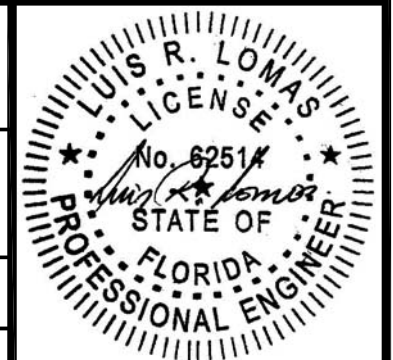
LAS ENTERPRISES
2413 L & A ROAD
METAIRIE, LA 70001

BAHAMA SHUTTER
LARGE & SMALL MISSILE IMPACT RATED
SINGLE MULLED AND SINGLE PANEL ELEVATIONS

DRAWN: TJH	DWG NO. 08-01233	REV B
SCALE NTS	DATE 04/14/11	SHEET 2 OF 11

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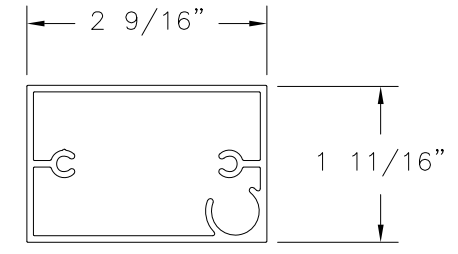
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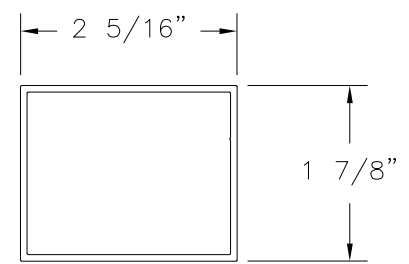
Luis R. Lomas P.E.
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BILL OF MATERIALS				
ITEM NO.:	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	AF-3398	BOTTOM FRAME	LAS	ALUMINUM 6063-T6
2	AF-3400	SIDE FRAME	LAS	ALUMINUM 6063-T6
3	AF-3399	TOP FRAME	LAS	ALUMINUM 6063-T6
4	11792	2 7/8" BAHAMA HINGE	LAS	ALUMINUM 6063-T6
5	LAS 8	.050 BLADE #14 COGS	LAS	ALUMINUM 6063-T6
6	LAS 9	.050 BLADE CENTER-WALL	LAS	ALUMINUM 6063-T6
7		2"X3"X3" ANGLE 1/8" THICK	AEI	ALUMINUM 6063-T6
8	AF-3400	CENTER MULL	LAS	ALUMINUM 6063-T6
9		3"X3"X3" ANGLE 1/8" THICK	SAPA	ALUMINUM 6063-T6
10	12156	INNER POLE	LAS	ALUMINUM 6063-T6
11	12157	OUTER POLE	LAS	ALUMINUM 6063-T6
12	12155	1/2" PIN	LAS	ALUMINUM 6063-T6
13	LP 12	EXTERIOR LOCKING ROD	ALL POINTS	ALUMINUM 6063-T6
14	LP 12	INTERIOR LOCKING ROD	ALL POINTS	ALUMINUM 6063-T6
15		1/4-20 X 1" THUMB SCREW	ALL POINTS	
16		1/4" SIDWALK BOLT	ALL POINTS	
17	LP 12	SIUPPORT POLE COLLAR	ALL POINTS	ALUMINUM 6063-T5
18		2"X3"X4" ANGLE 1/8" THICK	LAS	ALUMINUM 6063-T5
19		3"X3"X5 1/2" ANGLE 1/8" THICK	LAS	ALUMINUM 6063-T5

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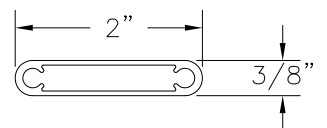


① **BOTTOM FRAME**
EXTRUDED ALUMINUM 6063-T6 .063" THICK

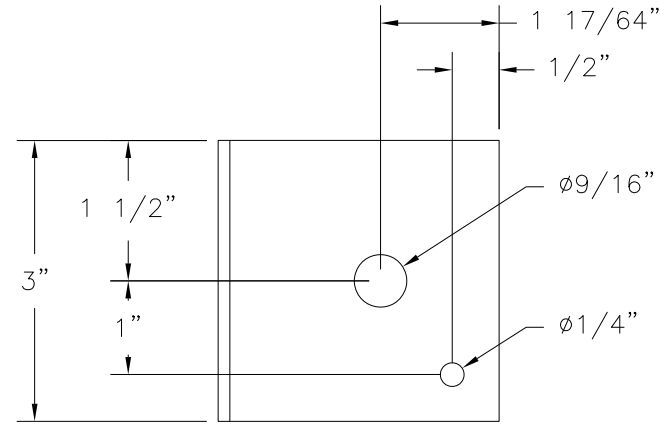


② **SIDE FRAME**

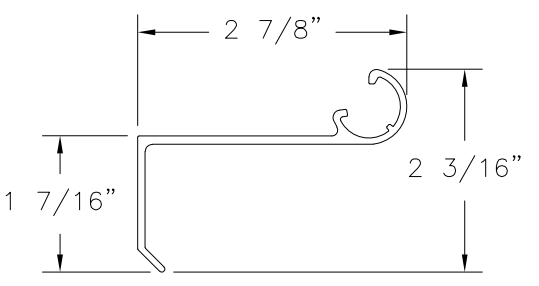
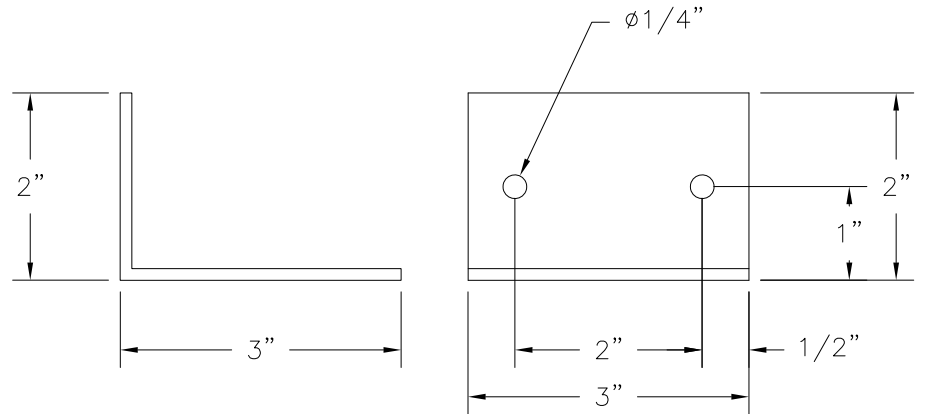
⑧ **CENTER MULL**
EXTRUDED ALUMINUM 6063-T6 .063" MIN. THICK



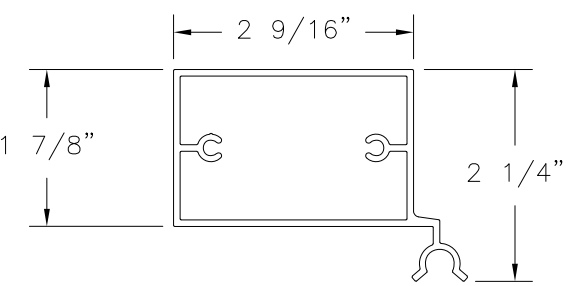
⑤ **BLADE**
EXTRUDED ALUMINUM 6061-T6 .050" THICK



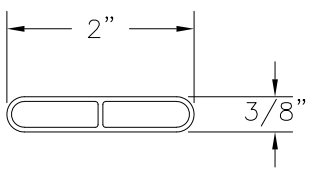
⑦ **INSTALLATION ANGLE**
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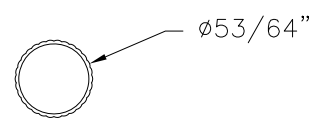
④ **BAHAMA HINGE**
EXTRUDED ALUMINUM 6063-T5 .088" THICK



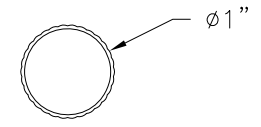
③ **TOP FRAME**
EXTRUDED ALUMINUM 6063-T6 .070" THICK



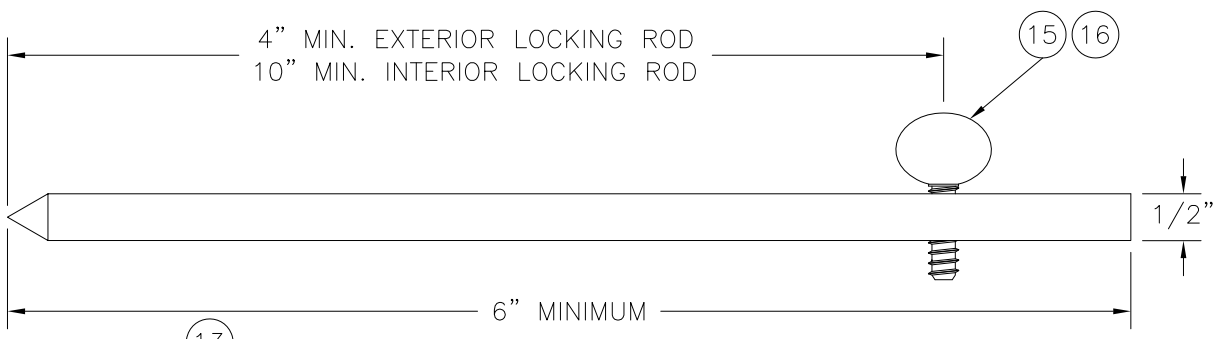
⑥ **BLADE/CENTER**
EXTRUDED ALUMINUM 6061-T6 .050" THICK



⑩ **INNER POLE**
EXTRUDED ALUMINUM 6063-T6 .040" THICK



⑪ **OUTER POLE**
EXTRUDED ALUMINUM 6063-T6 .040" THICK



⑬ **EXTERIOR LOCKING ROD**
⑭ **INTERIOR LOCKING ROD**
ALUMINUM 6063-T5

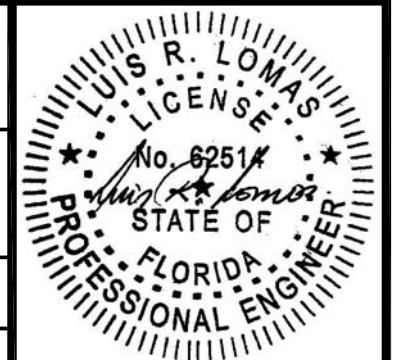
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LAS ENTERPRISES
2413 L & A ROAD
METAIRIE, LA 70001

BAHAMA SHUTTER
LARGE & SMALL MISSILE IMPACT RATED
BILL OF MATERIALS AND COMPONENTS

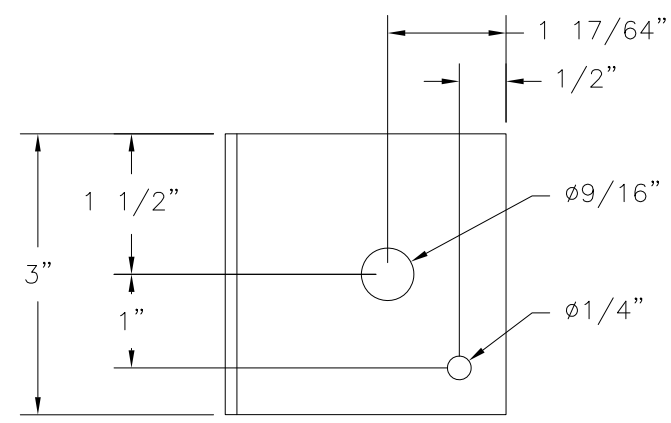
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SCALE NTS	DATE 04/14/11	SHEET 3 OF 11

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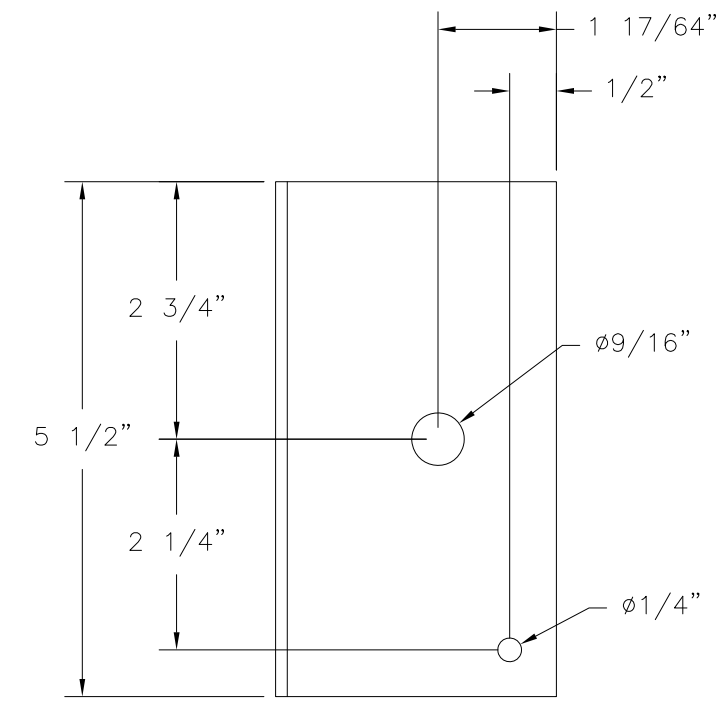
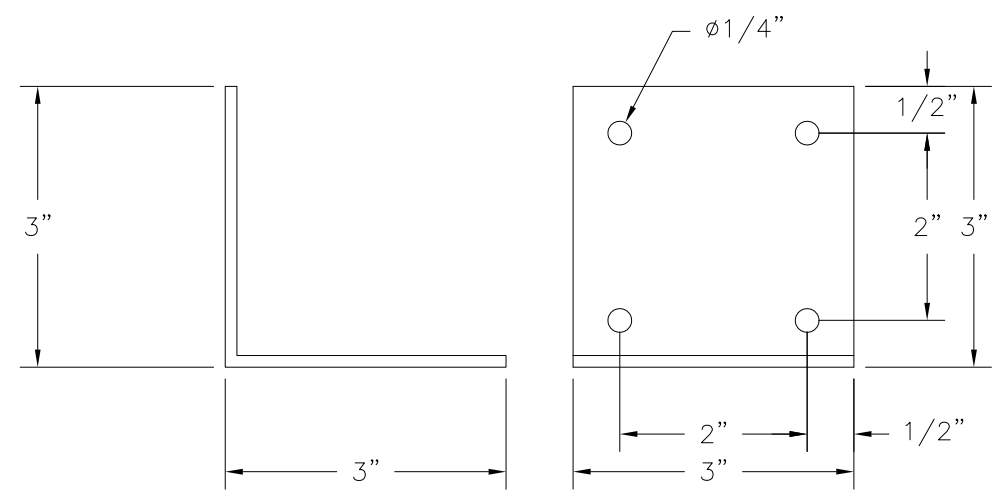


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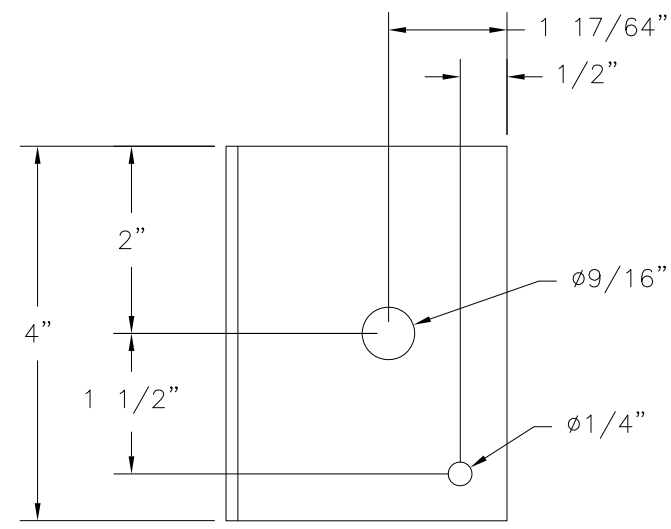
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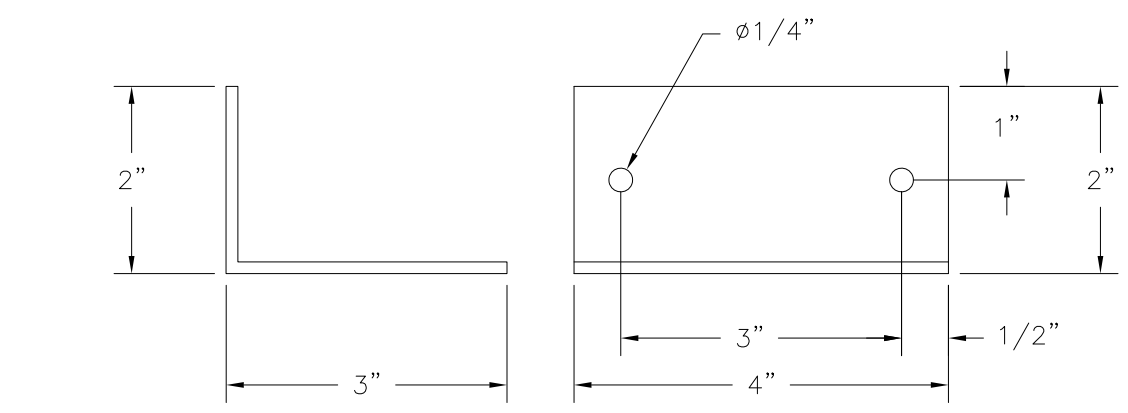
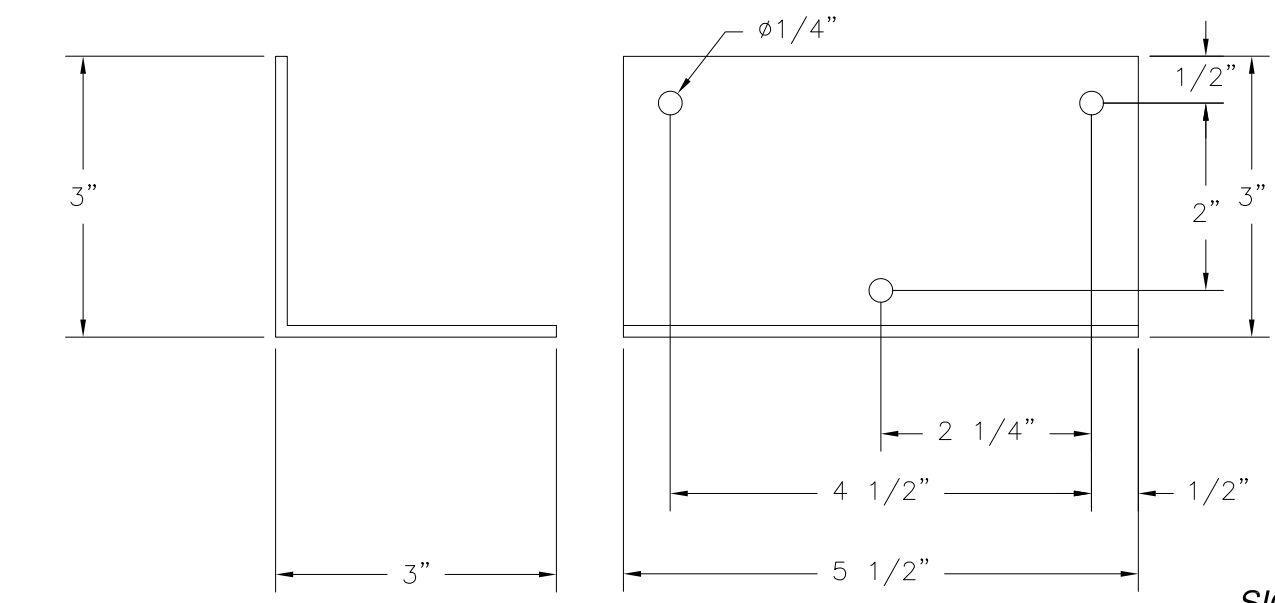
⑨ **INSTALLATION ANGLE**
EXTRUDED ALUMINUM 6063-T5 .125" THICK



⑰ **INSTALLATION ANGLE**
EXTRUDED ALUMINUM 6063-T5 .125" THICK



⑱ **INSTALLATION ANGLE**
EXTRUDED ALUMINUM 6063-T5 .125" THICK



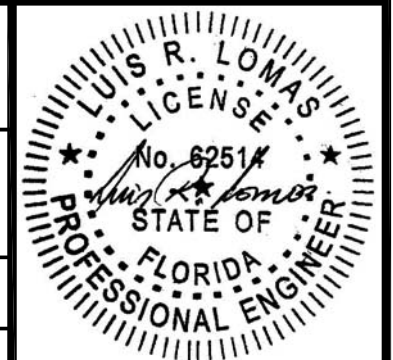
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LAS ENTERPRISES
2413 L & A ROAD
METAIRIE, LA 70001

BAHAMA SHUTTER
LARGE & SMALL MISSILE IMPACT RATED
COMPONENTS

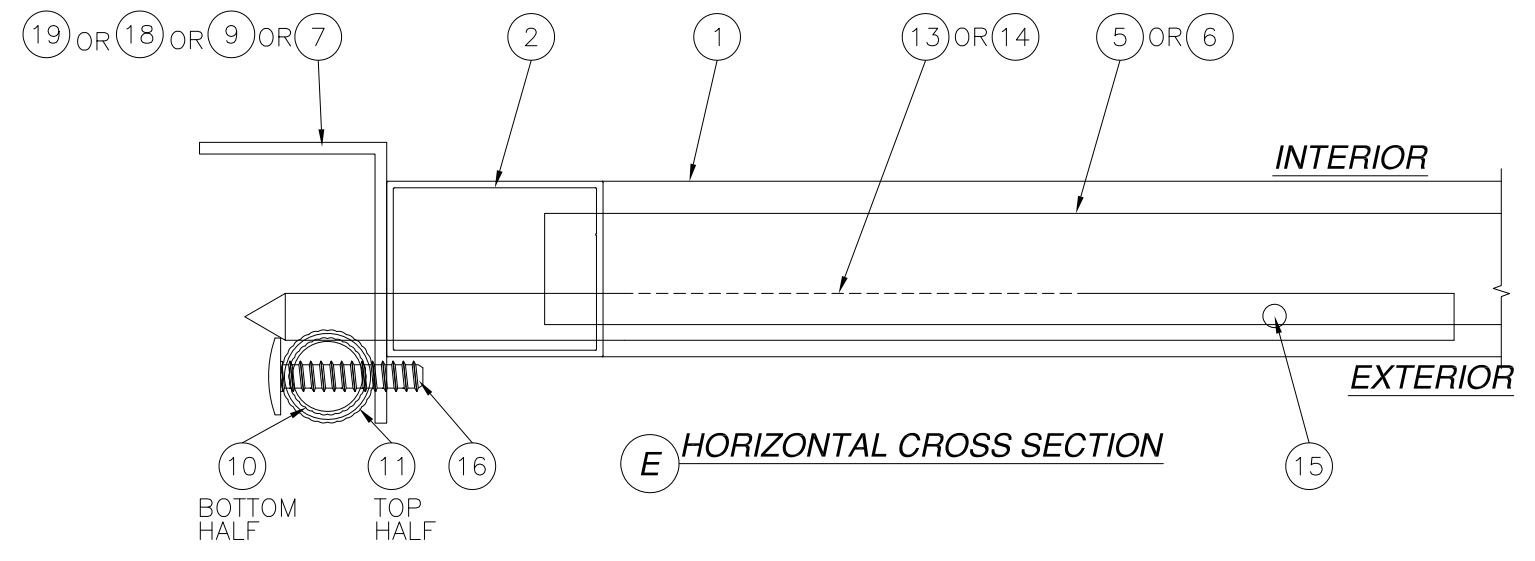
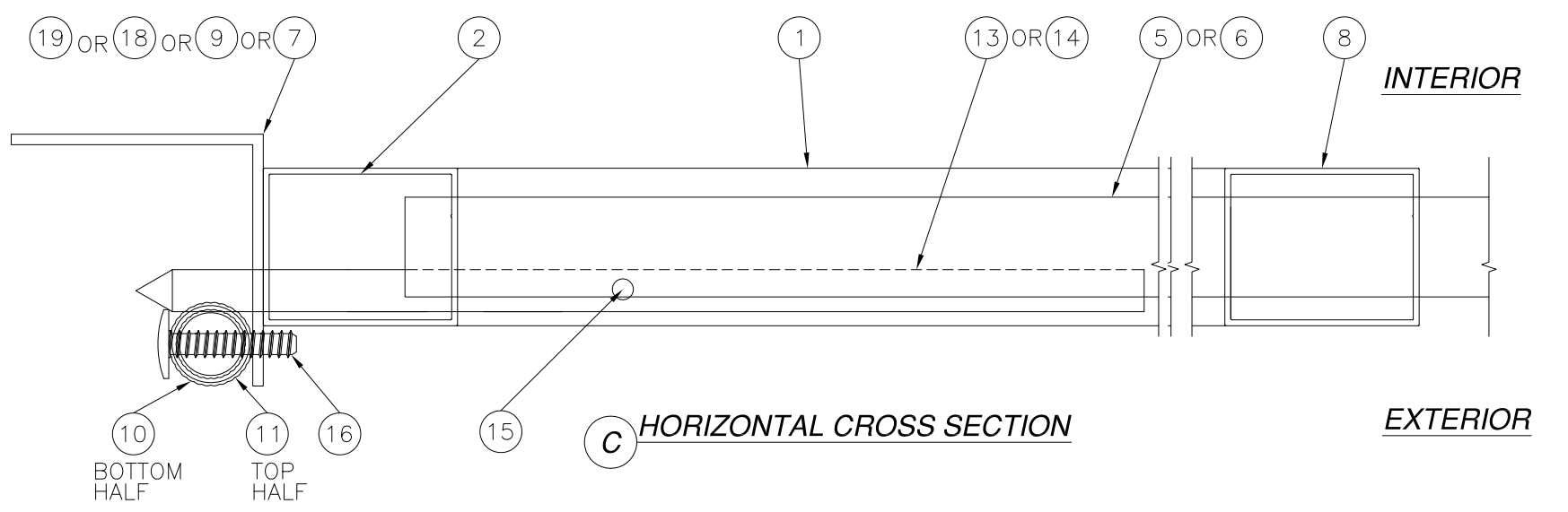
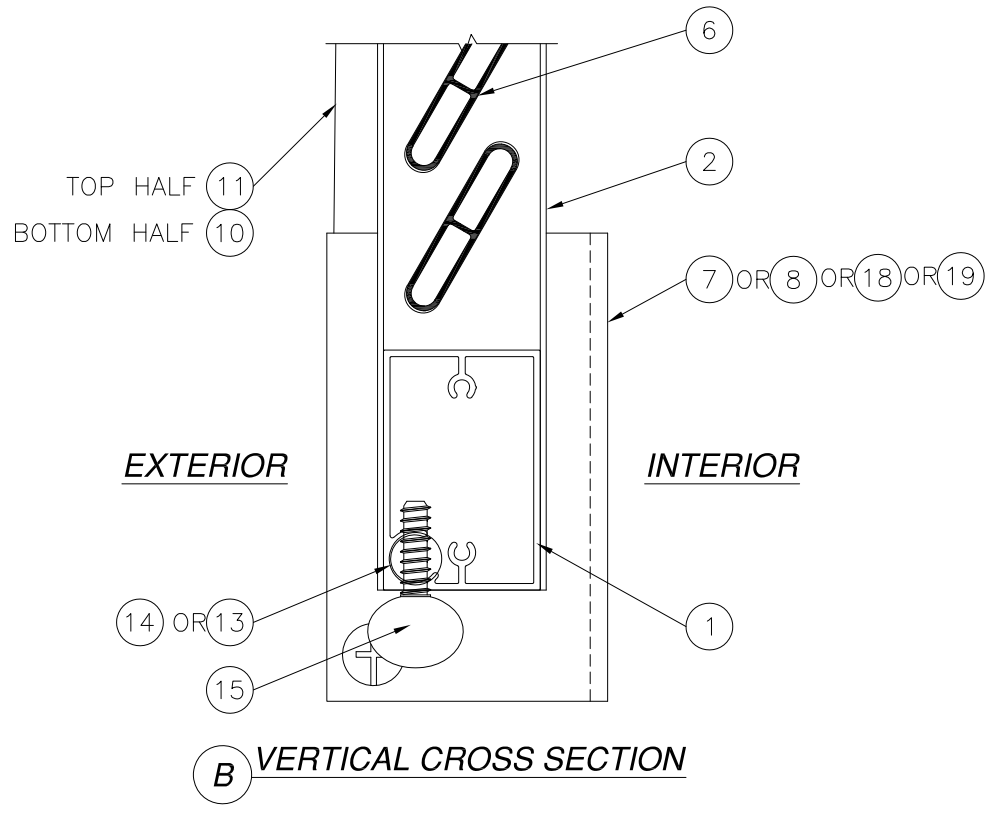
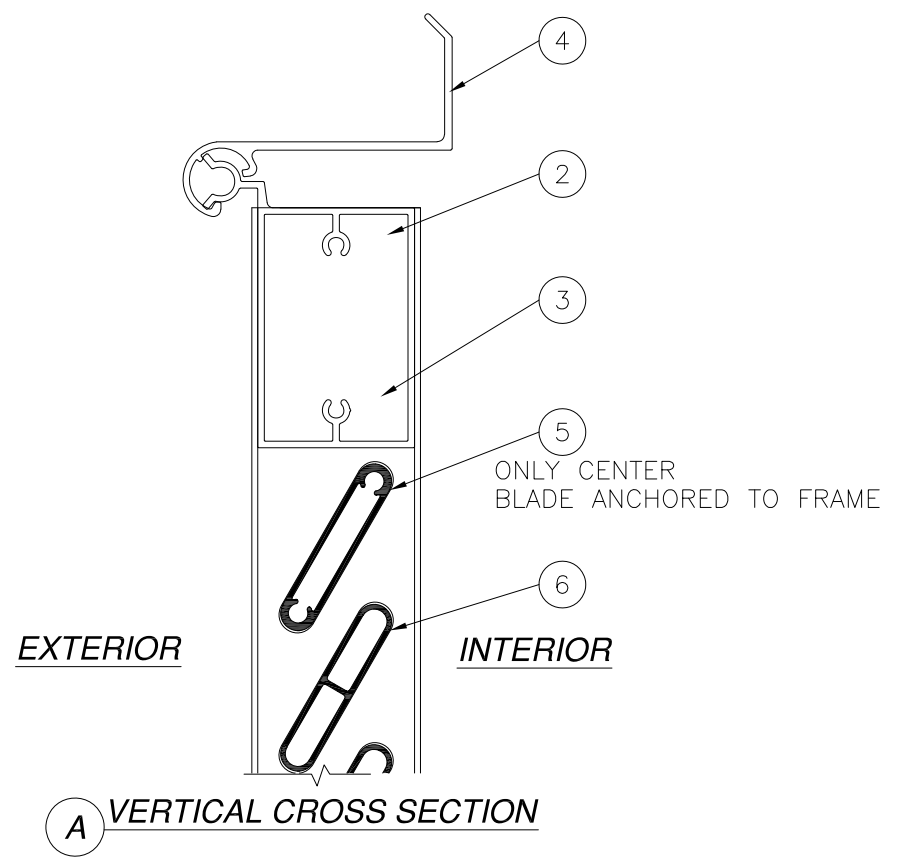
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SCALE NTS	DATE 04/14/11	SHEET 4 OF 11

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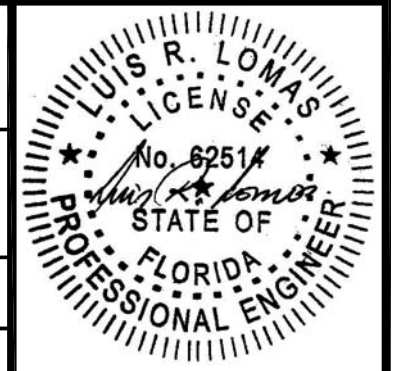
LAS ENTERPRISES
 2413 L & A ROAD
 METAIRIE, LA 70001

BAHAMA SHUTTER
 LARGE & SMALL MISSILE IMPACT RATED
 CROSS SECTIONS

DRAWN: TJH	DWG NO. 08-01233	REV B
SCALE NTS	DATE 04/14/11	SHEET 5 OF 11

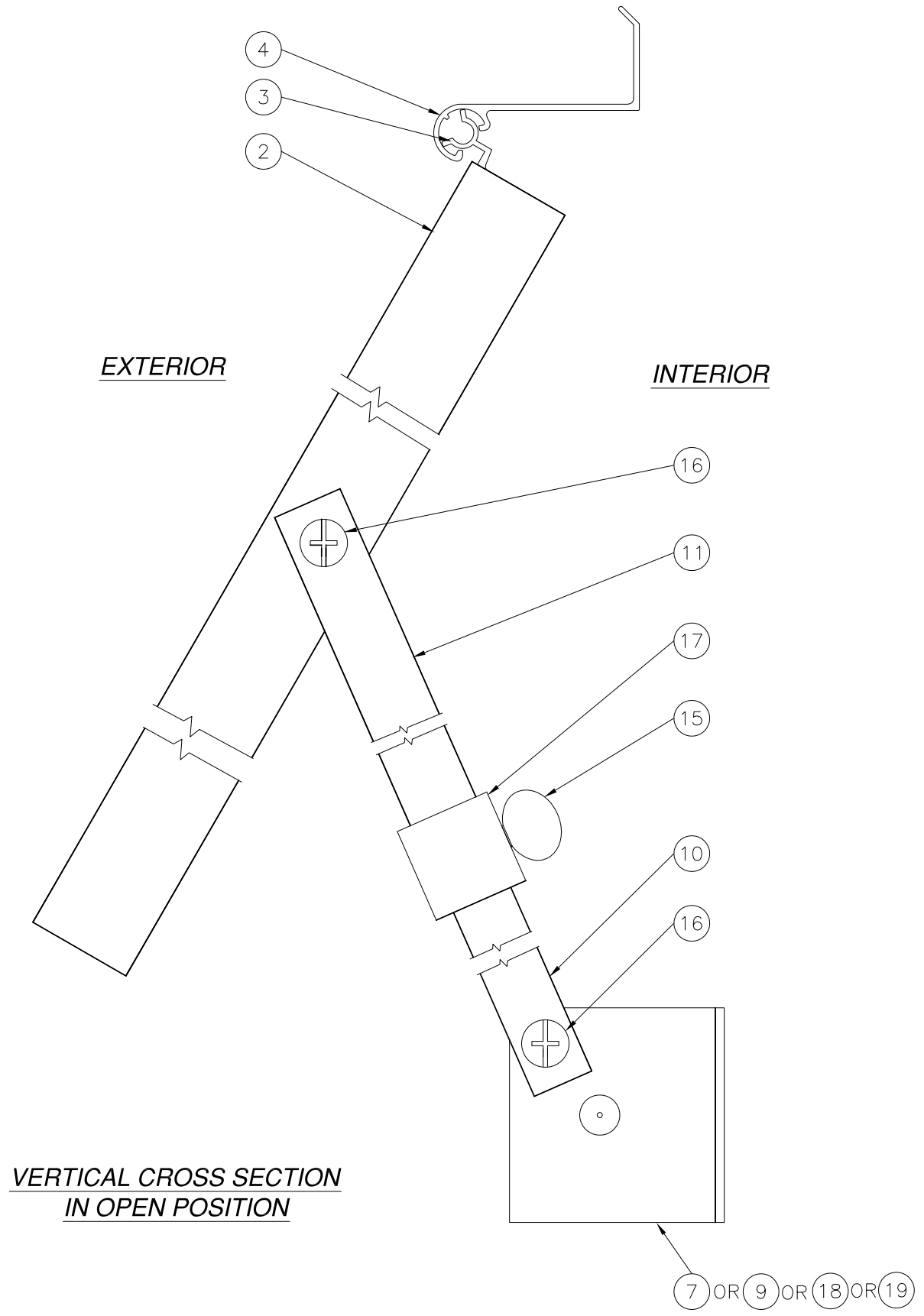
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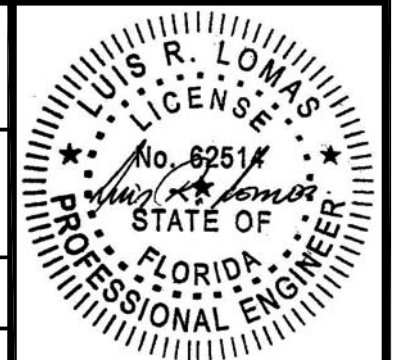
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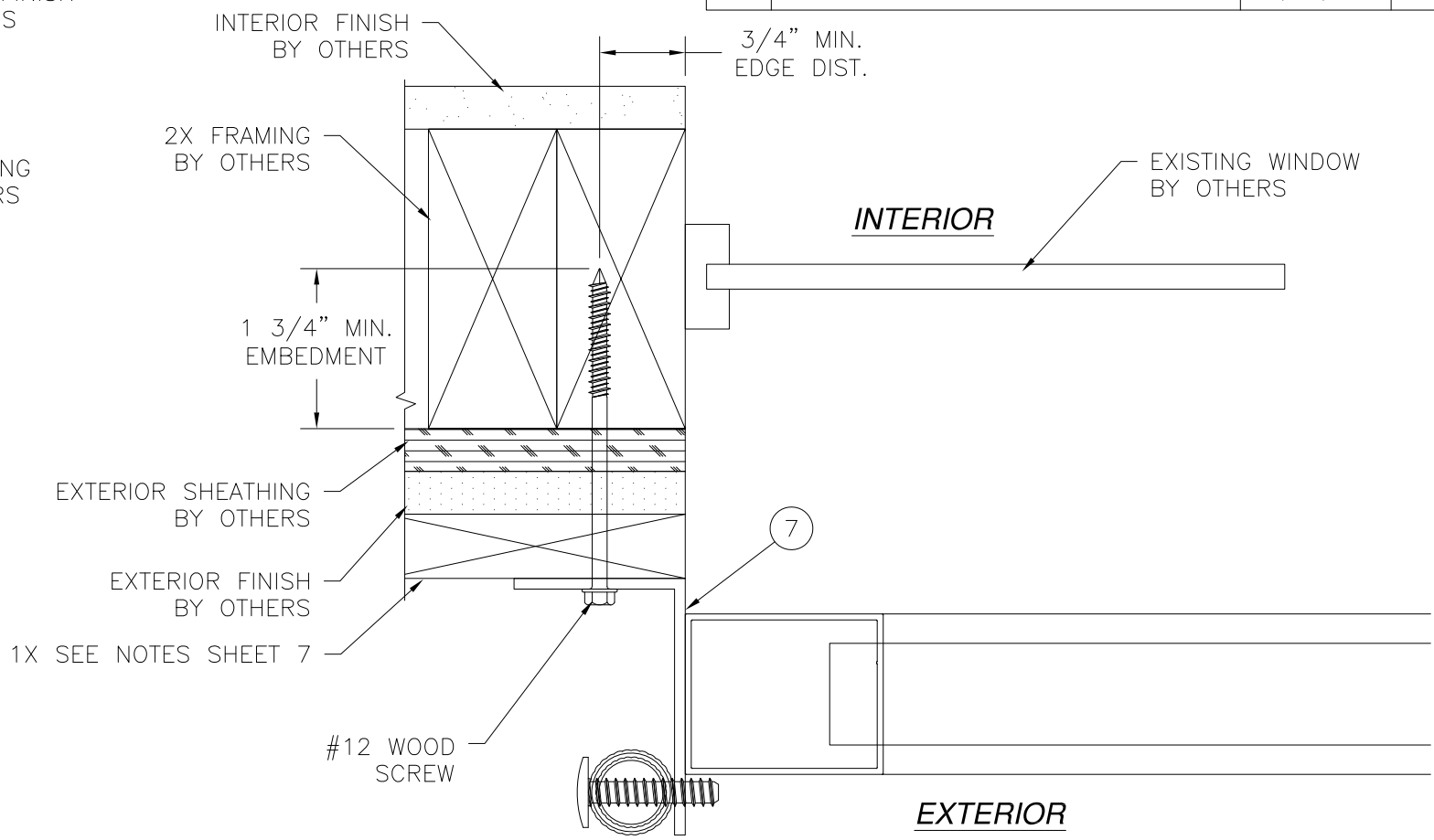
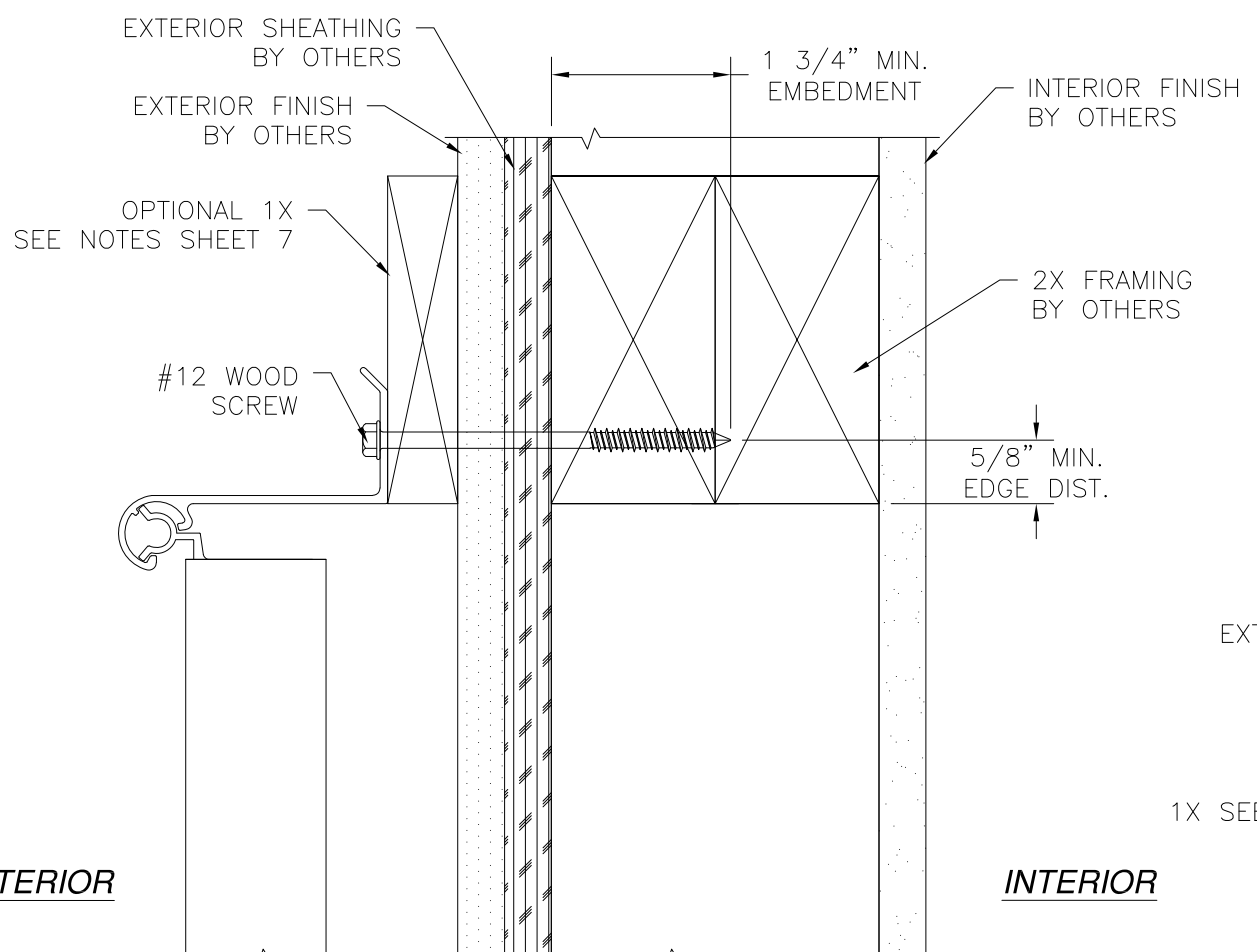
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<p>LAS ENTERPRISES 2413 L & A ROAD METAIRIE, LA 70001</p>		
<p>BAHAMA SHUTTER LARGE & SMALL MISSILE IMPACT RATED CROSS SECTIONS</p>		
<p>DRAWN: TJH</p>	<p>DWG NO. 08-01233</p>	<p>REV B</p>
<p>SCALE NTS</p>	<p>DATE 04/14/11</p>	<p>SHEET 6 OF 11</p>
<p>L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com</p>		



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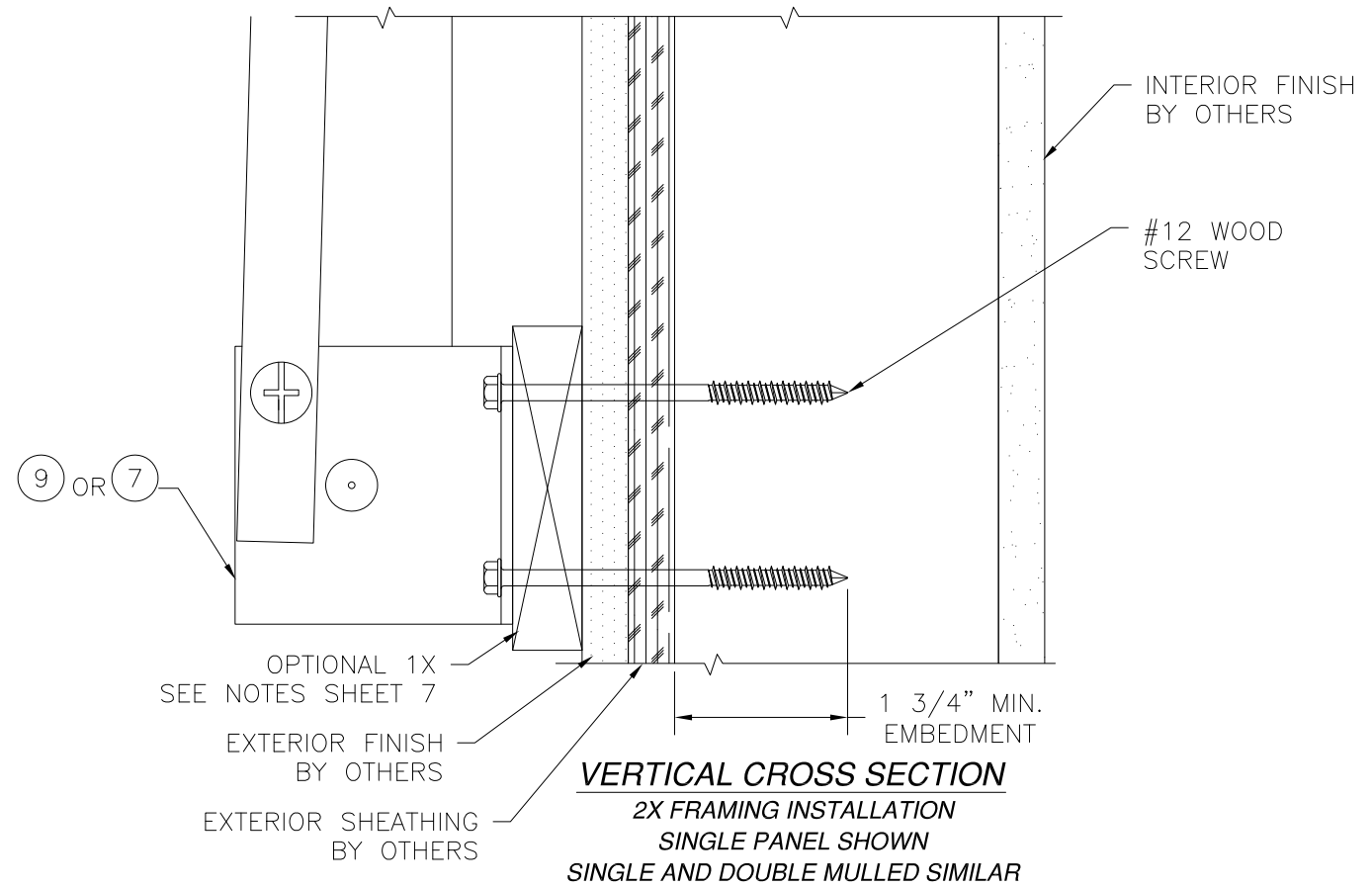
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HORIZONTAL CROSS SECTION
2X FRAMING INSTALLATION
SINGLE PANEL SHUTTER

- 1X INSTALLATION NOTES:
- 1) 1X BUCK TO BE INSTALLED WHEN EXTERIOR FINISH IS NOT ABLE TO WITHSTAND LOAD FROM SHUTTER.
 - 2) ANCHOR 1X BUCK TO 2X FRAMING USING #10 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT. LOCATE ANCHORS 4" FROM EACH CORNER AND 16" MAXIMUM O.C. THEREAFTER.
 - 3) ANCHOR 1X BUCK TO MASONRY USING 3/16" TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT. LOCATE ANCHORS 4" FROM EACH CORNER AND 16" MAXIMUM O.C. THEREAFTER.

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VERTICAL CROSS SECTION
2X FRAMING INSTALLATION
SINGLE PANEL SHOWN
SINGLE AND DOUBLE MULLED SIMILAR

LAS ENTERPRISES
 2413 L & A ROAD
 METAIRIE, LA 70001

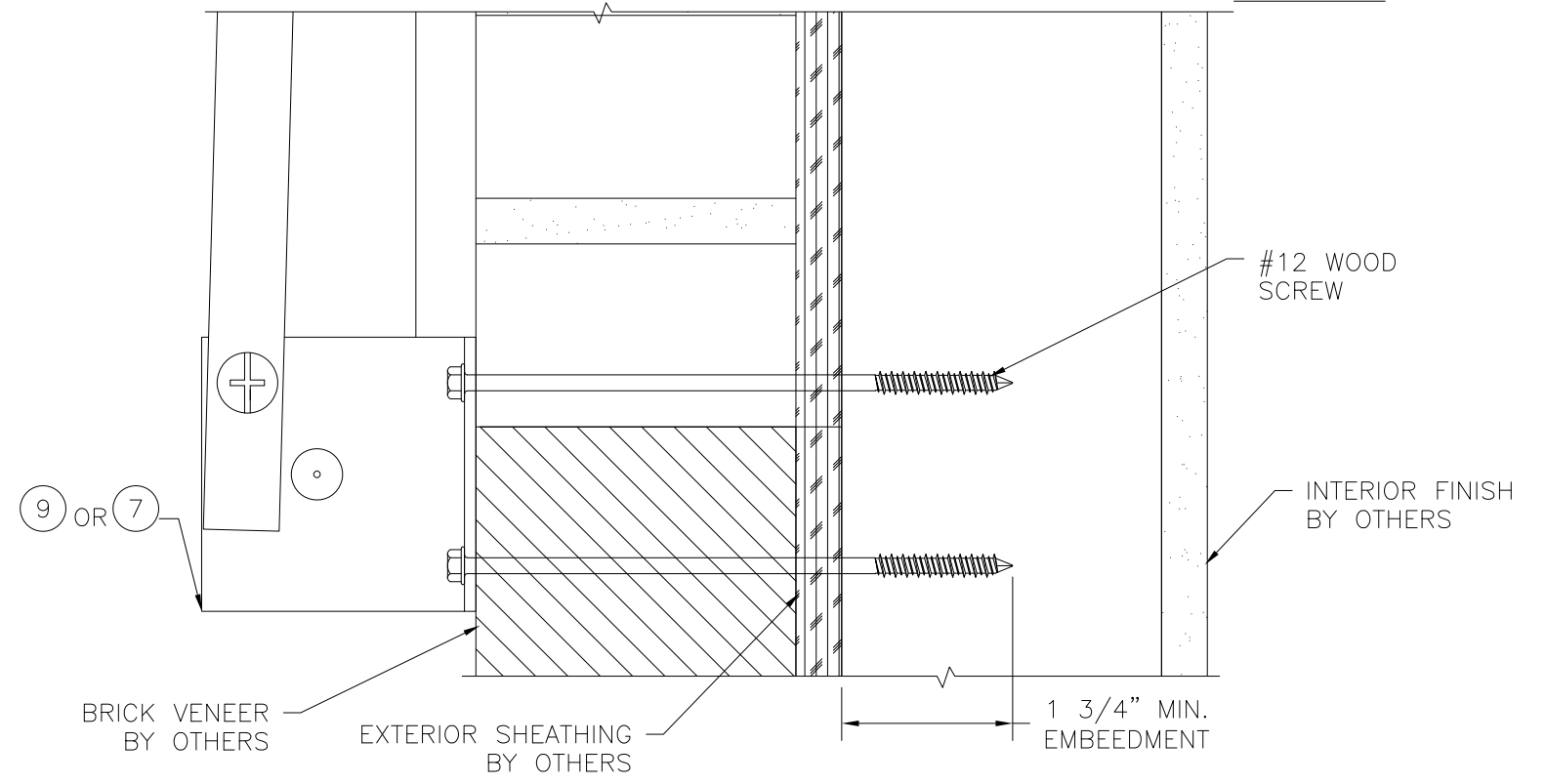
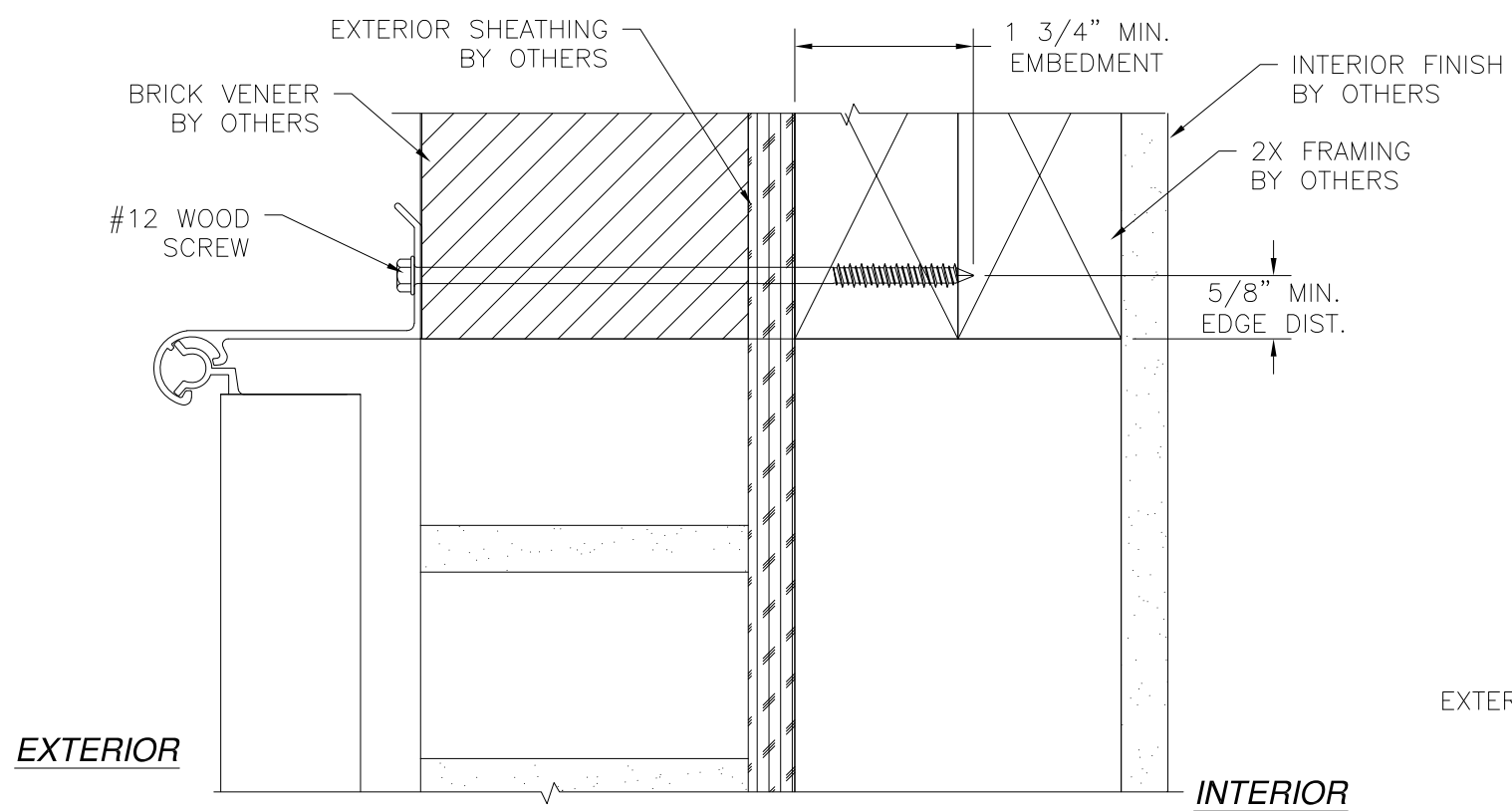
BAHAMA SHUTTER
 LARGE & SMALL MISSILE IMPACT RATED
 INSTALLATION DETAILS

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SCALE NTS	DATE 04/14/11	SHEET 7 OF 11

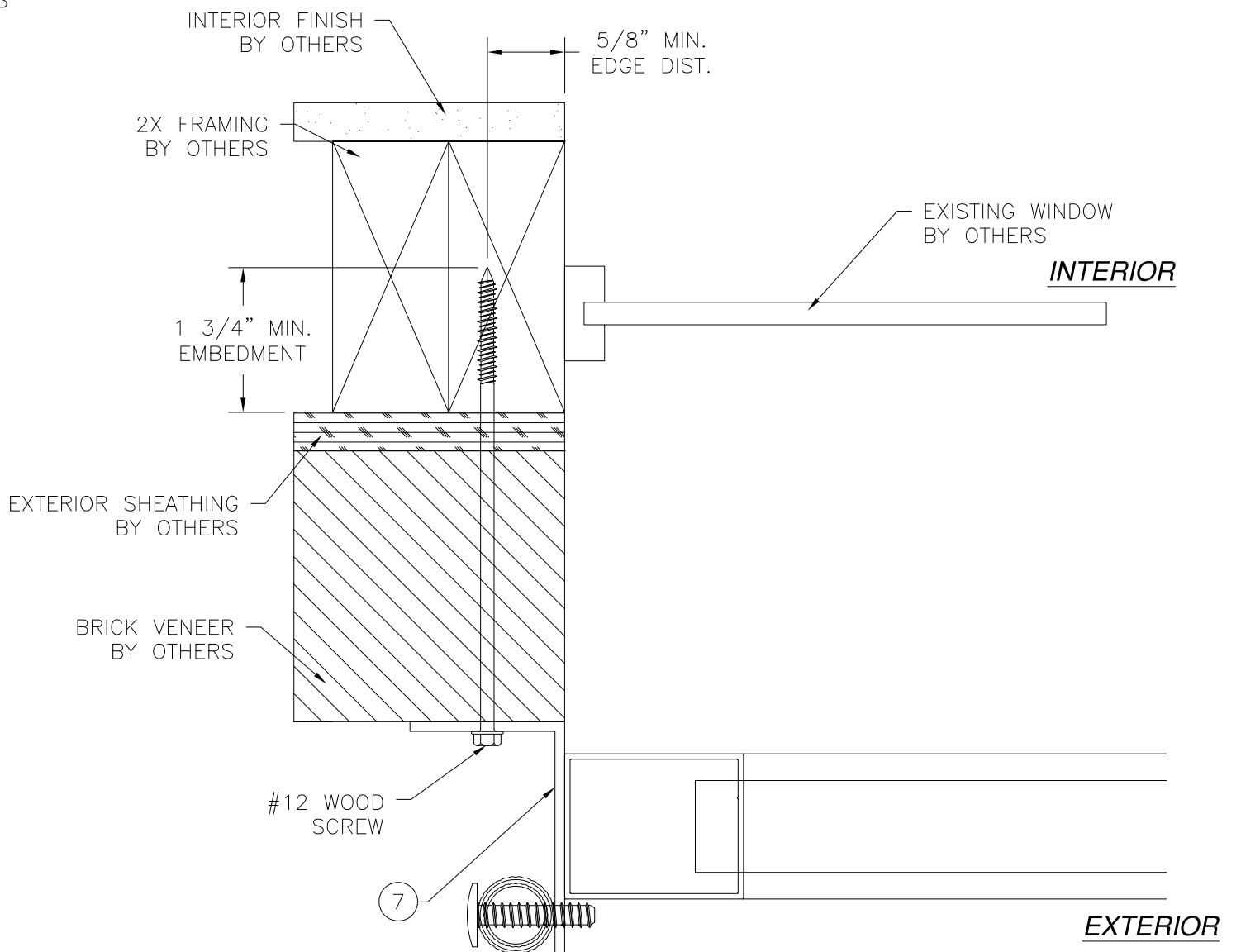
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VERTICAL CROSS SECTION
 2X FRAMING W/BRICK VENEER INSTALLATION
 SINGLE PANEL SHUTTER SHOWN,
 SINGLE AND DOUBLE MULLED SHUTTER SIMILAR



HORIZONTAL CROSS SECTION
 2X FRAMING W/BRICK VENEER INSTALLATION
 SINGLE PANEL

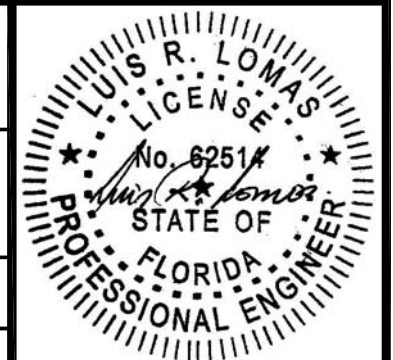
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LAS ENTERPRISES
 2413 L & A ROAD
 METAIRIE, LA 70001

BAHAMA SHUTTER
 LARGE & SMALL MISSILE IMPACT RATED
 INSTALLATION DETAILS

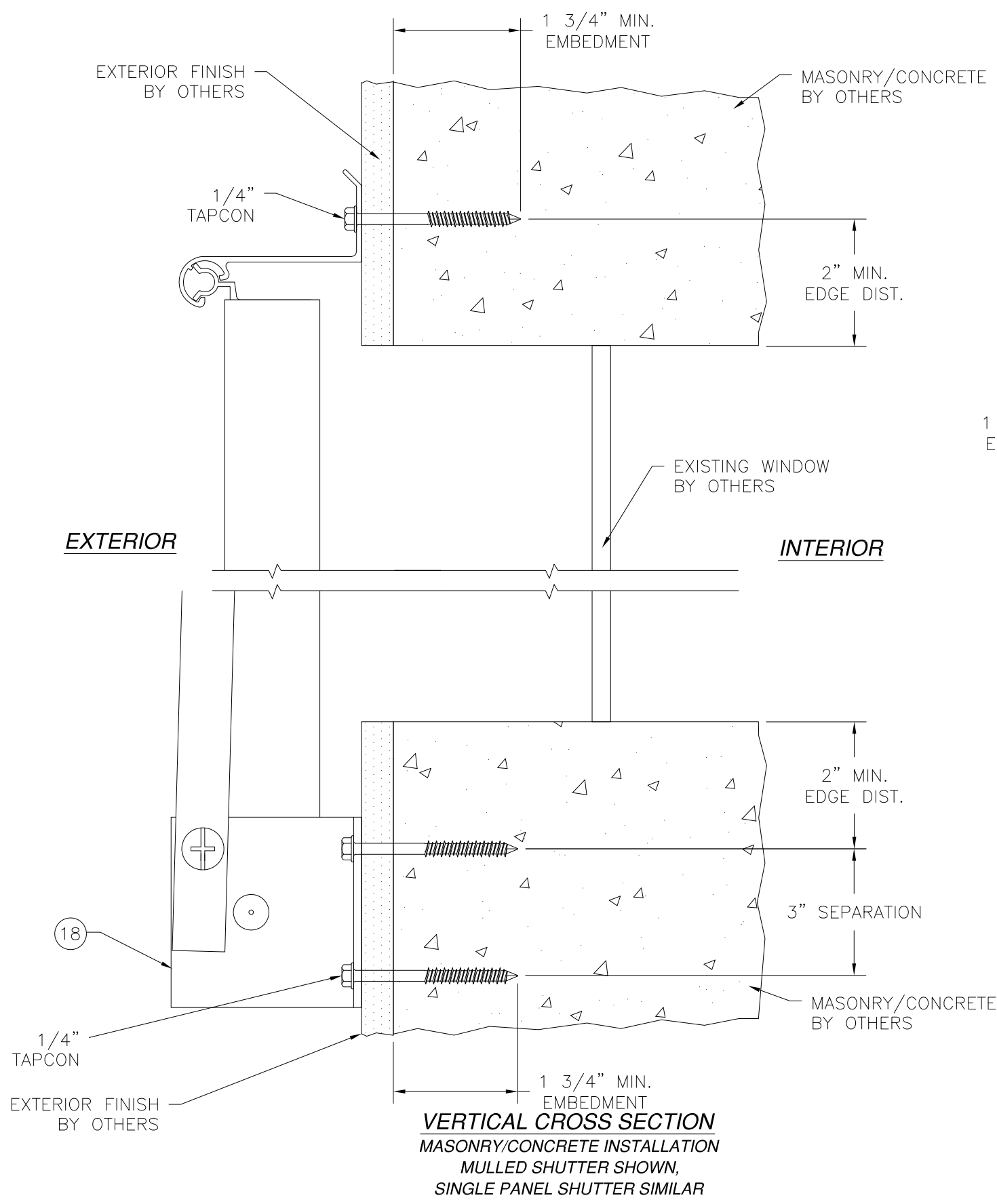
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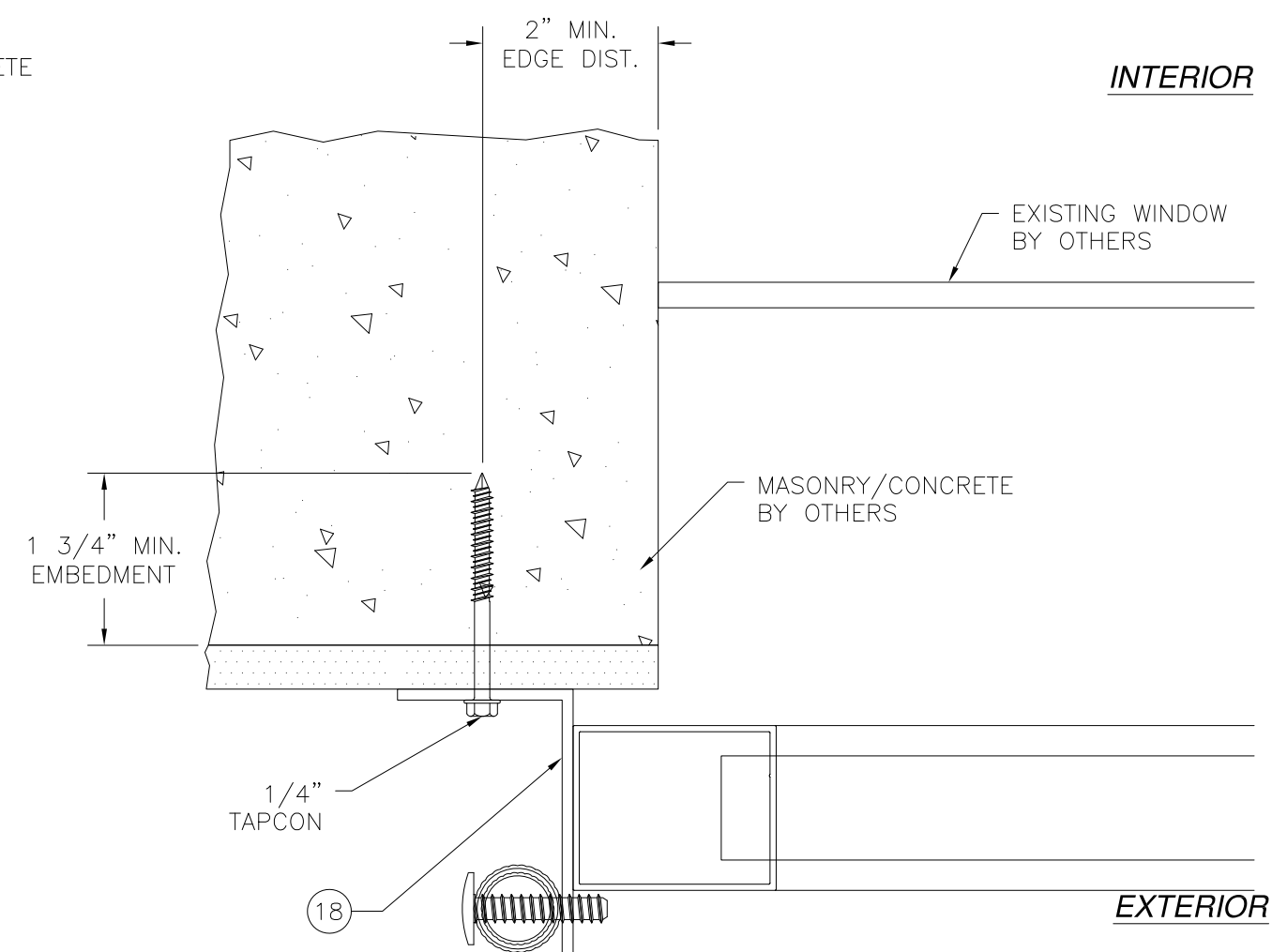


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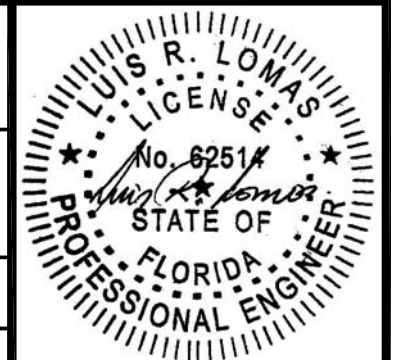
VERTICAL CROSS SECTION
MASONRY/CONCRETE INSTALLATION
MULLED SHUTTER SHOWN,
SINGLE PANEL SHUTTER SIMILAR



HORIZONTAL CROSS SECTION
MASONRY/CONCRETE INSTALLATION
SINGLE PANEL SHUTTER SHOWN
SINGLE MULLED SIMILAR

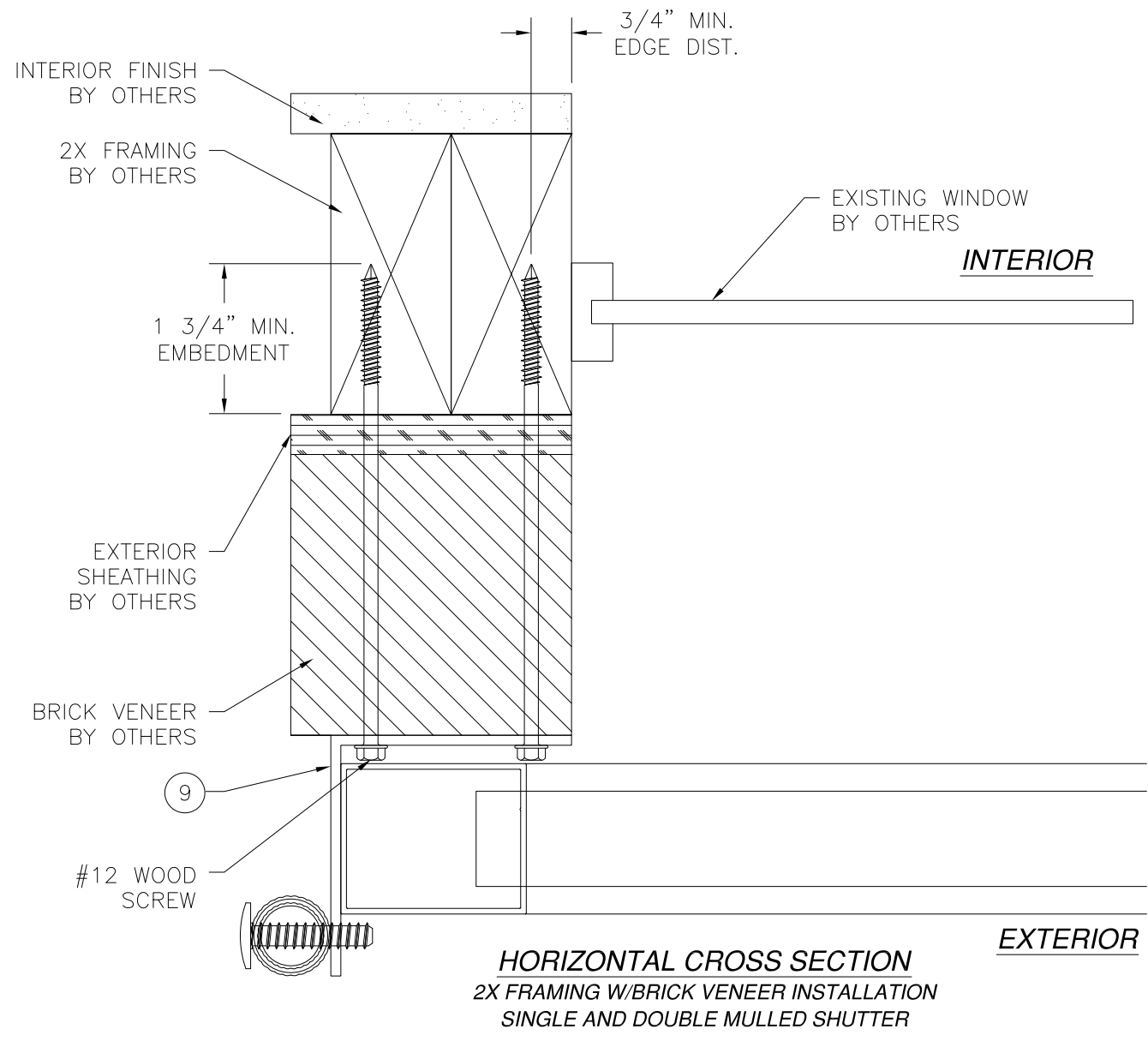
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LAS ENTERPRISES 2413 L & A ROAD METAIRIE, LA 70001		
BAHAMA SHUTTER LARGE & SMALL MISSILE IMPACT RATED INSTALLATION DETAILS		
DRAWN: TJH	DWG NO. 08-01233	REV B
SCALE NTS	DATE 04/14/11	SHEET 9 OF 11
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@rlomaspe.com		

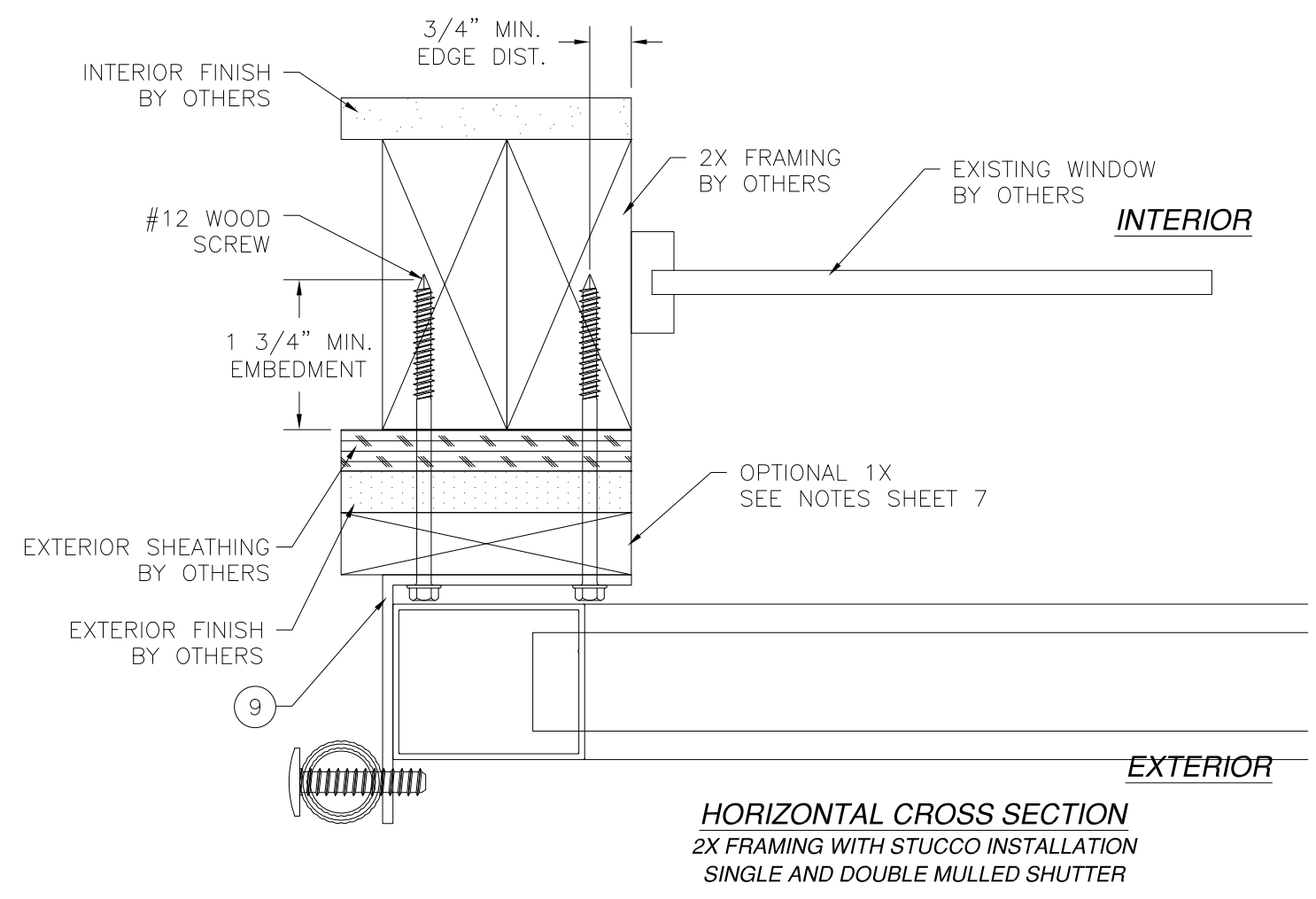


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HORIZONTAL CROSS SECTION
 2X FRAMING W/BRICK VENEER INSTALLATION
 SINGLE AND DOUBLE MULLED SHUTTER



HORIZONTAL CROSS SECTION
 2X FRAMING WITH STUCCO INSTALLATION
 SINGLE AND DOUBLE MULLED SHUTTER

SIGNED: 10/26/2023

LAS ENTERPRISES
 2413 L & A ROAD
 METAIRIE, LA 70001

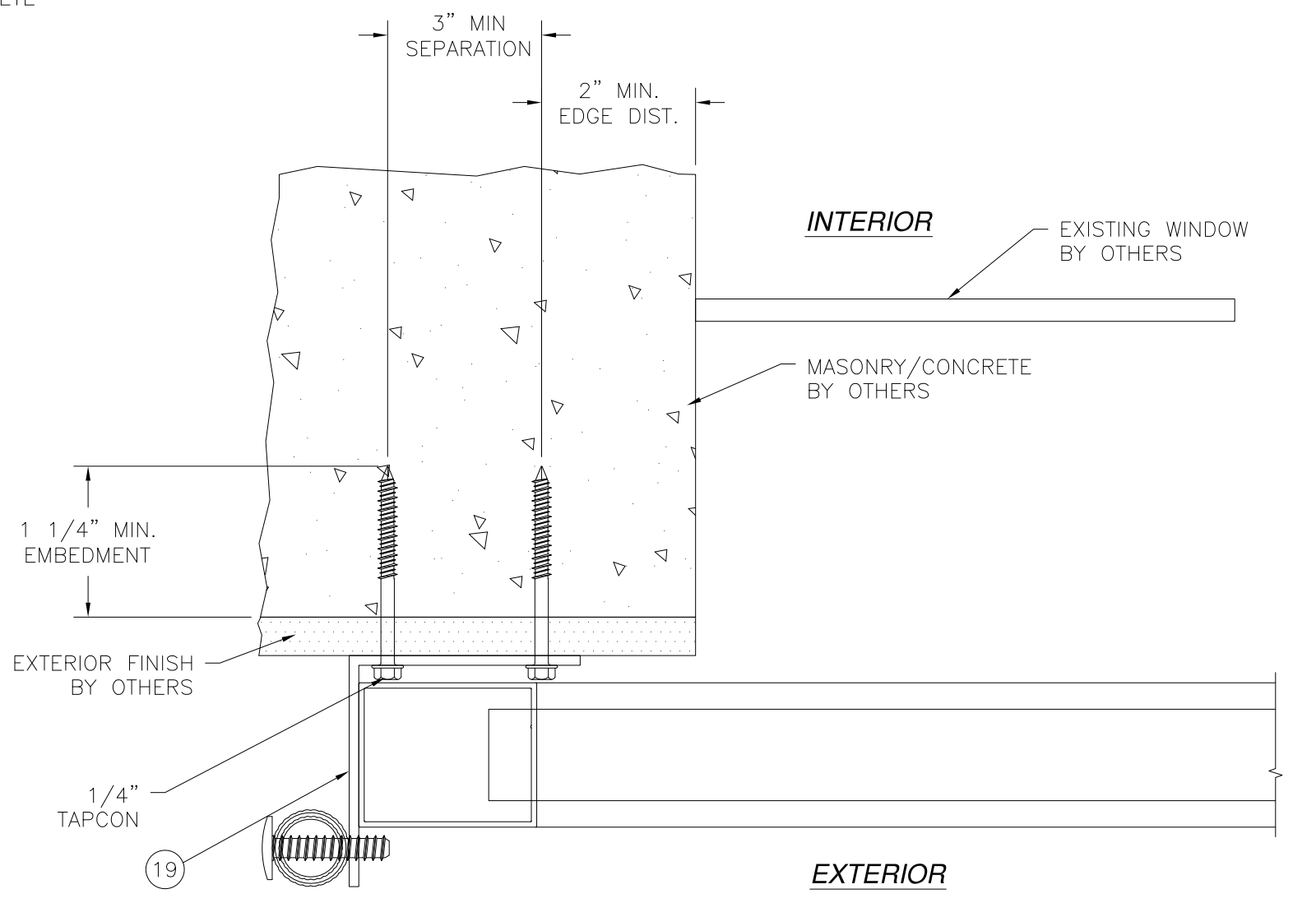
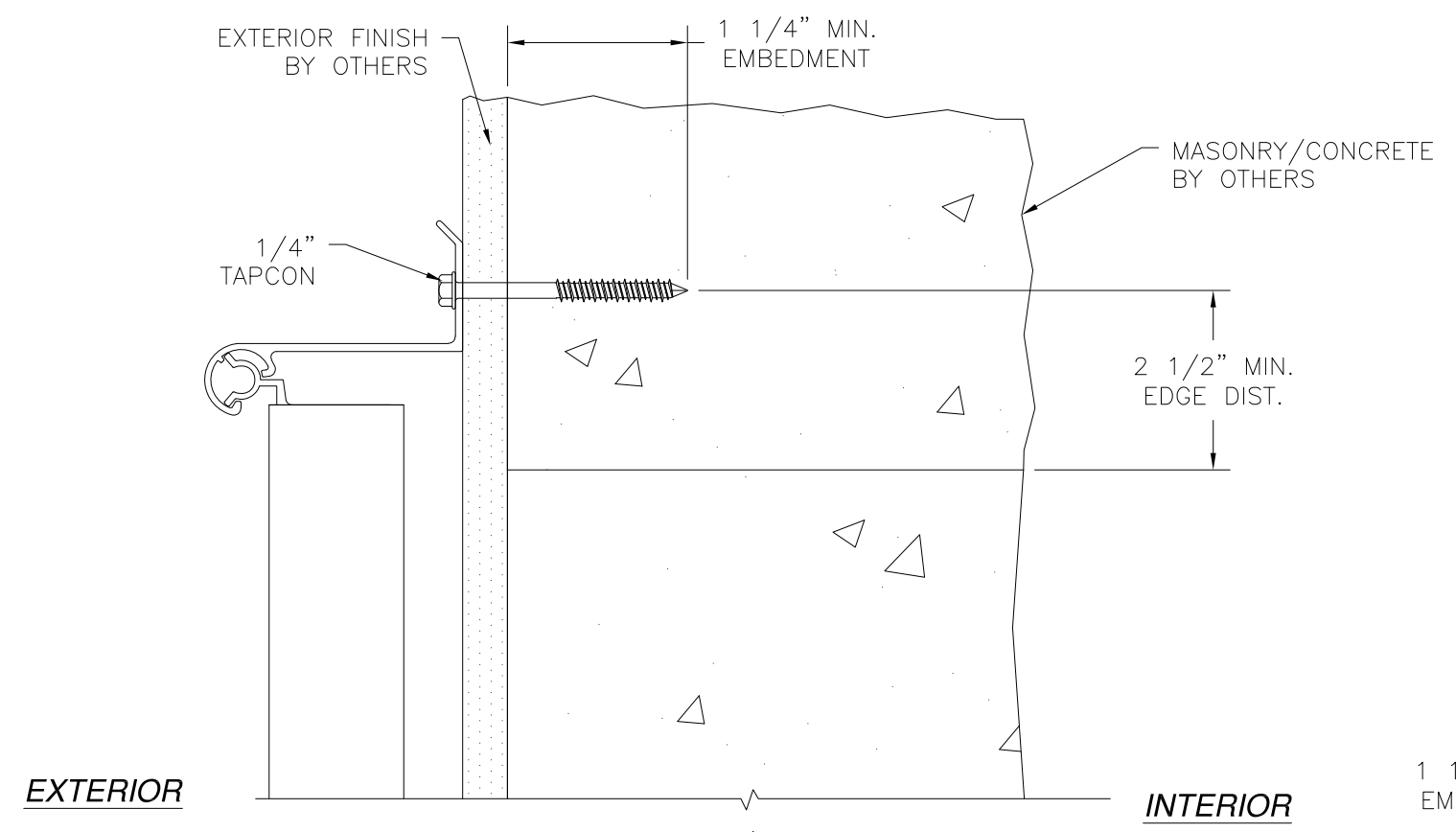
BAHAMA SHUTTER
 LARGE & SMALL MISSILE IMPACT RATED
 INSTALLATION DETAILS

DRAWN: TJH	DWG NO. 08-01233	REV B
SCALE NTS	DATE 04/14/11	SHEET 10 OF 11

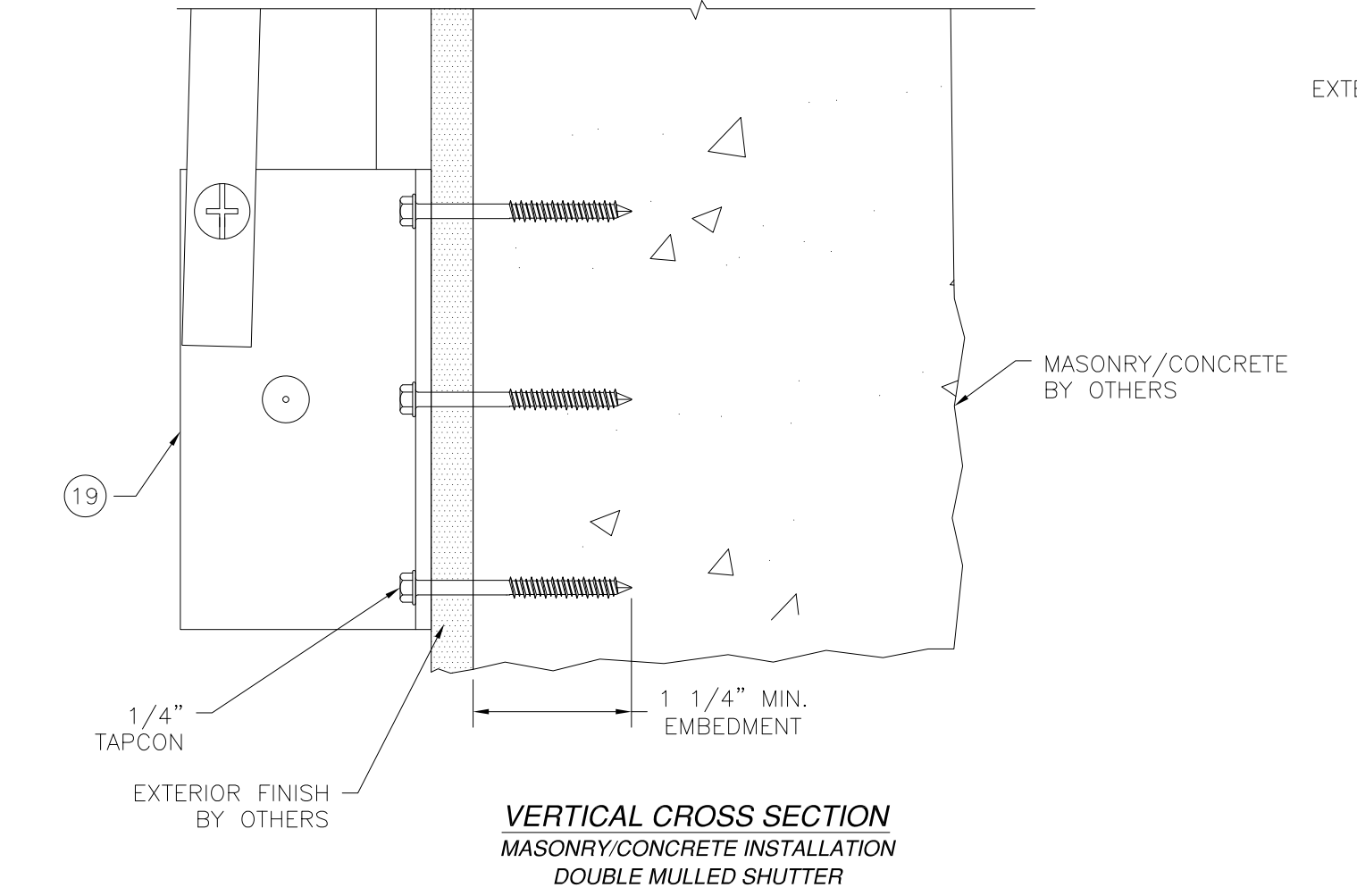
L. ROBERTO LOMAS P.E.
 208 7th Ave, INDIALANTIC, FL 32903
 434-688-0609 rllomas@lrlomaspe.com

Luis R. Lomas P.E.
 FL No.: 62514

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	REVISED PER NEW CODE	08/17/2023	R.L.



HORIZONTAL CROSS SECTION
MASONRY/CONCRETE INSTALLATION
DOUBLE MULLED SHUTTER



VERTICAL CROSS SECTION
MASONRY/CONCRETE INSTALLATION
DOUBLE MULLED SHUTTER

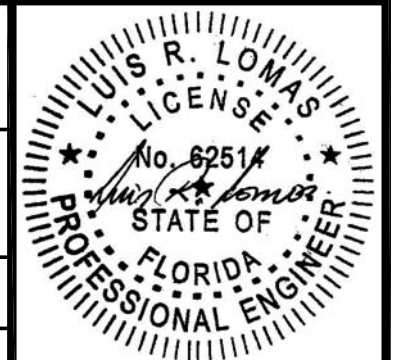
SIGNED: 10/26/2023

LAS ENTERPRISES
 2413 L & A ROAD
 METAIRIE, LA 70001

BAHAMA SHUTTER
 LARGE & SMALL MISSILE IMPACT RATED
 INSTALLATION DETAILS

DRAWN: TJH	DWG NO. 08-01233	REV B
SCALE NTS	DATE 04/14/11	SHEET 11 OF 11

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