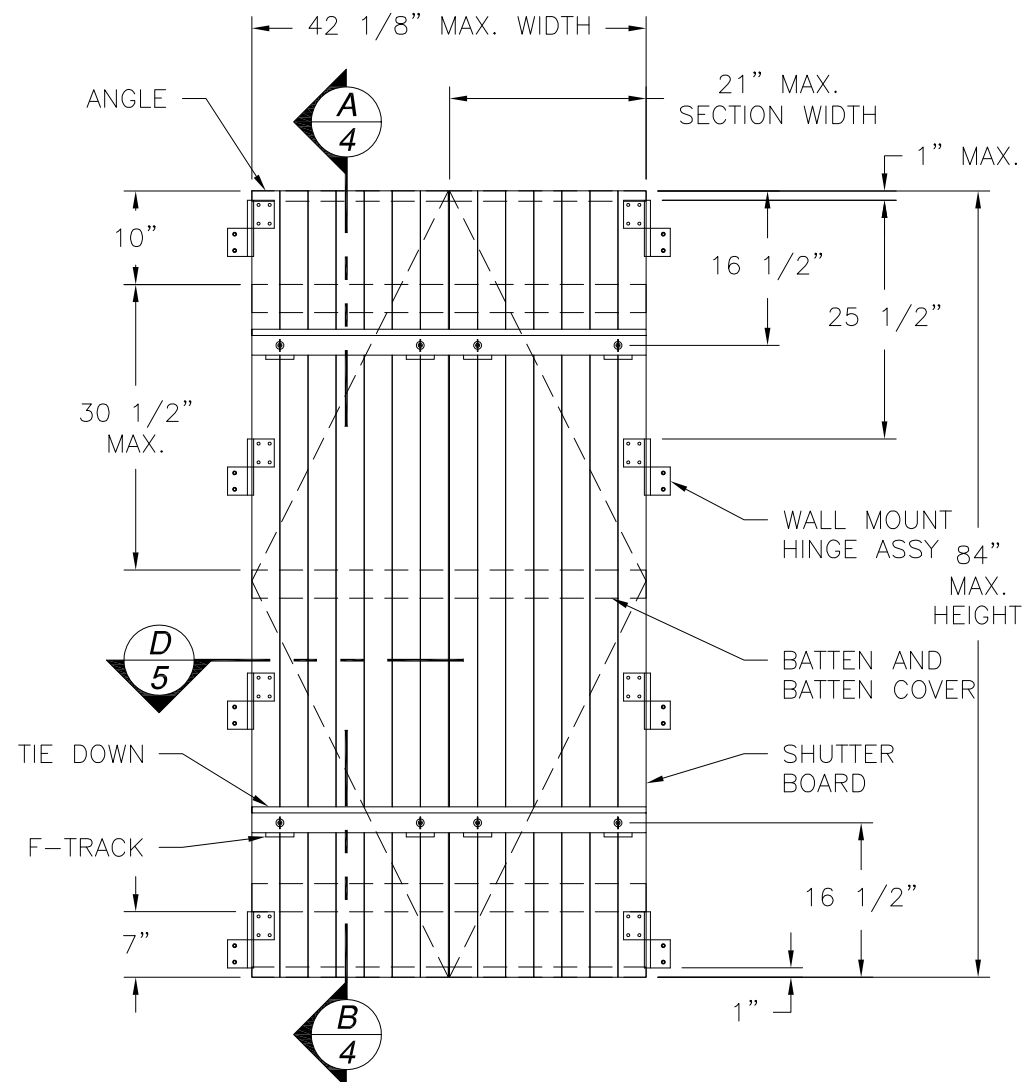


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REV	DESCRIPTION	DATE	APPROVED



**STANDARD BOARD AND BATTEN SHUTTER**  
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±60PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4

NOTES:

- 1) THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE 2006 IBC AND 2006 IRC WITH STATE OF TEXAS MODIFICATIONS.
- 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 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
- 4) SHUTTER BOARD MATERIAL: ALUMINUM 6063-T6.
- 5) APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
- 6) FOR ANCHORING INTO MASONRY USE 1/4" ITW TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2 5/16" MINIMUM EDGE DISTANCE AND 1 3/4" 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 #10 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" 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:  
 A. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42  
 B. CONCRETE – MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.  
 C. MASONRY – STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).
- 10) SHUTTERS MAY BE CONSTRUCTED WITH 3", 4" OR 5" BOARDS.

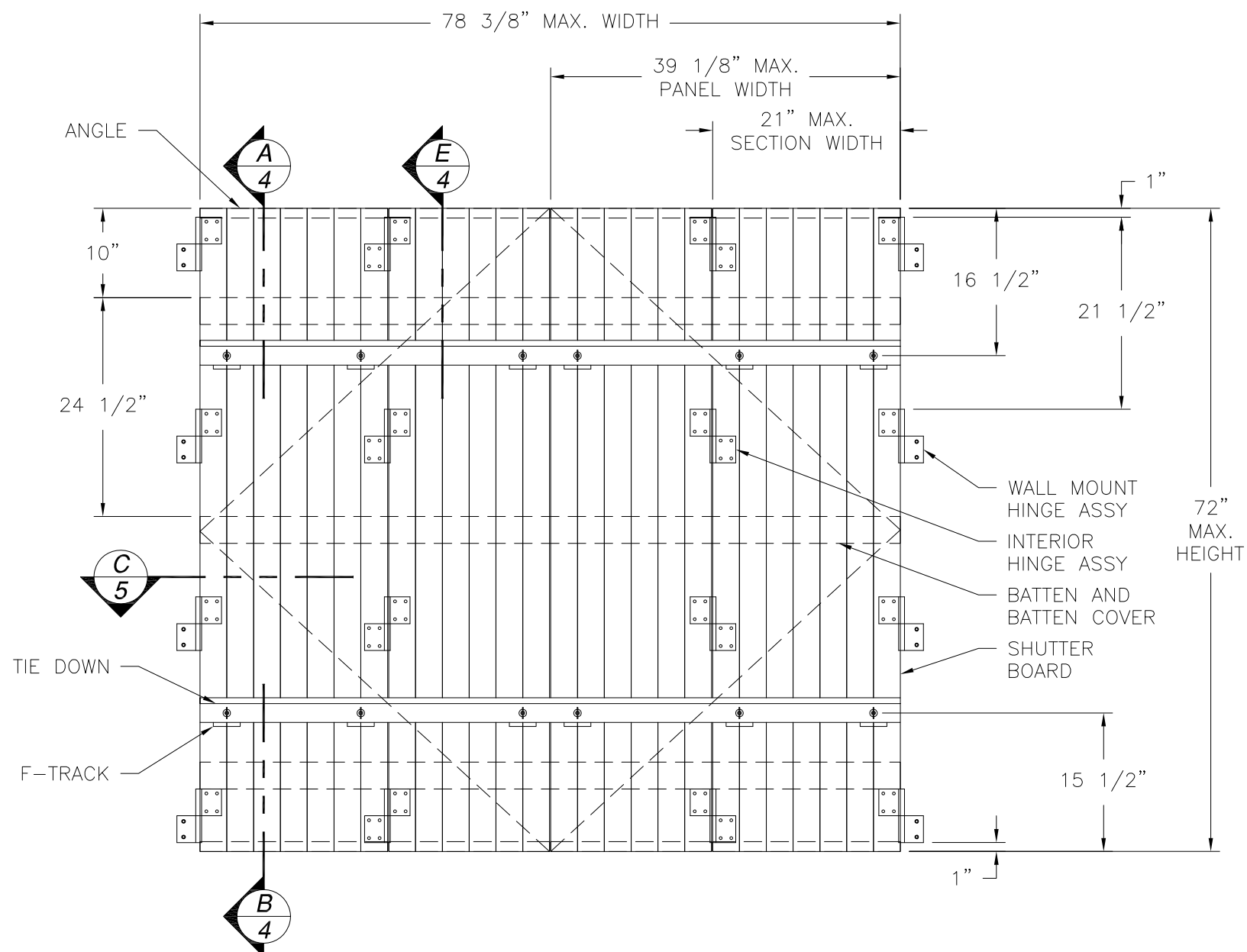
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2	BI-FOLD ELEVATION
3	BILL OF MATERIALS AND COMPONENTS
4 – 5	CROSS SECTIONS
6 – 7	INSTALLATION DETAILS

<b>LAS ENTERPRISES</b> 2413 L & A ROAD METAIRIE, LA 70001		
<b>BOARD AND BATTEN SHUTTER</b> <b>STANDARD AND BI-FOLD</b> <b>STANDARD ELEVATION AND NOTES</b>		
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SCALE NTS	DATE 09/08/14	SHEET 1 OF 7

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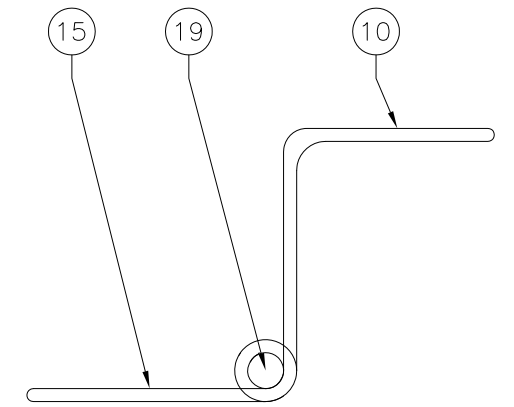
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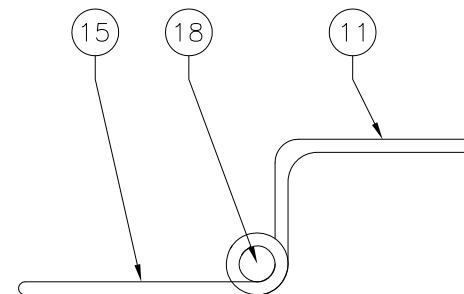
**BI-FOLD BOARD AND BATTEN SHUTTER**  
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±45PSF	LARGE AND SMALL MISSILE IMPACT

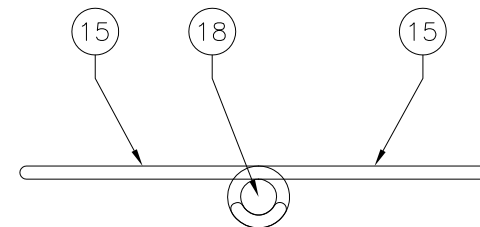
MISSILE LEVEL D, WIND ZONE 4



**DOUBLE WALL HINGE ASSY**



**STANDARD WALL HINGE**



**STANDARD FLAT HINGE ASSY**  
**BI-FOLD INTERIOR HINGE ASSY**

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LAS ENTERPRISES  
2413 L & A ROAD  
METAIRIE, LA 70001

BOARD AND BATTEN SHUTTER  
STANDARD AND BI-FOLD  
BI-FOLD ELEVATION

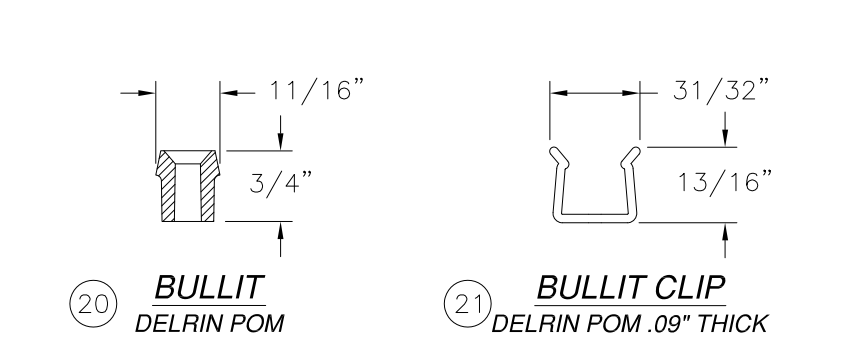
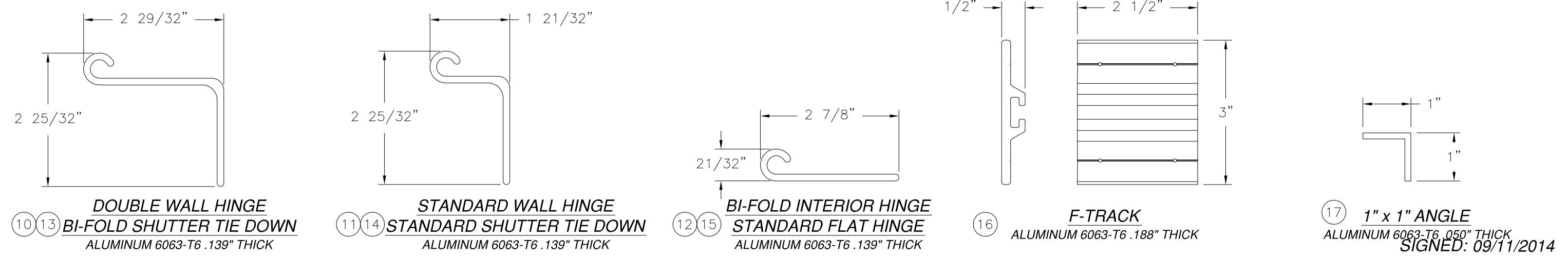
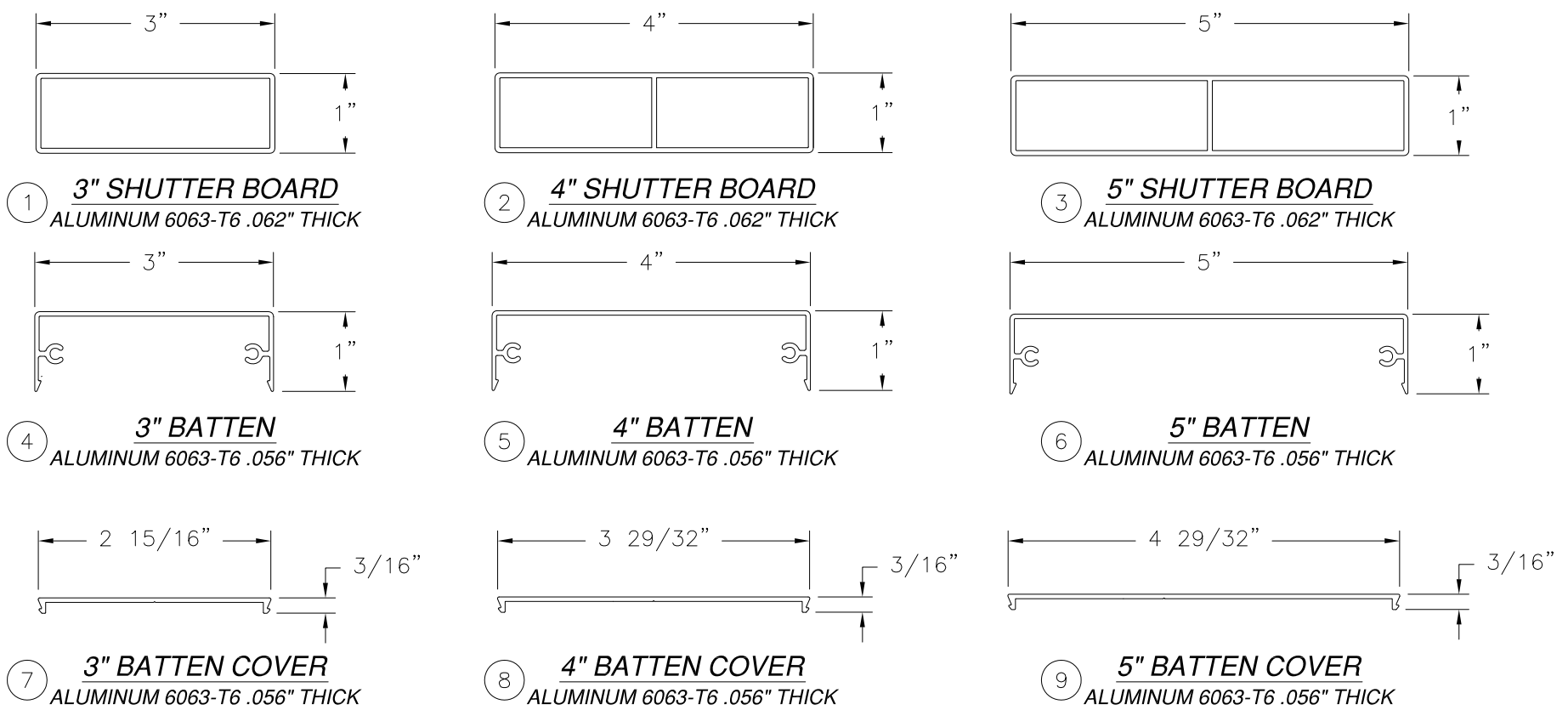
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PARTS LIST				
NO.	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	11312	3" SHUTTER BOARD	LAS ENTERPRISES	ALUMINUM 6063-T6
2	11313	4" SHUTTER BOARD	LAS ENTERPRISES	ALUMINUM 6063-T6
3	11314	5" SHUTTER BOARD	LAS ENTERPRISES	ALUMINUM 6063-T6
4	11762A	3" BATTEN	LAS ENTERPRISES	ALUMINUM 6063-T6
5	11764A	4" BATTEN	LAS ENTERPRISES	ALUMINUM 6063-T6
6		5" BATTEN	LAS ENTERPRISES	ALUMINUM 6063-T6
7	11763	3" BATTEN COVER	LAS ENTERPRISES	ALUMINUM 6063-T6
8	11765	4" BATTEN COVER	LAS ENTERPRISES	ALUMINUM 6063-T6
9		5" BATTEN COVER	LAS ENTERPRISES	ALUMINUM 6063-T6
10	11403	DOUBLE WALL HINGE	LAS ENTERPRISES	ALUMINUM 6063-T6
11	11404	STANDARD WALL HINGE	LAS ENTERPRISES	ALUMINUM 6063-T6
12	11405	BI-FOLD INTERIOR HINGE	LAS ENTERPRISES	ALUMINUM 6063-T6
13	11403	BI-FOLD SHUTTER TIE DOWN	LAS ENTERPRISES	ALUMINUM 6063-T6
14	11404	STANDARD SHUTTER TIE DOWN	LAS ENTERPRISES	ALUMINUM 6063-T6
15	11405	STANDARD FLAT HINGE	LAS ENTERPRISES	ALUMINUM 6063-T6
16	12115	F-TRACK	LAS ENTERPRISES	ALUMINUM 6063-T6
17	11813A	ANGLE	LAS ENTERPRISES	ALUMINUM 6063-T6
18		3/8" ROD	ALENCO	ALUMINUM 6063-T6
19		3/8" x 6" ROD	LAS ENTERPRISES	STAINLESS STEEL
20		BULLIT	GENESIS TEK, LLC	DELTRIN POM
21		BULLIT CLIP	GENESIS TEK, LLC	DELTRIN POM

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2413 L & A ROAD  
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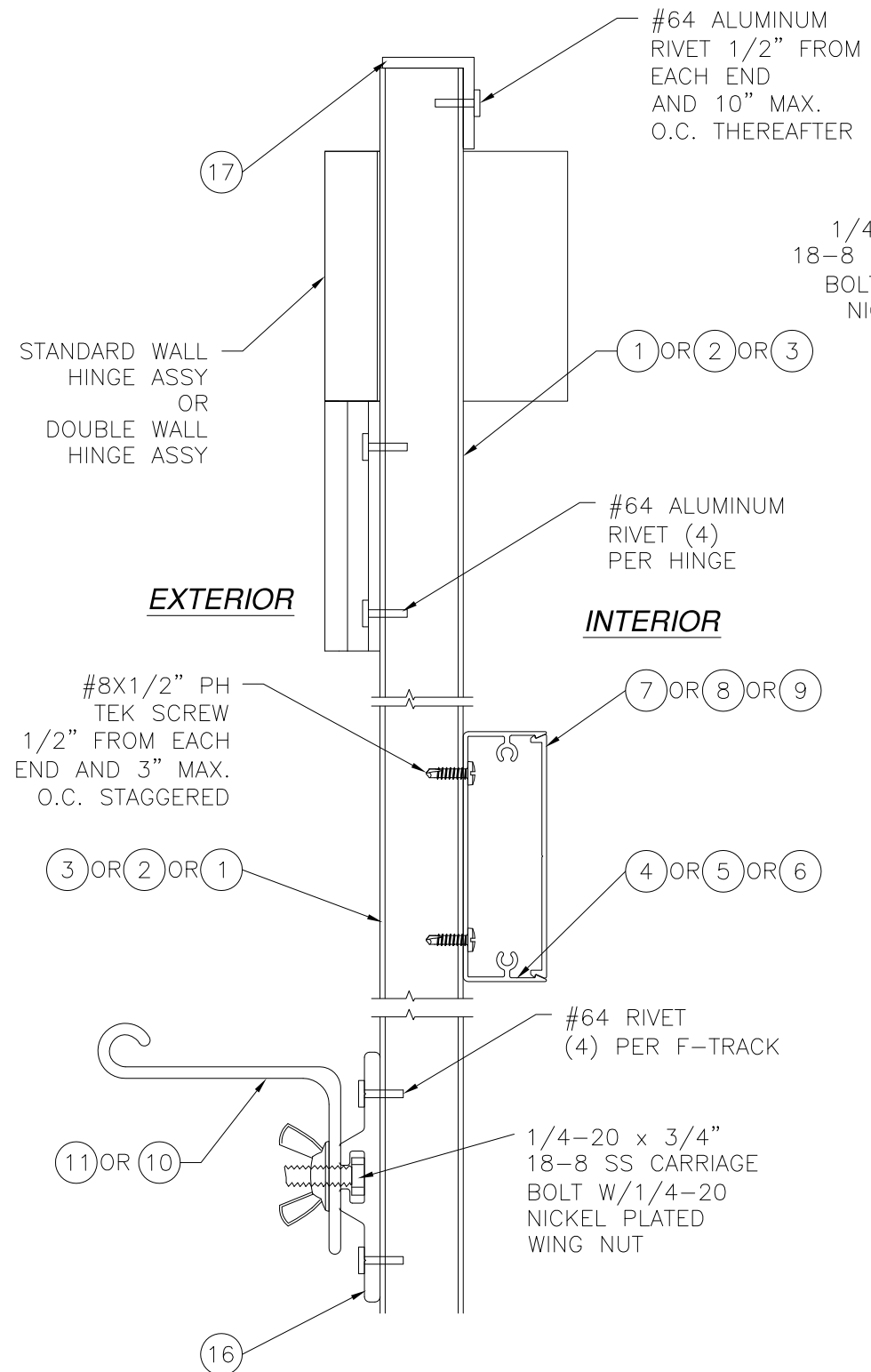
BOARD AND BATTEN SHUTTER  
STANDARD AND BI-FOLD  
B.O.M. AND COMPONENTS

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SCALE NTS DATE 09/08/14 SHEET 3 OF 7

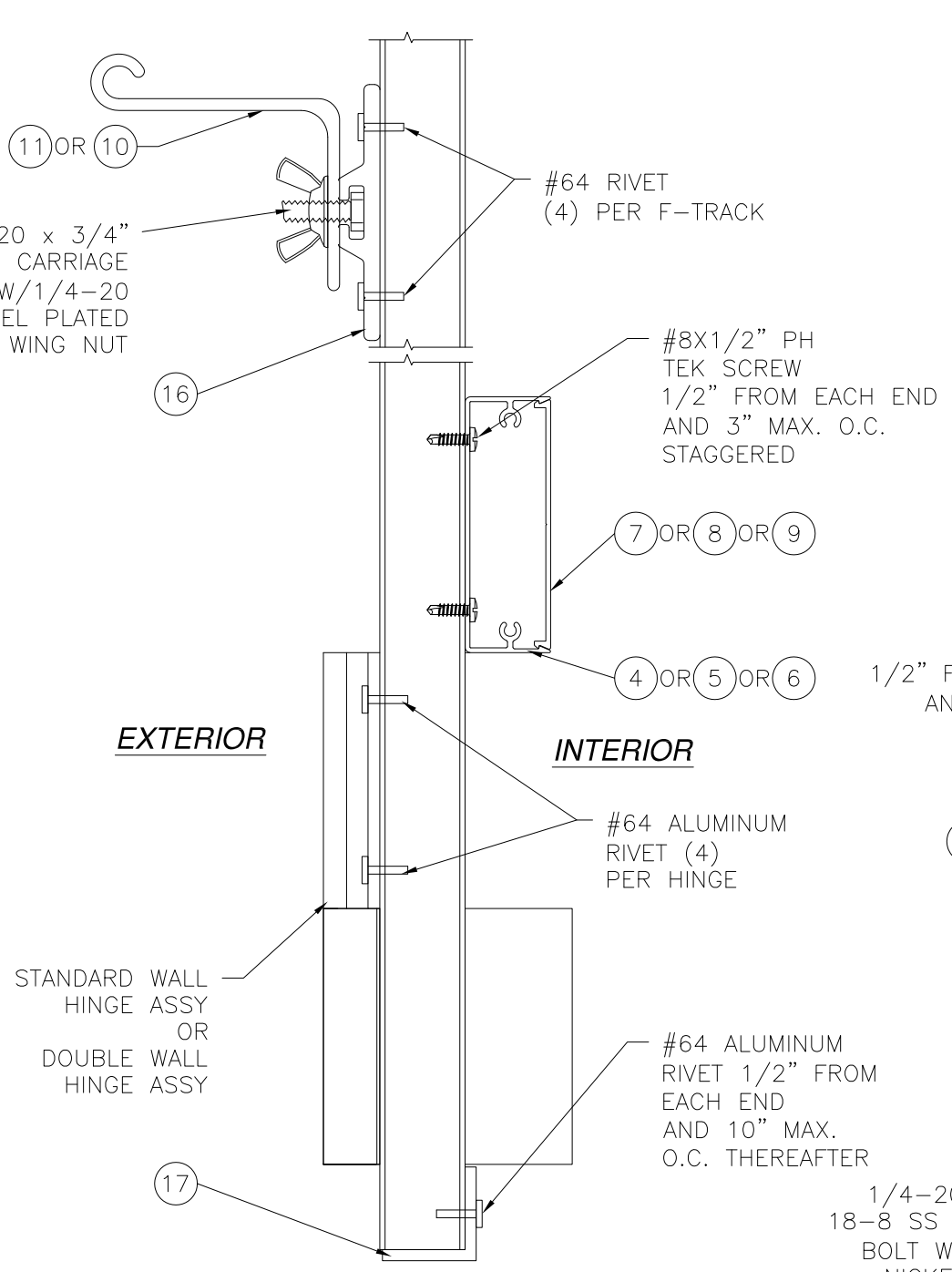
STATE OF TEXAS  
Luis R. Lomas  
101889  
LICENSED PROFESSIONAL ENGINEER  
Luis R. Lomas P.E.  
TX No.: 101889

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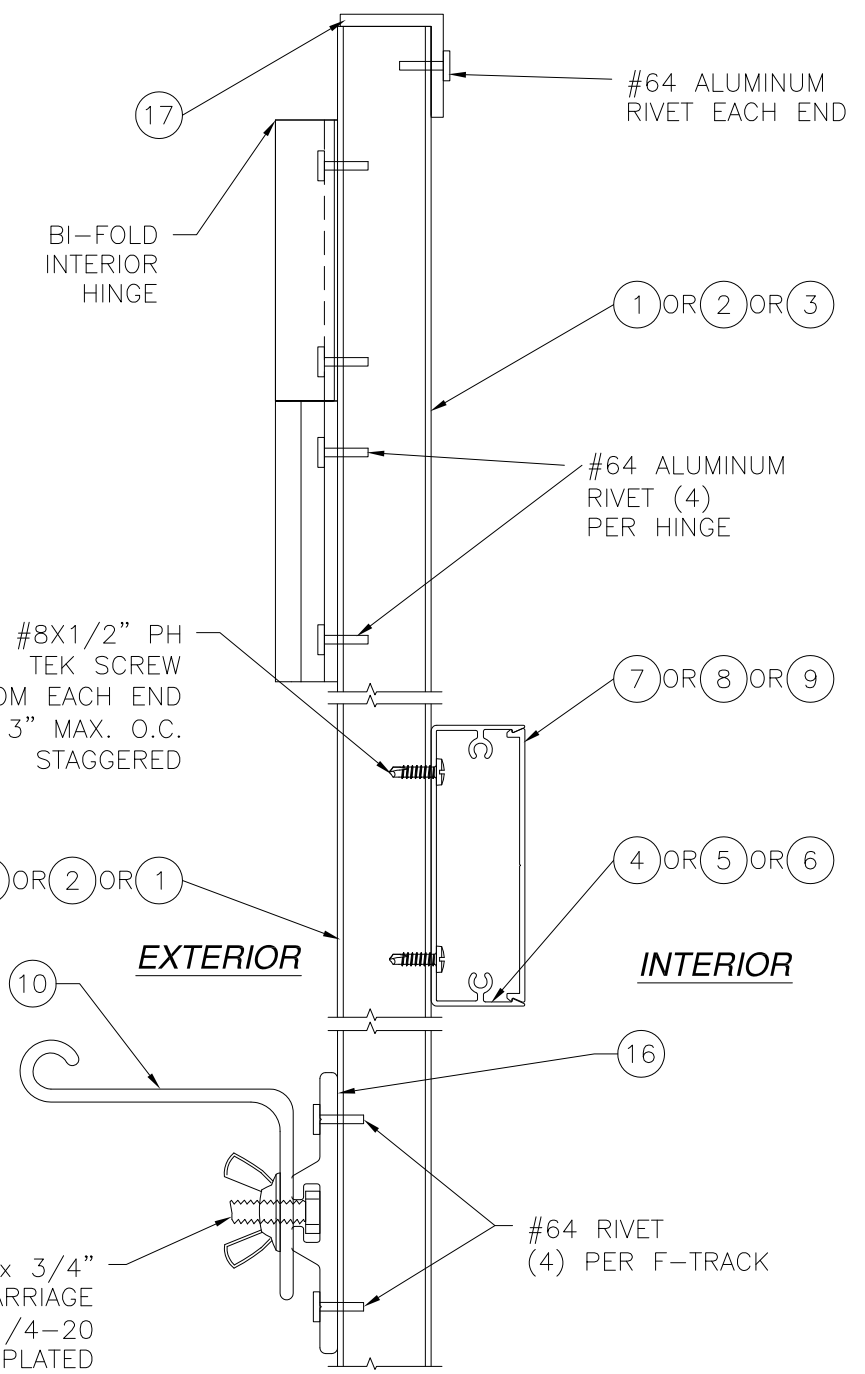
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**A**  
4  
**VERTICAL CROSS SECTION**  
HEAD BI-FOLD AND STANDARD



**A**  
4  
**VERTICAL CROSS SECTION**  
SILL BI-FOLD AND STANDARD



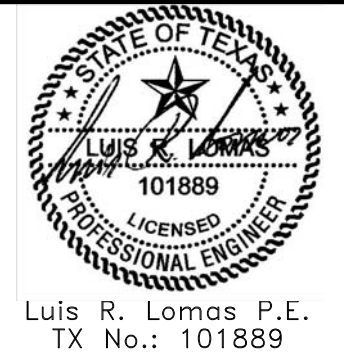
**E**  
4  
**VERTICAL CROSS SECTION**  
HEAD BI-FOLD

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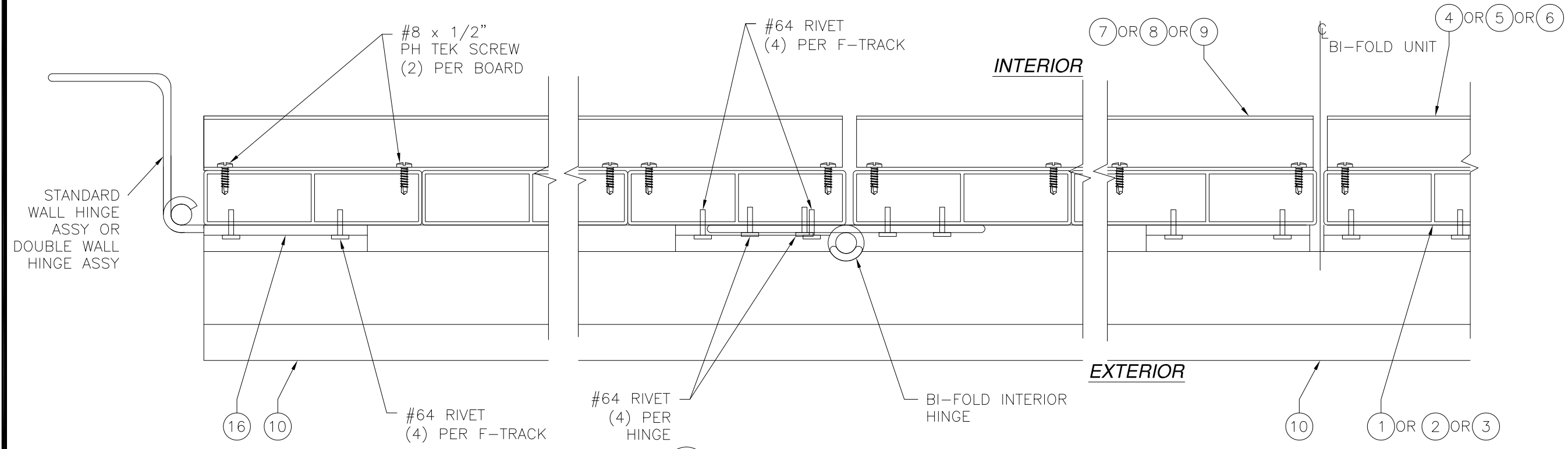
**LAS ENTERPRISES**  
2413 L & A ROAD  
METAIRIE, LA 70001

BOARD AND BATTEN SHUTTER  
STANDARD AND BI-FOLD  
CROSS SECTIONS

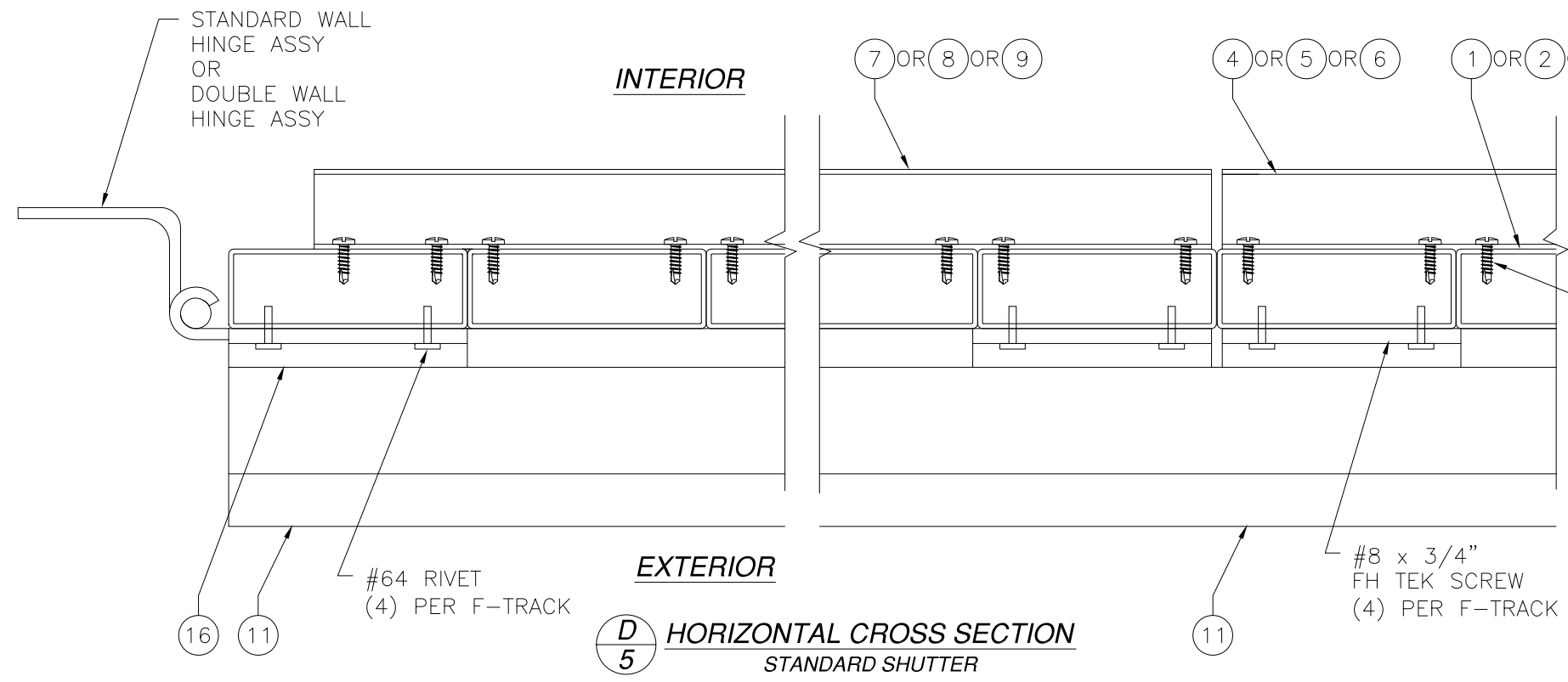
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**C**  
**5** HORIZONTAL CROSS SECTION  
BI-FOLD SHUTTER



**D**  
**5** HORIZONTAL CROSS SECTION  
STANDARD SHUTTER

**LAS ENTERPRISES**  
2413 L & A ROAD  
METAIRIE, LA 70001

BOARD AND BATTEN SHUTTER  
STANDARD AND BI-FOLD  
CROSS SECTIONS

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1 5/16" FOR BI-FOLD SHUTTER, STANDARD SHUTTER IS FLUSH

1/2" MAX. GAP

EXTERIOR

INTERIOR

VARIOUS SUBSTRATES SEE SHEETS 7 AND 8.

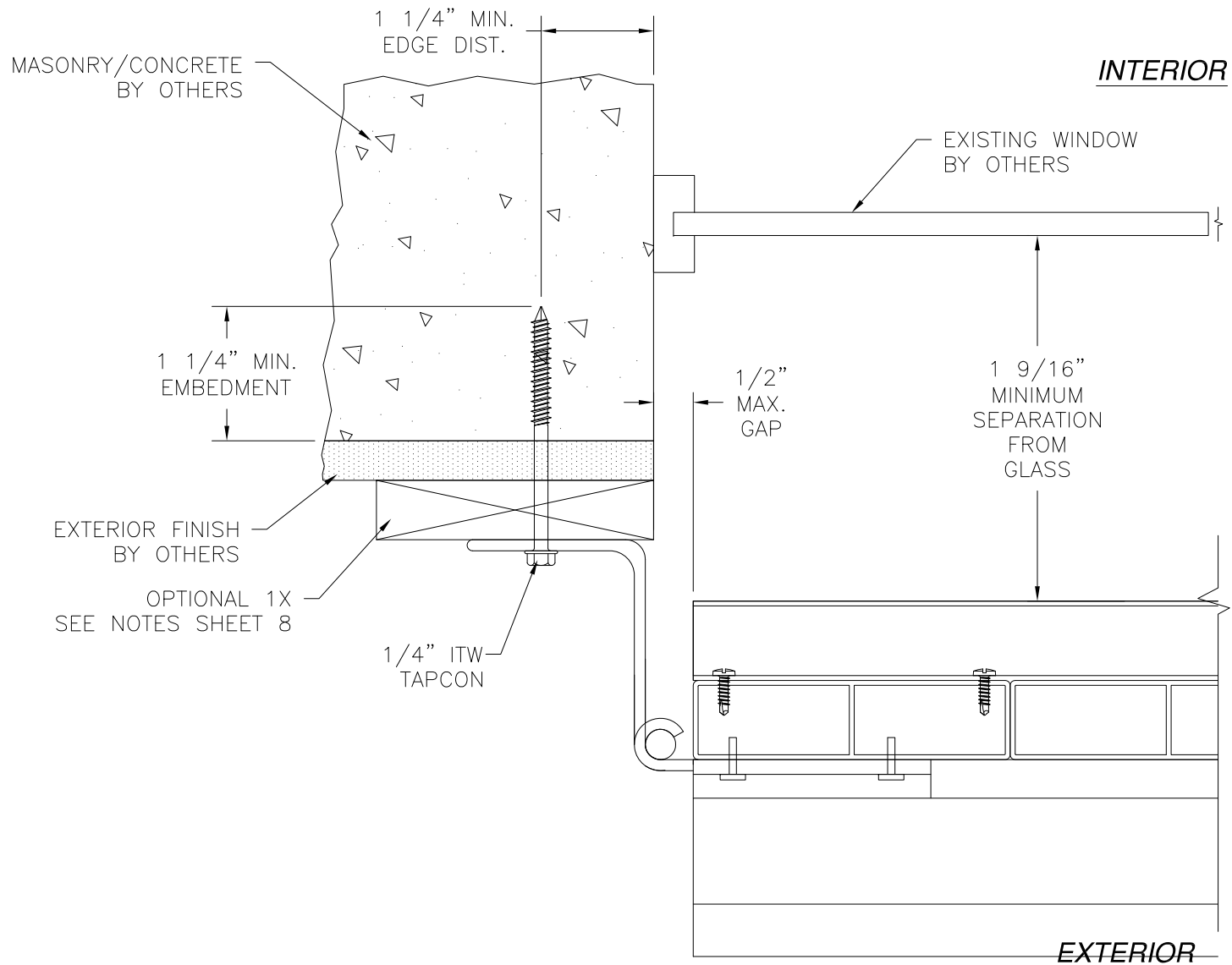
EXISTING WINDOW BY OTHERS

VARIOUS SUBSTRATES SEE SHEET 8.

1/2" MAX. GAP

**VERTICAL CROSS SECTION**  
BI-FOLD SHUTTER SHOWN,  
STANDARD SHUTTER SIMILAR

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**HORIZONTAL CROSS SECTION**  
MASONRY/CONCRETE INSTALLATION

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2413 L & A ROAD  
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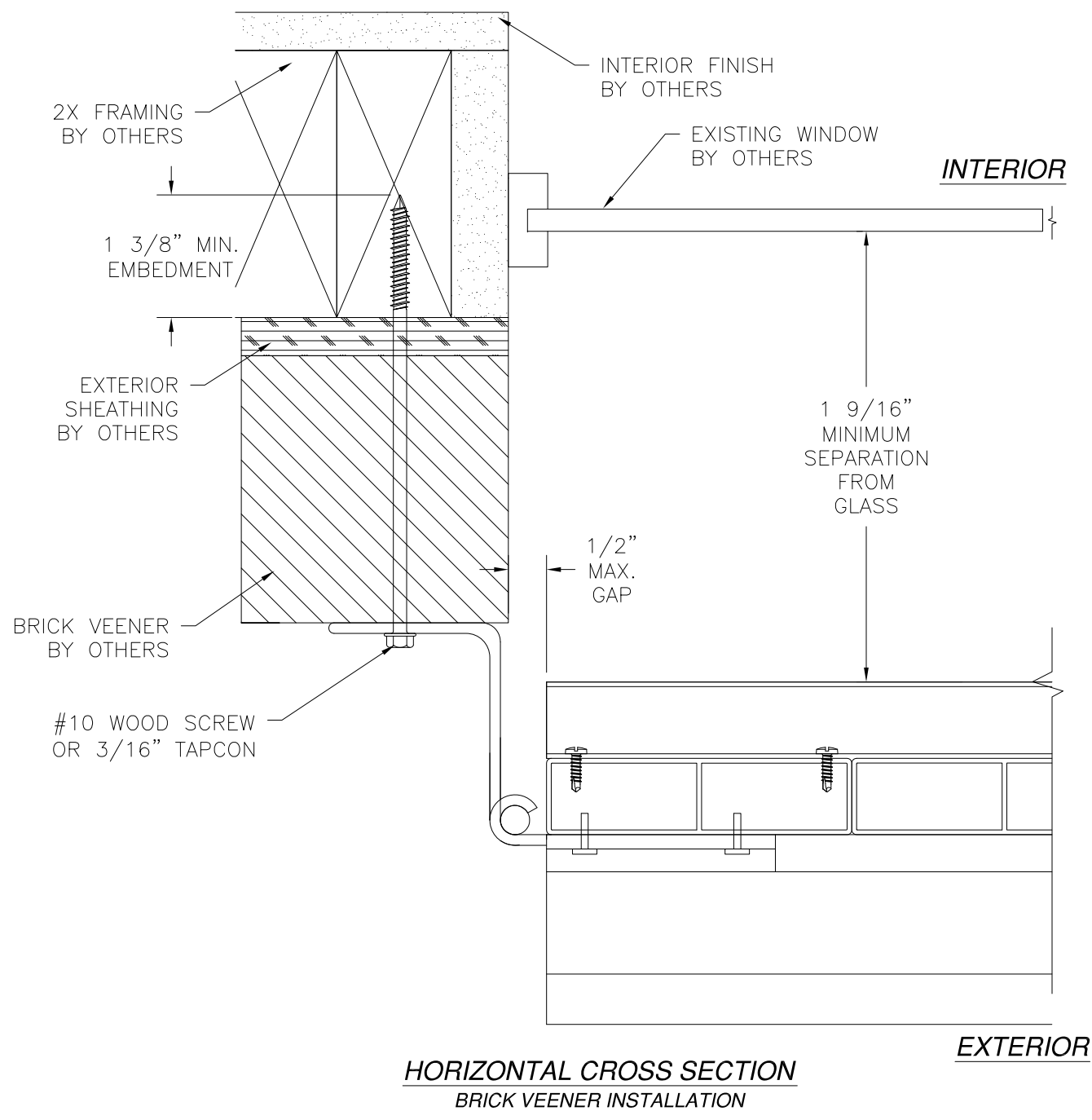
BOARD AND BATTEN SHUTTER  
STANDARD AND BI-FOLD  
INSTALLATION DETAILS

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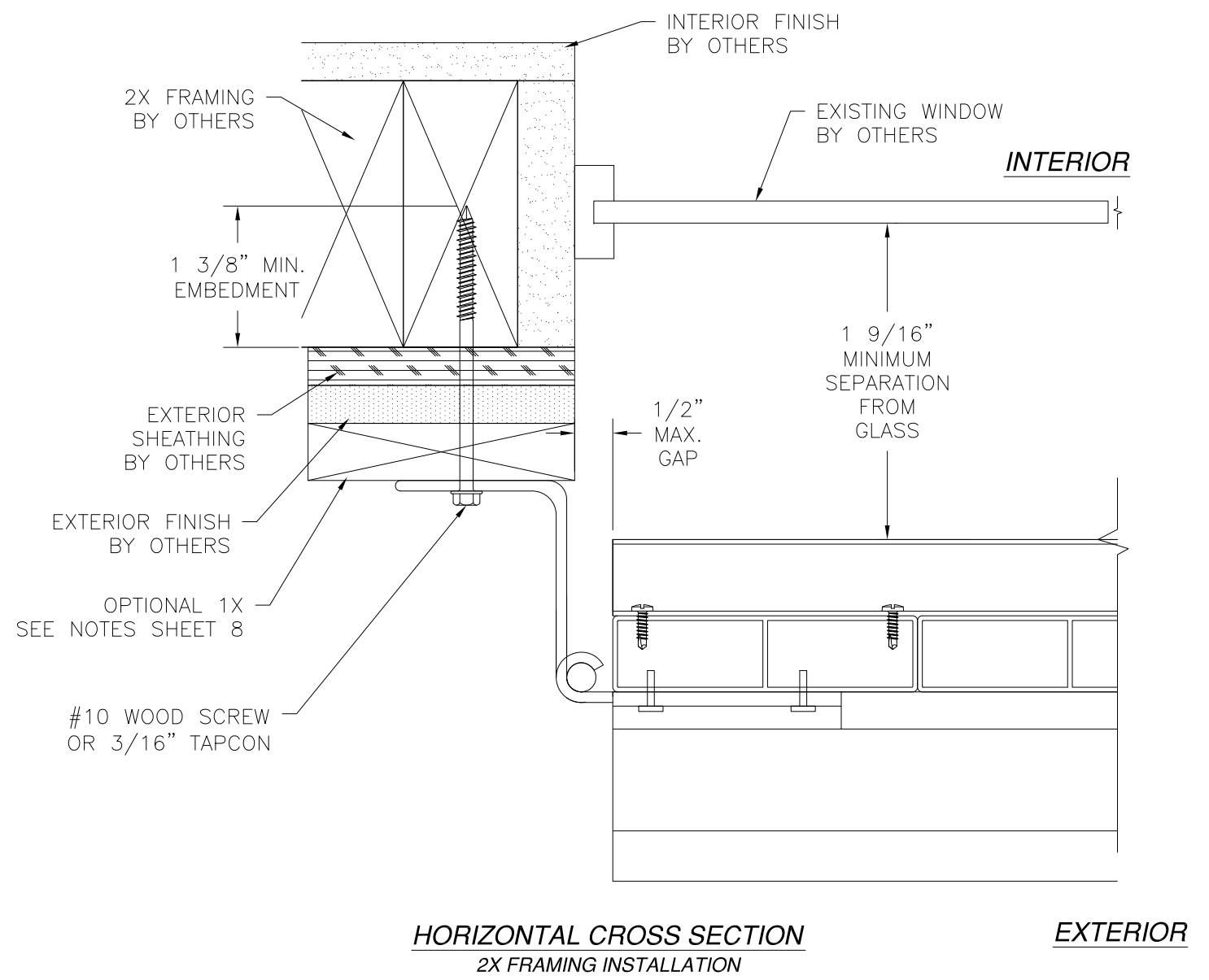


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**HORIZONTAL CROSS SECTION**  
BRICK VEENER INSTALLATION



**HORIZONTAL CROSS SECTION**  
2X FRAMING INSTALLATION

1X INSTALLATION NOTES 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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<b>LAS ENTERPRISES</b> 2413 L & A ROAD METAIRIE, LA 70001		
<b>BOARD AND BATTEN SHUTTER          STANDARD AND BI-FOLD          INSTALLATION DETAILS</b>		
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