



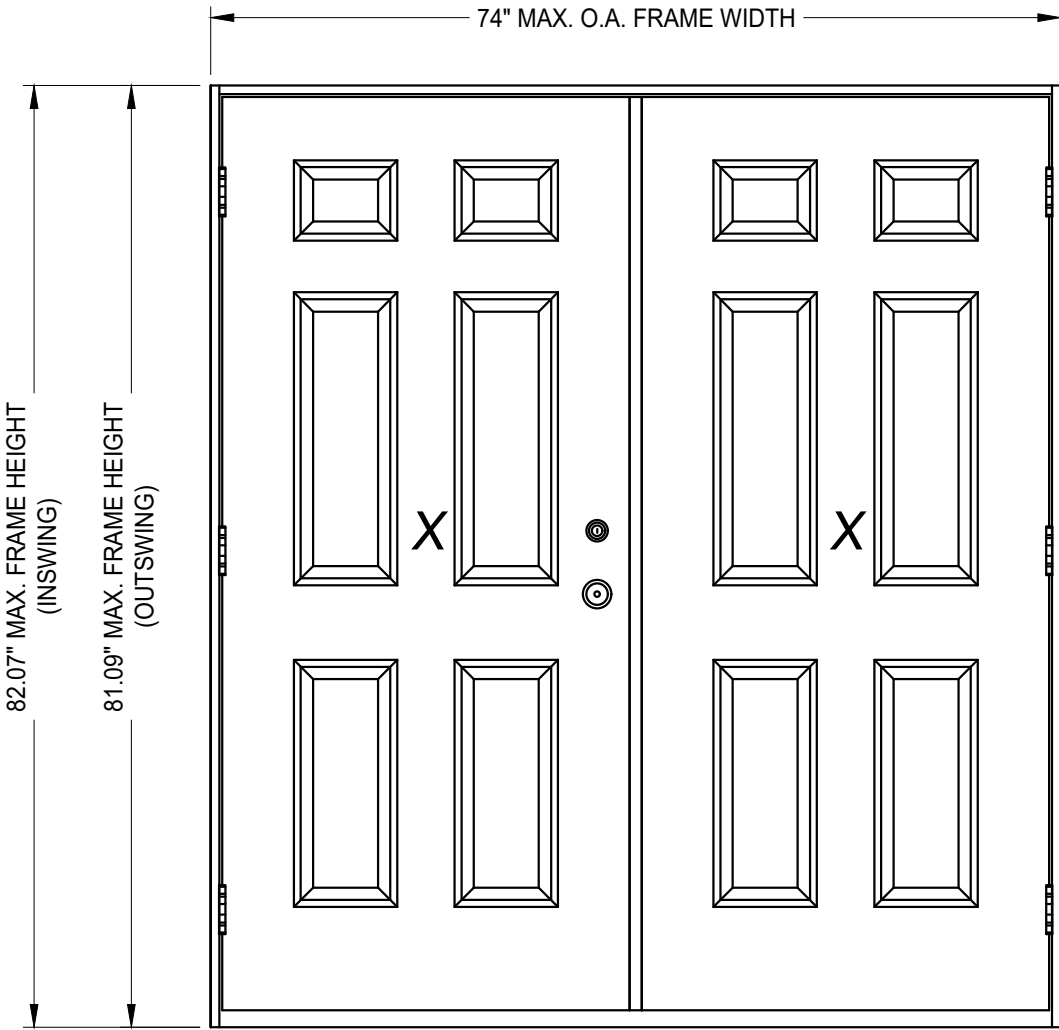
STEVES AND SONS
203 Humble Ave.
San Antonio, TX 78225

OPAQUE FIBERGLASS DOOR
INSWING / OUTSWING
"IMPACT"

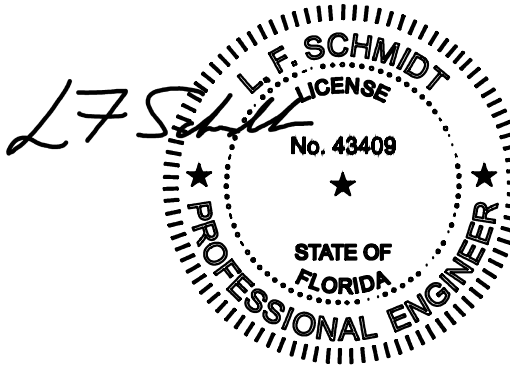
GENERAL NOTES

1. This product anchoring drawing has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) excluding the "High Velocity Hurricane Zone" (HVHZ). See the Certification Agency Certificate for sizes, specifications & ratings.
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in areas requiring wind borne debris protection, this product complies with FBC Sections 1609.1.2 & R301.2.1.2 and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E1996 and FBC Sections 1609.1.2.2 & R301.2.1.2.1.
4. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
5. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.

TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Typical elevations, design pressures & general notes
2	Door panel construction details
3	Horizontal cross sections
4	Vertical cross sections
5	Buck anchoring
6	Frame anchoring - 2X buck masonry construction
7	Frame anchoring - 1X buck masonry construction
8	Astragal details
9	Bill of materials & components



ASTRAGAL TYPE	SWING	MAX. FRAME DIMENSION	DESIGN PRESSURE PSF)	
			POSITIVE	NEGATIVE
ENDURA	INSWING	74.00" x 82.07"	+50.0	-55.0
	OUTSWING	74.00" x 81.09"	+50.0	-50.0



Digitally signed by Lyndon F Schmidt
Date: 2023.08.08 07:25:39 -04'00'

This item has been digitally signed and sealed by
L. F. Schmidt, P.E. on the date adjacent to the seal.
Printed copies of this document are not
considered signed and sealed and the signature
must be verified on any electronic copies.

THIS PRODUCT APPROVAL IS VALID
ONLY FOR THE STATE OF FLORIDA

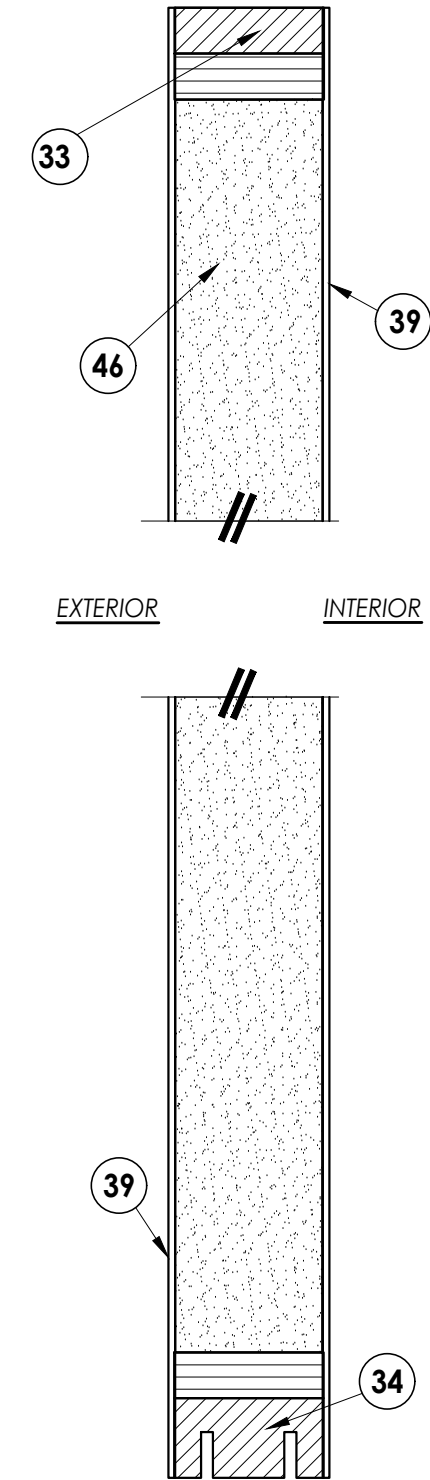
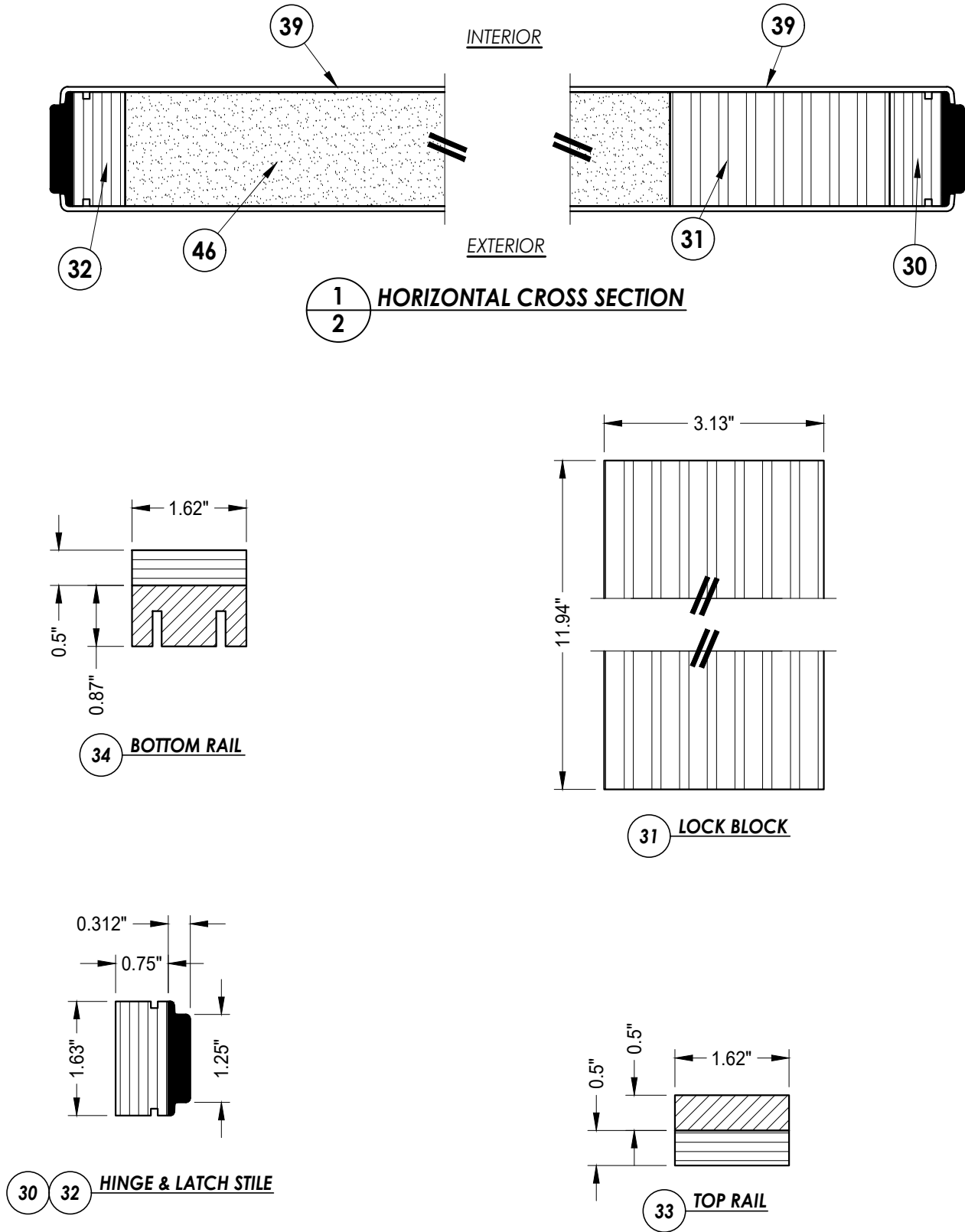
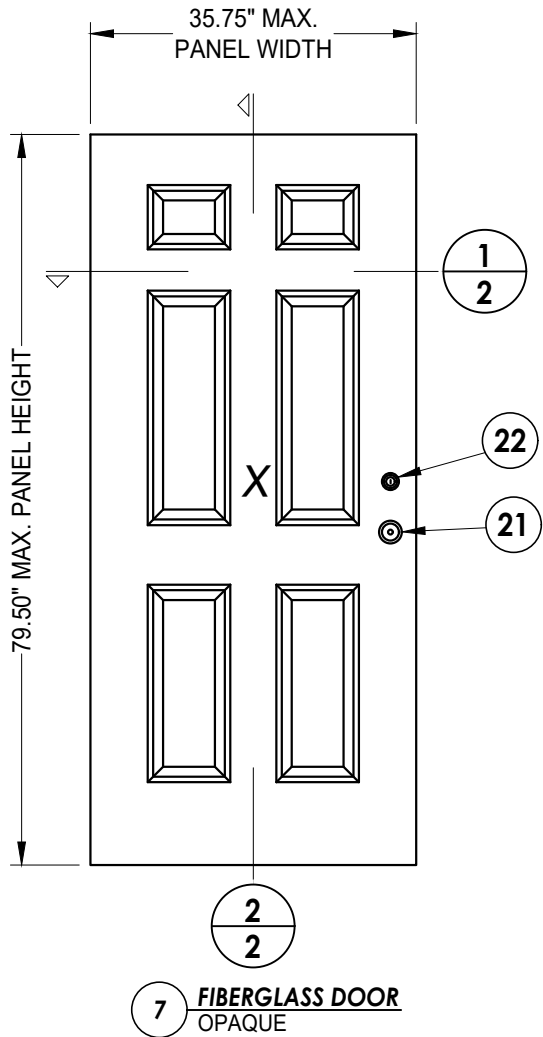
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: STEVED AND SONS
PART OR ASSEMBLY:
TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

						REVISIONS	
						NO.	DATE
						3	8/07/23
						2	9/16/20
						1	10/08/17

DATE: 7/17/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-17901.4
SHEET 1 OF 9



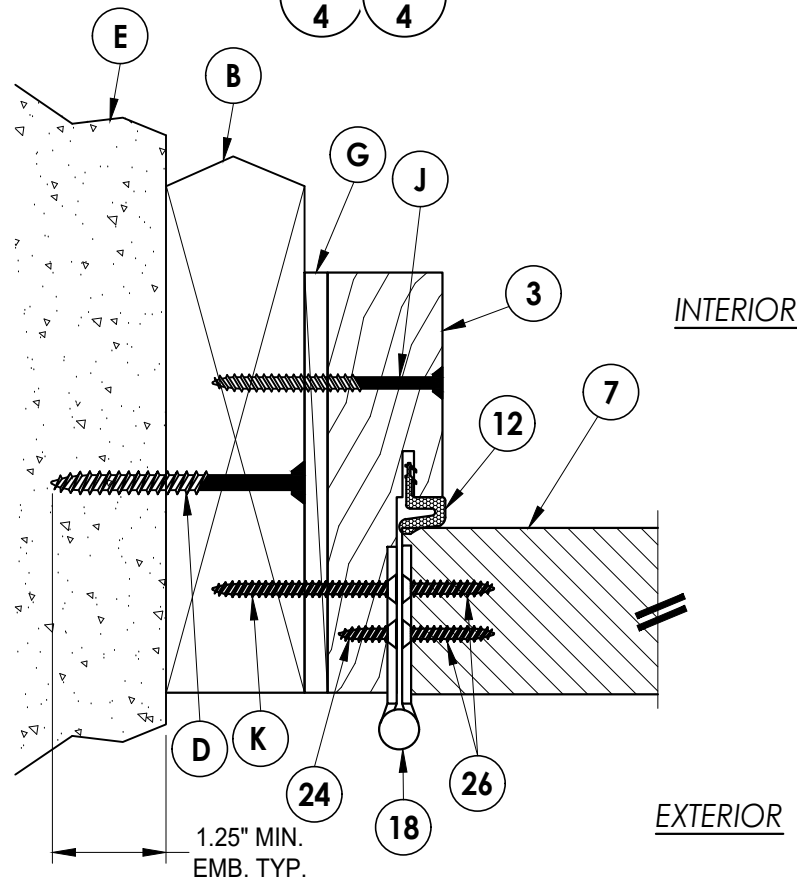
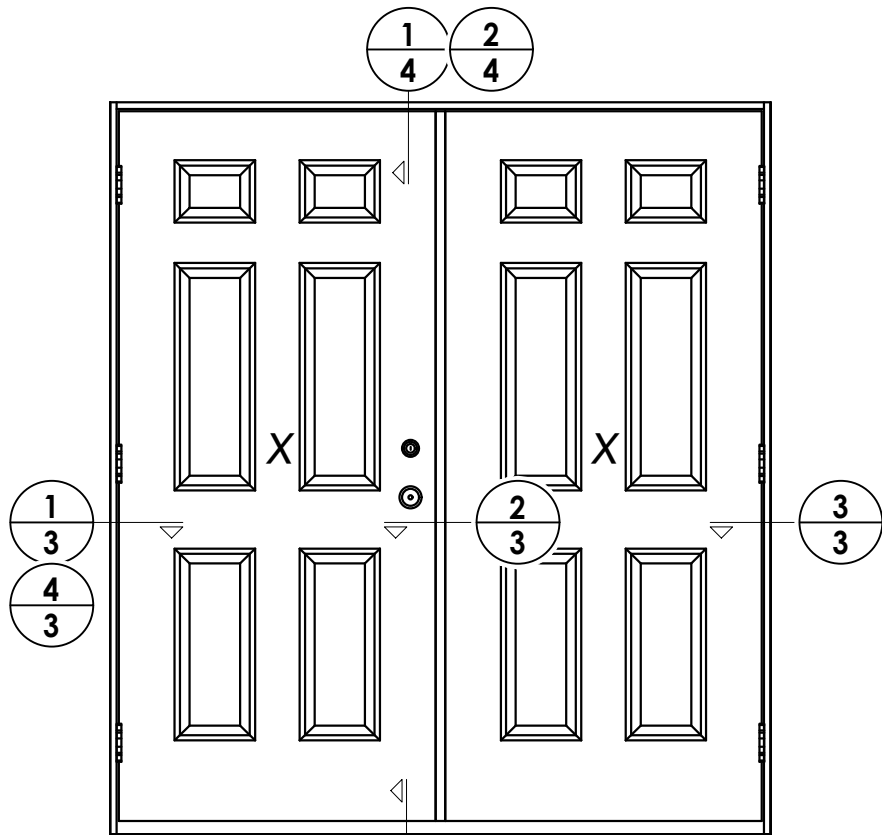
DATE:		7/17/15
SCALE:		N.T.S.
DWG. BY:		JK
CHK. BY:		LFS
DRAWING NO.:		FL-17901.4
SHEET		2 OF 9

PRODUCT:		STEVED AND SONS
PART OR ASSEMBLY:		DOOR PANEL CONSTRUCTION DETAILS

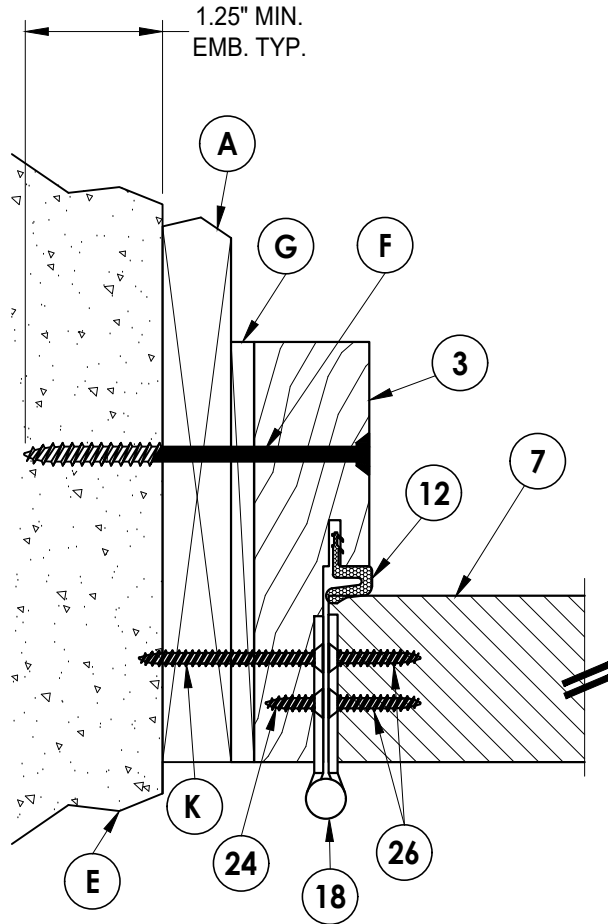
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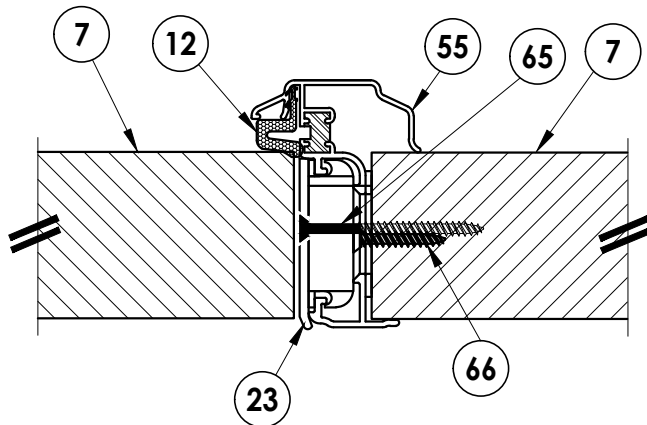
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1
3
HORIZONTAL CROSS SECTION



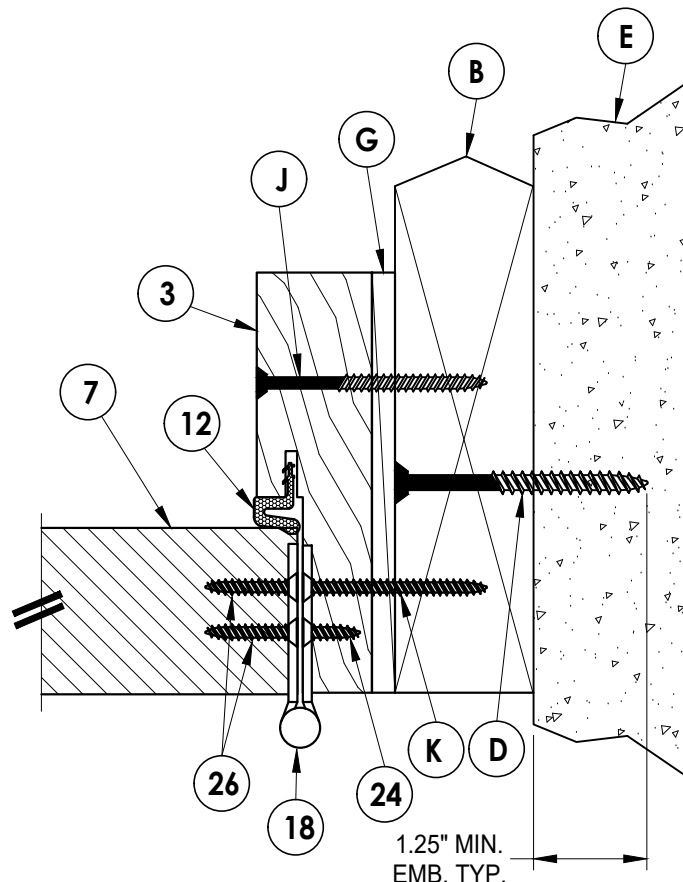
4
3
HORIZONTAL CROSS SECTION



2
3
HORIZONTAL CROSS SECTION

INTERIOR

EXTERIOR



3
3
HORIZONTAL CROSS SECTION

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PRODUCT:
STEVED AND SONS

PART OR ASSEMBLY:
HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS
3	8/07/23	UPDATE TO 8TH ED. (2023) FBC
2	9/16/20	UPDATE TO 7TH ED. (2020) FBC
1	10/08/17	UPDATE TO 6TH ED. (2017) FBC
		BY JK

DATE: 7/17/15

SCALE: N.T.S.

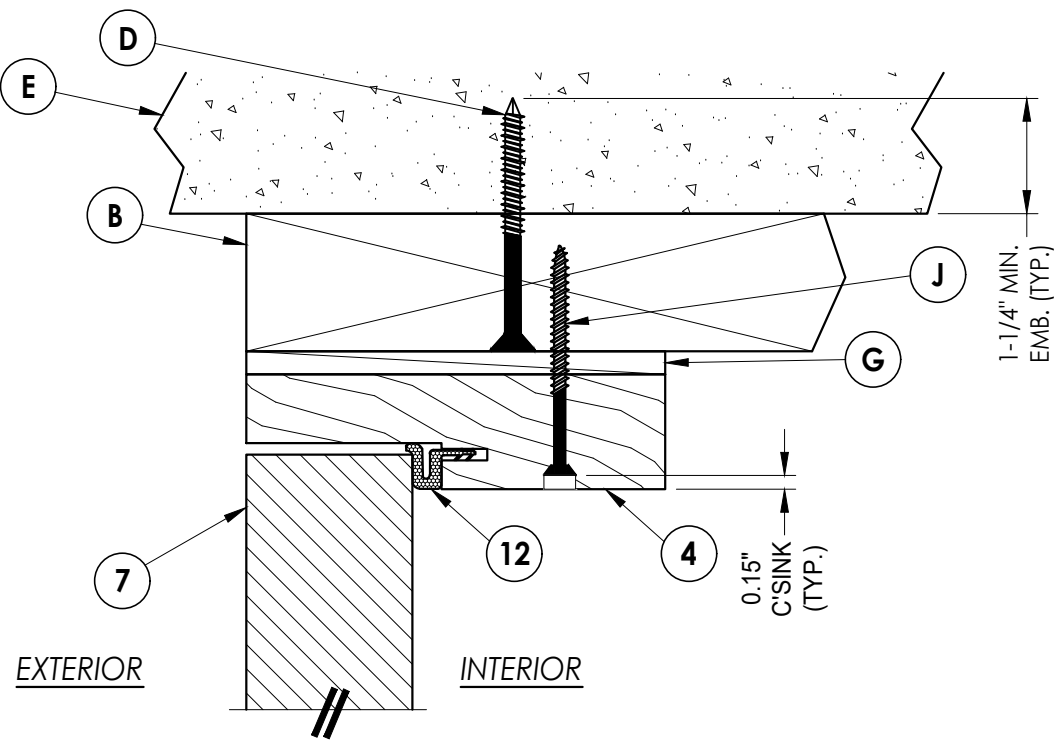
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CHK. BY: LFS

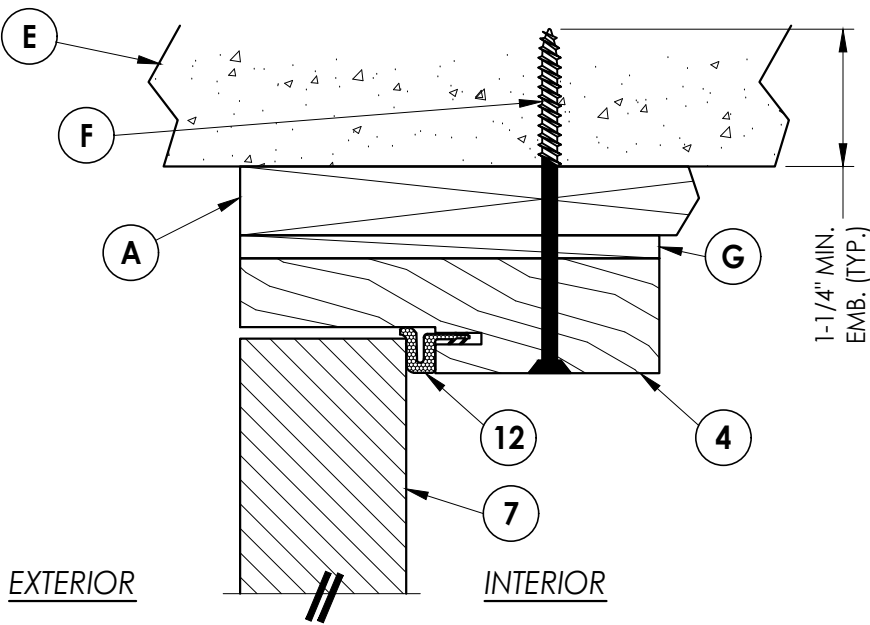
DRAWING NO.:
FL-17901.4

SHEET 3 OF 9

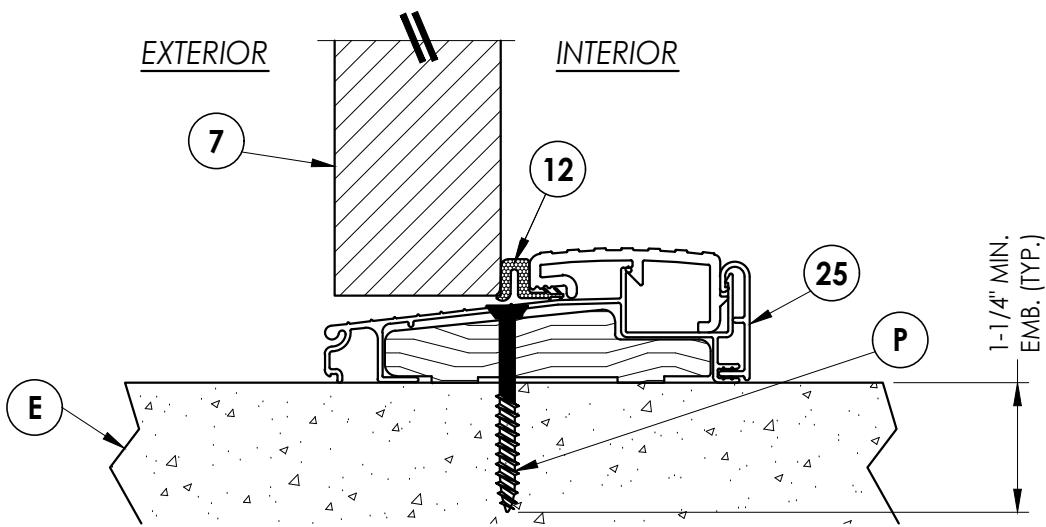
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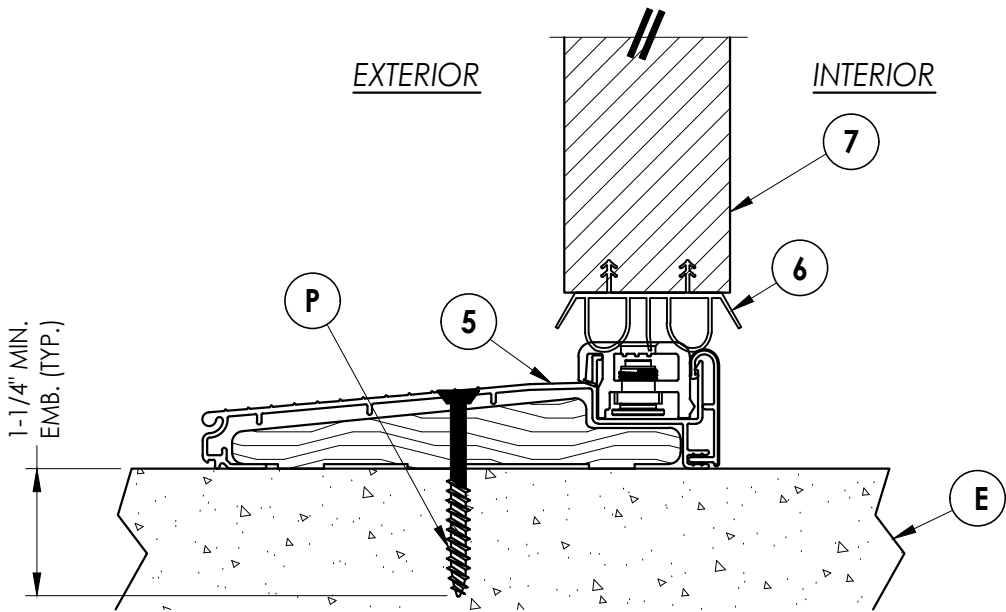
1
4 VERTICAL CROSS SECTION
Outswing shown



2
4 VERTICAL CROSS SECTION
Shown w/1X sub-buck



3
4 VERTICAL CROSS SECTION
Outswing sill



4
4 VERTICAL CROSS SECTION
Inswing sill

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P.E. No. 43409

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P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT:
STEVED AND SONS

PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS		
		BY	CHK	DATE
3	8/07/23	UPDATE TO 8TH ED. (2023)	FBC	LFS
2	9/16/20	UPDATE TO 7TH ED. (2020)	FBC	LFS
1	10/08/17	UPDATE TO 6TH ED. (2017)	FBC	JK

DATE: 7/17/15

SCALE: N.T.S.

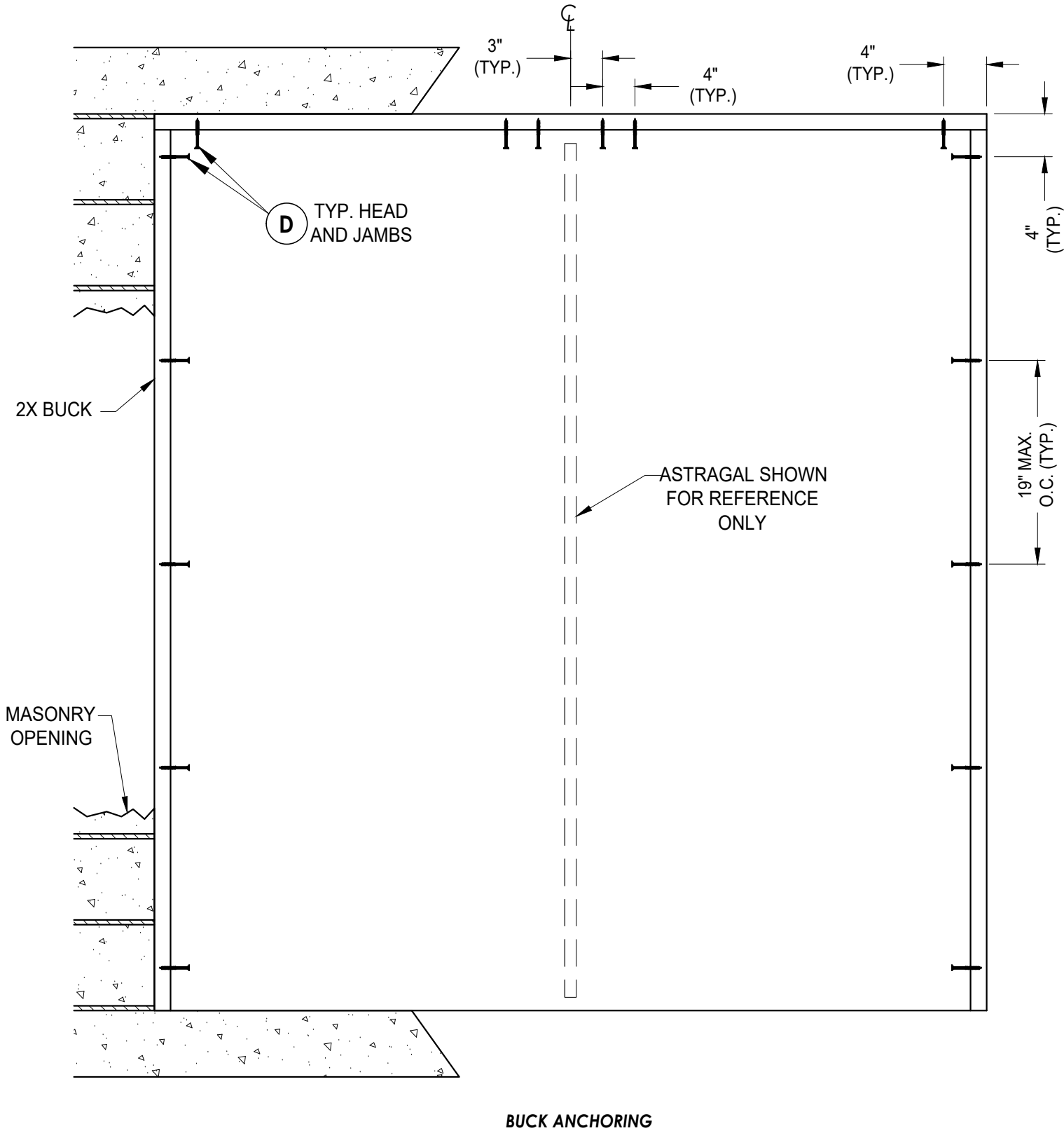
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CHK. BY: LFS

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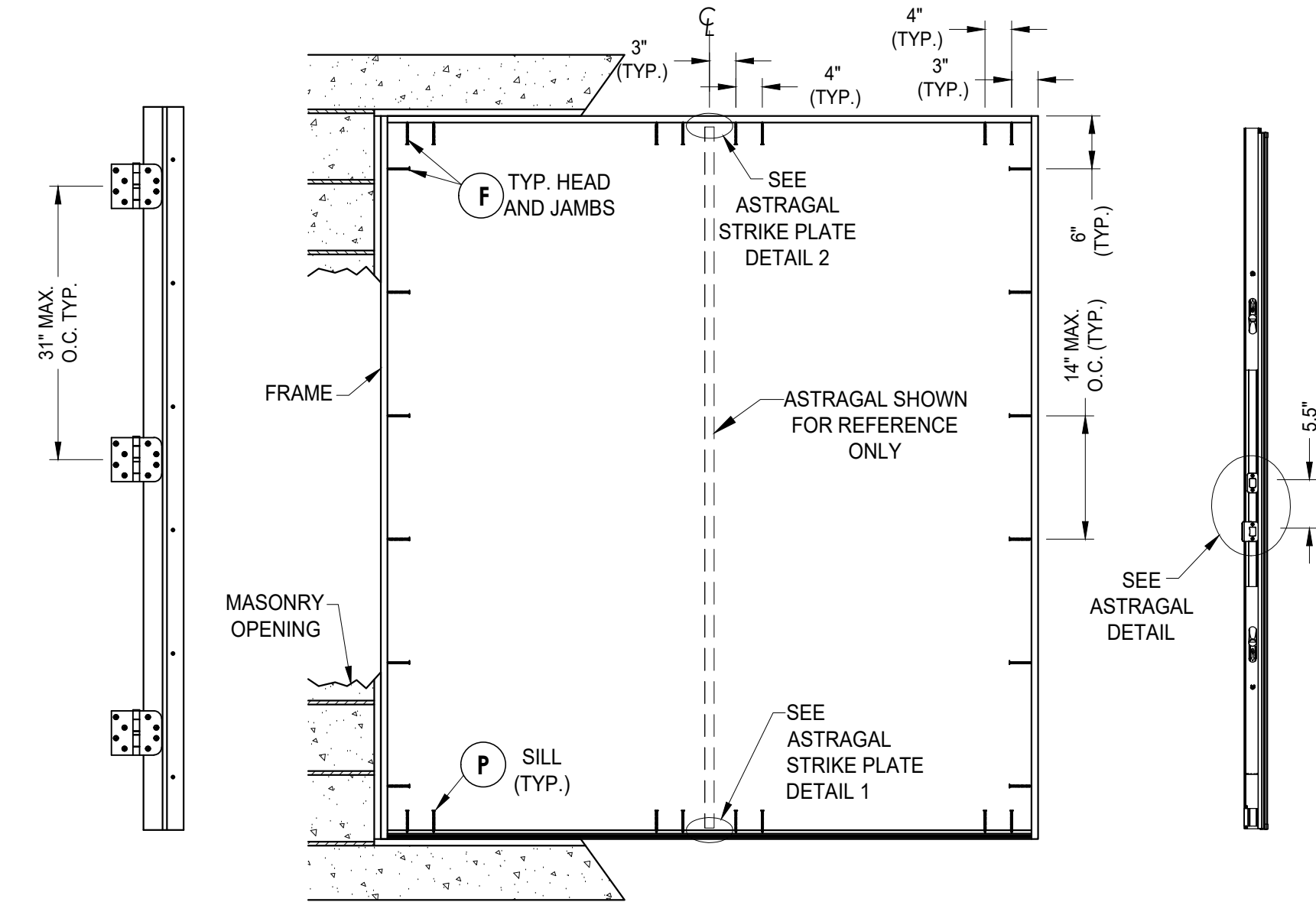
FL-17901.4

SHEET 4 OF 9



DATE: 7/17/15		DOCUMENTS PREPARED BY:		
SCALE: N.T.S.		Lyndon F. Schmidt		
DWG. BY: JK		P.E. No. 43409		
CHK. BY: LFS		R^gW BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813		
DRAWING NO.: FL-17901.4				
SHEET 5 OF 9				
PRODUCT:				
STEVED AND SONS		PART OR ASSEMBLY:		
BUCK ANCHORING				
REVISIONS				
3	8/07/23	UPDATE TO 8TH ED. (2023)	FBC	LFS
2	9/16/20	UPDATE TO 7TH ED. (2020)	FBC	LFS
1	10/08/17	UPDATE TO 6TH ED. (2017)	FBC	JK
NO.	DATE			BY

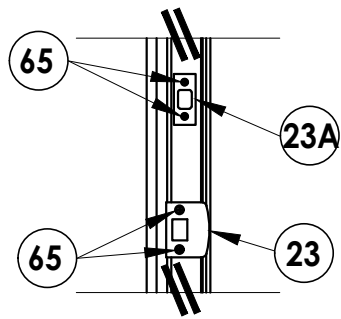
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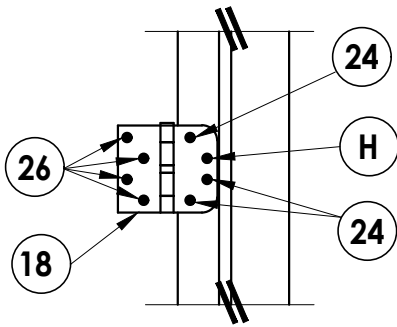
HINGE JAMB

FRAME ANCHORING
Masonry 1X buck construction

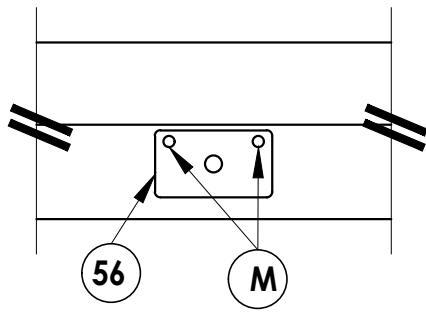
ASTRAGAL



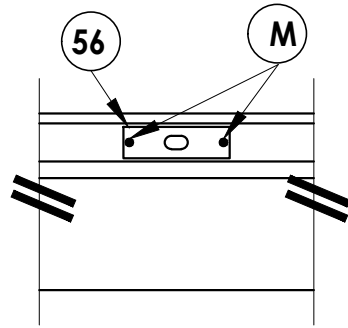
ASTRAGAL DETAIL



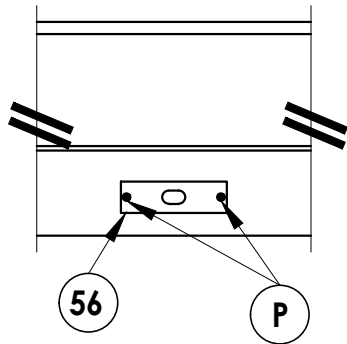
HINGE DETAIL 1



ASTRAGAL STRIKE PLATE
"DETAIL 2"



ASTRAGAL STRIKE PLATE
"DETAIL 1"- INSWING



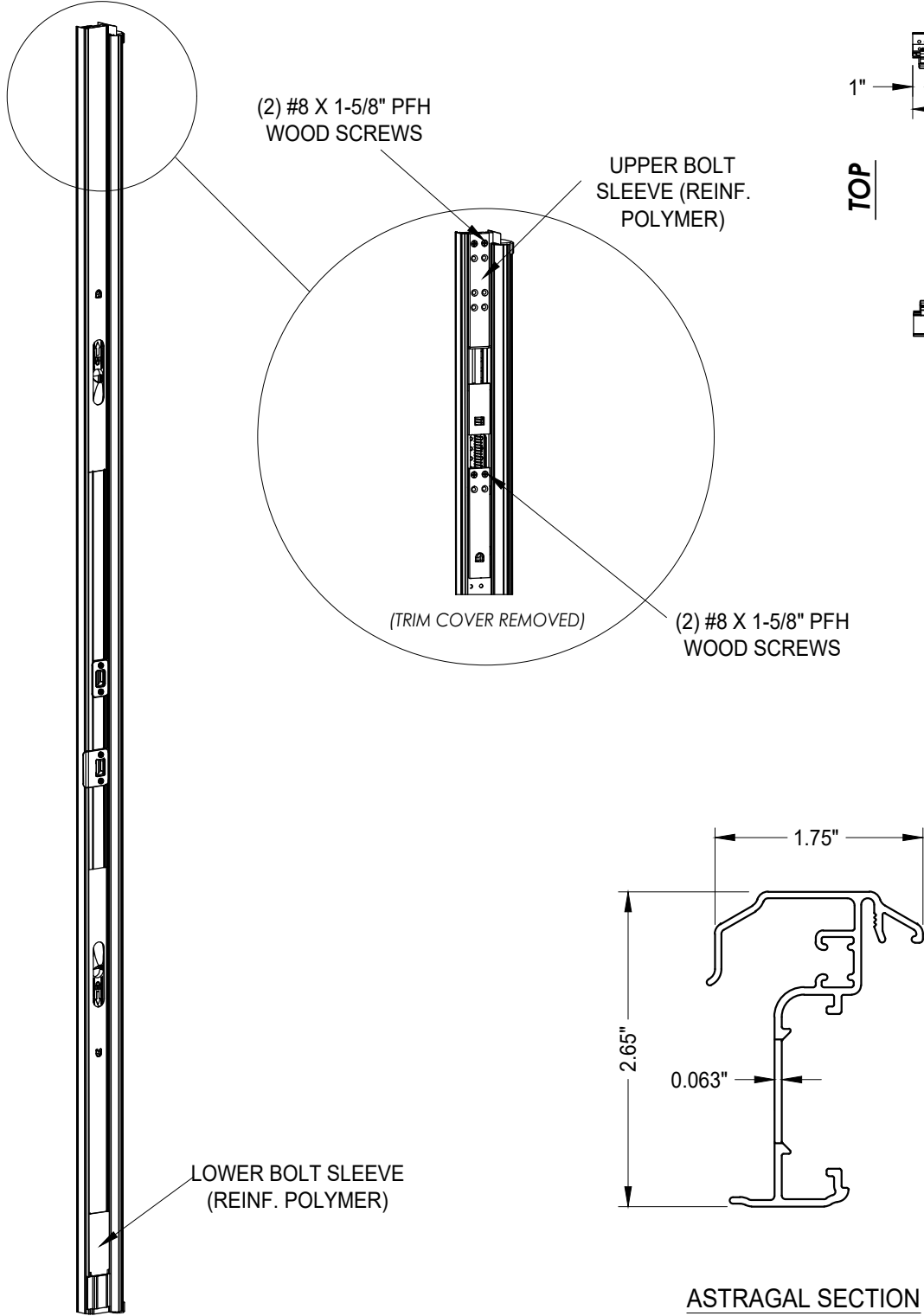
ASTRAGAL STRIKE PLATE
"DETAIL 1" - OUTSWING

DATE:		7/17/15	
SCALE:		N.T.S.	
DWG. BY:		JK	
CHK. BY:		LFS	
DRAWING NO.:		FL-17901.4	
SHEET		7	OF 9

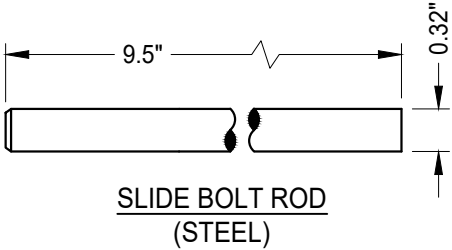
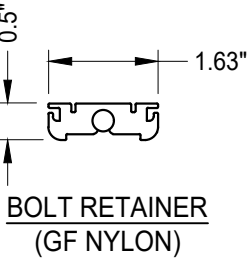
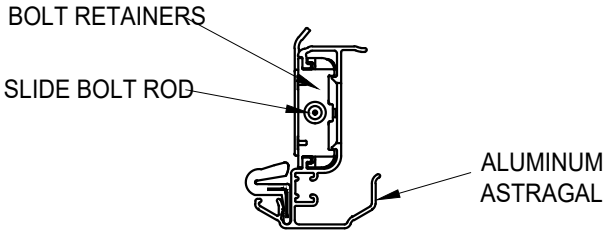
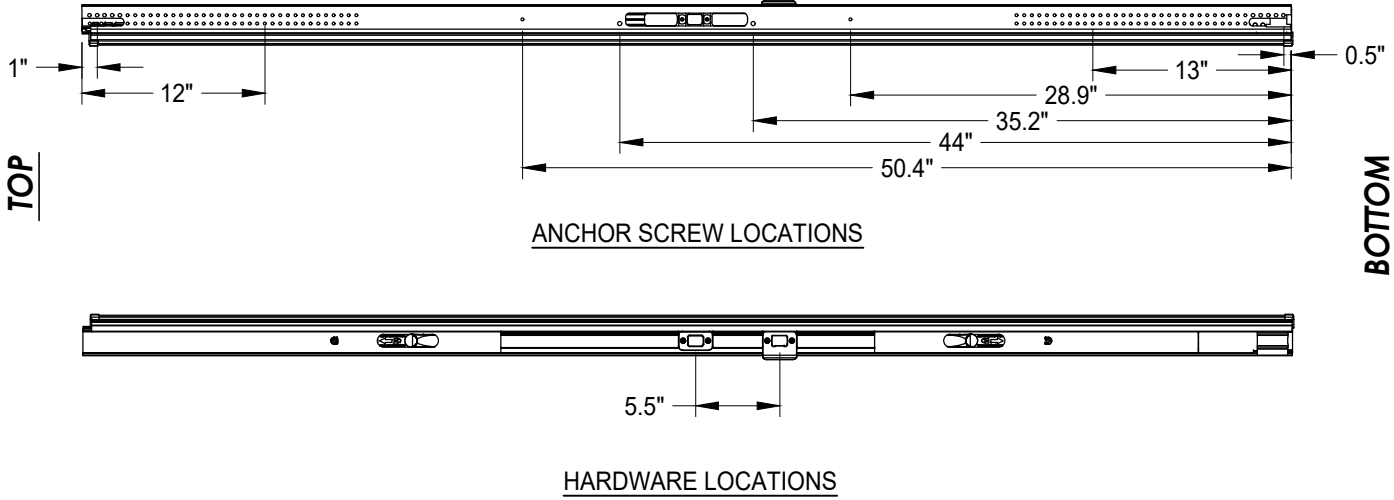
PRODUCT:		STEVED AND SONS	
PART OR ASSEMBLY:		FRAME ANCHORING 1X BUCK MASONRY CONSTRUCTION	

Documents Prepared By:		BUILDING CONSULTANTS, INC.	
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P.E. No. 43409		Phone No.: 813.659.9197	
		FBPE Registry No. 9813	

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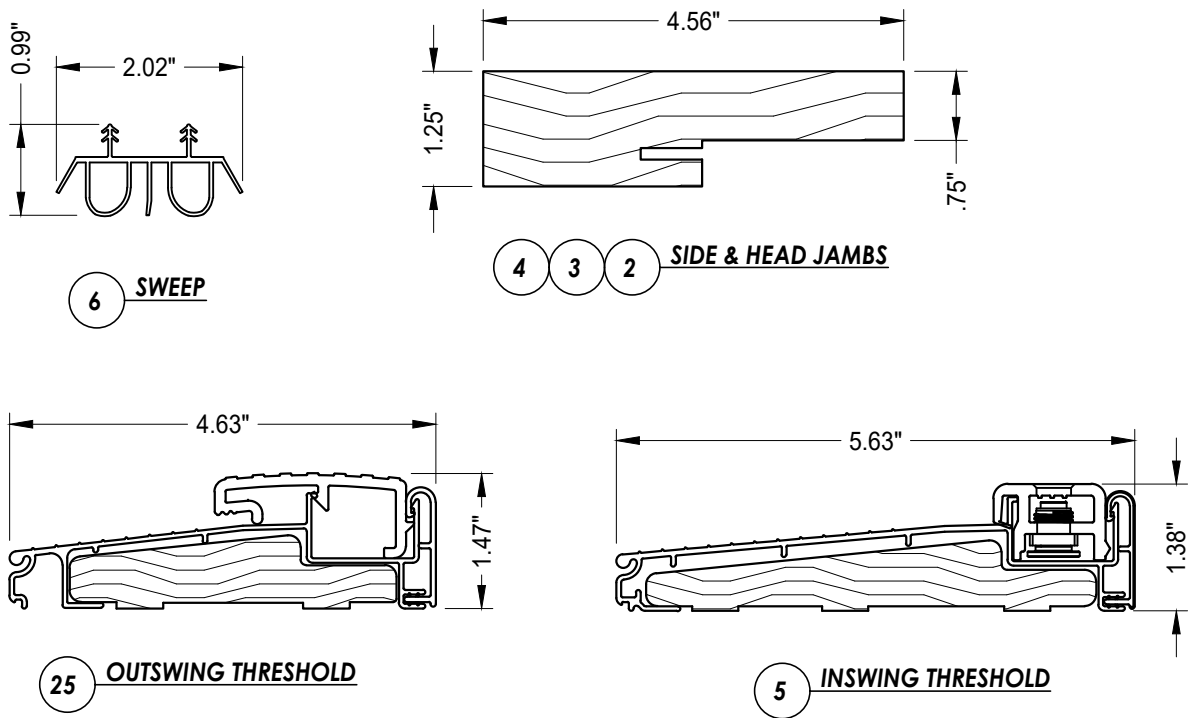
ULTIMATE HURRICANE ASTRAGAL



55 ALUMINUM ASTRAGAL
By Endura Products

Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813	
PRODUCT: STEVES AND SONS		PART OR ASSEMBLY: ENDURA ASTRAGAL DETAILS	
		LFS	BY
		FBC	JK
3	8/07/23	UPDATE TO 8TH ED. (2023)	REVISIONS
2	9/16/20	UPDATE TO 7TH ED. (2020)	
1	10/08/17	UPDATE TO 6TH ED. (2017)	
NO.	DATE		
DATE: 7/17/15			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-17901.4			
SHEET 8 OF 9			

BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
A	1X BUCK SG >= 0.55	WOOD
B	2X BUCK SG >= 0.55	WOOD
D	1/4" X 2-3/4" DeWALT OR ITW PFH CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
F	1/4" X 3-3/4" ITW PFH CONCRETE SCREW	STEEL
G	MAX. 1/4" SHIM SPACE	-
J	#10 X 2-1/2" PFH WS (1-1/8" MIN. EMBEDMENT)	STEEL
K	#9 X 2" PFH WS	STEEL
M	3/16" X 3-1/4" ITW PFH CONCRETE SCREW	STEEL
P	1/4" X 2-1/4" PFH ITW CONCRETE SCREW	STEEL
3	HINGE JAMB - FINGER-JOINT PINE - SG >= 0.42	WOOD
4	HEAD - FINGER-JOINT PINE - SG >= 0.42	WOOD
5	INSWING THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUM/COMP.
6	DOOR BOTTOM SWEEP	PVC
7	DOOR PANEL - SEE DOOR PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
12	WEATHER STRIP QEBD650 Q-LON	-
18	3.983" X 4.0" HINGE MIN 0.098" THICK	STEEL
21	PASSAGE LOCK - KWIKSET SERIES	STEEL
22	DEADBOLT - KWIKSET SERIES (660)	STEEL
23	STRIKE PLATE	STEEL
23A	DEADBOLT STRIKE	STEEL
24	#9 X 5/8" PFH WS	STEEL
25	OUTSWING THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUM./ COMP.
26	#9 X 1" PFH WS	STEEL
30	LATCH STILE - SG >= 0.42	LVL/PVC
31	LVL LOCK BLOCK	POPLAR
32	HINGE STILE - SG >= 0.42	LVL/PVC
33	TOP RAIL - POPLAR LVL & WPC COMBINATION	POPLAR/WPC
34	BOTTOM RAIL - POPLAR LVL & WPC COMBINATION	POPLAR/WPC
39	FIBERGLASS SKIN 0.079" MIN. THICKNESS (Fy = 5,200 PSI MIN.)	FIBERGLASS
46	DOOR PANEL FOAMED CORE	POLYSTYRENE
55	ULTIMATE HURRICANE ASTRAGAL (ENDURA)	ALUMINUM
56	ASTRAGAL STRIKE PLATE	STEEL
57	#8 X 2-1/2" PFH WOOD SCREW	STEEL
65	#8 X 2-1/4" PFH WOOD SCREW	STEEL
66	#8 X 1" PFH WOOD SCREW	STEEL



CONCRETE ANCHOR NOTES:

1. Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
2. Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are not exceeded.
3. Concrete anchor table:

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	2"	4"
DeWALT ULTRACON®	1/4"	1-1/4"	1"	4"
ITW TAPCON®	3/16"	1-1/4"	3"	1-1/2"

WOOD SCREW INSTALLATION NOTES:

1. Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.

[illegible]