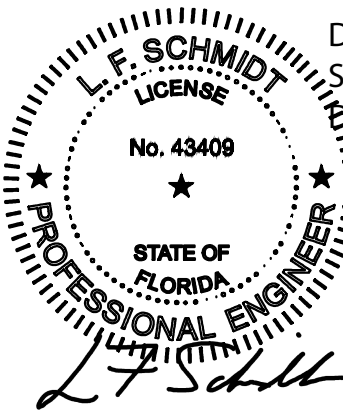


Vision Hollow Metal Limited

400 Zenway Blvd. Unit #1
Woodbridge, ON L4H OS7

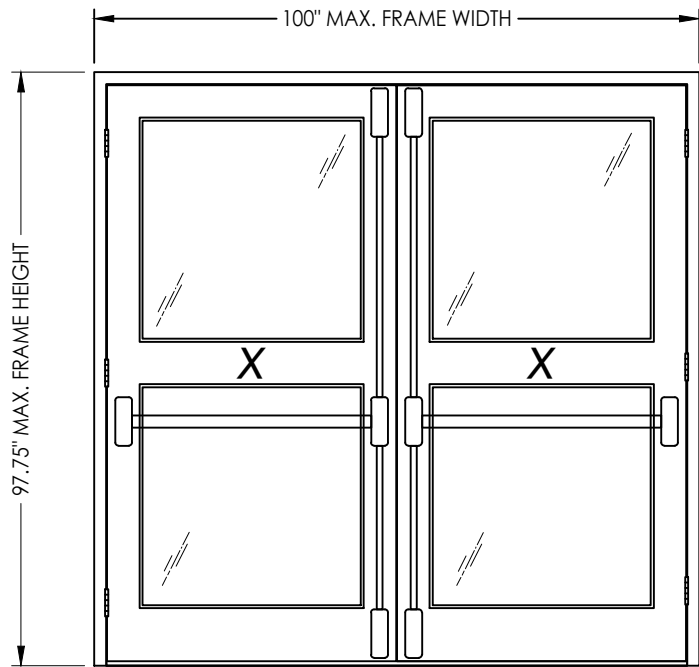
LS18 STEEL DOUBLE DOOR
OUTSWING
"IMPACT"



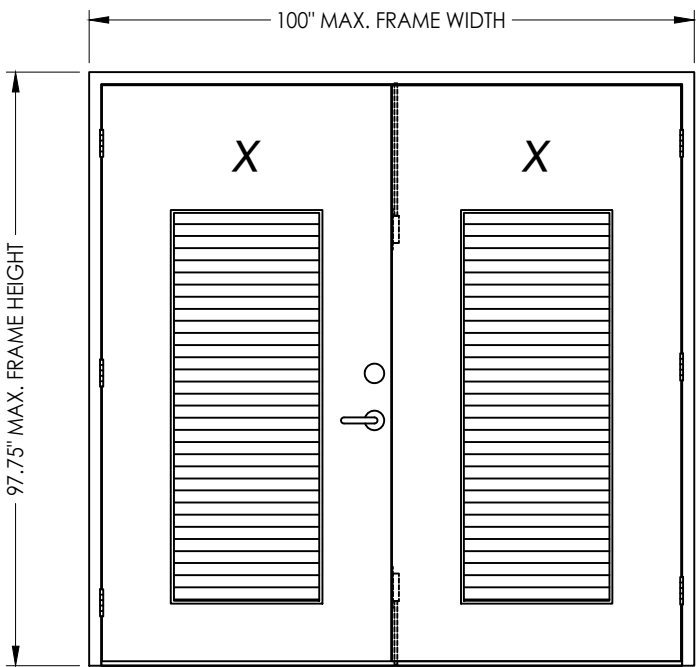
Digitally signed by Lyndon F Schmidt
Date: 2023.07.05 15:56:51 -04'00'

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.

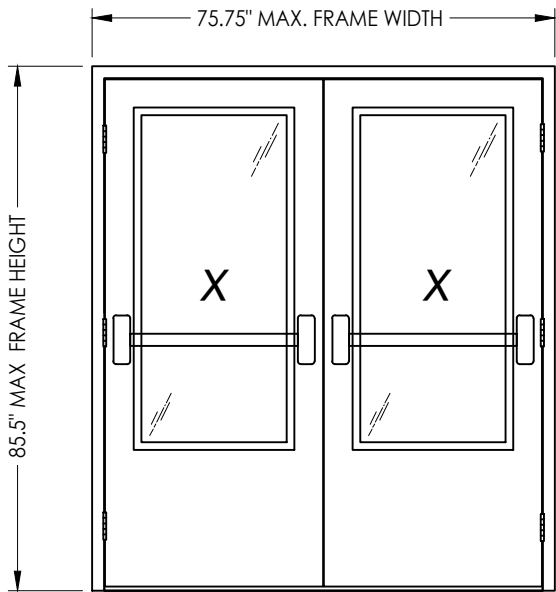
THIS PRODUCT APPROVAL IS VALID
ONLY FOR THE STATE OF FLORIDA



PANIC BAR EXIT DEVICE w/ VERTICAL RODS



CYLINDRICAL LOCK & DEADBOLT



PANIC BAR EXIT DEVICE w/ REMOVABLE MULLION

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements for the "High Velocity Hurricane Zone" (HVHZ).
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 the "HVHZ", this product complies with Section 1626 of the Florida Building Code and does not require an impact resistant covering.
4. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
5. This product meets water infiltration requirements for the "HVHZ".
6. All steel shall be protected as specified in Section 2222.6 of the FBC.

TABLE OF CONTENTS	
SHEET#	DESCRIPTION
1	Typical elevation, design pressures & general notes
2	Glazed door panel details
3	Louvered door panel details
4	Elevations
5	Horizontal cross sections
6	Horizontal & vertical cross sections
7	Frame anchoring
8	Frame anchoring
9	Hardware Details
10	Bill of materials and components

MAX FRAME DIMENSION	LOCK TYPE OPTIONS	DESIGN PRESSURE (PSF) OUTSWING	
		POSITIVE	NEGATIVE
100" x 97.75"	CYLINDRICAL LOCK & DEADBOLT PANIC BAR EXIT DEVICE w/ REMOVABLE MULLION	+65.0	-65.0
75.75" x 85.5"	PANIC BAR EXIT DEVICE w/ VERTICAL RODS	+65.0	-65.0

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

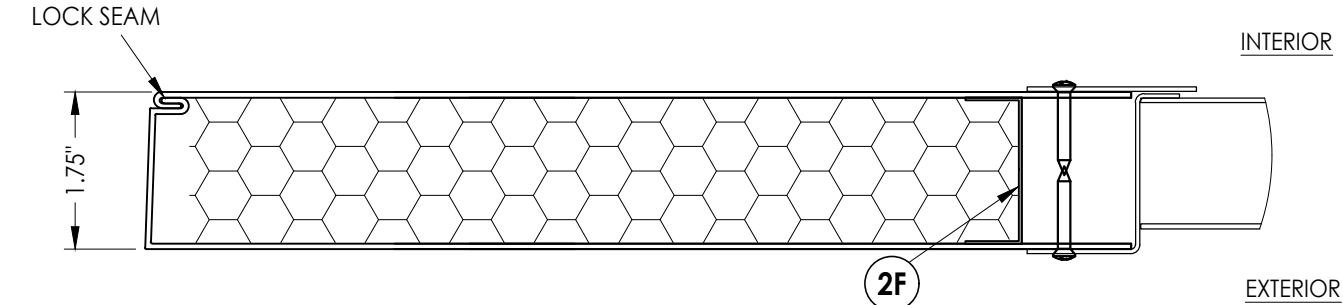
BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT:
LS18 STEEL DOOR
PART OR ASSEMBLY:
TYPICAL ELEVATIONS, DESIGN
PRESSURES & GENERAL NOTES

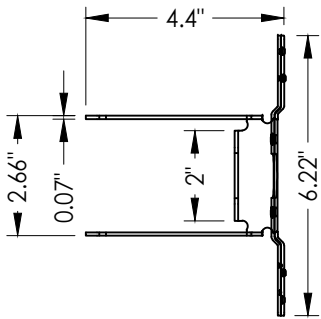
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4	9/08/20	UPDATE TO 7TH ED.	(2020)	FBC	
3	11/5/19	ADJUST ANCHOR SPACING		LFS	
2	7/13/17	UPDATE TO 6TH ED.	(2017)	FBC	
1	12/15/15	REVISED ANCHORING		LFS	
DATE: 10/29/15					
SCALE: N.T.S.					
DWG. BY: JK					
CHK. BY: LFS					
DRAWING NO.: FL-19036.2					
SHEET 1 OF 10					

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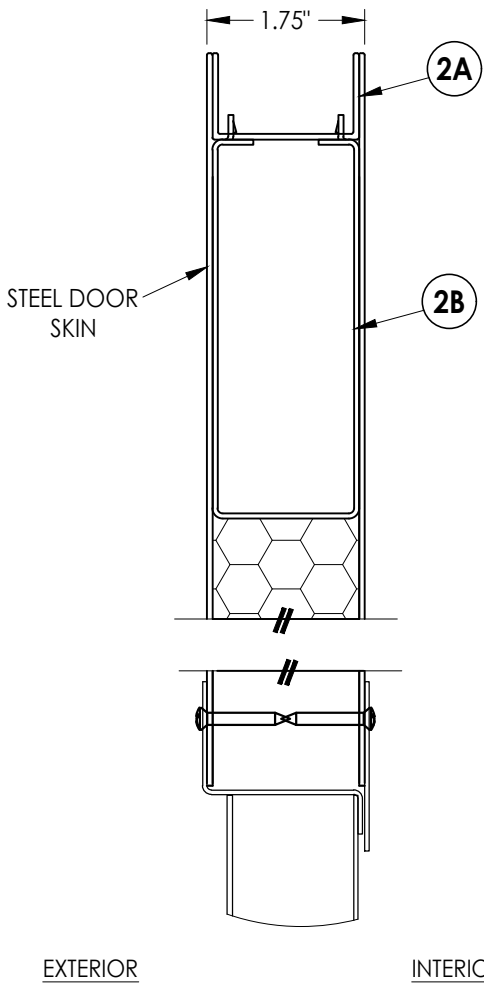
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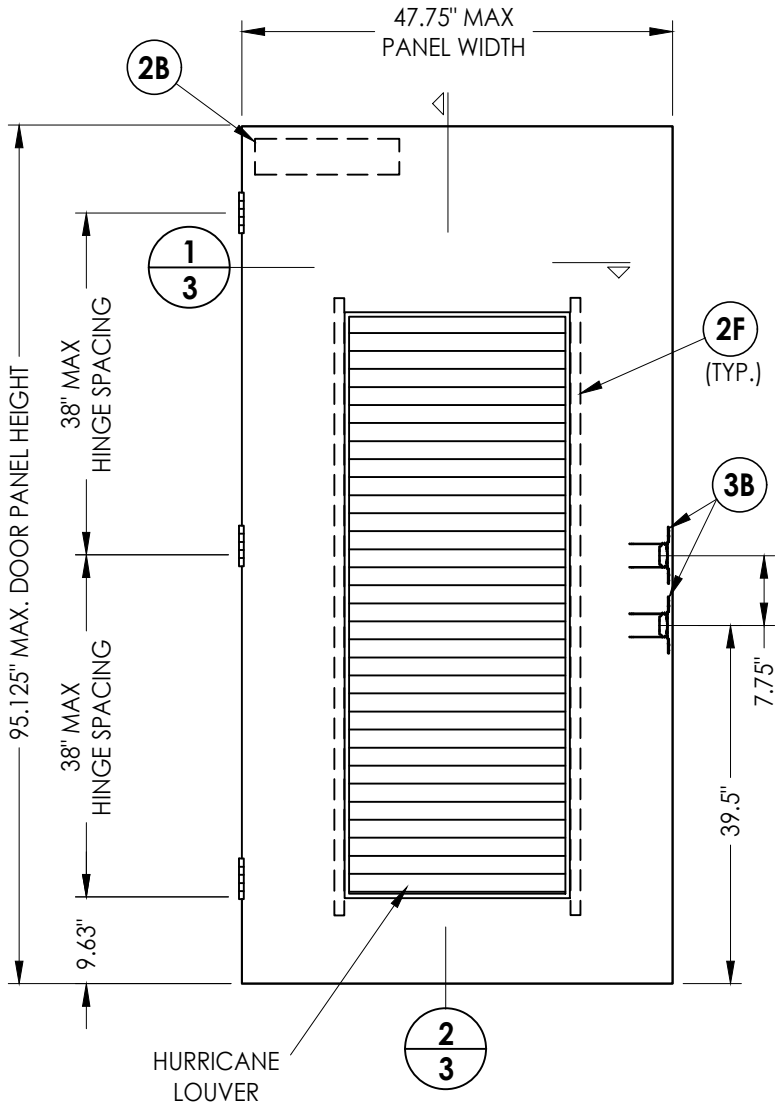
1
3 HORIZONTAL CROSS SECTION



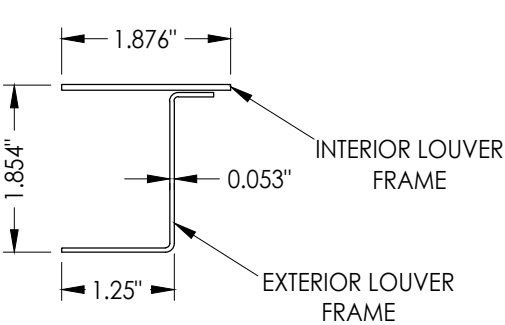
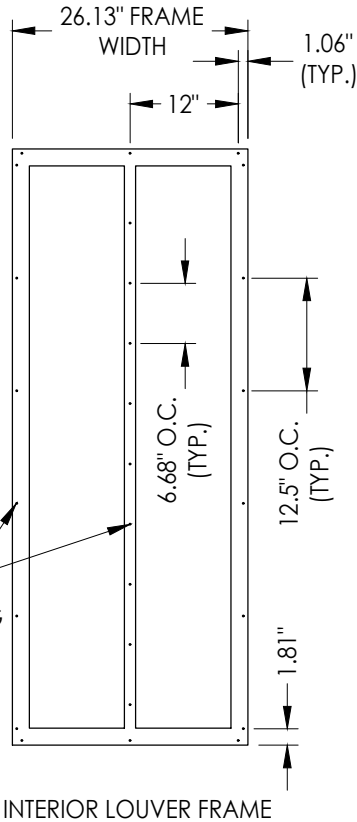
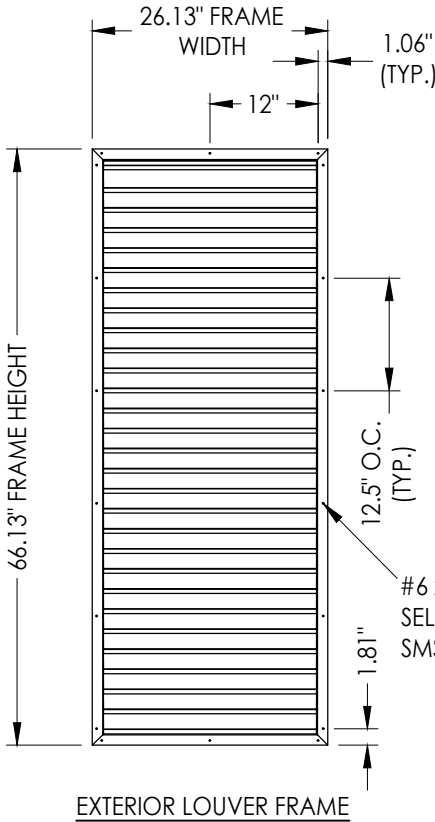
3B CYLINDRICAL LOCK REINFORCEMENT
18 GA. GALV. STEEL



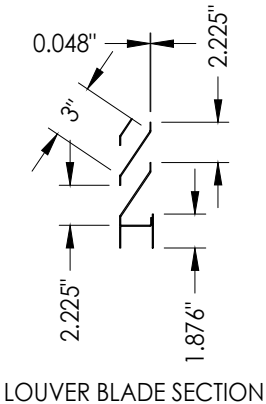
2
3 VERTICAL CROSS SECTION



42 LOUVERED DOOR PANEL
8'-0" Door



3A HURRICANE LOUVER
18 GA. GALV. STEEL



STEEL DOOR SKIN: 18 GA. (MIN. 0.043" THK.) GALV. STEEL (Fy = 54,000 PSI MIN.)
CORE MATERIAL: EPS FOAM (POLYSTYRENE - 1.0 PCF MIN. DENSITY)

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:	LS18 STEEL DOOR
	LOUVERED DOOR PANEL DETAILS

NO.	DATE	REVISIONS
5	7/05/23	UPDATE TO 8TH ED. (2023) FBC
4	9/08/20	UPDATE TO 7TH ED. (2020) FBC
3	11/5/19	ADJUST ANCHOR SPACING
2	7/13/17	UPDATE TO 6TH ED. (2017) FBC
1	12/15/15	REVISED ANCHORING

DATE:	10/29/15
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-19036.2
SHEET	3 OF 10

Technical drawing of a double door assembly. The drawing shows two doors, each with a large 'X' on its upper half and horizontal louvers on its lower half. The doors are separated by a central vertical frame. Dimensions and callouts are as follows:

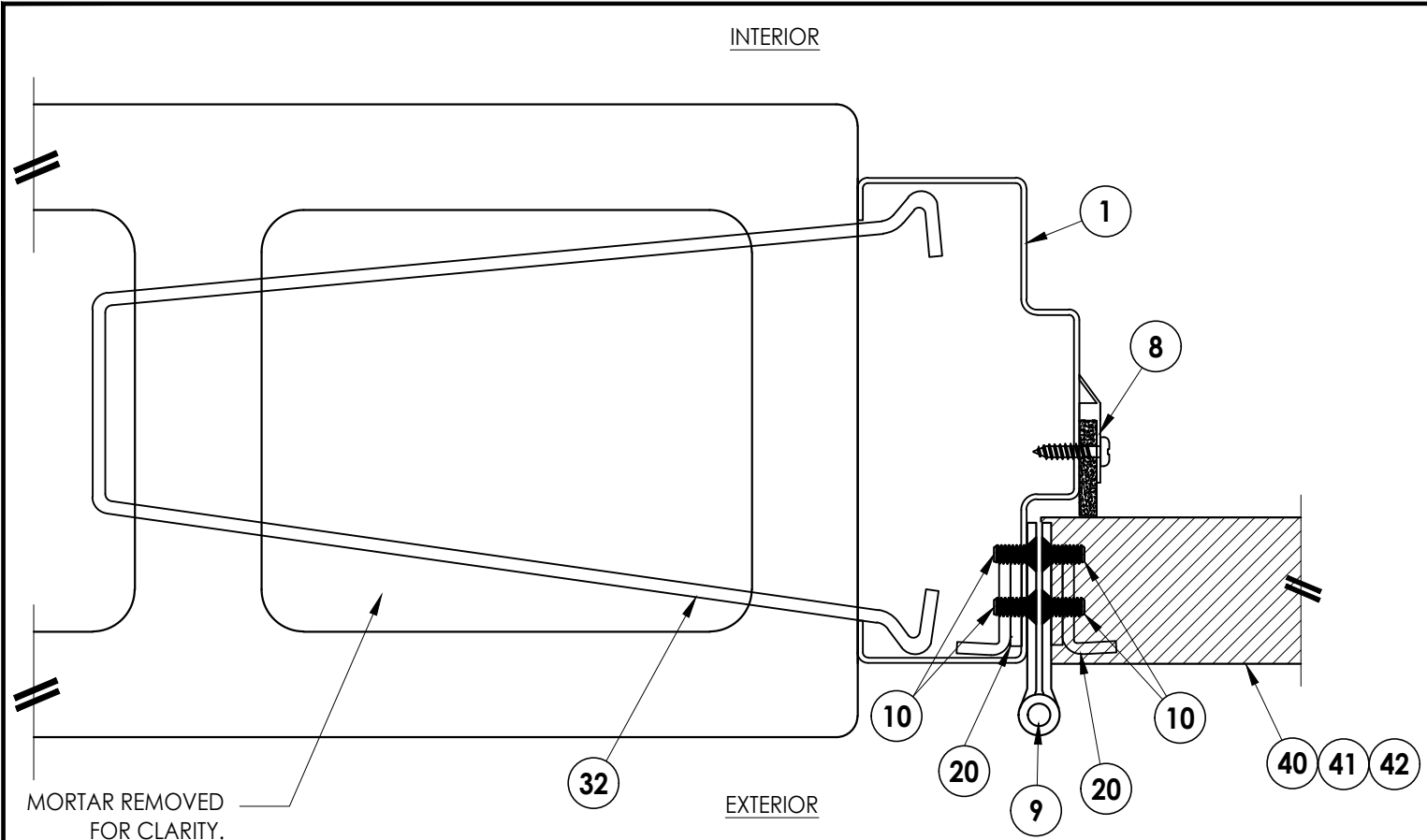
- Top center callout: 1/6
- Left side callout (top): 1/5
- Left side callout (bottom): 3/5
- Center callout (right of left door): 6/6
- Right side callout (bottom): 3/6
- Vertical dimension between horizontal lines: 7.75"
- Vertical dimension between horizontal lines: 39.5"

FLUSH BOLTS: PDQ SERIES 93170

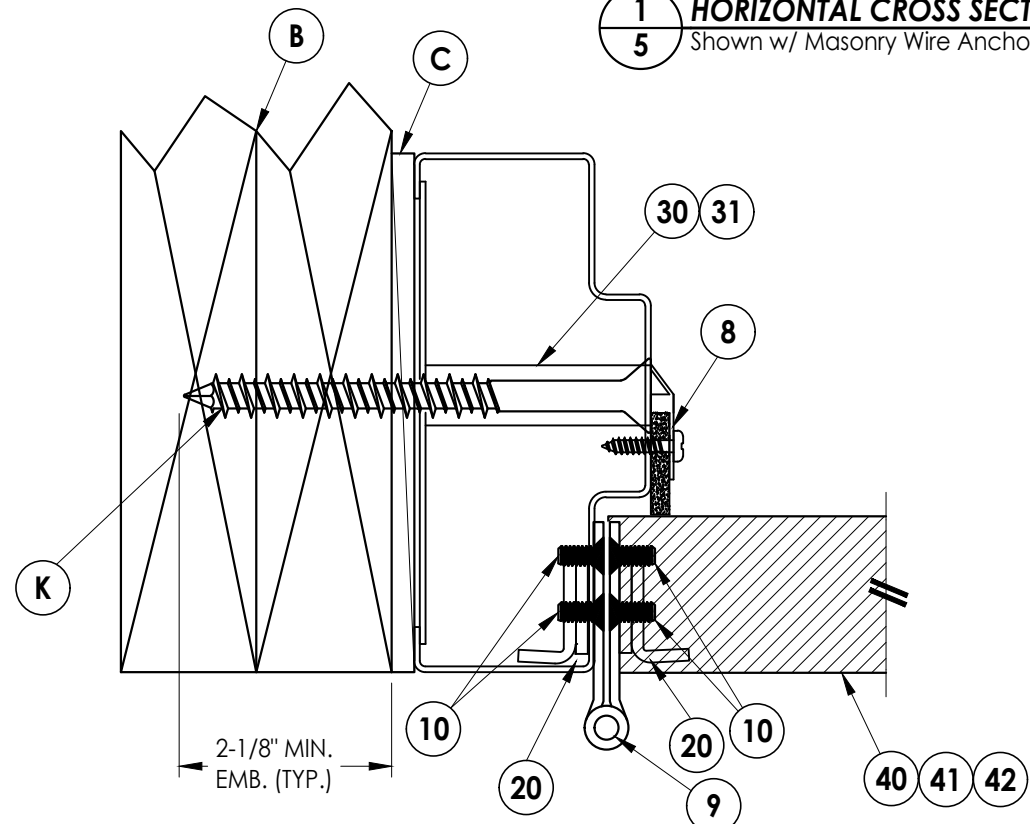
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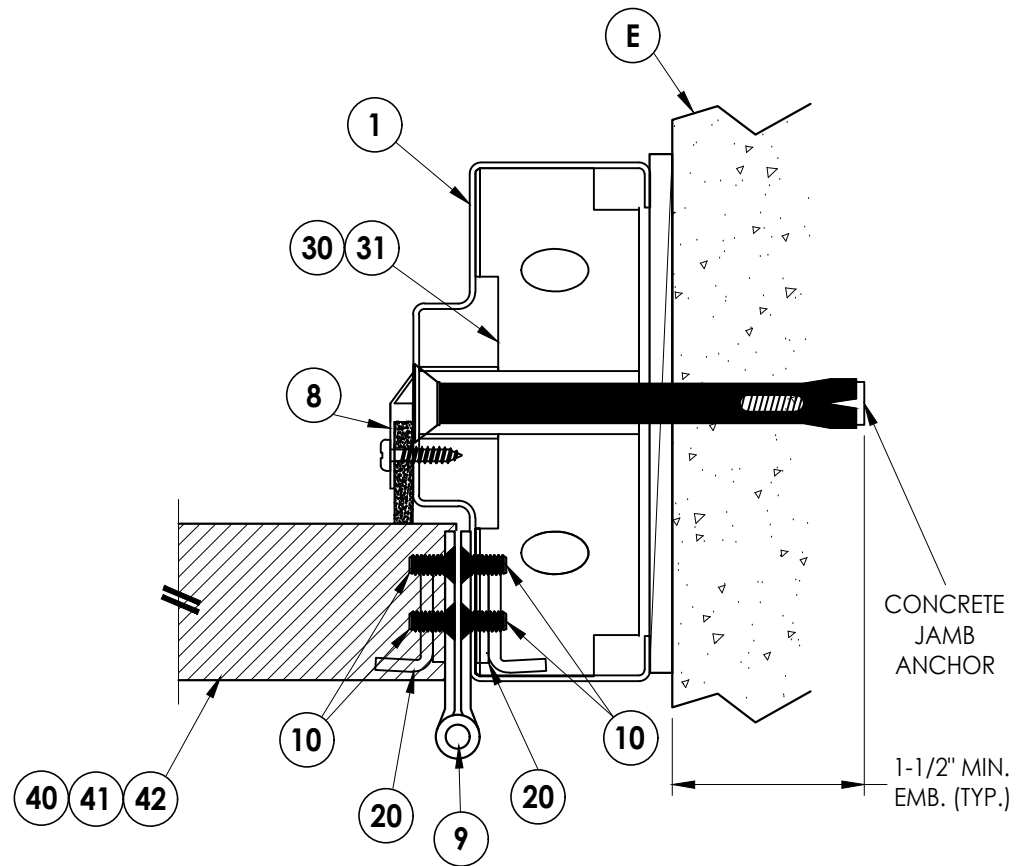
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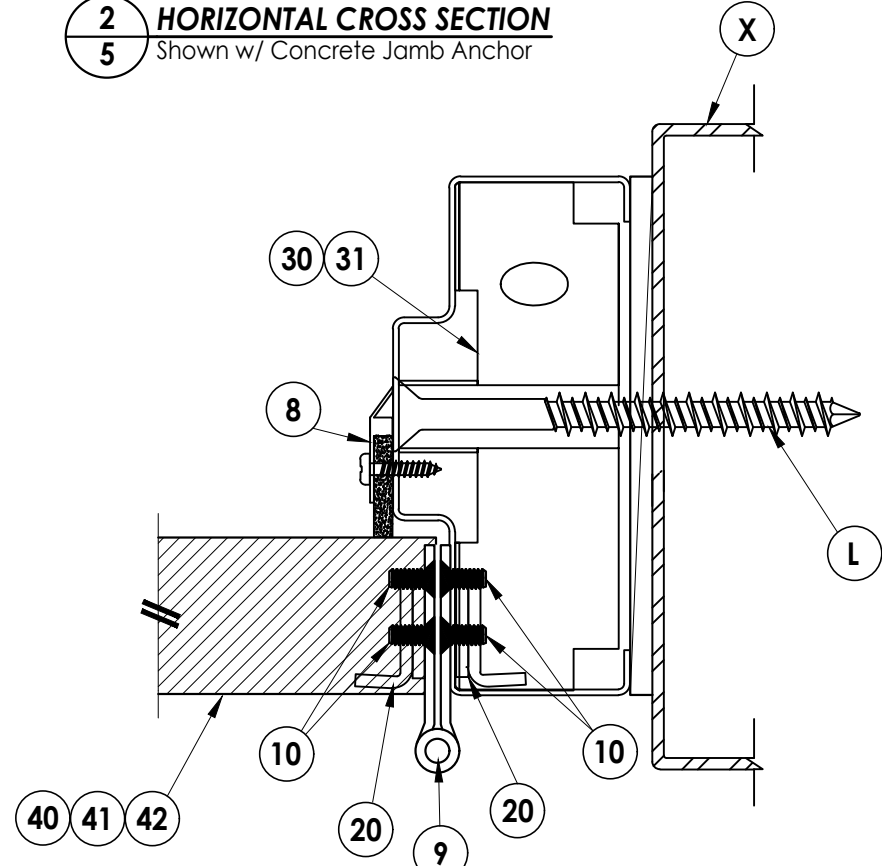
1
5 **HORIZONTAL CROSS SECTION**
Shown w/ Masonry Wire Anchor



3
5 **HORIZONTAL CROSS SECTION**
Shown w/ Wood Stud Anchor



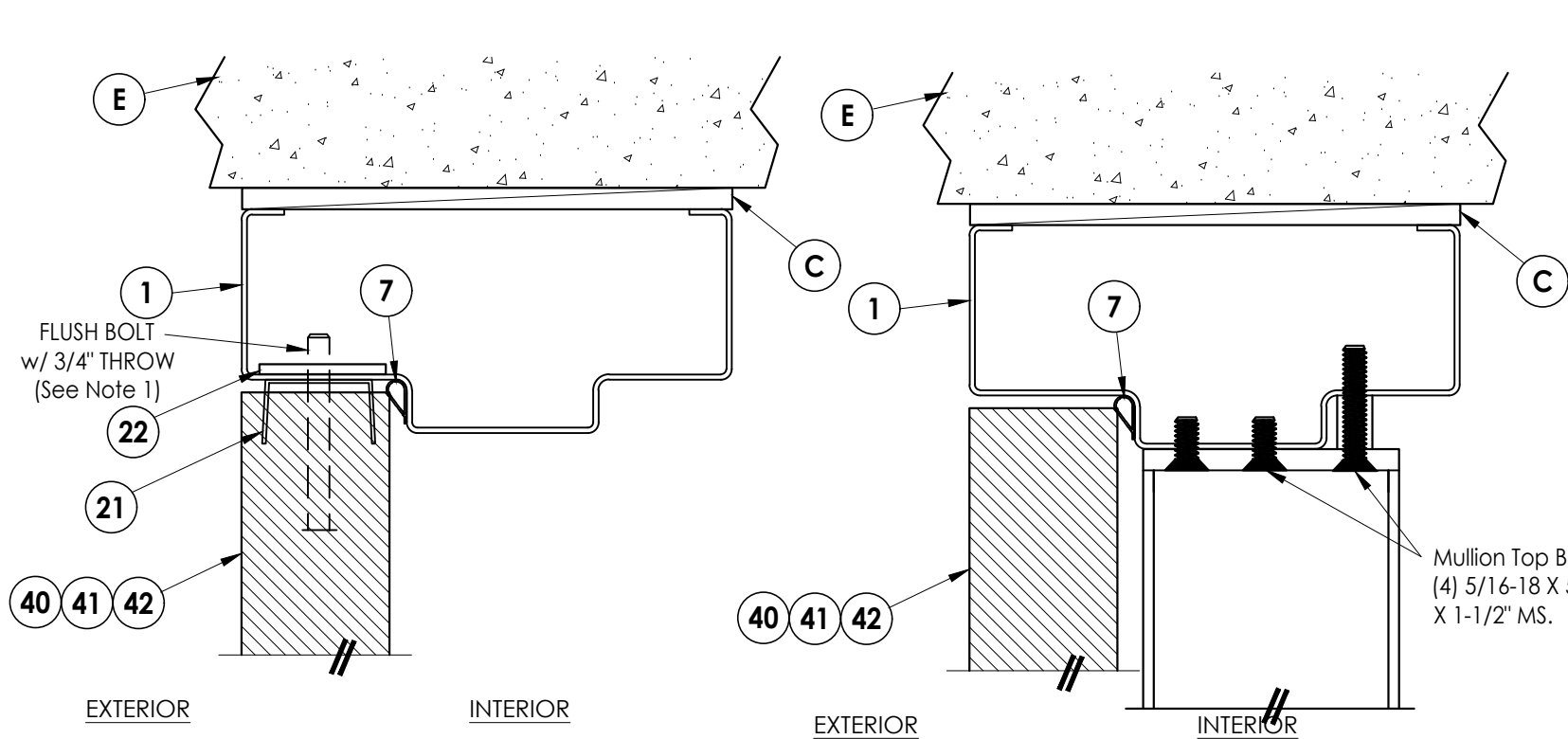
2
5 **HORIZONTAL CROSS SECTION**
Shown w/ Concrete Jamb Anchor



4
5 **HORIZONTAL CROSS SECTION**
Shown w/ Steel Stud Anchor

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: LS18 STEEL DOOR			PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS		
		UPDATE TO 8TH ED. (2023) FBC	LFS		
5	7/05/23	UPDATE TO 7TH ED. (2020) FBC	LFS		
4	9/08/20	ADJUST ANCHOR SPACING	LFS		
3	11/5/19	UPDATE TO 6TH ED. (2017) FBC	LFS		
2	7/13/17	REVISED ANCHORING	LFS		
1	12/15/15		BY		
NO.	DATE	REVISIONS			
DATE: 10/29/15					
SCALE: N.T.S.					
DWG. BY: JK					
CHK. BY: LFS					
DRAWING NO.: FL-19036.2					
SHEET 5 OF 10					

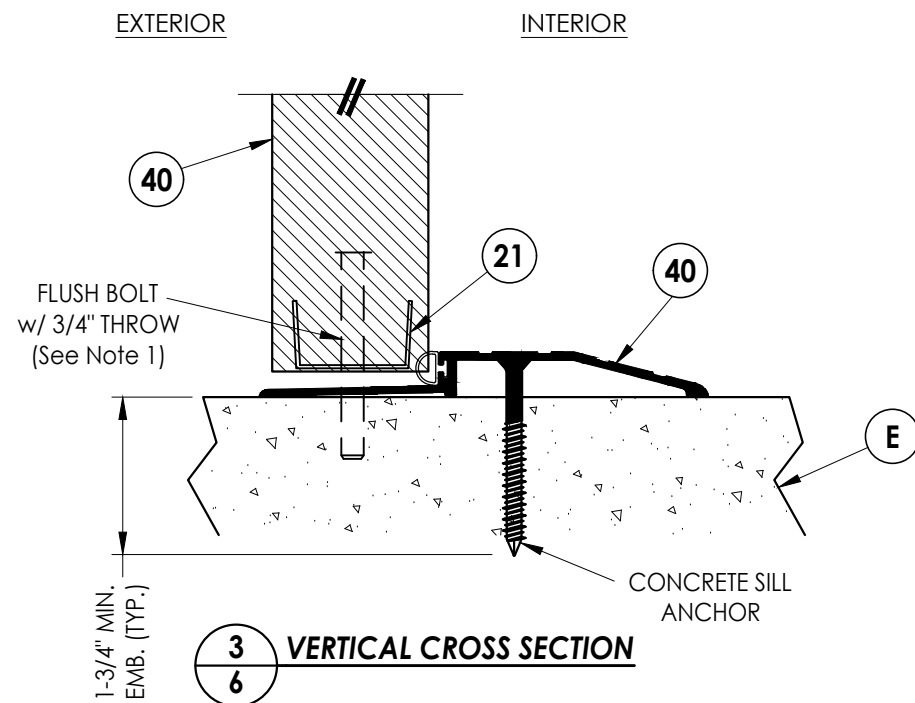
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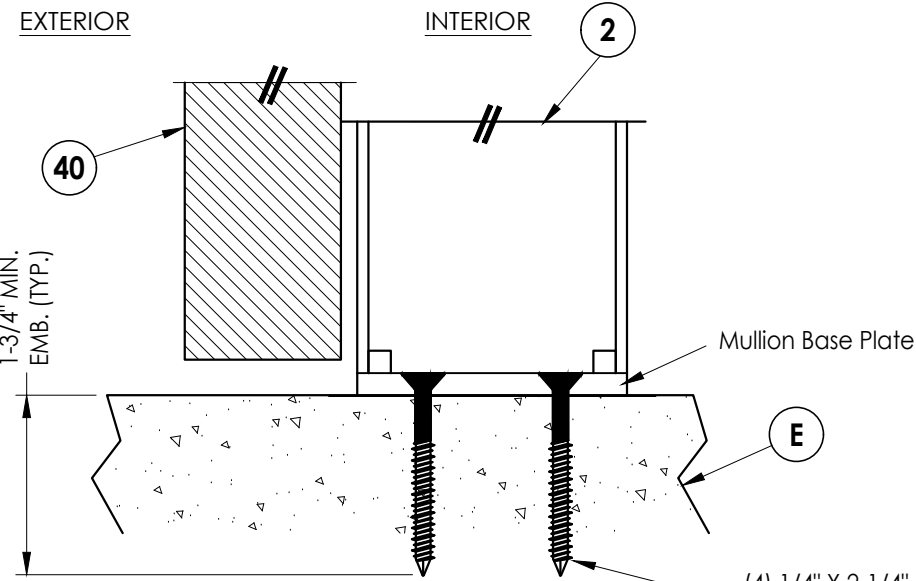
1
6 VERTICAL CROSS SECTION

2
6 VERTICAL CROSS SECTION

Note 1:
Flush Bolt required w/ Cylindrical Lock & Deadbolt only.



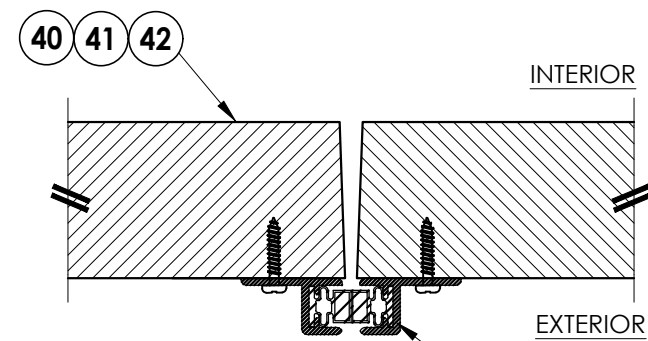
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6 VERTICAL CROSS SECTION



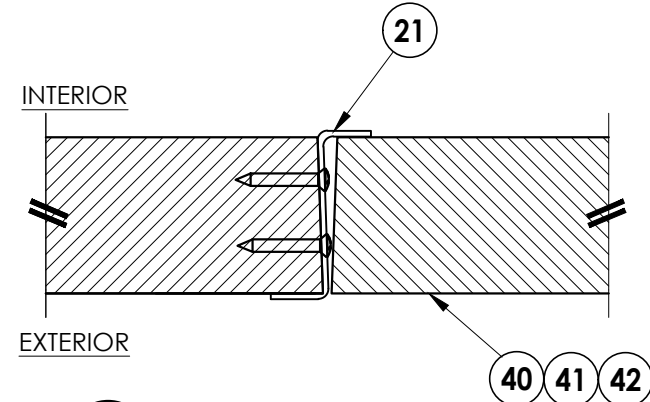
4
6 VERTICAL CROSS SECTION
@ Mullion Base

(NOTE: Outswing threshold not shown for clarity)

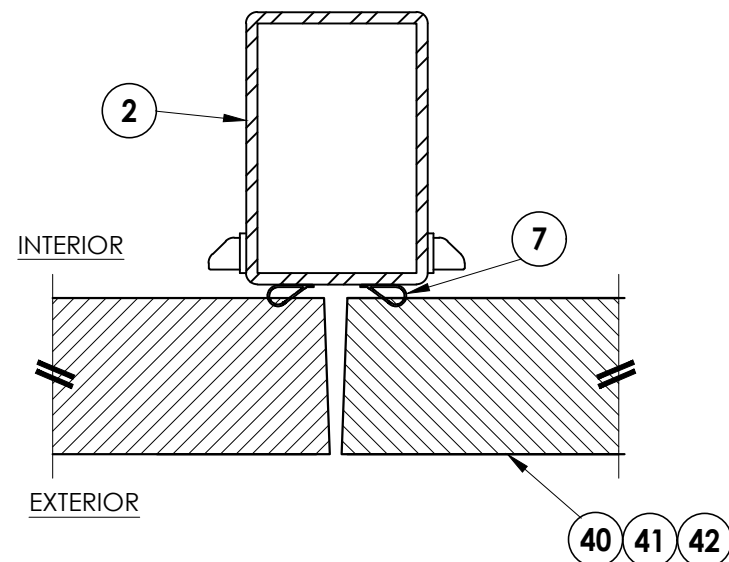
(4) 1/4" X 2-1/4" DeWALT ULTRACON+ Concrete Anchors through mullion base plate. Anchors require a 1-3/4" min. embedment, 1-1/2" min. o.c. spacing and 2-1/2" min. edge distance.



5
6 HORIZONTAL CROSS SECTION



6
6 HORIZONTAL CROSS SECTION



7
6 HORIZONTAL CROSS SECTION

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:	LS18 STEEL DOOR
PART OR ASSEMBLY:	HORIZONTAL & VERTICAL CROSS SECTIONS

NO.	DATE	BY	REVISIONS
5	7/05/23	LFS	UPDATE TO 8TH ED. (2023) FBC
4	9/08/20	LFS	UPDATE TO 7TH ED. (2020) FBC
3	11/5/19	LFS	ADJUST ANCHOR SPACING
2	7/13/17	LFS	UPDATE TO 6TH ED. (2017) FBC
1	12/15/15	LFS	REVISED ANCHORING

DATE: 10/29/15

SCALE: N.T.S.

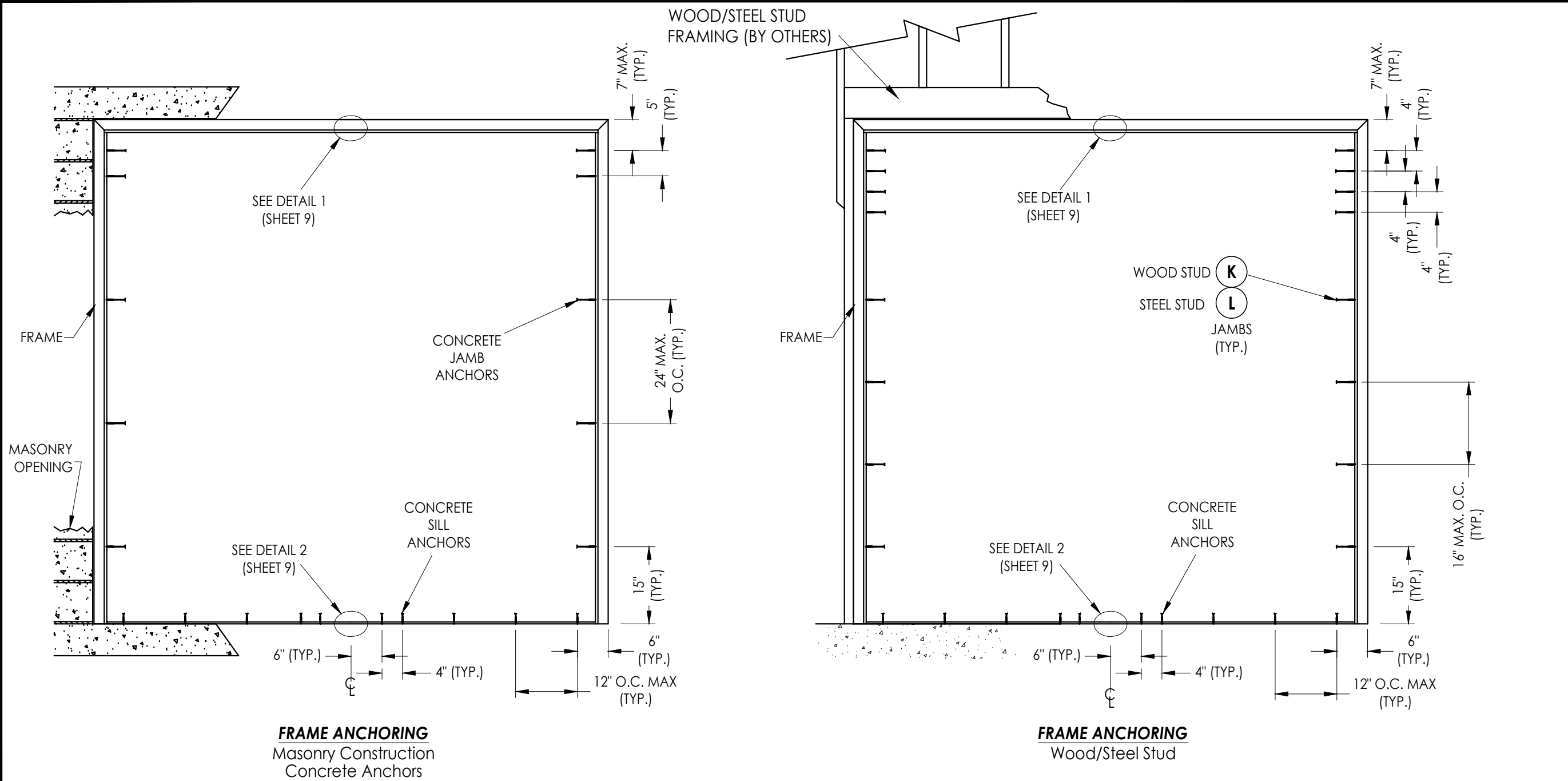
DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: FL-19036.2

SHEET 6 OF 10

Z:\2023 FBC Drawings\Vision Hollow Metal\FL-19036 R9\FL-19036.1-2.dwg



CONCRETE ANCHOR NOTES:

- Concrete screw locations at the corners may be adjusted to maintain a minimum 1" edge distance to mortar joints. If concrete screw locations noted as "MAX. O.C." must be adjusted to maintain the minimum edge distance to mortar joints, additional concrete screws may be required to ensure the maximum on center dimension is not exceeded.
- Concrete anchor table:

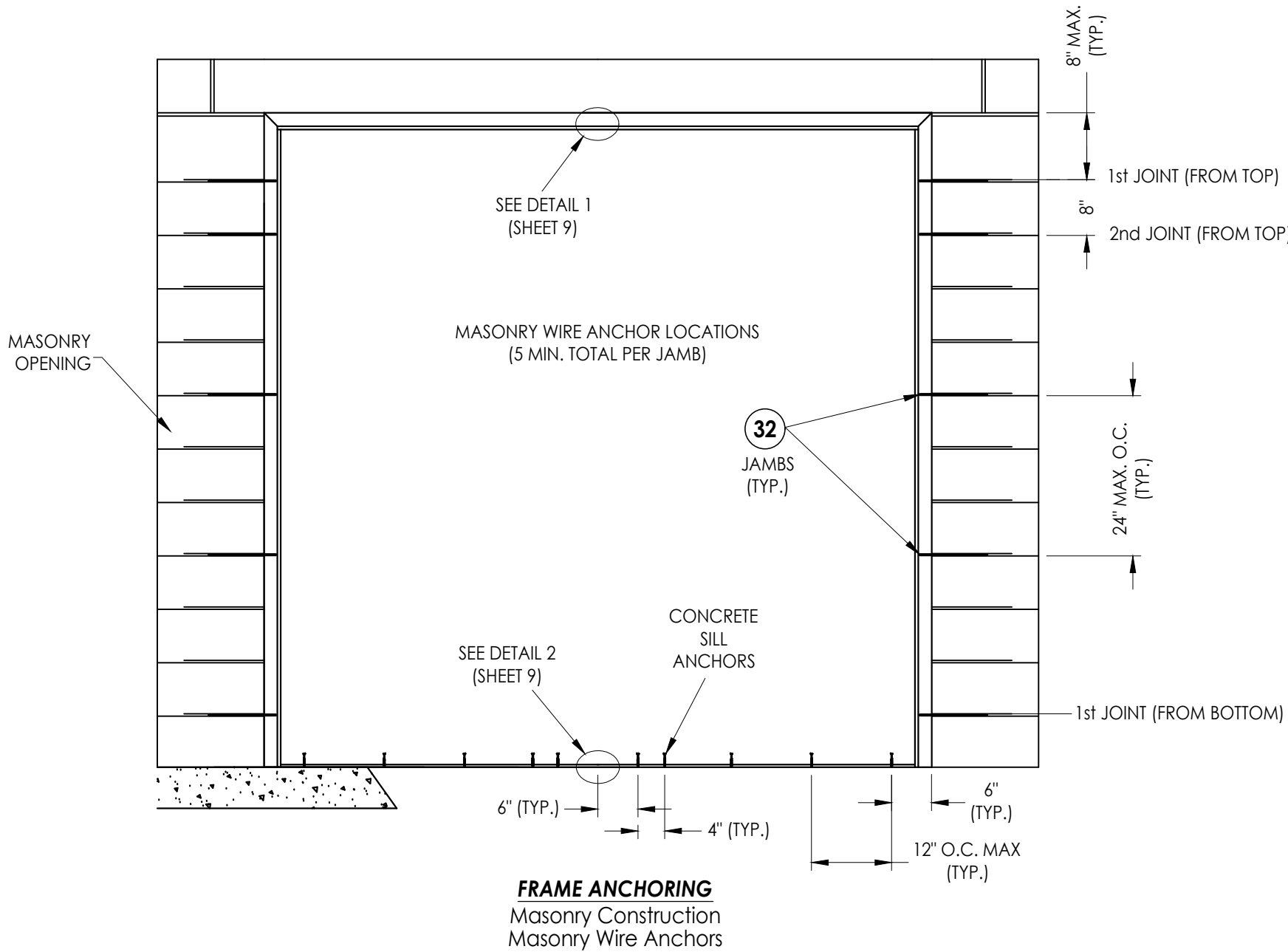
ANCHOR TYPE	ANCHOR LOCATION	ANCHOR SIZE	MANUFACTURER	MIN. EDGE DISTANCE	MIN. EMBEDMENT
CONCRETE ANCHOR SCREW	JAMBS	3/8"	LDT TAPCON® (ITW BUILDEX)	3"	1-1/2"
	SILL	1/4"	TAPCON® (ITW BUILDEX) ULTRACON+® (DeWALT) TAPPER+® (POWERS)	2-1/2"	1-3/4"
CONCRETE SLEEVE ANCHOR	JAMBS	3/8"	DYNABOLT SLEEVE ANCHOR® (ITW REDHEAD)	2-1/4"	1-1/2"

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: LS18 STEEL DOOR		PART OR ASSEMBLY: FRAME ANCHORING	
5	7/05/23	UPDATE TO 8TH ED. (2023) FBC	LFS
4	9/08/20	UPDATE TO 7TH ED. (2020) FBC	LFS
3	11/5/19	ADJUST ANCHOR SPACING	LFS
2	7/13/17	UPDATE TO 6TH ED. (2017) FBC	LFS
1	12/15/15	REVISED ANCHORING	LFS
NO.	DATE		BY
REVISIONS			
DATE: 10/29/15			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-19036.2			
SHEET 7 OF 10			

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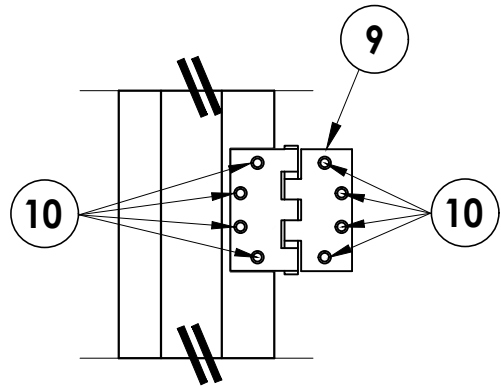
- CONCRETE ANCHOR NOTES:
- Concrete screw locations at the corners may be adjusted to maintain a minimum 1" edge distance to mortar joints. If concrete screw locations noted as "MAX. O.C." must be adjusted to maintain the minimum edge distance to mortar joints, additional concrete screws may be required to ensure the maximum on center dimension is not exceeded.
 - Concrete anchor table:

ANCHOR TYPE	ANCHOR LOCATION	ANCHOR SIZE	MANUFACTURER	MIN. EDGE DISTANCE	MIN. EMBEDMENT
CONCRETE ANCHOR SCREW	SILL	1/4"	TAPCON® (ITW BUILDEX) ULTRACON+® (DeWALT) TAPPER+® (POWERS)	2-1/2"	1-3/4"

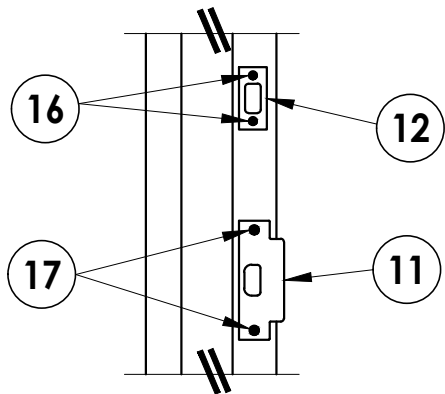


Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		PRODUCT: LS18 STEEL DOOR		PART OR ASSEMBLY: FRAME ANCHORING	
R ^g W BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813		LFS		LFS	
7/05/23		UPDATE TO 8TH ED. (2023) FBC		LFS	
9/08/20		UPDATE TO 7TH ED. (2020) FBC		LFS	
11/5/19		ADJUST ANCHOR SPACING		LFS	
7/13/17		UPDATE TO 6TH ED. (2017) FBC		LFS	
12/15/15		REVISED ANCHORING		LFS	
NO. DATE		BY		BY	
10/29/15		10/29/15		10/29/15	
DATE:		SCALE:		N.T.S.	
DWG. BY:		CHK. BY:		LFS	
DRAWING NO.:		FL-19036.2		FL-19036.2	
SHEET 8 OF 10		SHEET 8 OF 10		SHEET 8 OF 10	

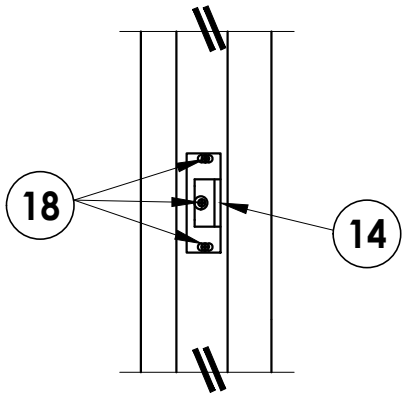
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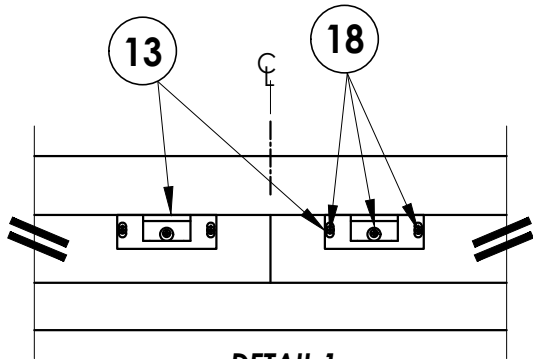
HINGE DETAIL



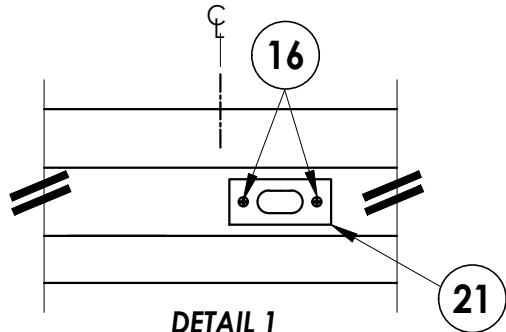
STRIKE DETAIL
Latch & Deadbolt



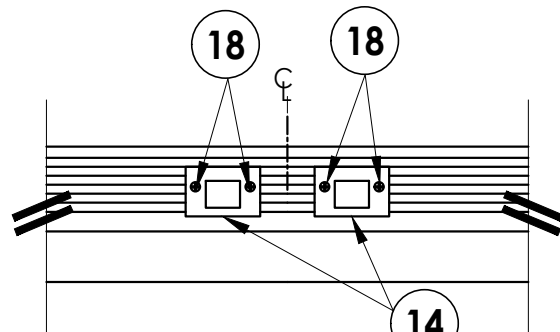
STRIKE DETAIL
Rim Exit Device



DETAIL 1
Vertical rod latch strike plate
@ head



DETAIL 1
Flush Bolt Strike Plate @ Head
(Inactive Door Panel)



DETAIL 2
Vertical rod latch strike plate
@ sill

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

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

PRODUCT:

LS18 STEEL DOOR

PART OR ASSEMBLY:

HARDWARE DETAILS

NO.	DATE	REVISIONS
5	7/05/23	UPDATE TO 8TH ED. (2023) FBC
4	9/08/20	UPDATE TO 7TH ED. (2020) FBC
3	11/5/19	ADJUST ANCHOR SPACING
2	7/13/17	UPDATE TO 6TH ED. (2017) FBC
1	12/15/15	REVISED ANCHORING
NO.	DATE	BY

DATE: 10/29/15

SCALE: N.T.S.

DWG. BY: JK

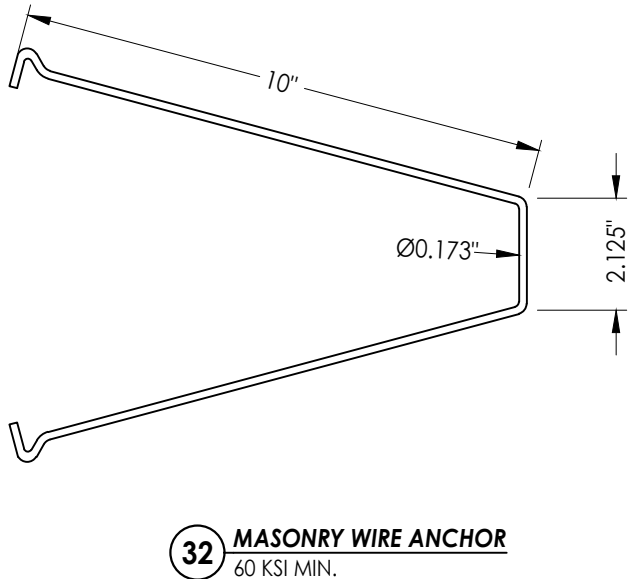
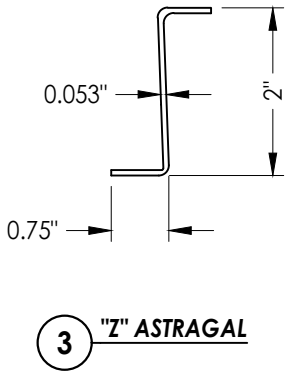
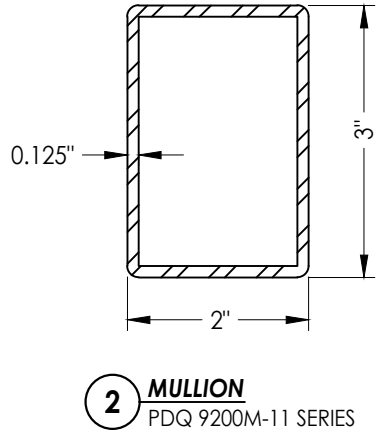
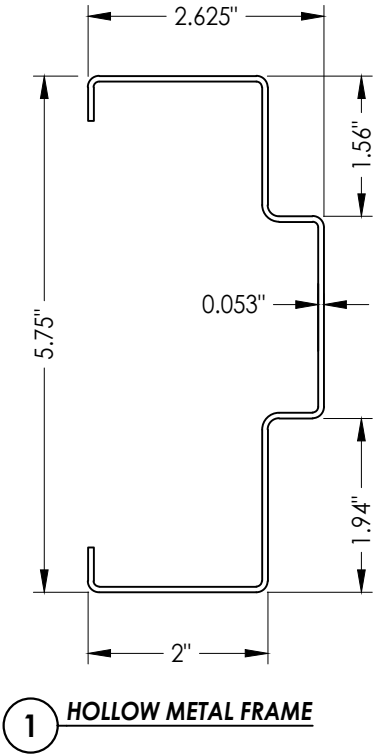
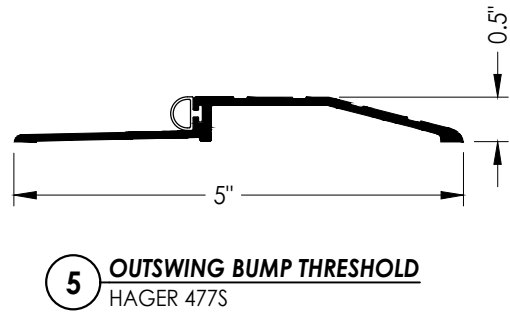
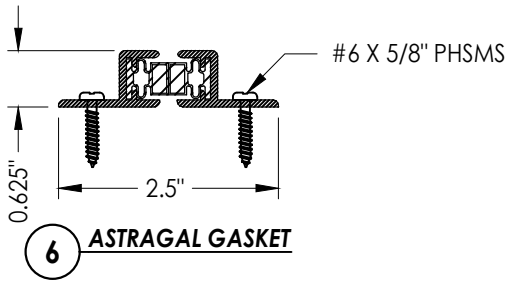
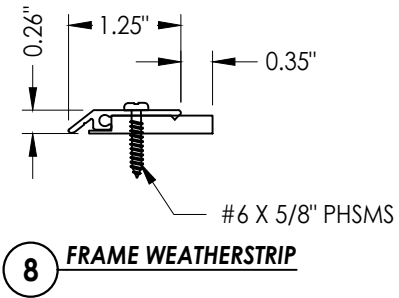
CHK. BY: LFS

DRAWING NO.:
FL-19036.2

SHEET 9 OF 10

Z:\2023 FBC Drawings\Vision Hollow Metal\FL-19036 R9\FL-19036.1-2.dwg

BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2X STUD FRAMING (G>= 0.55)	WOOD
C	1/4" MAX. SHIM SPACE	-
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK (GROUT FILLED) CONFORMING TO ASTM C90	CONCRETE
H	1/4" X 1-3/4" PFH CONCRETE SCREW (SEE CONCRETE ANCHOR TABLE)	STEEL
J	3/8" X 5" PFH DYNABOLT SLEEVE ANCHOR (SEE CONCRETE ANCHOR TABLE)	STEEL
K	3/8" X 5" FH LAG SCREW (2-1/8" MIN. EMBEDMENT)	STEEL
L	3/8" Ø SMS (MUST PENETRATE MIN. 3 THREADS THROUGH STEEL STUD)	STEEL
M	3/8" X 5" LDT TAPCON CONCRETE SCREW (SEE CONCRETE ANCHOR TABLE)	STEEL
X	STEEL STUD (0.125" MIN. THK, Fu = 50 ksi, Fy = 33 ksi)	STEEL
1	HOLLOW METAL FRAME	-
2	REMOVABLE MULLION (PDQ 9200M-11 SERIES)	STEEL
3	"Z" ASTRAGAL	STEEL
4	ASTRAGAL (INTERIOR PEMKO #352CR)	STEEL
5	OUTSWING BUMP THRESHOLD	ALUM
6	ASTRAGAL GASKET (HAGER 849S)	-
7	WEATHERSTRIP (HAGER 736 PRESS-ON)	-
8	FRAME WEATHERSTRIP	-
9	HINGE 4.5" X 4.5"	STEEL
10	#12-24 x 1/2" FH MACHINE SCREW	STEEL
11	LATCH STRIKE PLATE	STEEL
12	DEADBOLT STRIKE PLATE	STEEL
13	VERTICAL ROD STRIKE PLATE	STEEL
14	RIM EXIT DEVICE STRIKE	STEEL
16	#8 x 3/4" FH SCREWS	STEEL
17	#12 x 13/16" FH SCREWS	STEEL
18	#12 x 1-1/8" PH SMS	STEEL
20	HINGE REINFORCEMENT (10 GA.)	STEEL
21	FLUSH BOLT GUIDE (0.050" THK.)	STEEL
22	FLUSH BOLT FRAME REINFORCMENT (16 GA)	STEEL
30	EMA PIPE ANCHOR (18 GA)	STEEL
31	EMA BUTTERFLY ANCHOR (18 GA)	STEEL
32	MASONRY WIRE ANCHOR	STEEL
40	GLAZED STEEL DOOR PANEL (8'-0" DOOR)	STEEL
41	GLAZED STEEL DOOR PANEL (7'-0" DOOR)	STEEL
42	LOUVERED STEEL DOOR PANEL (8'-0" DOOR)	STEEL



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:		LS18 STEEL DOOR	
PART OR ASSEMBLY:		BILL OF MATERIALS & COMPONENTS	
			LFS
			LFS
			LFS
			LFS
			LFS
			BY
		REVISIONS	
DATE:	10/29/15		
SCALE:	N.T.S.		
DWG. BY:	JK		
CHK. BY:	LFS		
DRAWING NO.:	FL-19036.2		
SHEET	10	OF	10