

Vision Hollow Metal Limited

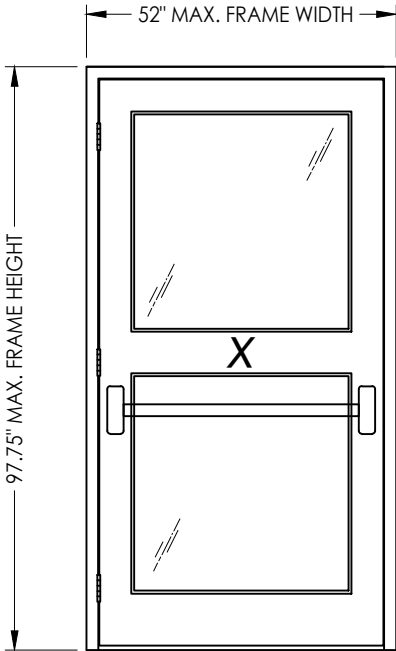
400 Zenway Blvd. Unit #1
Woodbridge, ON L4H OS7

LS18 STEEL SINGLE DOOR
OUTSWING
"IMPACT"

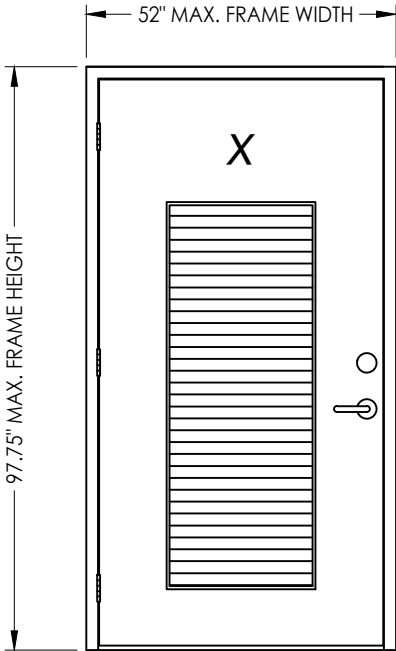
GENERAL NOTES

- 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.

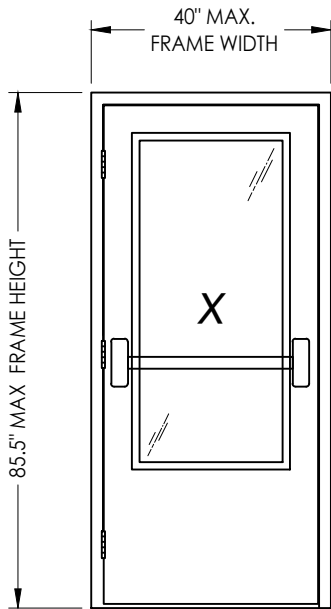
TABLE OF CONTENTS	
SHEET#	DESCRIPTION
1	Typical elevation, design pressures & general notes
2	Glazed door panel details
3	Louvered door panel details
4	Elevations
5	Horizontal cross sections
6	Vertical cross sections
7	Frame anchoring
8	Frame anchoring
9	Bill of materials and components



PANIC BAR EXIT DEVICE

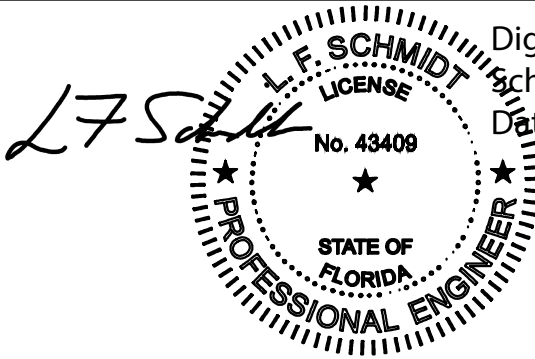


CYLINDRICAL LOCK & DEADBOLT



PANIC BAR EXIT DEVICE

MAX FRAME DIMENSION	LOCK TYPE OPTIONS	DESIGN PRESSURE (PSF) OUTSWING	
		POSITIVE	NEGATIVE
52" x 97.75"	CYLINDRICAL LOCK & DEADBOLT	+65.0	-65.0
40" x 85.5"	PANIC BAR EXIT DEVICE	+65.0	-65.0

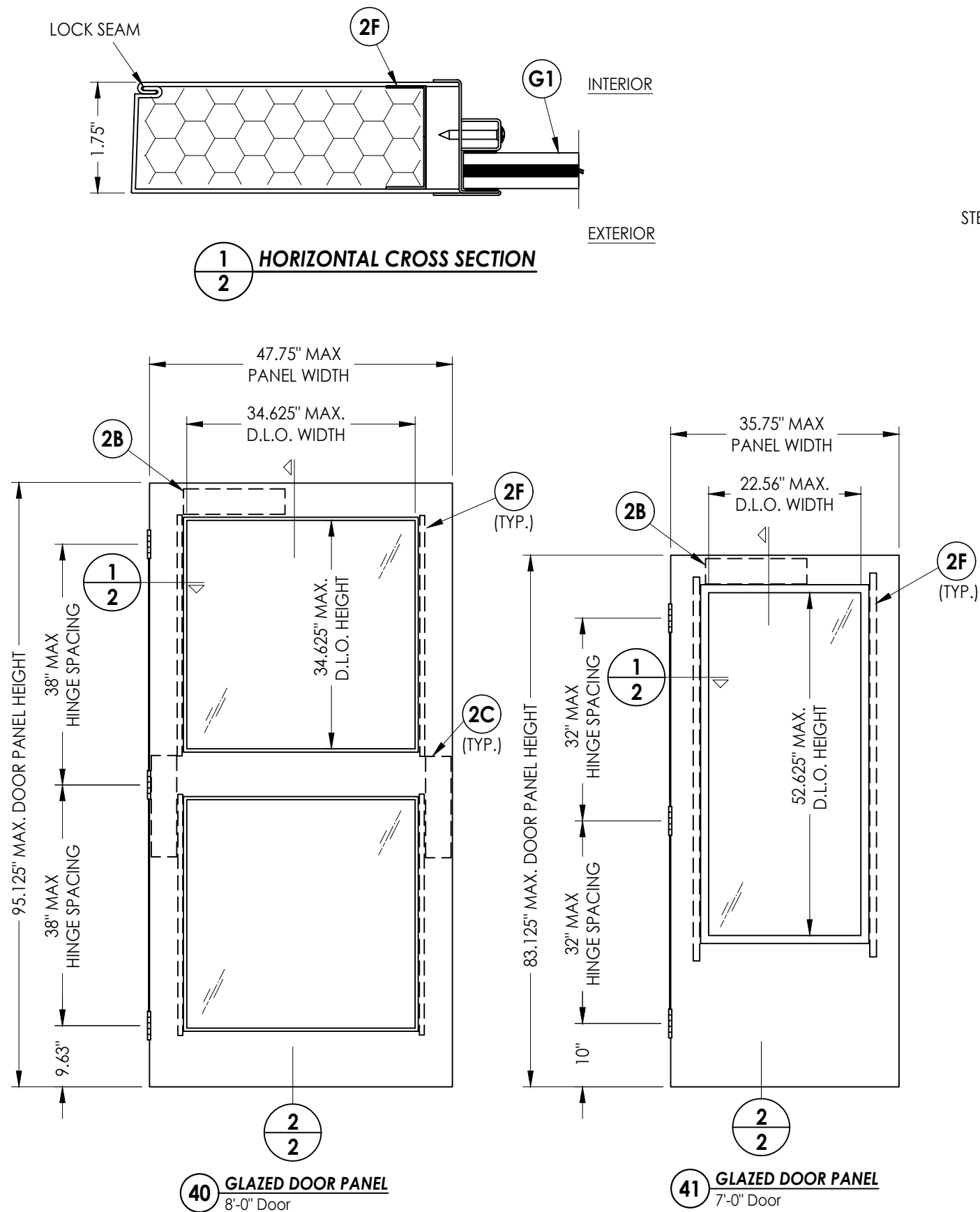


Digitally signed by Lyndon F Schmidt
Date: 2023.07.05 15:57:17 -04'00'

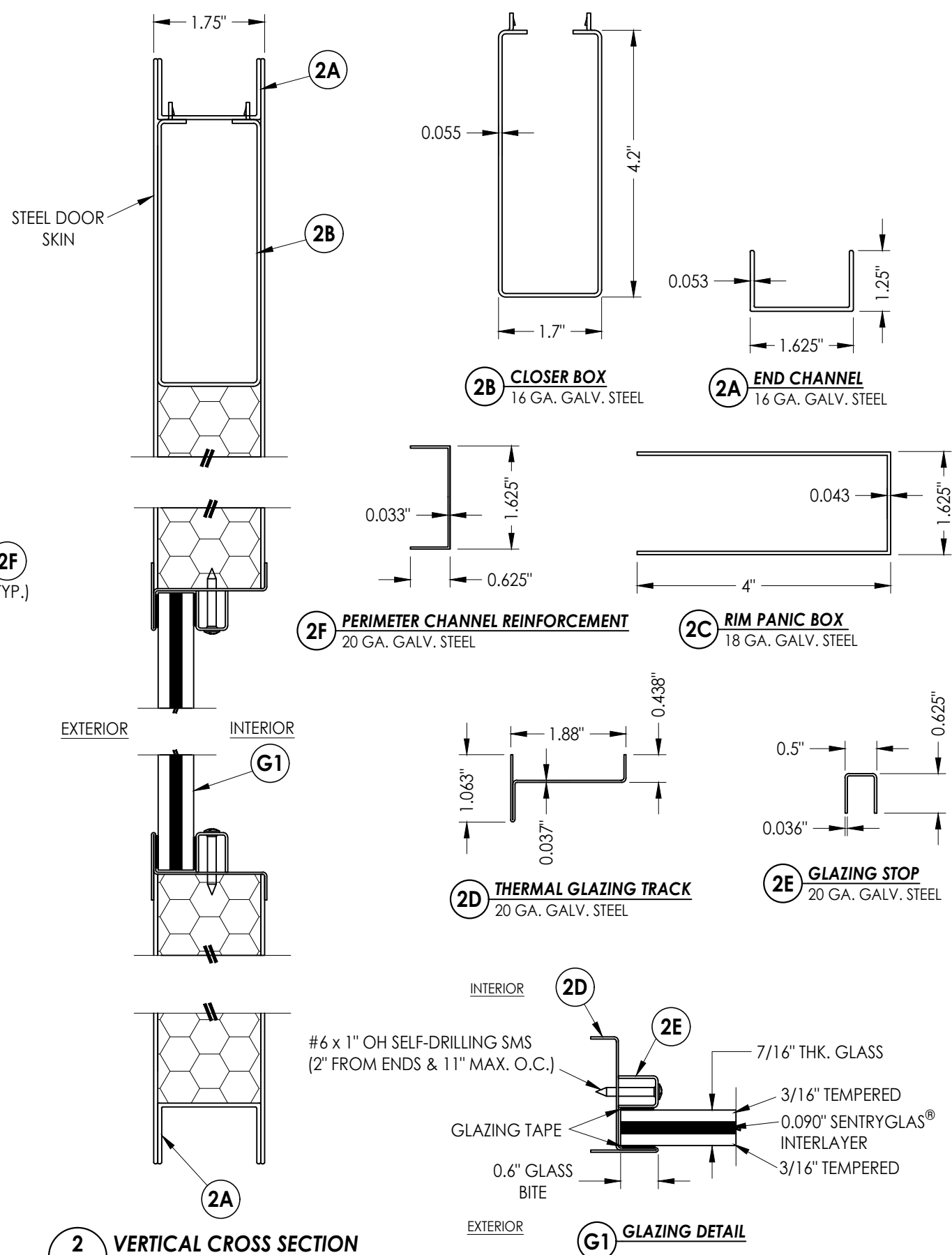
This item has been digitally signed and sealed by L. F. Schmidt, P.E. on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

THIS PRODUCT APPROVAL IS VALID
ONLY FOR THE STATE OF FLORIDA

PRODUCT:		LS18 STEEL DOOR		PART OR ASSEMBLY:		TYPICAL ELEVATIONS, DESIGN PRESSURES & GENERAL NOTES	
	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-19036.1							
SHEET 1 OF 9							



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)

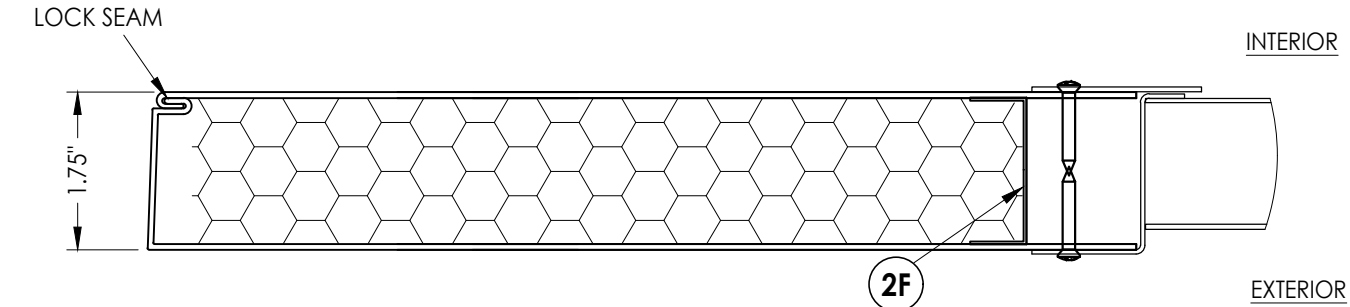


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	4	9/08/20	UPDATE TO 7TH ED. (2020)	FBC	LFS
	3	11/5/19	ADJUST ANCHOR SPACING		LFS
	2	7/13/17	UPDATE TO 6TH ED. (2017)	FBC	LFS
	1	12/15/15	REVISED ANCHORING		LFS
	NO.	DATE			BY
					REVISIONS
DATE: 10/29/15					
SCALE: N.T.S.					
DWG. BY: JK					
CHK. BY: LFS					
DRAWING NO.: FL-19036.1					
SHEET 2 OF 9					

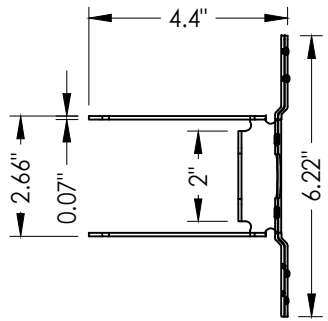
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

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

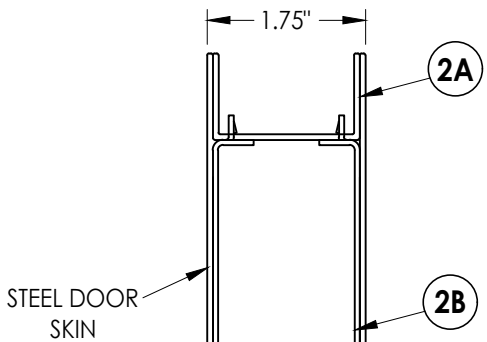
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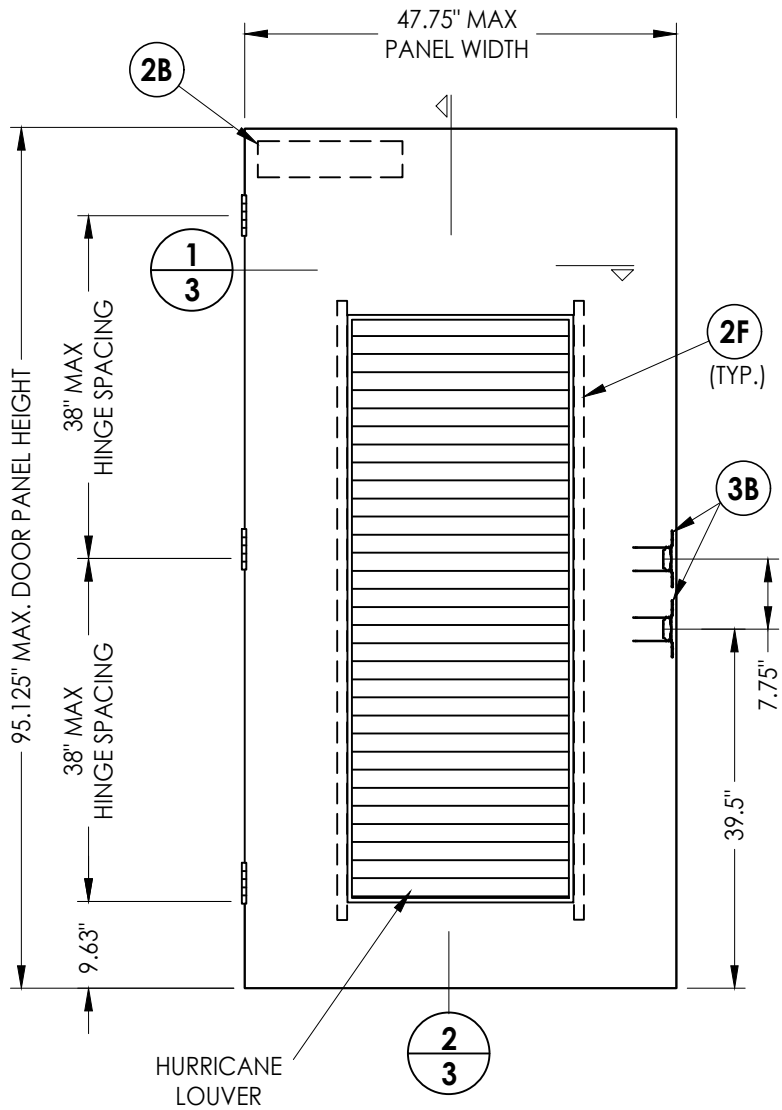
1
3 HORIZONTAL CROSS SECTION



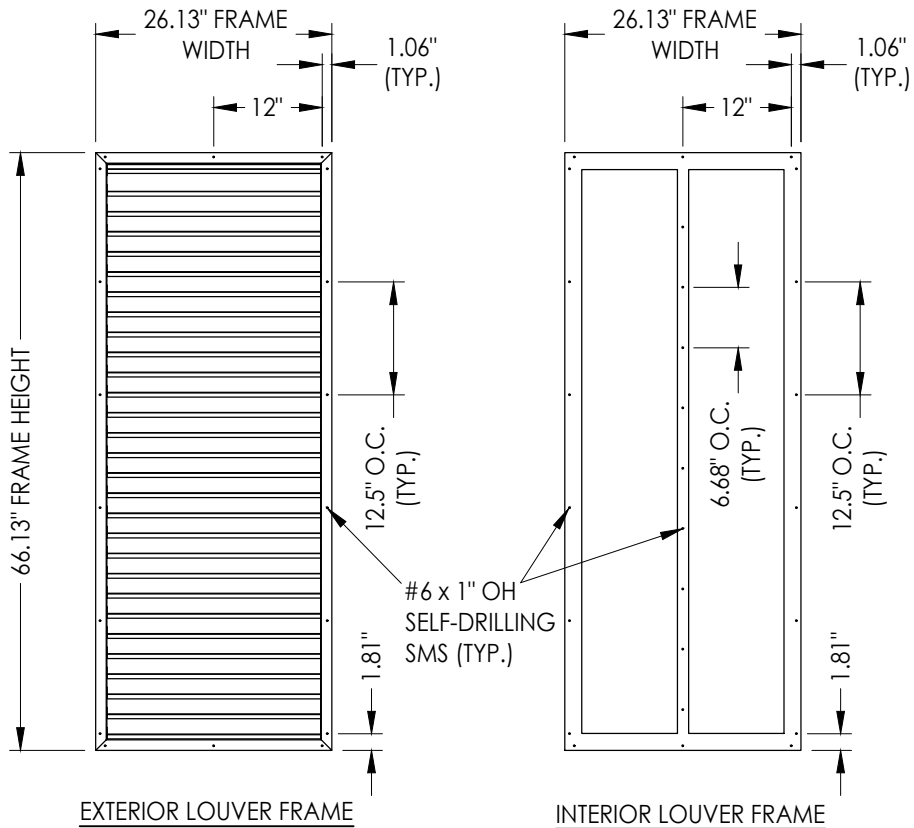
3B CYLINDRICAL LOCK REINFORCEMENT
18 GA. GALV. STEEL



EXTERIOR INTERIOR

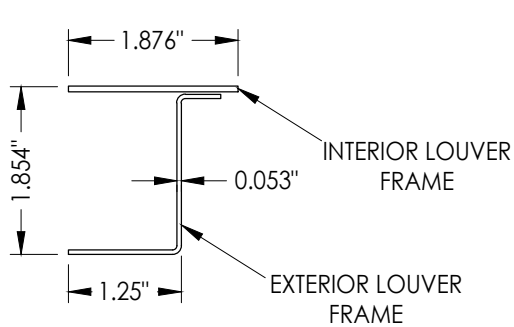


42 LOUVERED DOOR PANEL
8'-0" Door

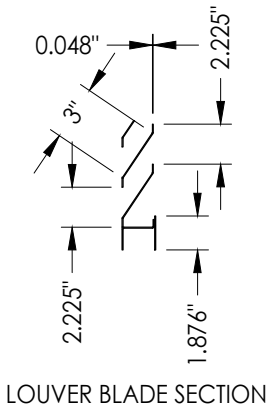


EXTERIOR LOUVER FRAME

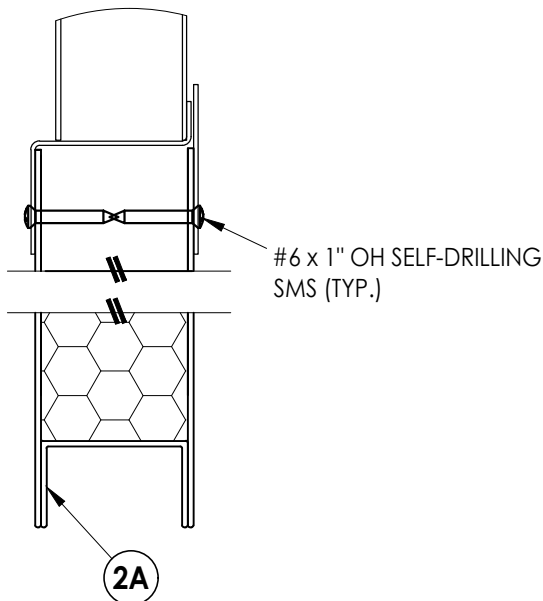
INTERIOR LOUVER FRAME



3A HURRICANE LOUVER
18 GA. GALV. STEEL



LOUVER BLADE SECTION



2
3 VERTICAL CROSS SECTION

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)

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PRODUCT:	LS18 STEEL DOOR
	PART OR ASSEMBLY: LOUVERED DOOR PANEL DETAILS

NO.	DATE	REVISIONS				
		LFS	FBC	FBC	FBC	BY
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

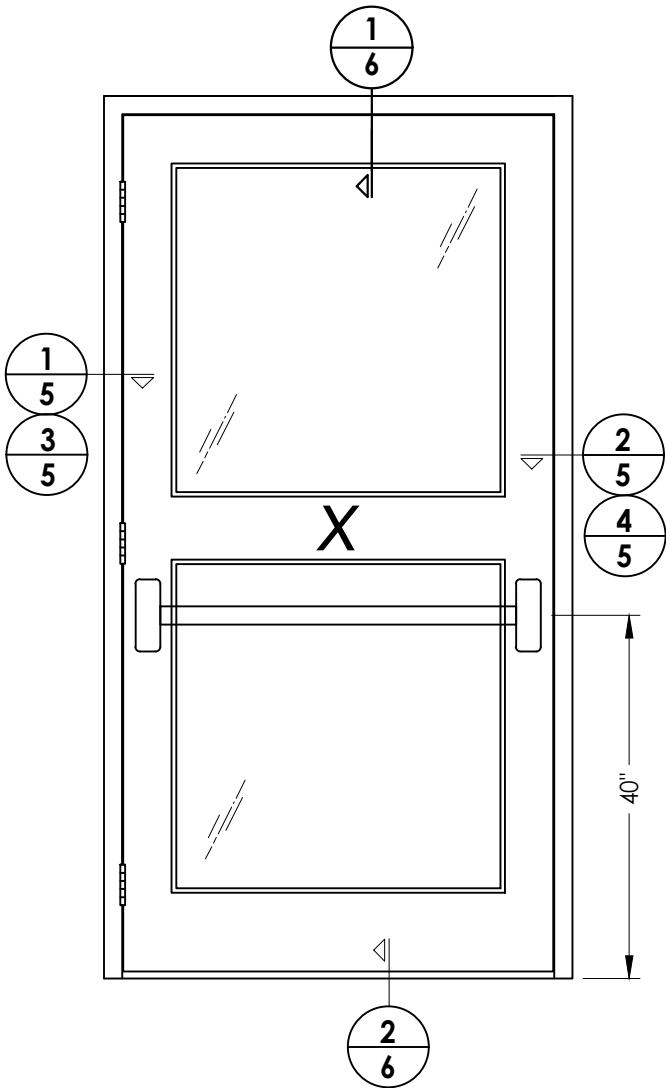
CHK. BY: LFS

DRAWING NO.:

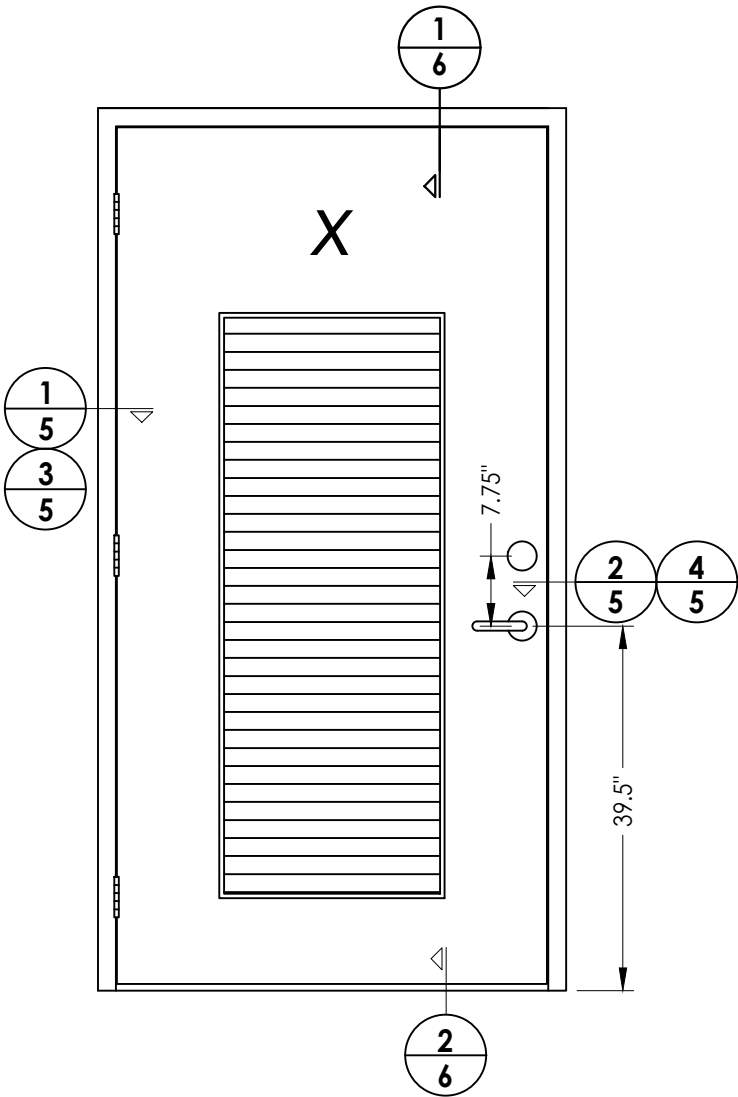
FL-19036.1

SHEET 3 OF 9

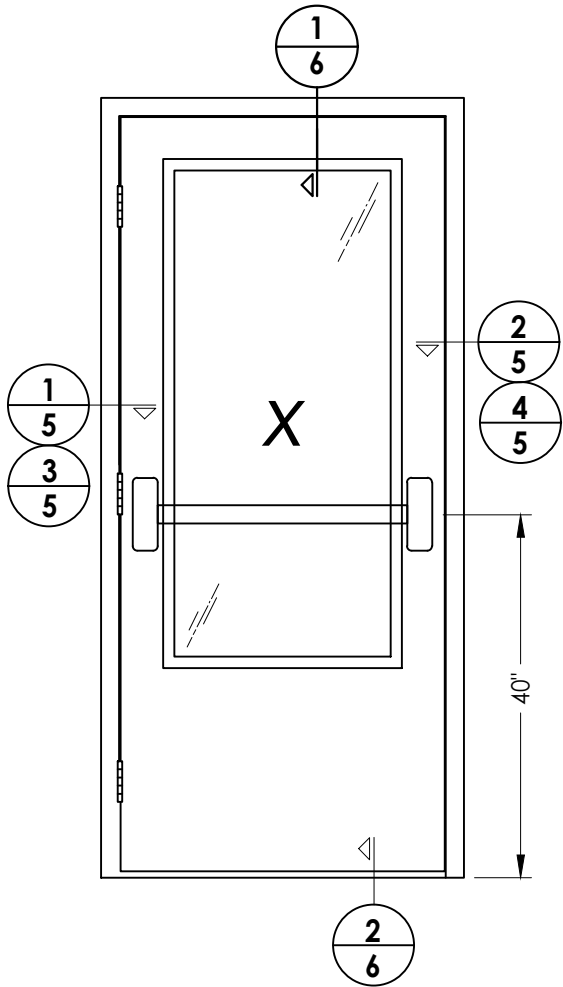
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LOCK HARDWARE
RIM EXIT DEVICE: PDQ 6200R SERIES



LOCK HARDWARE
CYLINDRICAL LOCK: PDQ: GP SERIES
CYLINDRICAL LOCK: SCHLAGE: AL53PD
DEADBOLT: SCHLAGE: B660P



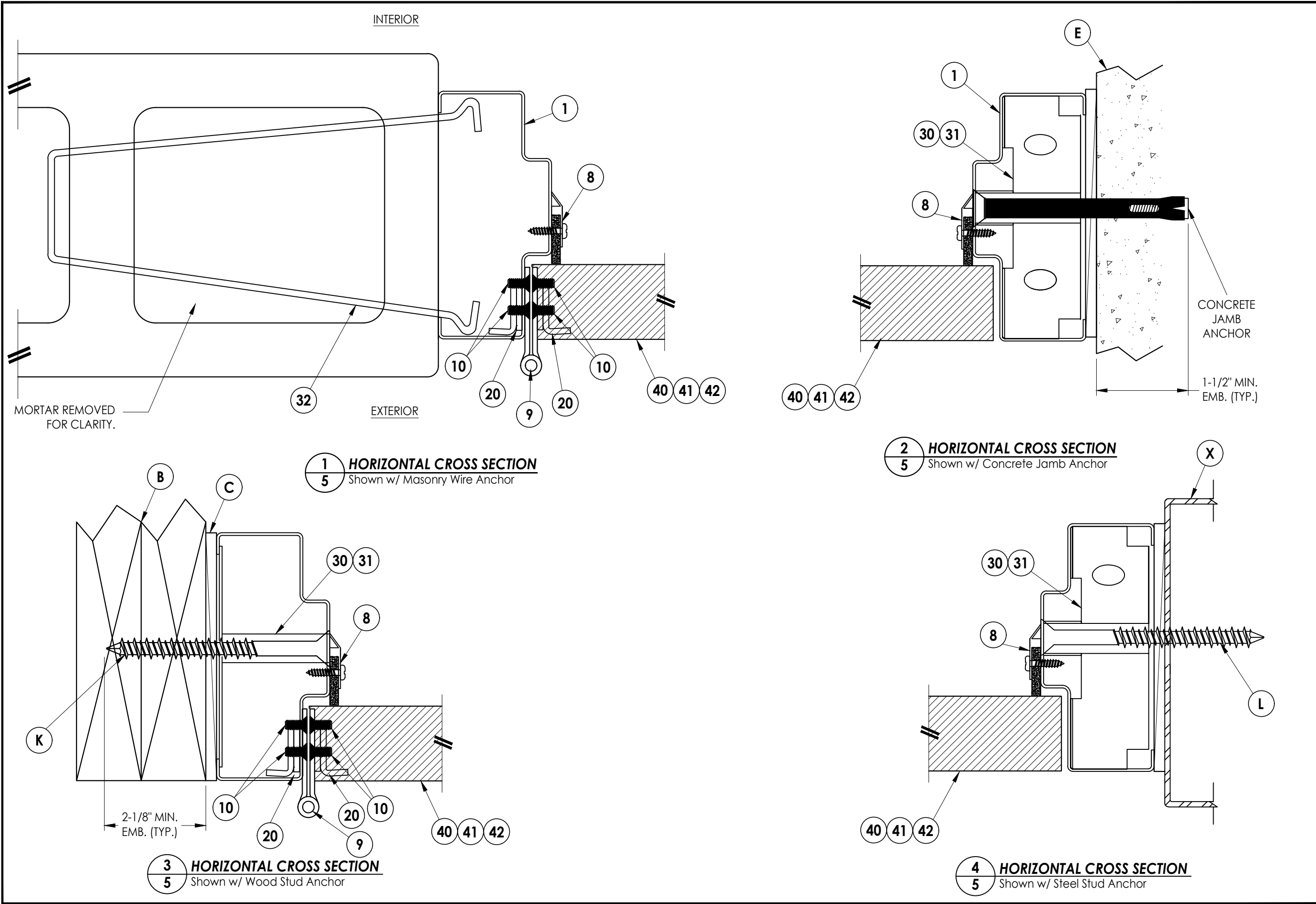
LOCK HARDWARE
RIM EXIT DEVICE: PDQ 6200R SERIES

DATE: 10/29/15		REVISIONS	
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-19036.1			
SHEET 4	OF 9		
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	LFS
2	7/13/17	UPDATE TO 6TH ED. (2017)	FBC
1	12/15/15	REVISED ANCHORING	LFS
NO.	DATE		BY

PRODUCT:	
LS18 STEEL DOOR	
PART OR ASSEMBLY:	
ELEVATIONS	

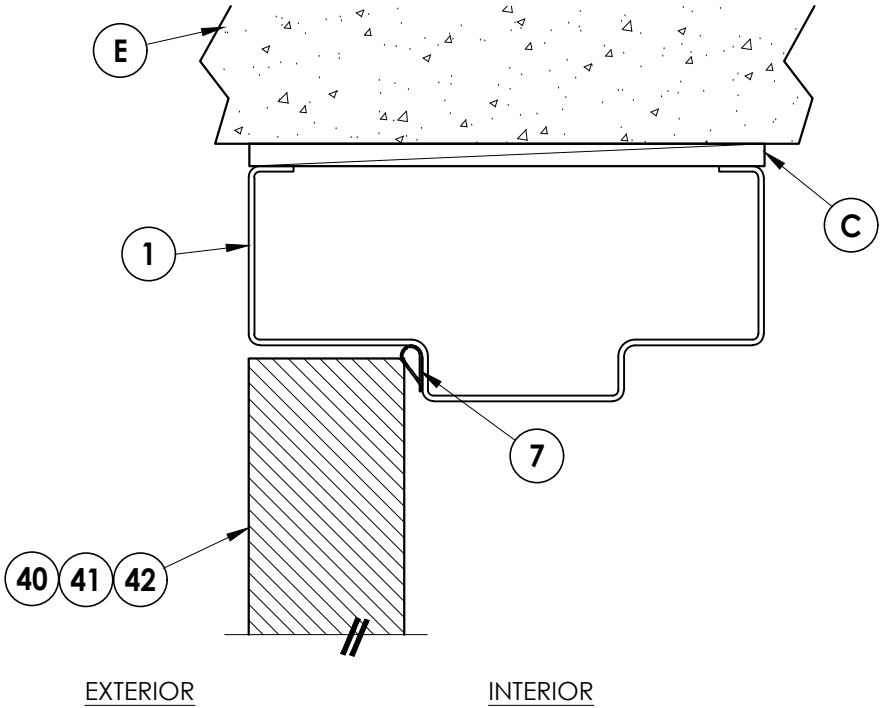
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P.E. No. 43409	
R.W. BUILDING CONSULTANTS, INC.	
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Phone No.: 813.659.9197	
FBPE Registry No. 9813	

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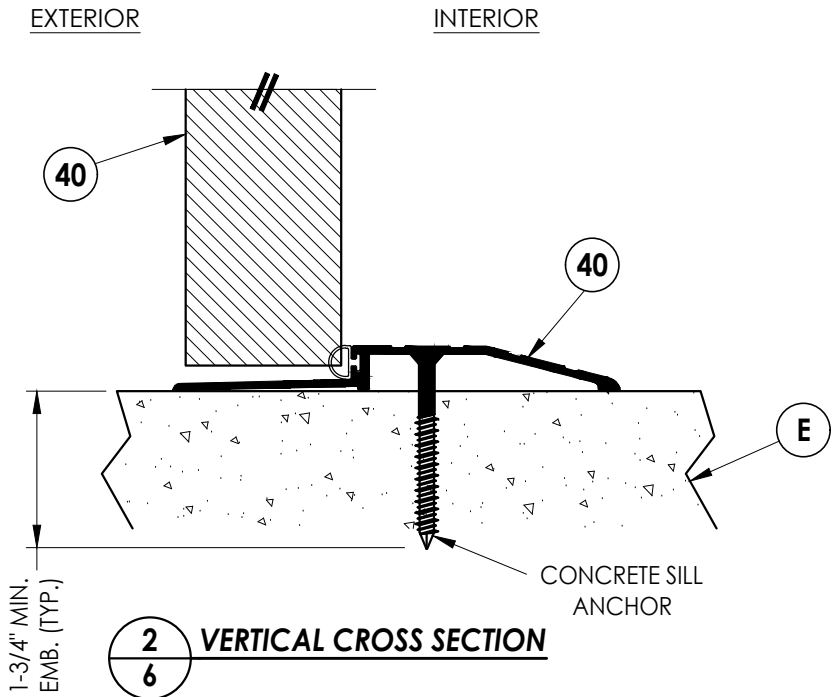


Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813	
PRODUCT: LS18 STEEL DOOR		PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	
5	7/05/23	UPDATE TO 8TH ED. (2023)	FBC
4	9/08/20	UPDATE TO 7TH ED. (2020)	FBC
3	11/5/19	ADJUST ANCHOR SPACING	LFS
2	7/13/17	UPDATE TO 6TH ED. (2017)	FBC
1	12/15/15	REVISED ANCHORING	LFS
NO.	DATE	REVISIONS	
DATE: 10/29/15			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-19036.1			
SHEET 5 OF 9			

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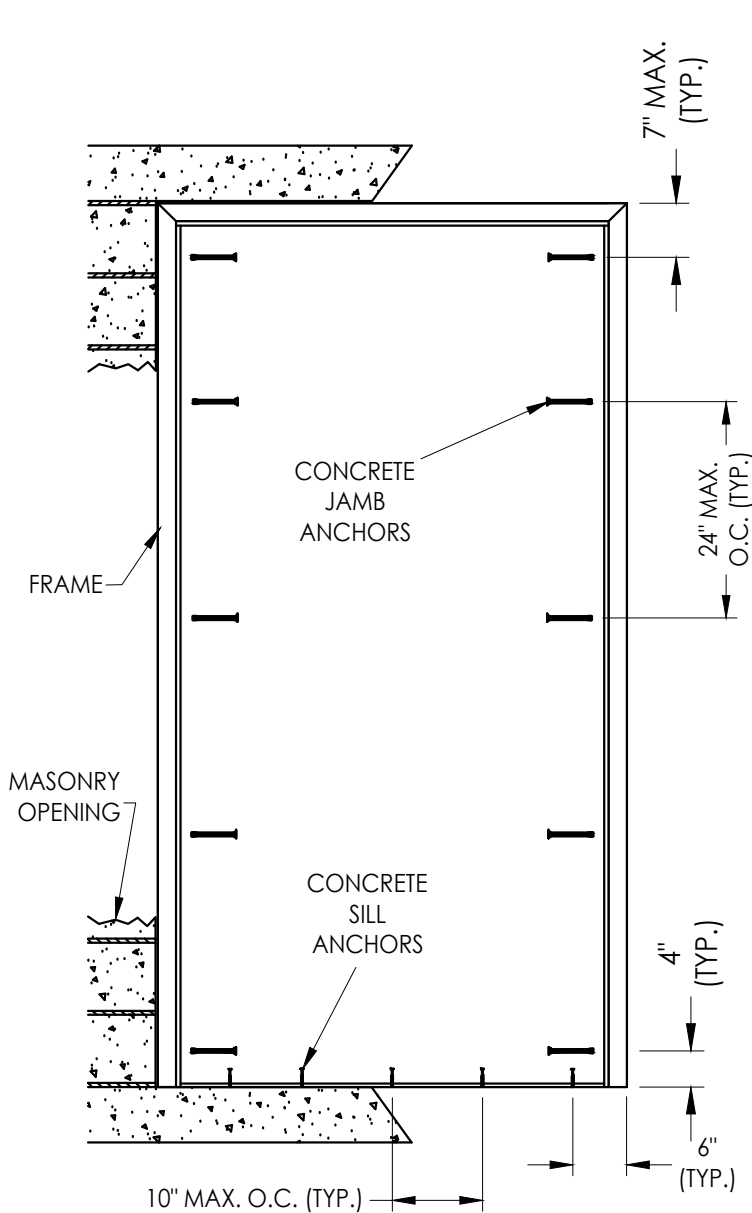


1
6 VERTICAL CROSS SECTION

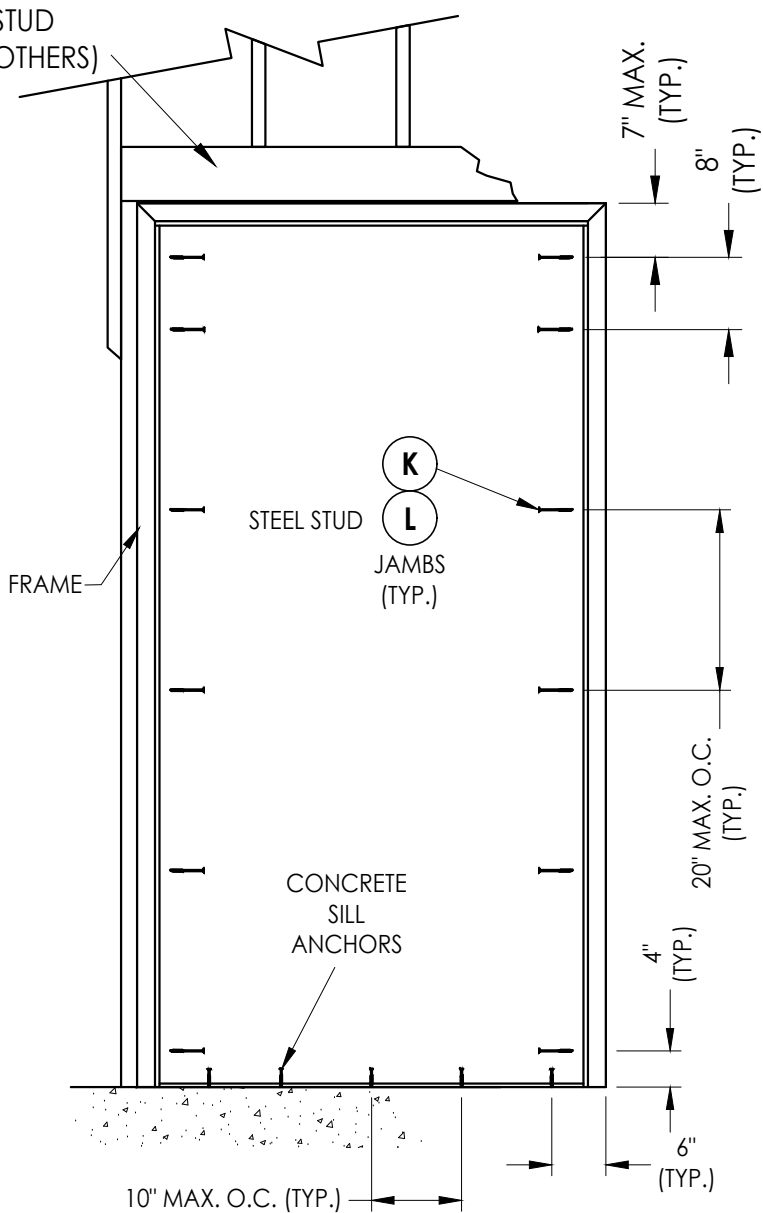


2
6 VERTICAL CROSS SECTION

PRODUCT:		Documents Prepared By:	
LS18 STEEL DOOR		Lyndon F. Schmidt	
PART OR ASSEMBLY:		P.E. No. 43409	
VERTICAL CROSS SECTIONS			



FRAME ANCHORING
Masonry Construction
Concrete Anchors



FRAME ANCHORING
Wood/Steel Stud

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"

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	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-19036.1					
SHEET 7 OF 9					

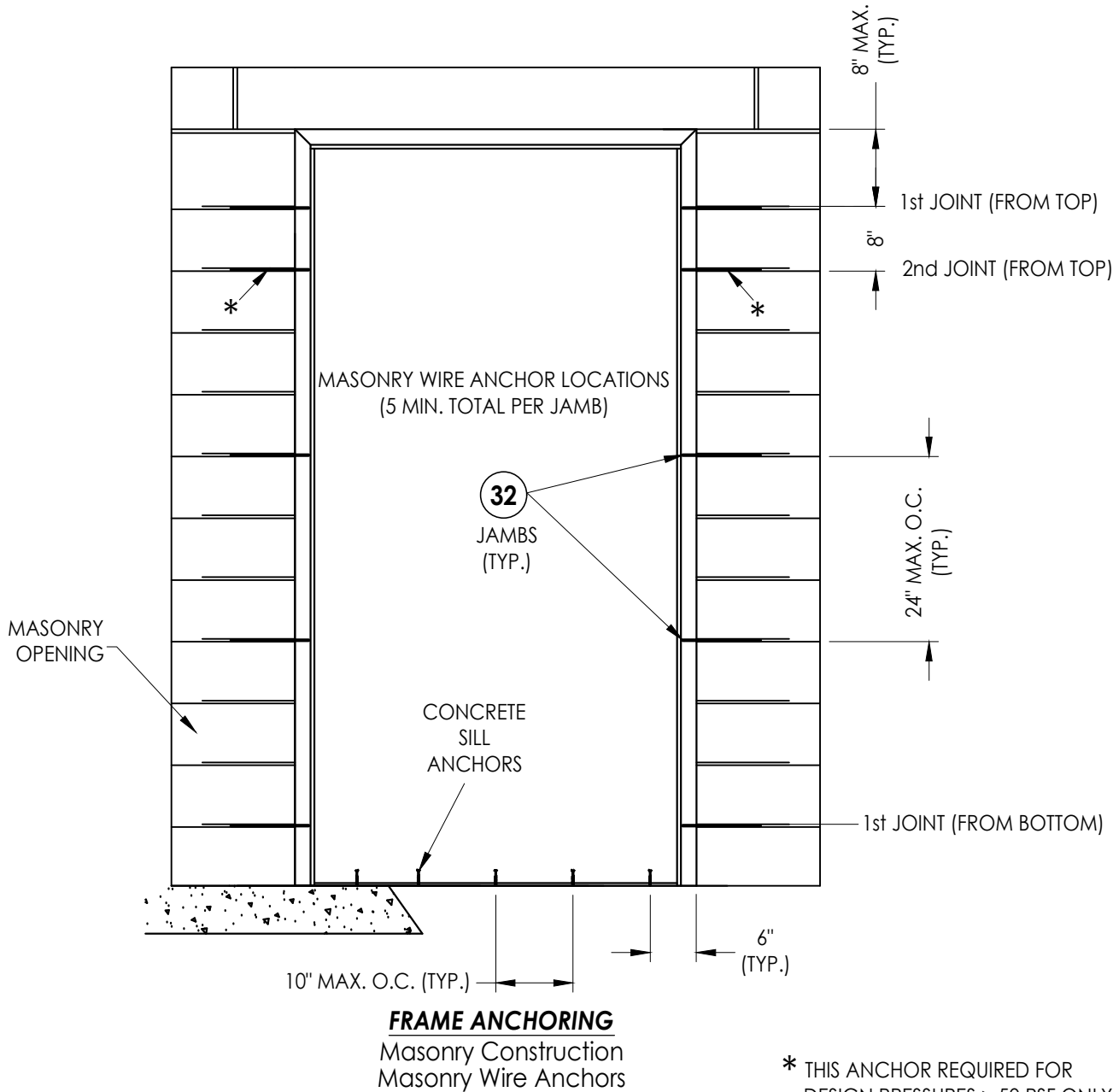
PRODUCT:	LS18 STEEL DOOR
	PART OR ASSEMBLY: FRAME ANCHORING

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

RW

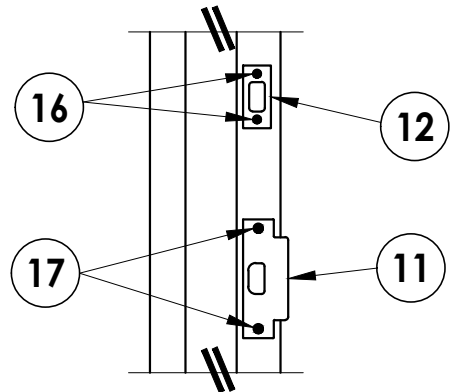
BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

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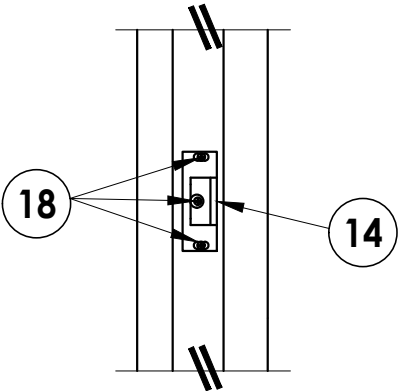


- CONCRETE ANCHOR NOTES:**
- Concrete screw locations at the corners may be adjusted to maintain a minimum 1" edge distance to mortar joints. If concrete screw locations noted as "MAX. O.C." must be adjusted to maintain the minimum edge distance to mortar joints, additional concrete screws may be required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

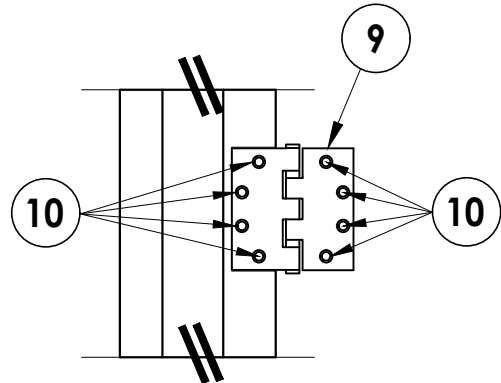
ANCHOR TYPE	ANCHOR LOCATION	ANCHOR SIZE	MANUFACTURER	MIN. EDGE DISTANCE	MIN. EMBEDMENT
CONCRETE ANCHOR SCREW	SILL	1/4"	TAPCON® (ITW BUILDEX) ULTRACON+® (DeWALT) TAPPER+® (POWERS)	2-1/2"	1-3/4"



STRIKE DETAIL
Latch & Deadbolt



STRIKE DETAIL
Rim Exit Device



HINGE DETAIL

Documents Prepared By:
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FBPE Registry No. 9813

PRODUCT:
LS18 STEEL DOOR

PART OR ASSEMBLY:
FRAME ANCHORING

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

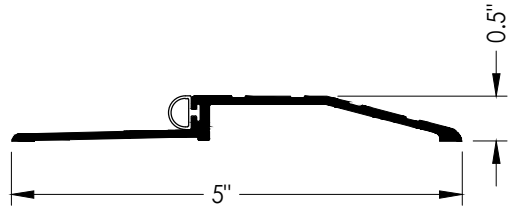
CHK. BY: LFS

DRAWING NO.:
FL-19036.1

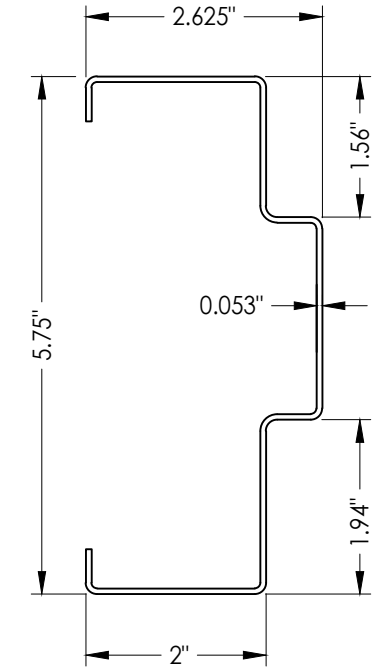
SHEET 8 OF 9

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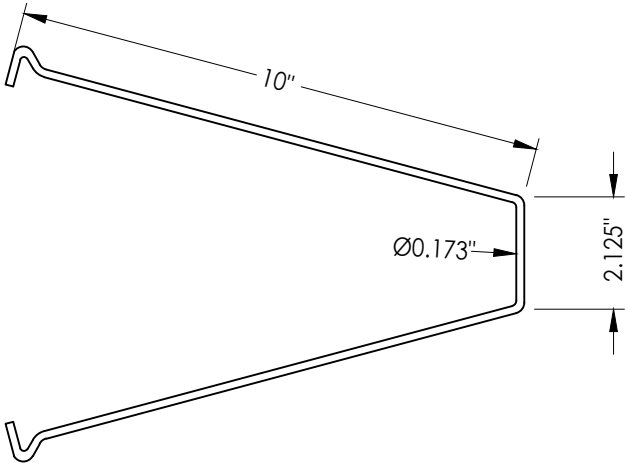
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2X STUD FRAMING (G>= 0.55)	WOOD
C	1/4" MAX. SHIM SPACE	-
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK (GROUT FILLED) CONFORMING TO ASTM C90	CONCRETE
H	1/4" X 1-3/4" PFH CONCRETE SCREW (SEE CONCRETE ANCHOR TABLE)	STEEL
J	3/8" 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	-
5	OUTSWING BUMP THRESHOLD	ALUM
7	WEATHERSTRIP (HAGER 736 PRESS-ON)	-
8	FRAME WEATHERSTRIP (HAGER 875S)	-
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



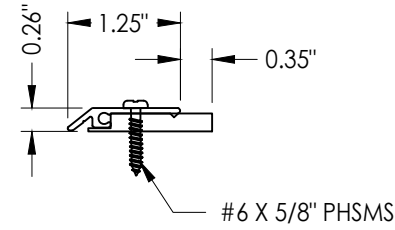
5 **OUTSWING BUMP THRESHOLD**
HAGER 477S



1 **HOLLOW METAL FRAME**



32 **MASONRY WIRE ANCHOR**
60 KSI MIN.



8 **FRAME WEATHERSTRIP**

DATE:	10/29/15
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-19036.1
SHEET	<u>9</u> OF <u>9</u>

PRODUCT:	LS18 STEEL DOOR
PART OR ASSEMBLY:	BILL OF MATERIALS & COMPONENTS

Documents Prepared By:
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P.E. No. 43409

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