

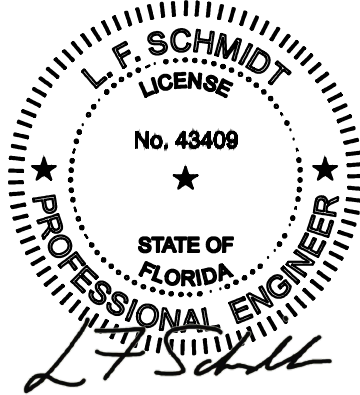
Vision Hollow Metal Limited

400 Zenway Blvd. Unit #1
Woodbridge, ON L4H 0S7

LS18 STEEL SINGLE &
DOUBLE DOORS
LOUVERED
OUTSWING
"IMPACT"

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



Digitally signed by
Lyndon F Schmidt
Date: 2026.08.17
14:07:25 -04'00'

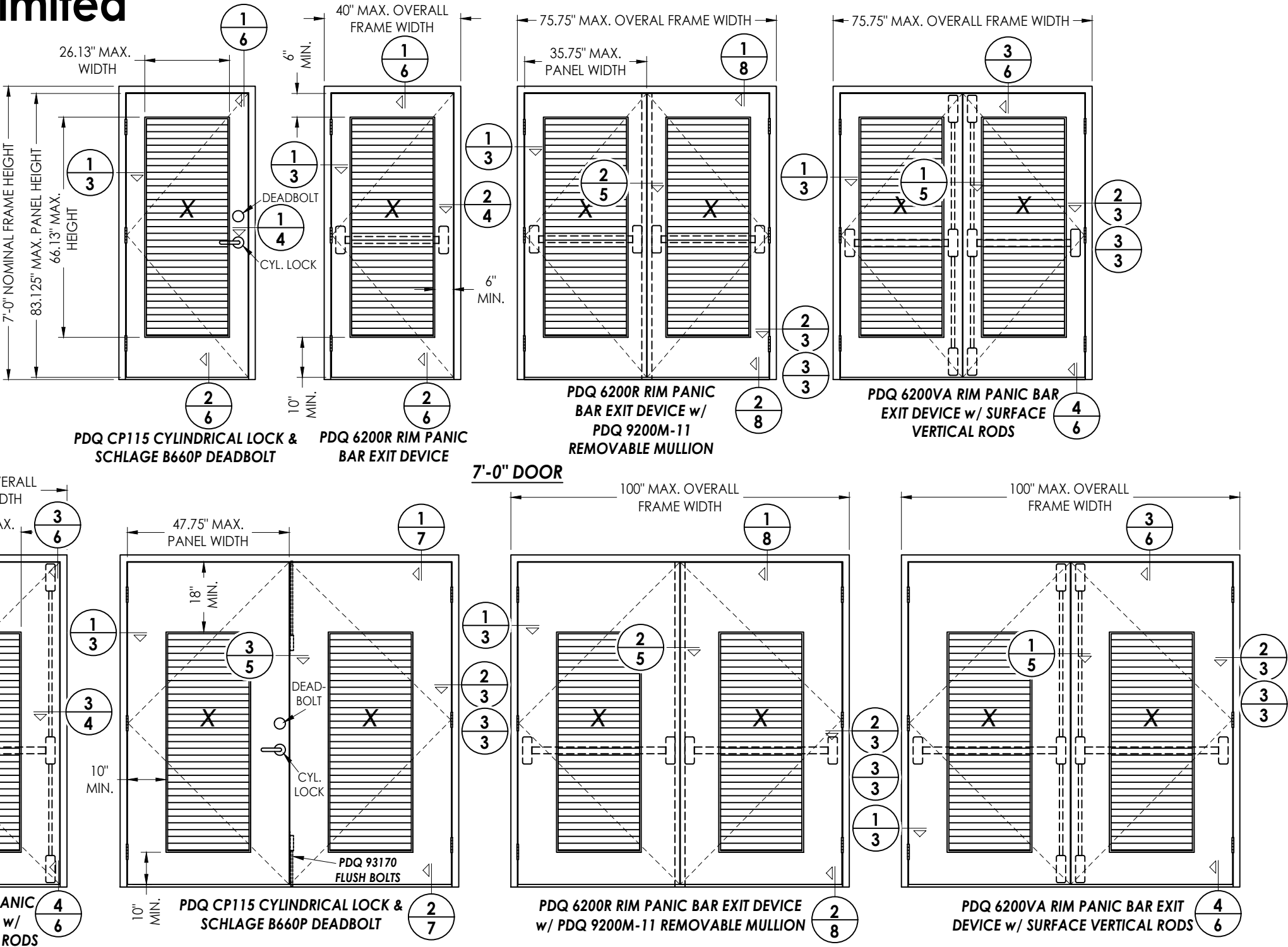


TABLE OF CONTENTS		TABLE OF CONTENTS	
SHEET #	DESCRIPTION	SHEET #	DESCRIPTION
1	Typical elevation & design pressures	9	Frame anchoring: X (7'-0" Door)
2	General notes & glazed door panel details	10	Frame anchoring: XX (7'-0" Door)
3	Horizontal cross sections	11	Frame anchoring: X (8'-0" Door)
4	Horizontal cross sections	12	Frame anchoring: XX (8'-0" Door)
5	Horizontal cross sections	13	Hardware details
6	Vertical cross sections	14	Components
7	Vertical cross sections	15	Bill of materials & components
8	Vertical cross sections		

8'-0" DOOR

CONFIG.	MAX. FRAME DIMENSION	NOT APPROVED WHERE WATER RESISTANCE & AIR INFILTRATION ARE REQUIRED	
		DESIGN PRESSURE (PSF)	
		POSITIVE	NEGATIVE
X	52.0" x 97.75"	+65.0	-65.0
XX	100.0" x 97.75"	+65.0	-65.0

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

PRODUCT:

LS18 STEEL DOOR

PART OR ASSEMBLY:

TYPICAL ELEVATIONS &
DESIGN PRESSURES

DATE:

4/29/26

SCALE:

N.T.S.

DWG. BY:

LFS

CHK. BY:

RW

DRAWING NO.:

FL-48187.1

SHEET

1

OF

15

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	8/17/26	FBC	UPDATE TO 9TH ED. (2026)

Building Consultants, Inc.

P.O. Box 230, Valrico, FL 33595

Phone No.: 813.659.9197

FBPE Registry License No. 9813

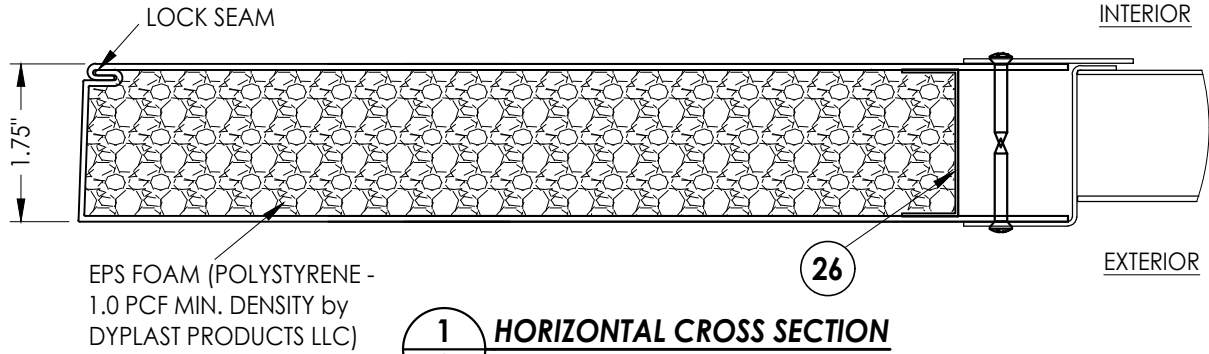
Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.dwg

© 2026 R.W. BUILDING CONSULTANTS INC.

Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.dwg

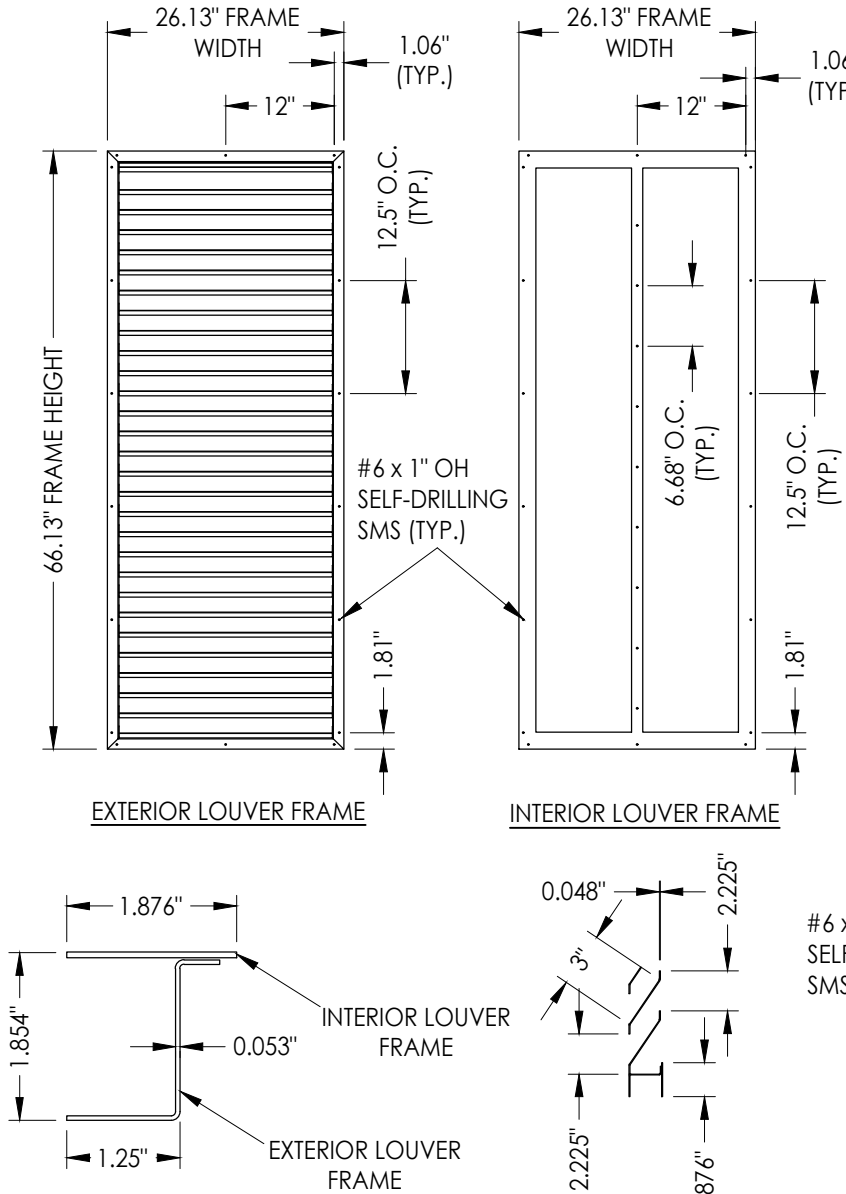
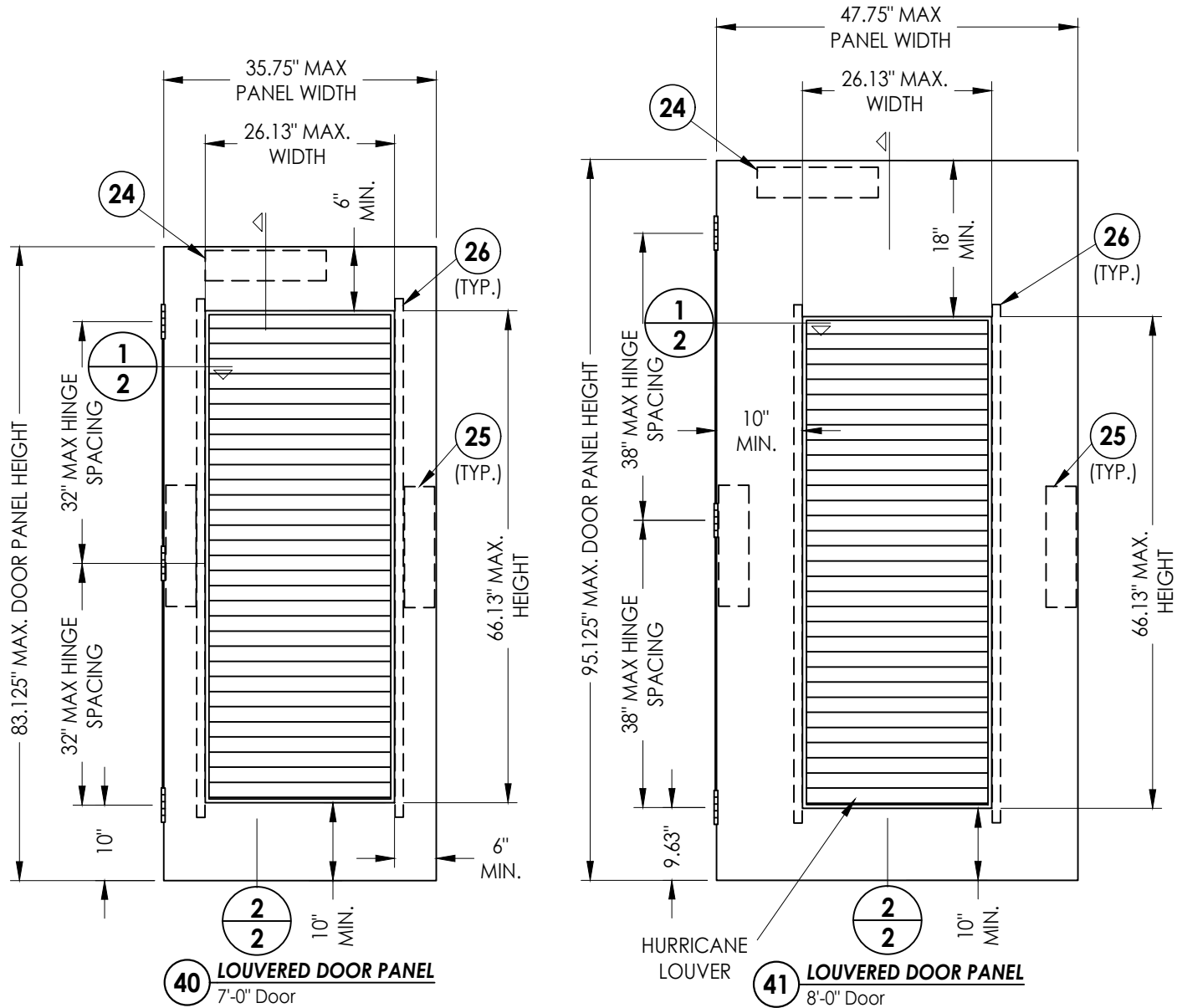
GENERAL NOTES

1. This product has been evaluated and is in compliance with the 9th Edition (2026) 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 does not meet the water infiltration requirements for the "HVHZ" and shall be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.
6. All steel shall be protected as specified in Section 2222.6 of the FBC.

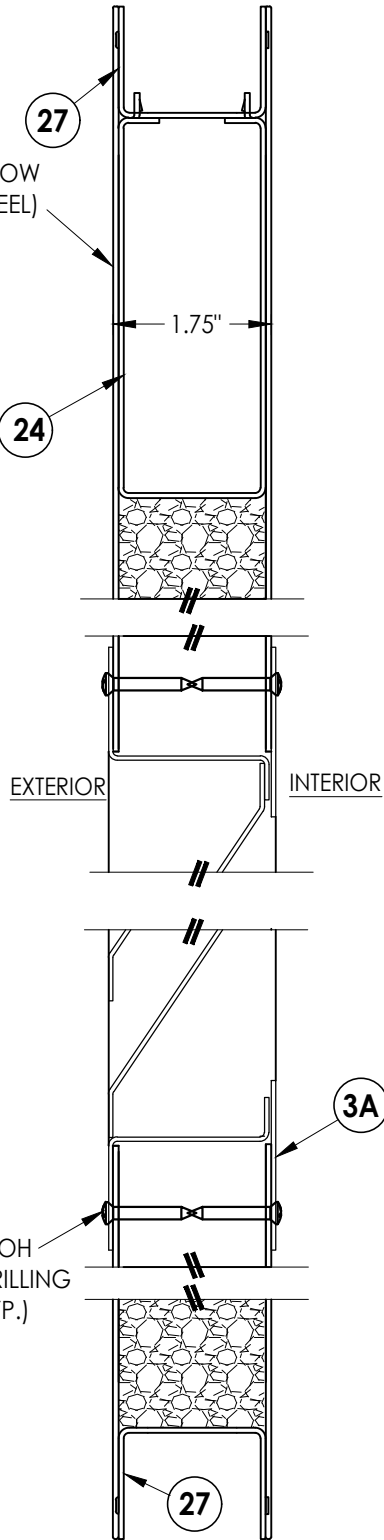


1 HORIZONTAL CROSS SECTION
2

DOOR SKIN (BY VISION HOLLOW METAL) 18GA (0.043" THK. STEEL)
(Fy = 54,000 PSI MIN.)



3A HURRICANE LOUVER
(VISION HOLLOW METAL)



2 VERTICAL CROSS SECTION
2

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

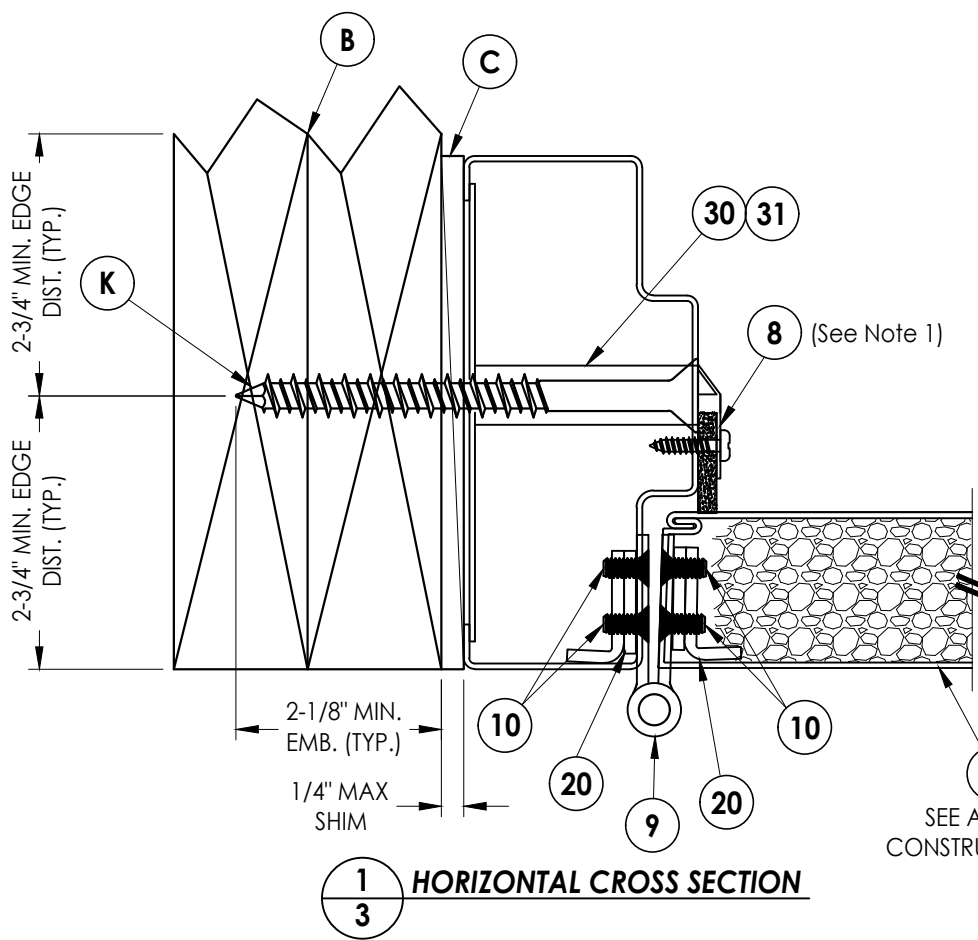
R^W BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry License No. 9813

PRODUCT:
LS18 STEEL DOOR

PART OR ASSEMBLY:
LOUVERED DOOR
PANEL DETAILS

NO.	DATE	REVISIONS
1	8/17/26	UPDATE TO 9TH ED. (2026) FBC

DATE: 4/29/26
SCALE: N.T.S.
DWG. BY: LFS
CHK. BY: RW
DRAWING NO.: FL-48187.1
SHEET 2 OF 15

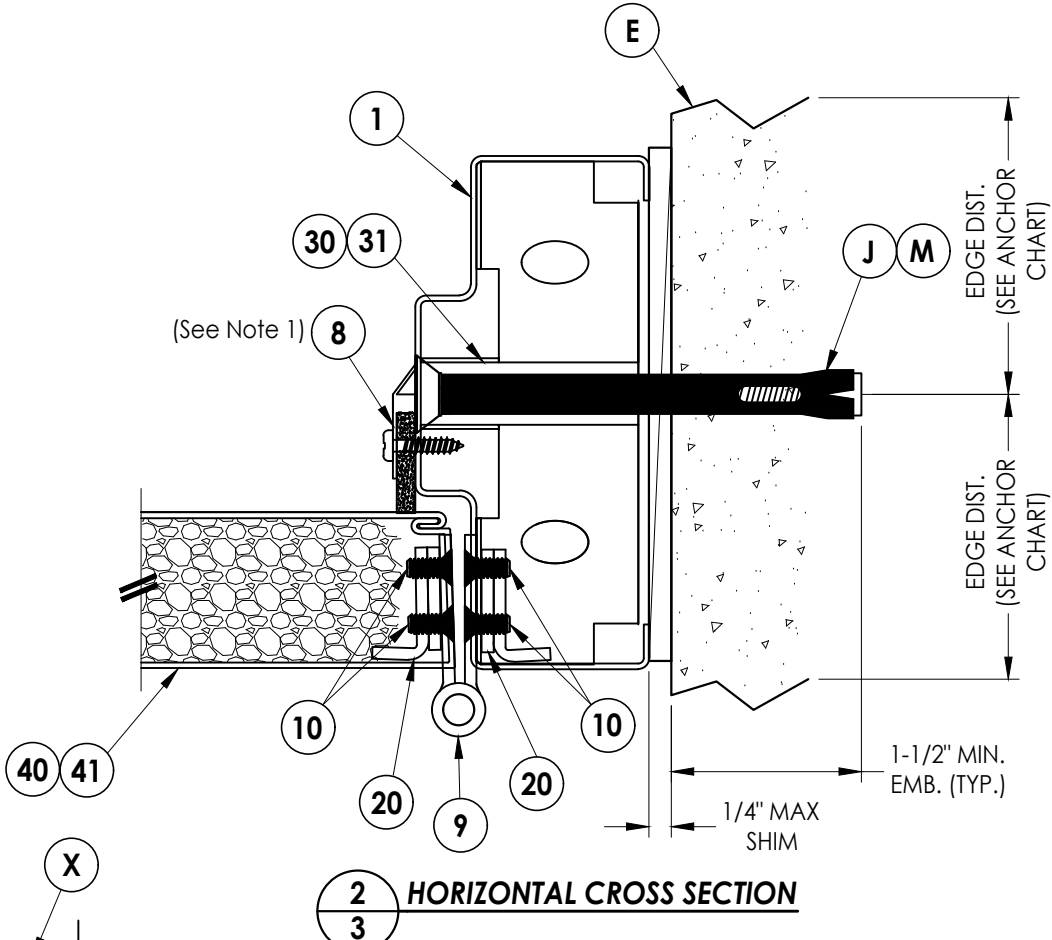


1
3
HORIZONTAL CROSS SECTION

INTERIOR

EXTERIOR

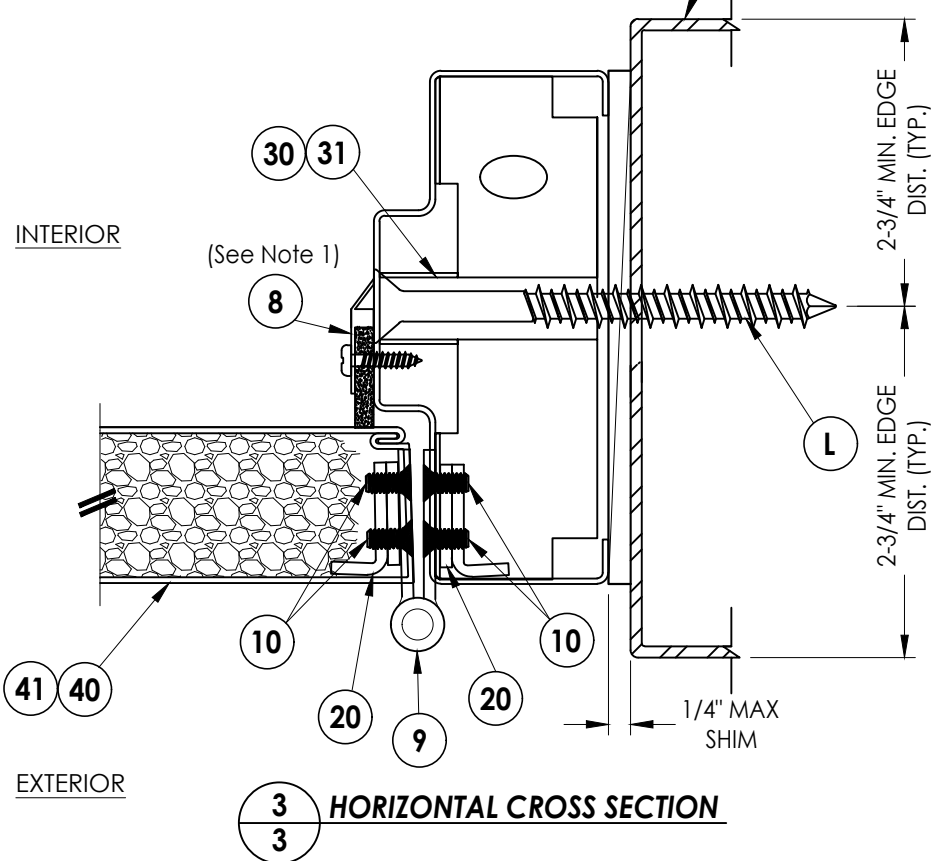
SEE APPLICABLE DOOR
CONSTRUCTION DETAILS (TYP.)



2
3
HORIZONTAL CROSS SECTION

INTERIOR

EXTERIOR



3
3
HORIZONTAL CROSS SECTION

Note:

1. Frame weatherstrip attached w/ #6 X 5/8" PH SMS located 2" from ends & 8" max. o.c. thereafter.

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

PRODUCT:
LS18 STEEL DOOR

NO.	DATE	REVISIONS
1	8/17/26	UPDATE TO 9TH ED. (2026) FBC
		LFS
		BY

DATE: 4/29/26

SCALE: N.T.S.

DWG. BY: LFS

CHK. BY: RW

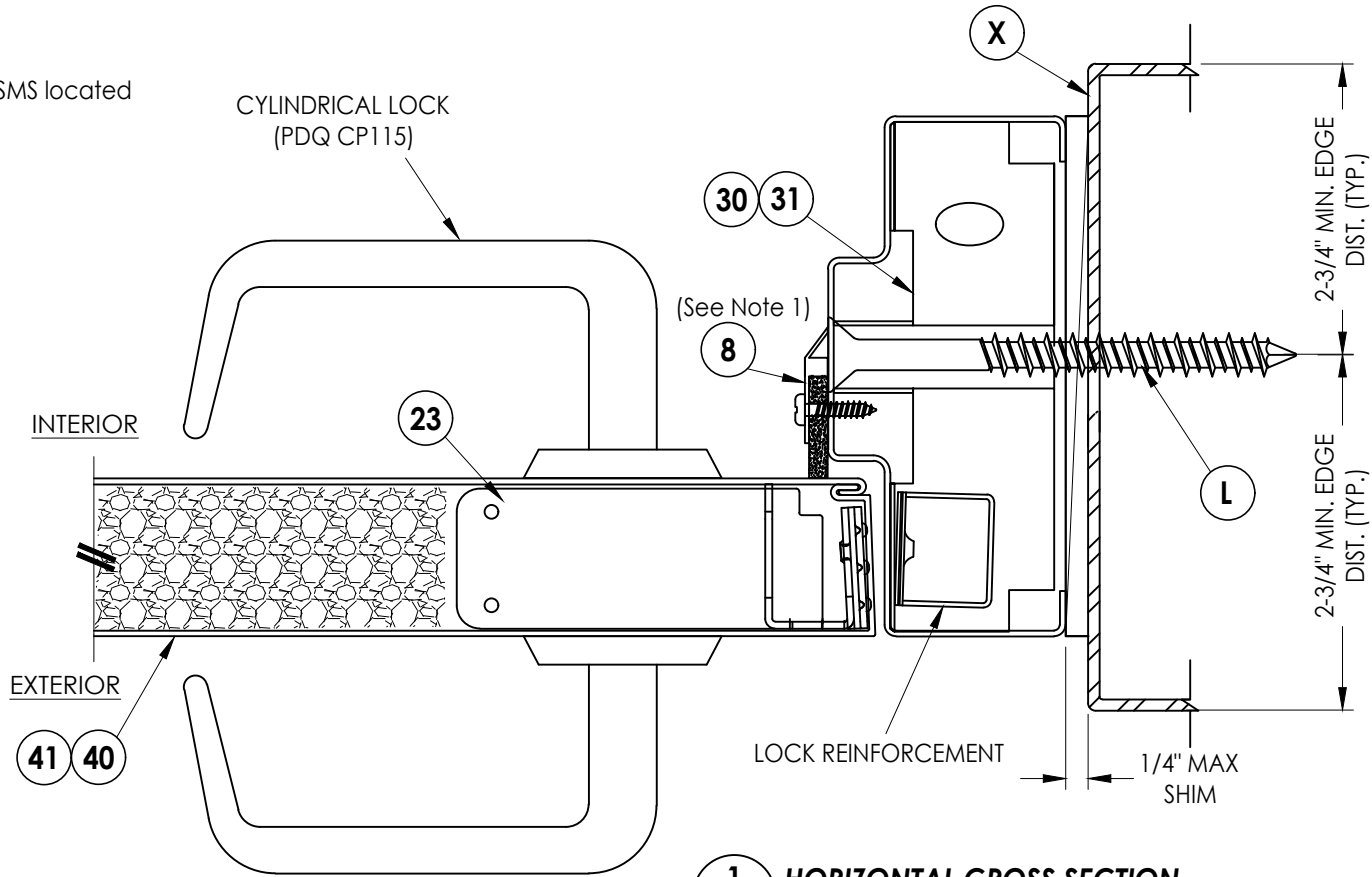
DRAWING NO.:
FL-48187.1

SHEET 3 OF 15

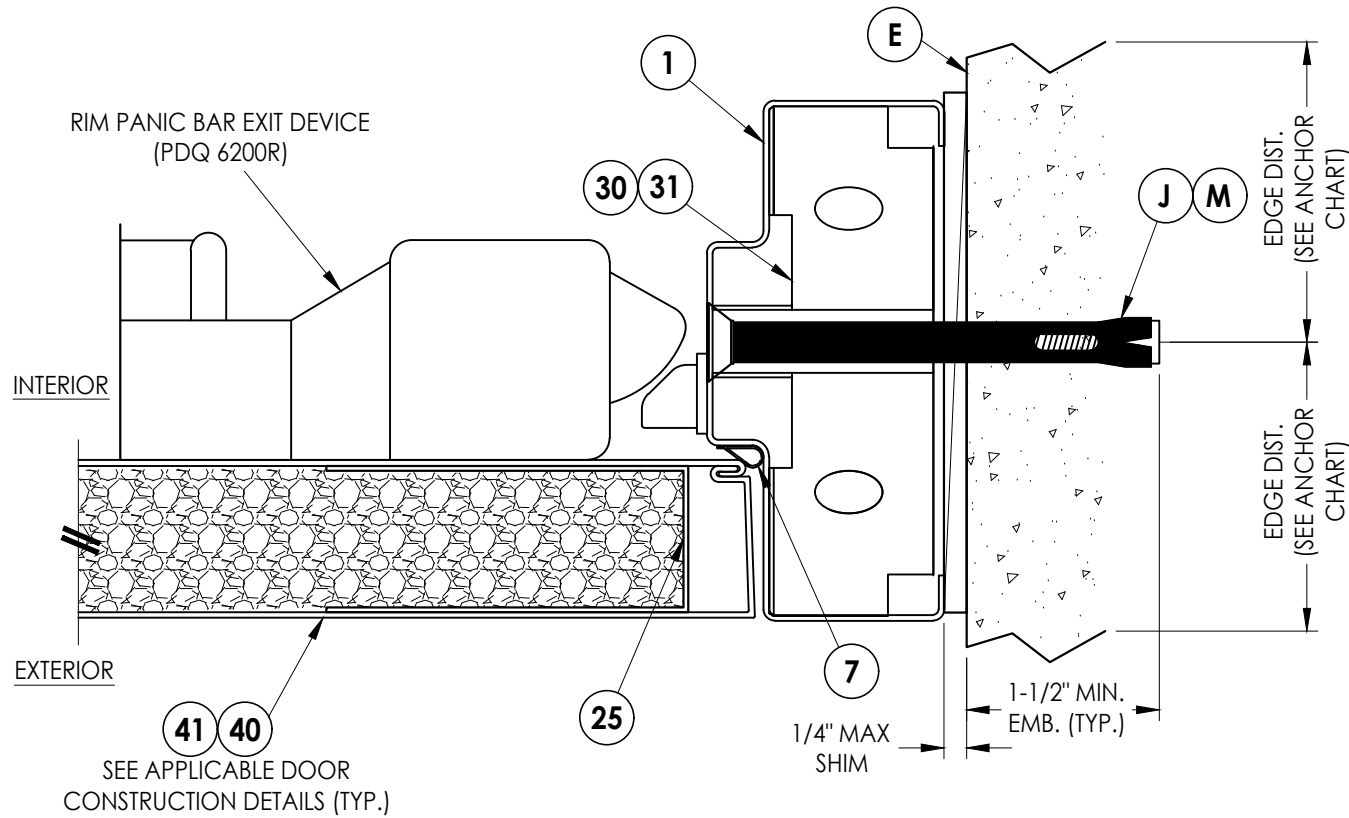
RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry License No. 9813

Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.dwg

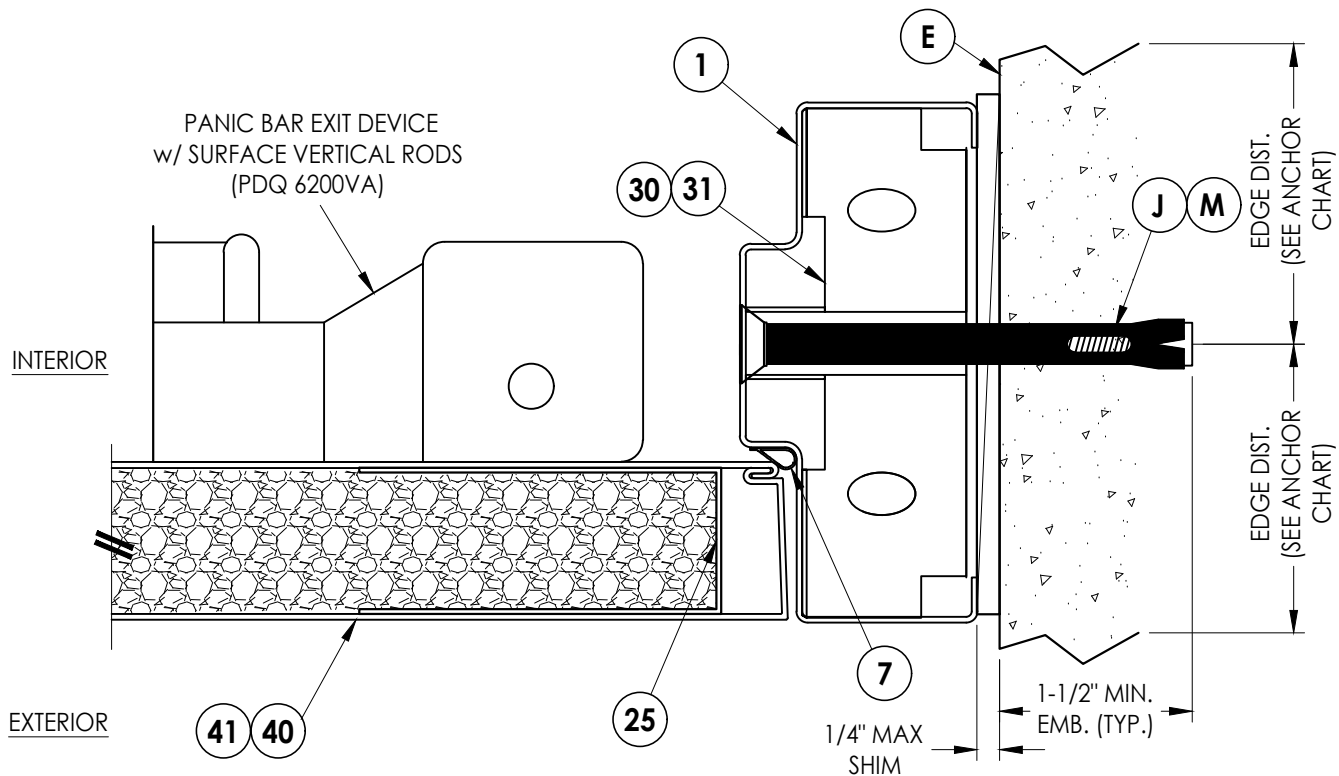
Note:
1. Frame weatherstrip attached w/ #6 X 5/8" PH SMS located
2" from ends & 8" max. o.c. thereafter.



1
4 **HORIZONTAL CROSS SECTION**
CYLINDRICAL LOCK (PDQ)



2
4 **HORIZONTAL CROSS SECTION**
RIM PANIC BAR EXIT DEVICE (PDQ 6200R)



3
4 **HORIZONTAL CROSS SECTION**
PANIC BAR EXIT DEVICE w/ SURFACE
VERTICAL RODS (PDQ 6200VA)

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 License No. 9813

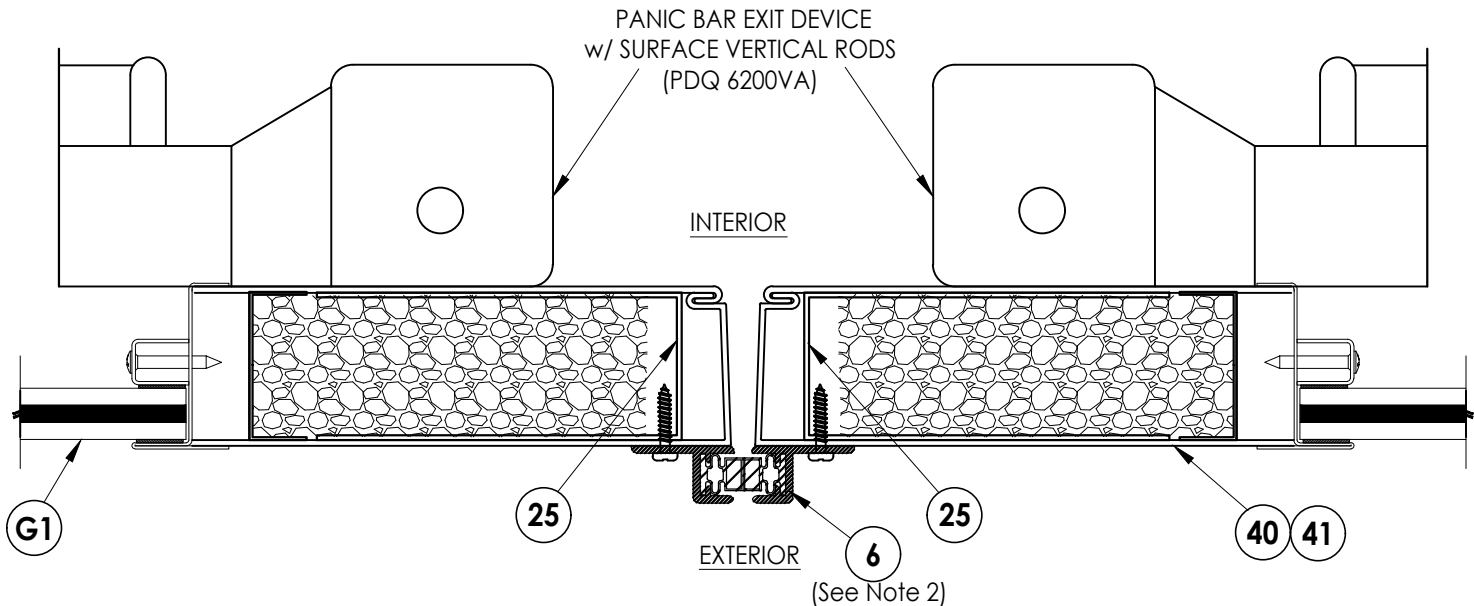
PRODUCT:
LS18 STEEL DOOR

PART OR ASSEMBLY:
HORIZONTAL
CROSS SECTIONS

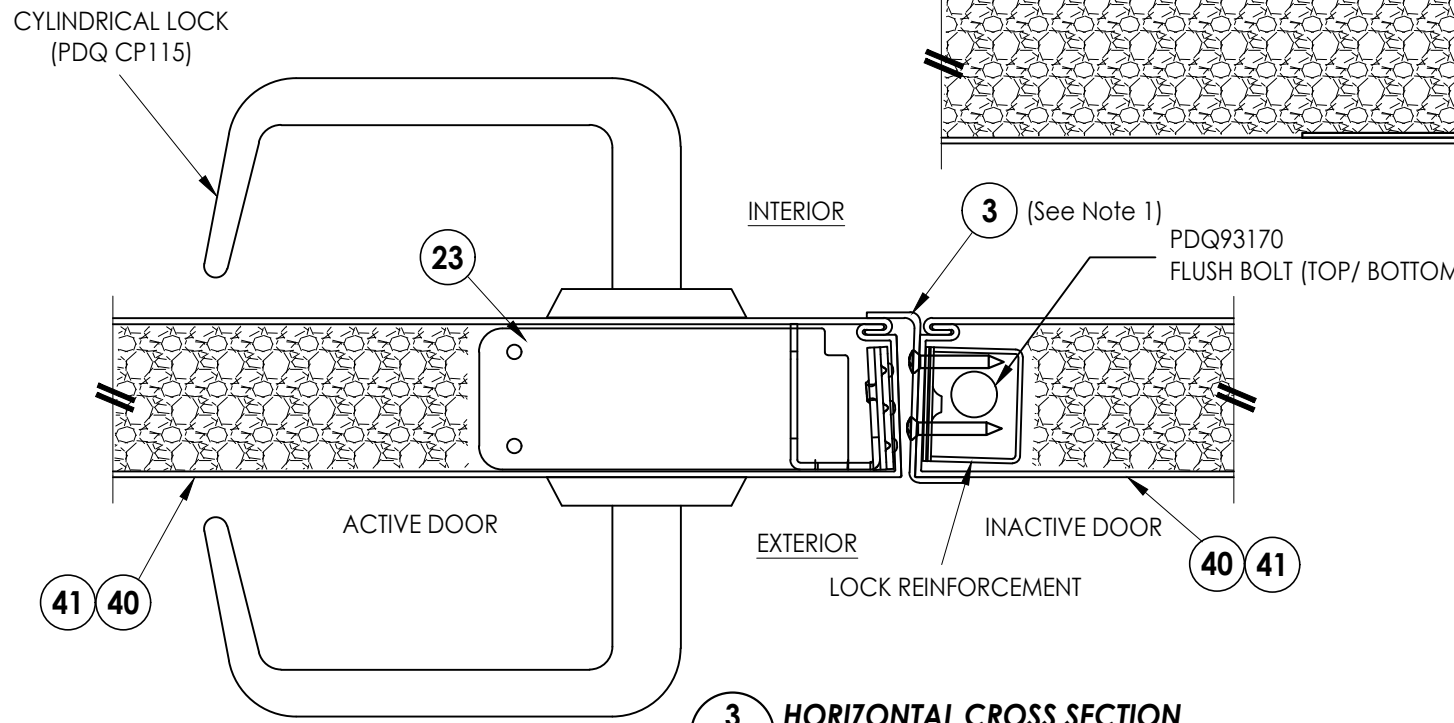
REVISIONS	
NO.	DATE
1	8/17/26
UPDATE TO 9TH ED. (2026) FBC	
LFS	BY

DATE: 4/29/26
SCALE: N.T.S.
DWG. BY: LFS
CHK. BY: RW
DRAWING NO.:
FL-48187.1
SHEET 4 OF 15

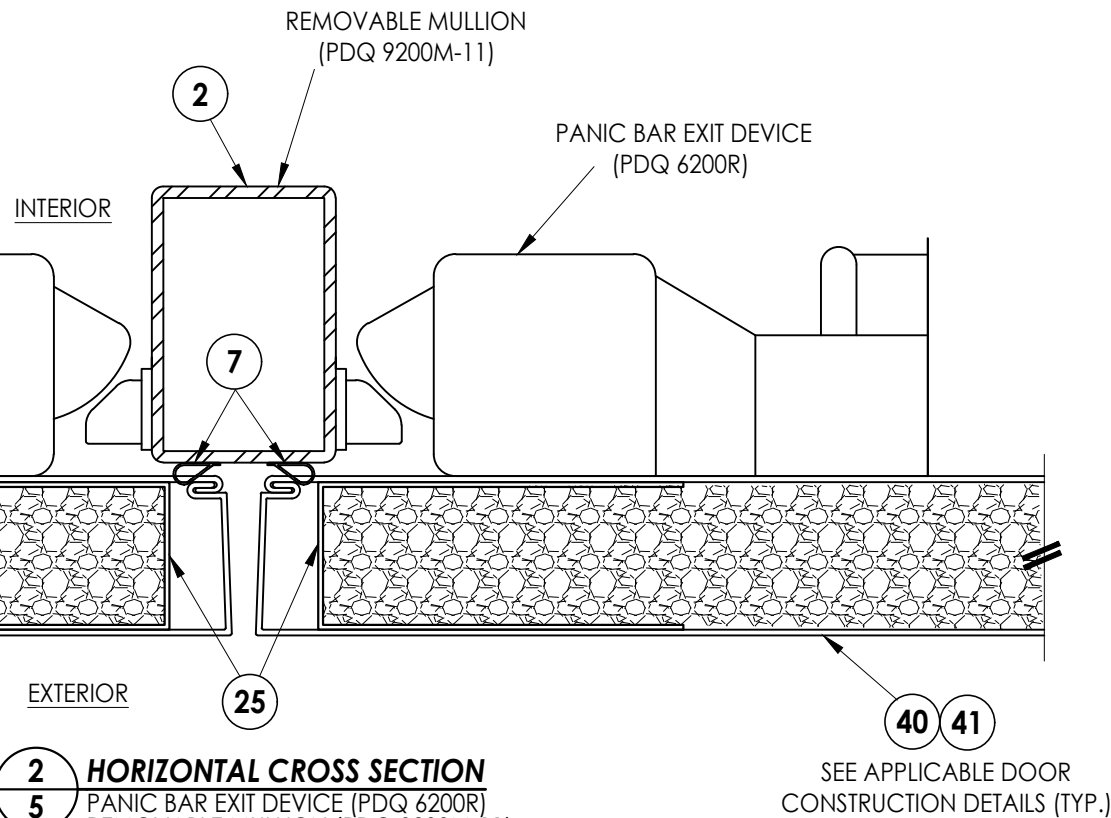
Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.dwg



1
5 **HORIZONTAL CROSS SECTION**
PANIC BAR EXIT DEVICE w/ SURFACE
VERTICAL RODS (PDQ 6200VA)



3
5 **HORIZONTAL CROSS SECTION**
CYLINDRICAL LOCK (PDQ G115) w/
DEADBOLT (SCHLAGE B660P)



2
5 **HORIZONTAL CROSS SECTION**
PANIC BAR EXIT DEVICE (PDQ 6200R)
REMOVABLE MULLION (PDQ 9200M-11)

- Notes:
1. "Z" Astragal attached to the inactive door w/ 2 rows of #6 x 1" OH Self-Drilling SMS located @ 2-1/2", 21-1/2", 33-1/2", 52-5/8", 64-5/8", 79-5/8" & 92-5/8" from bottom.
 2. Frame weatherstrip attached w/ #6 X 5/8" PH SMS located 2" from ends & 8" max. o.c. thereafter.

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 License No. 9813

PRODUCT:
LS18 STEEL DOOR

PART OR ASSEMBLY:
HORIZONTAL
CROSS SECTIONS

NO.	DATE	REVISIONS	LFS	BY
1	8/17/26	UPDATE TO 9TH ED. (2026) FBC		

DATE: 4/29/26

SCALE: N.T.S.

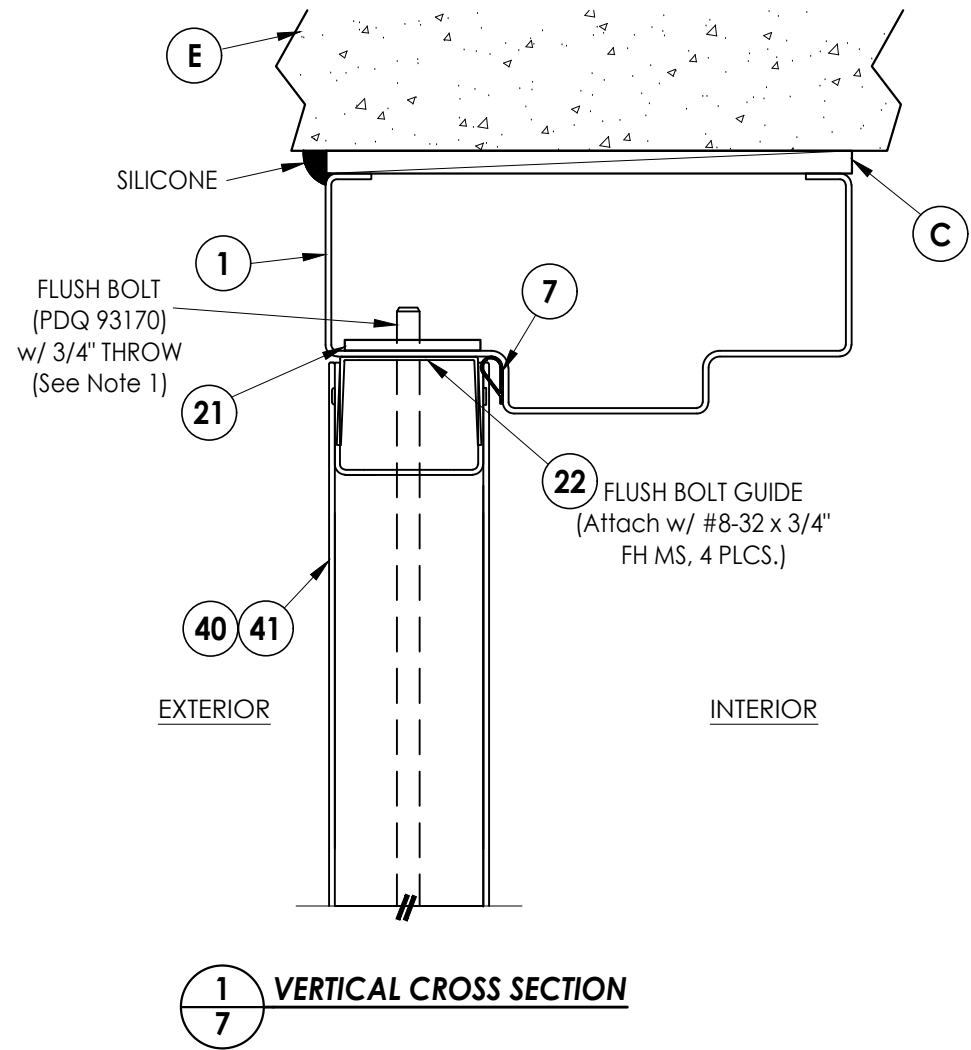
DWG. BY: LFS

CHK. BY: RW

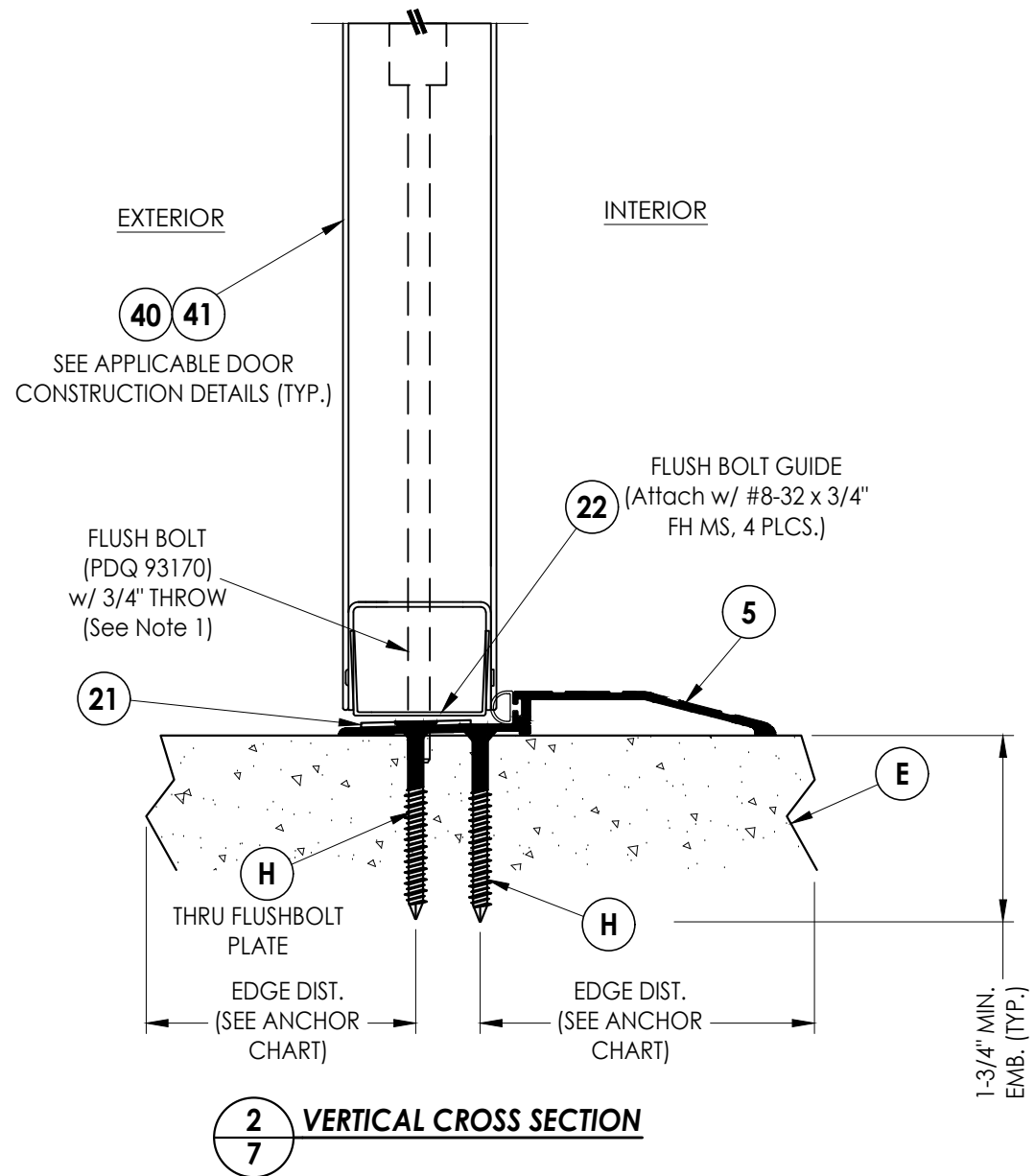
DRAWING NO.:

FL-48187.1

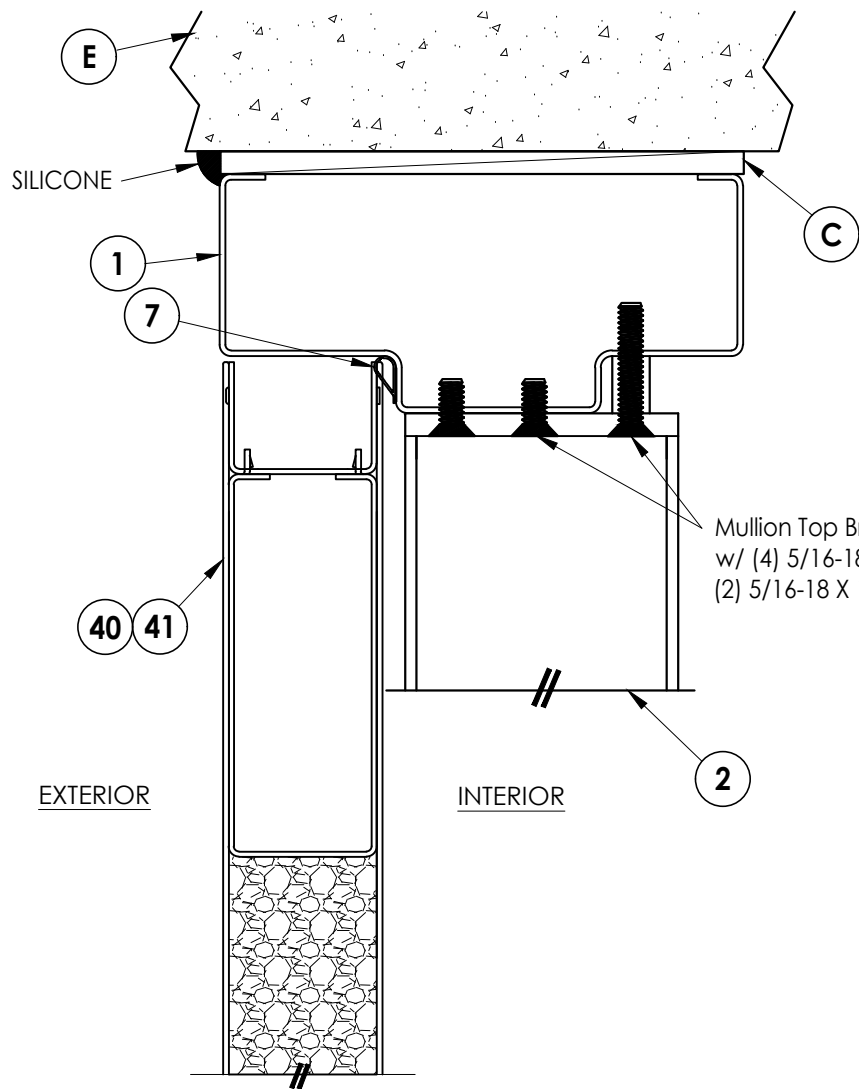
SHEET 5 OF 15



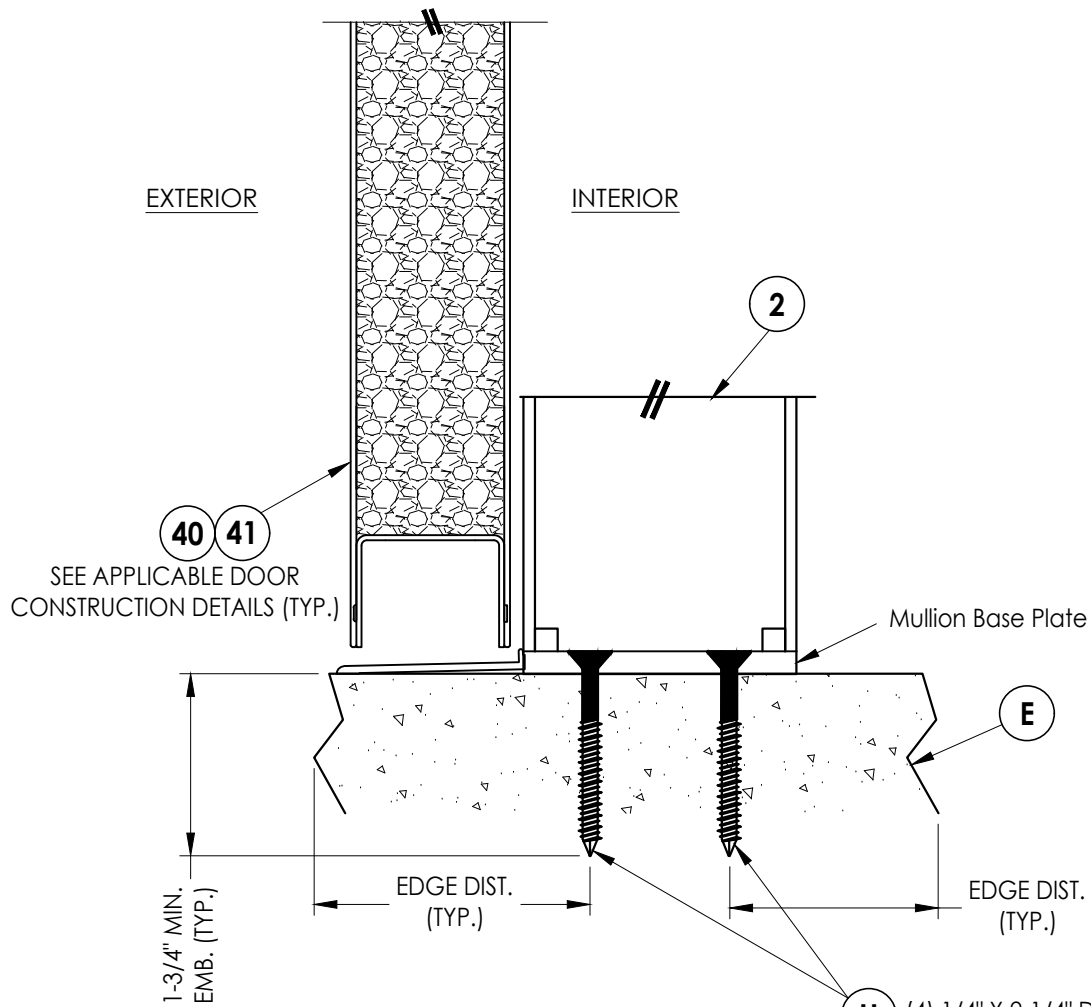
Note:
1. Flush Bolt required w/ Cylindrical Lock & Deadbolt only.

[illegible]

Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.dwg



1
8 **VERTICAL CROSS SECTION**
w/ REMOVABLE MULLION (PDQ 9200M-11)

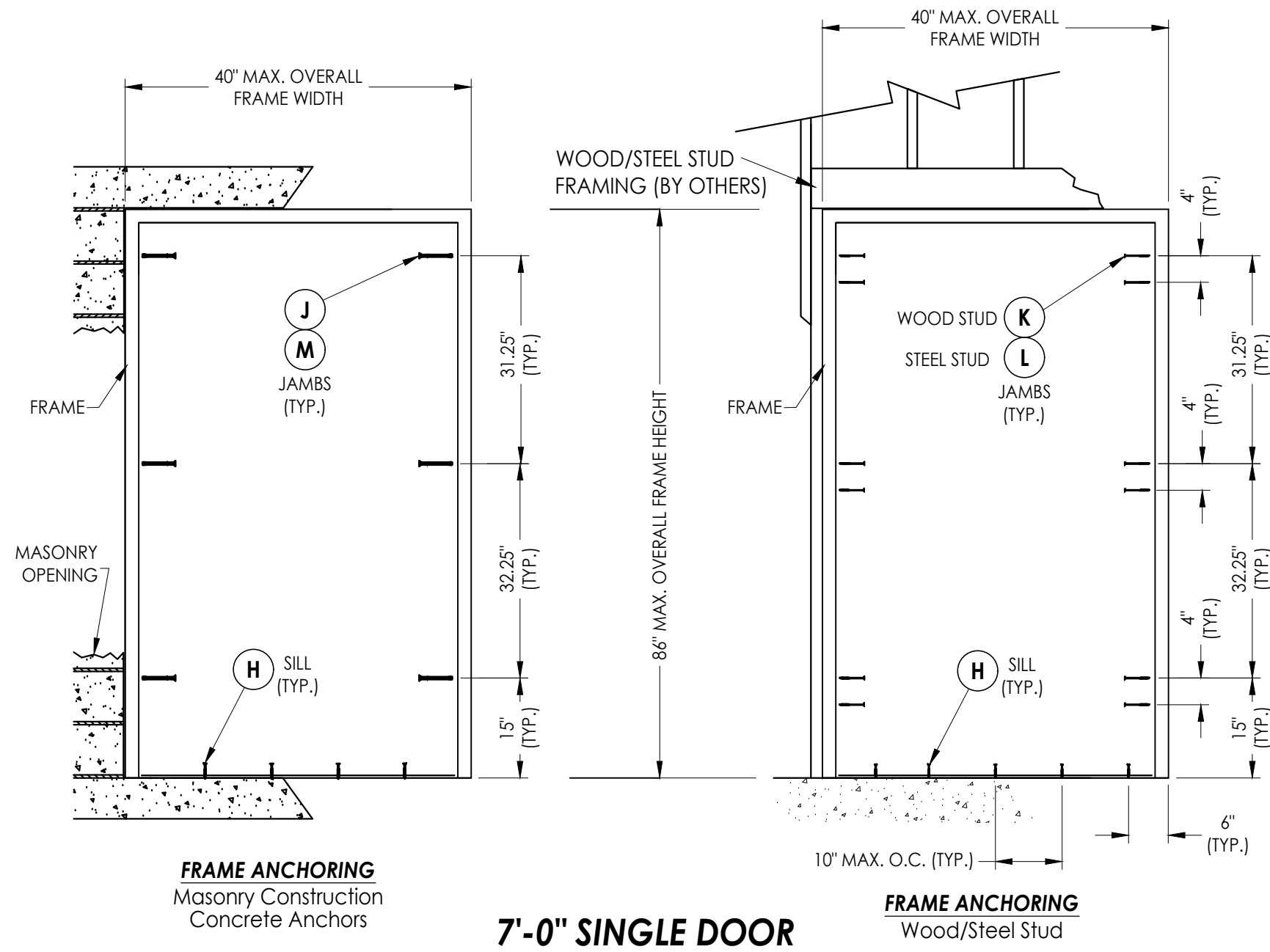


2
8 **VERTICAL CROSS SECTION**
w/ REMOVABLE MULLION (PDQ 9200M-11)

(NOTE: Outswing threshold not shown for clarity)

H (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.

PRODUCT:				LS18 STEEL DOOR			
PART OR ASSEMBLY:				VERTICAL CROSS SECTIONS			
DATE: 4/29/26				SCALE: N.T.S.			
DWG. BY: LFS				CHK. BY: RW			
DRAWING NO.: FL-48187.1				SHEET 8 OF 15			
1 8/17/26 UPDATE TO 9TH ED. (2026) FBC				LFS			
NO. DATE				BY			
				REVISIONS			



7'-0" SINGLE DOOR

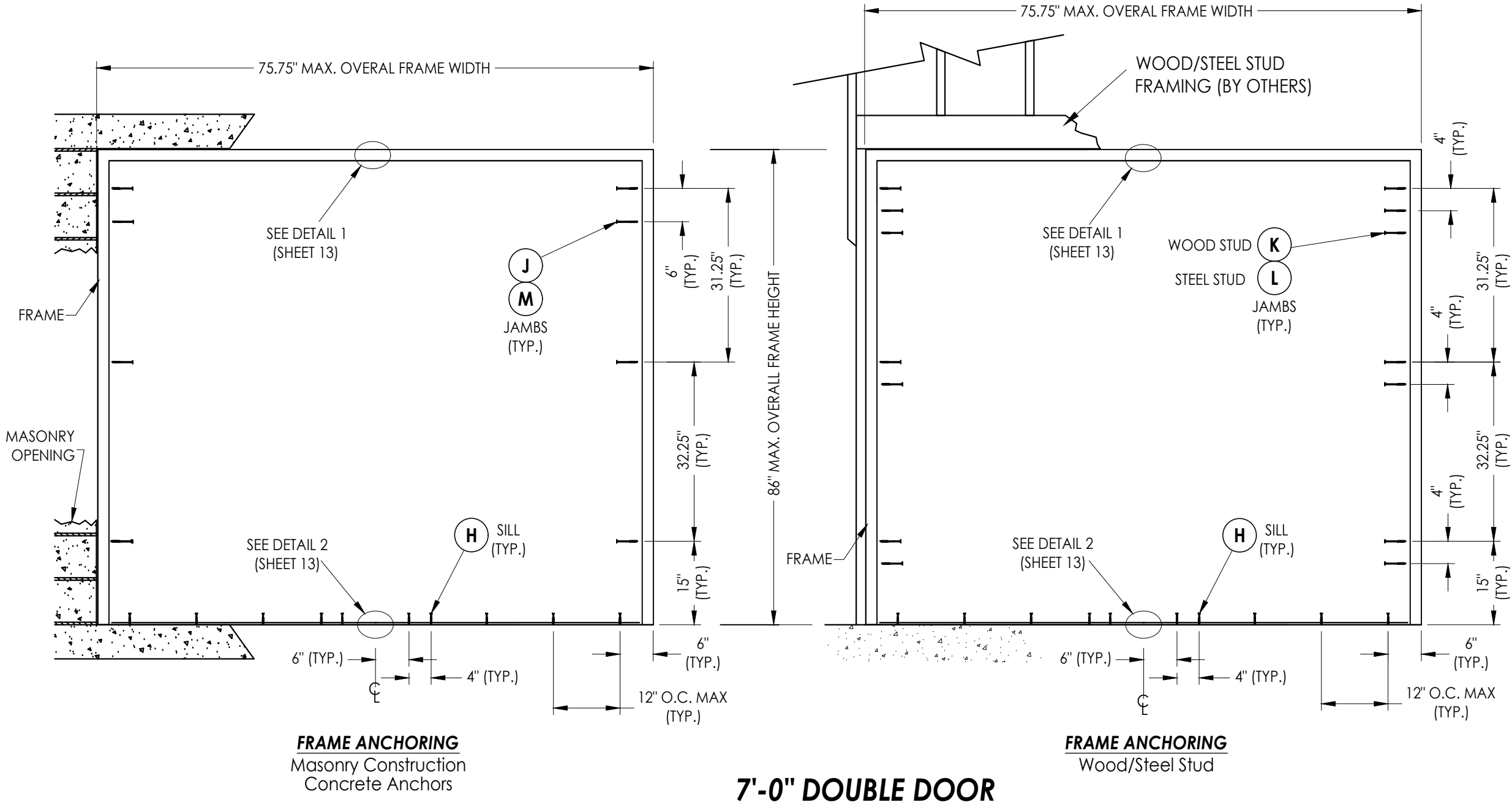
CONCRETE ANCHOR NOTES:

1. 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.
2. 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"	ULTRACON+® (DeWALT)	2-1/2"	1-3/4"
CONCRETE SLEEVE ANCHOR	JAMBS	3/8"	DYNABOLT SLEEVE ANCHOR® (ITW REDHEAD)	2-1/4"	1-1/2"

[illegible]

Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.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"	ULTRACON+® (DeWALT)	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

LS18 STEEL DOOR

DATE: 4/29/26

SCALE: N.T.S.

DWG. BY: LFS

CHK. BY: RW

DRAWING NO.: FL-48187.1

SHEET 10 OF 15

Part or Assembly:
FRAME ANCHORING
XX (7'-0" DOOR)

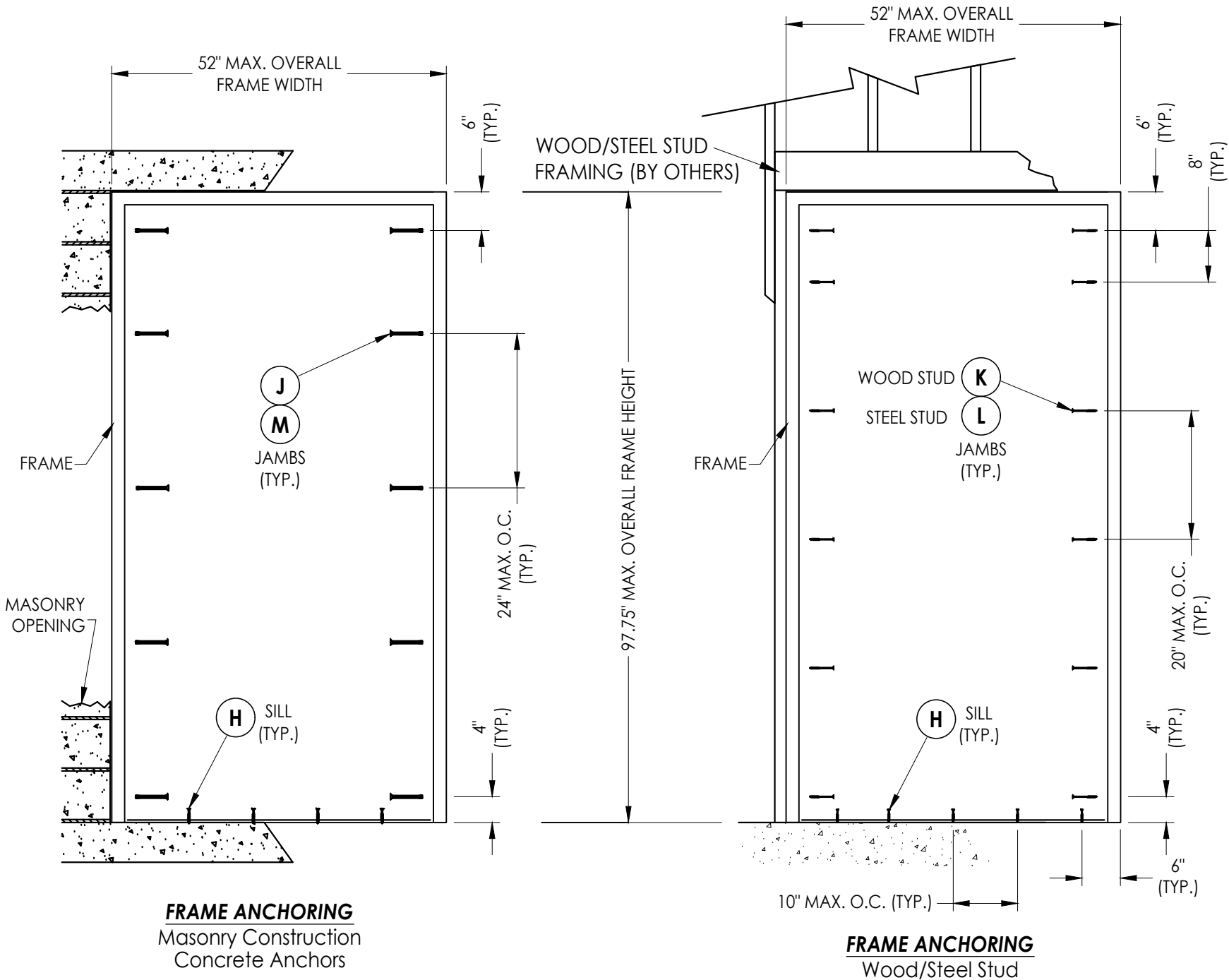
REVISIONS

DATE: 8/17/26
NO. 1

BY: LFS

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

Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.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"	ULTRACON+® (DeWALT)	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 License No. 9813	
PRODUCT: LS18 STEEL DOOR		PART OR ASSEMBLY: FRAME ANCHORING X (8'-0" DOOR)	
		REVISIONS	
		NO. DATE	
		1 8/17/26 UPDATE TO 9TH ED. (2026) FBC	
		LFS BY	
DATE: 4/29/26			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: FL-48187.1			
SHEET 11 OF 15			

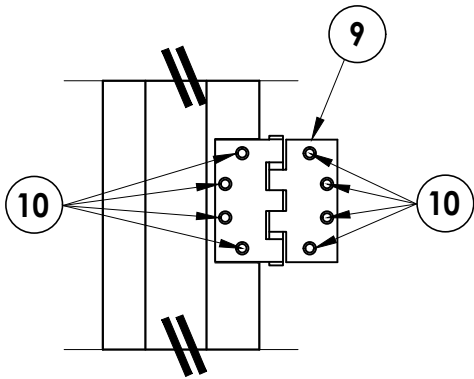
1. Concrete screw locations at the corners may be adjusted to maintain a minimum 1" edge distance to mortar joints. If concrete screw locations noted as "MAX. O.C." must be adjusted to maintain the minimum edge distance to mortar joints, additional concrete screws may be required to ensure the maximum on center dimension is not exceeded.
2. 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"	ULTRACON+® (DeWALT)	2-1/2"	1-3/4"
CONCRETE SLEEVE ANCHOR	JAMBS	3/8"	DYNABOLT SLEEVE ANCHOR® (ITW REDHEAD)	2-1/4"	1-1/2"

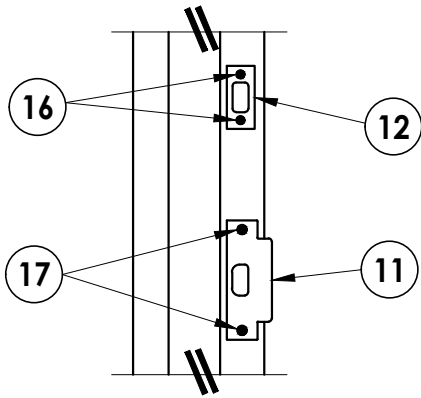
8'-0" DOUBLE DOOR

[illegible]

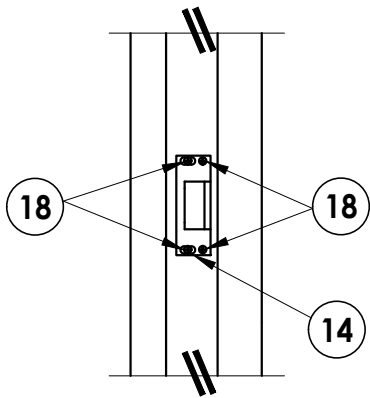
Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.dwg



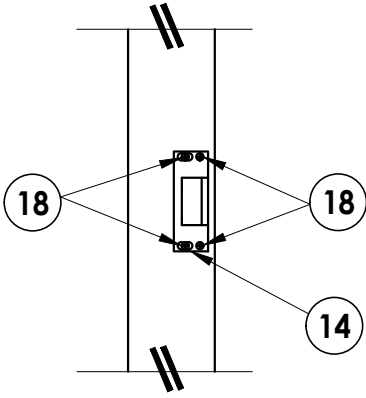
HINGE DETAIL



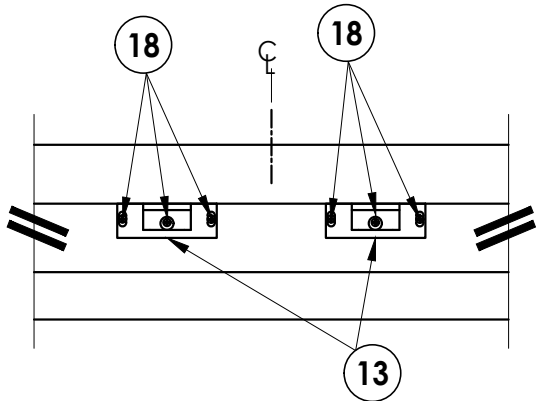
STRIKE DETAIL
Latch & Deadbolt



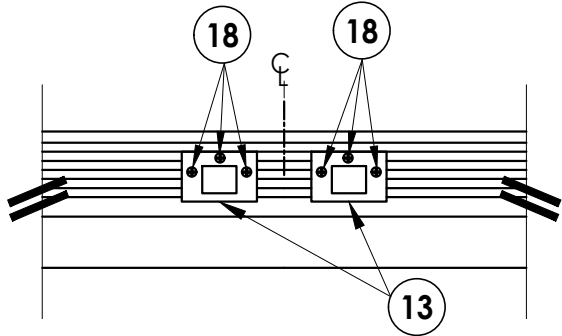
STRIKE DETAIL @ FRAME
Rim Panic Exit Device



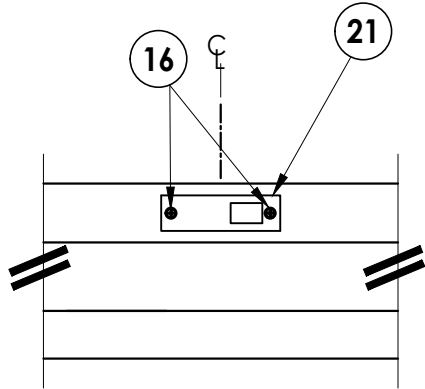
STRIKE DETAIL @ MULLION
Rim Panic Exit Device



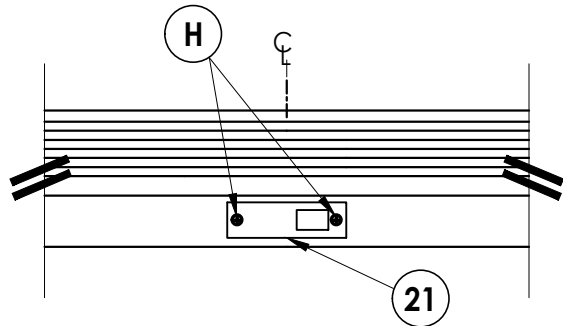
DETAIL 1
Vertical Surface Rod Strike Plate
@ Head



DETAIL 2
Vertical Surface Rod Strike Plate
@ Sill



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



DETAIL 2
Flush Bolt Strike Plate @ Sill
(Inactive Door Panel)

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 License No. 9813

PRODUCT:
LS18 STEEL DOOR

PART OR ASSEMBLY:
HARDWARE DETAILS

NO.	DATE	DESCRIPTION	BY
1	8/17/26	UPDATE TO 9TH ED. (2026) FBC	LFS

DATE: 4/29/26

SCALE: N.T.S.

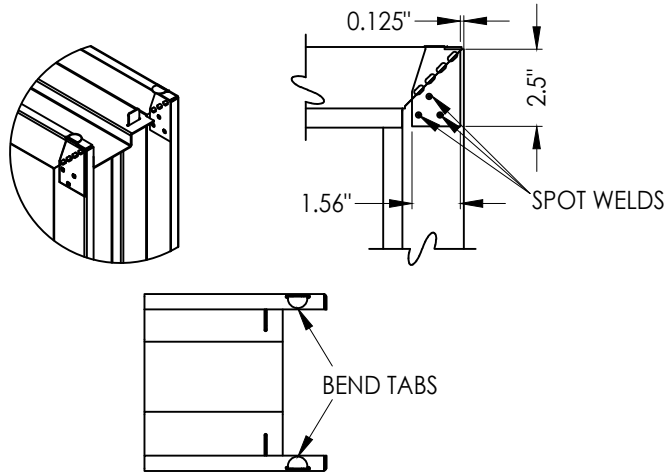
DWG. BY: LFS

CHK. BY: RW

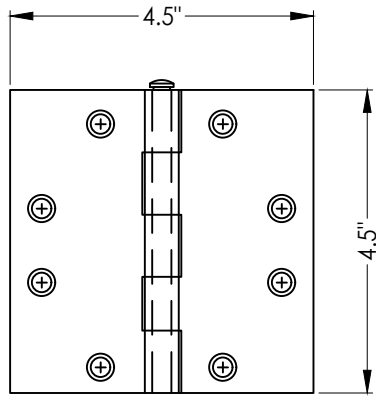
DRAWING NO.:
FL-48187.1

SHEET 13 OF 15

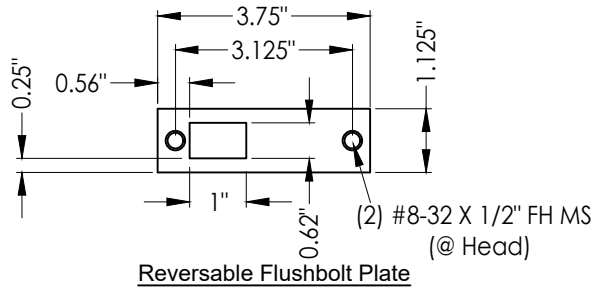
Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.dwg



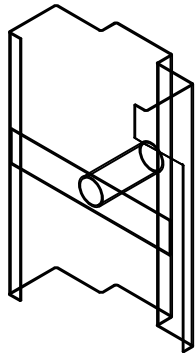
FRAME CORNER DETAILS



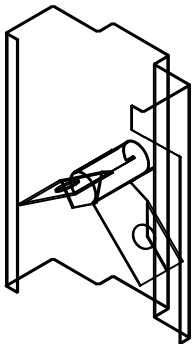
9 STEEL HINGE
0.134\"/>



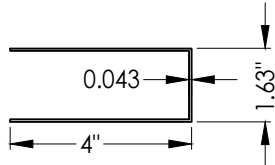
21 FLUSHBOLT FRAME REINFORCEMENT
16 GA STEEL



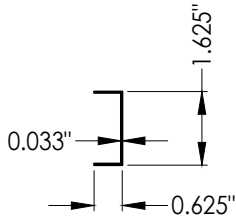
30 EMA PIPE ANCHOR
18 GA STEEL



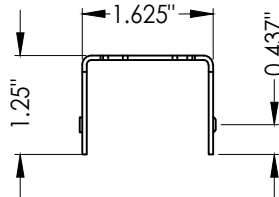
31 EMA BUTTERFLY ANCHOR
18 GA STEEL



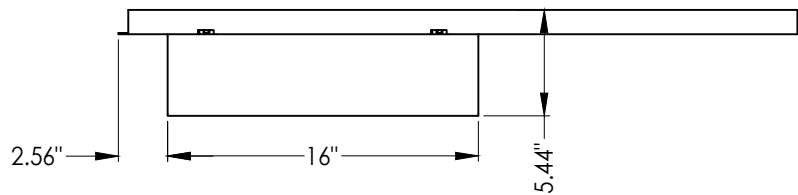
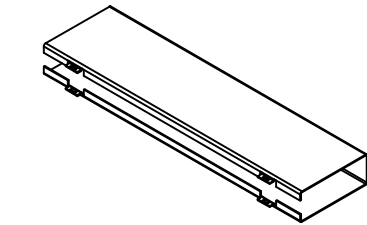
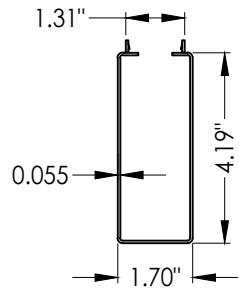
25 RIM PANIC BOX
18 GA. GALV. STEEL



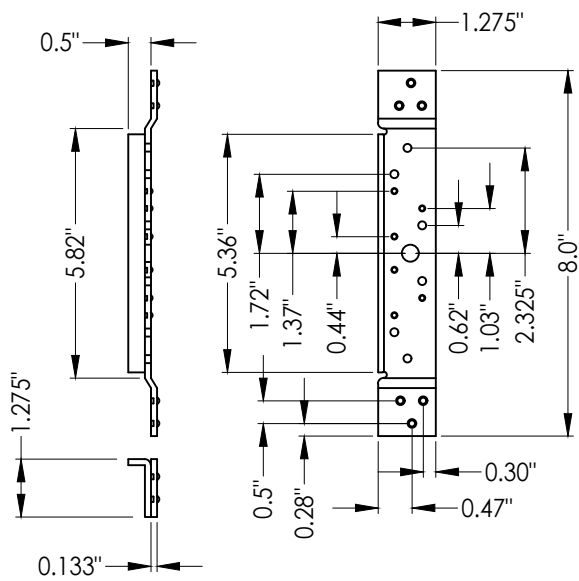
26 PERIMETER GLAZED CHANNEL REINFORCEMENT
20 GA. GALV. STEEL



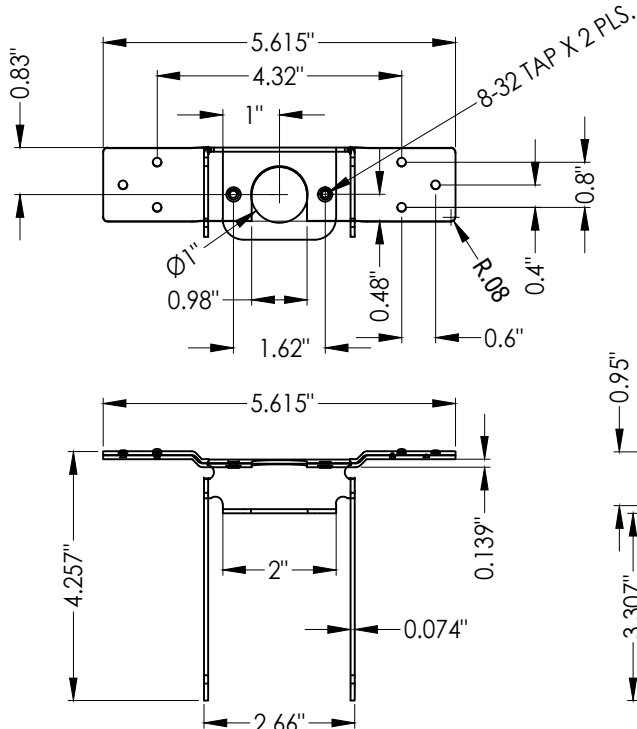
27 END CHANNEL
16 GA STEEL



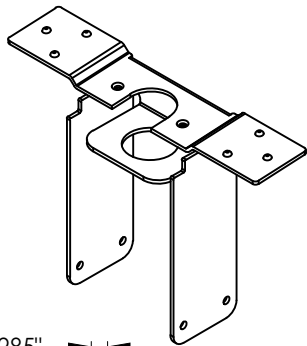
24 CLOSER BOX
16 GA GALV. STEEL



20 HINGE REINFORCEMENT
10 GA STEEL



23 CYLINDRICAL LOCK REINFORCEMENT



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 License No. 9813

PRODUCT:
LS18 STEEL DOOR

PART OR ASSEMBLY:
COMPONENTS

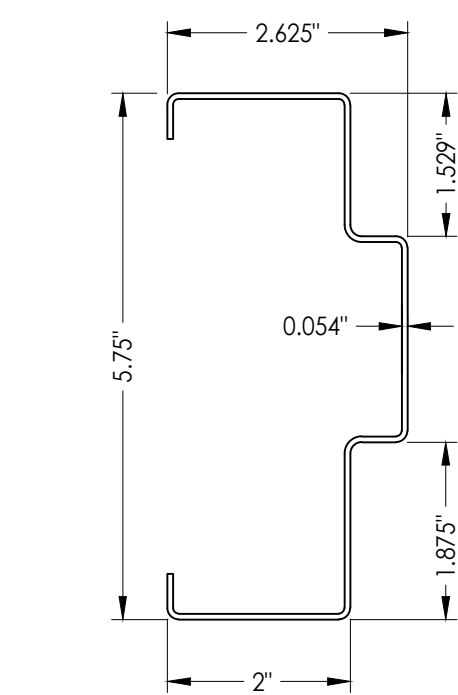
NO.	DATE	REVISIONS
1	8/17/26	UPDATE TO 9TH ED. (2026) FBC LFS

DATE: 4/29/26
SCALE: N.T.S.
DWG. BY: LFS
CHK. BY: RW
DRAWING NO.: FL-48187.1
SHEET 14 OF 15

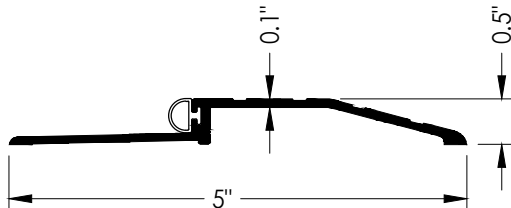
Z:\2023 FBC Drawings\Vision Hollow Metal\FL-48187 R0\FL-48187.1.dwg

BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2X STUD FRAMING (G>= 0.55)	WOOD
C	1/4" MAX. SHIM SPACE	-
E	MASONRY - 3,050 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK (2000 PSI MIN., GROUT FILLED) CONFORMING TO ASTM C90	CONCRETE
H	1/4" X 2-1/4" PFH DeWALT ULTRACON+ 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 DeWALT DRIL-FLEX SMS (MUST PENETRATE MIN. 3 THREADS THRU 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 (0.054" MIN. THK GALVANNEAL STEEL, Fy=54,000 PSI MIN.))	-
2	REMOVABLE MULLION (PDQ 9200M-11)	STEEL
3	"Z" ASTRAGAL (VISION HOLLOW METAL)	STEEL
3A	HURRICANE LOUVER (VISION HOLLOW METAL)	STEEL
5	OUTSWING BUMP THRESHOLD (HAGER 477S)	ALUM
6	ASTRAGAL GASKET (HAGER 849S)	-
7	WEATHERSTRIP (HAGER 736 PRESS-ON)	-
8	FRAME WEATHERSTRIP (HAGER 875S)	-
9	STEEL HINGE (4.5" X 4.5") (HAGER)	STEEL
10	#12-24 x 1/2" FH MACHINE SCREW	STEEL
11	LATCH STRIKE PLATE	STEEL
12	DEADBOLT STRIKE PLATE	STEEL
13	VERTICAL SURFACE ROD STRIKE PLATE	STEEL
14	RIM PANIC BAR EXIT DEVICE STRIKE PLATE	STEEL
16	#8 x 3/4" FH SCREWS	STEEL
17	#12 x 13/16" FH SCREWS	STEEL
18	1/4-20 x 3/4" PH THREAD CUTTING MACHINE SCREWS	STEEL
20	HINGE REINFORCEMENT (10 GA.)	STEEL
21	FLUSH BOLT GUIDE (0.050" THK.)	STEEL
22	FLUSH BOLT FRAME REINFORCMENT (16 GA)	STEEL
23	CYLINDRICAL LOCK REINFORCEMENT	STEEL
24	CLOSER BOX	STEEL
25	RIM PANIC BOX	STEEL
26	PERIMETER CHANNEL REINFORCEMENT	STEEL
27	END CHANNEL	STEEL
30	EMA PIPE ANCHOR (18 GA)	STEEL
31	EMA BUTTERFLY ANCHOR (18 GA)	STEEL
40	LOUVERED STEEL DOOR PANEL (7'-0" DOOR)	STEEL
41	LOUVERED STEEL DOOR PANEL (8'-0" DOOR)	STEEL

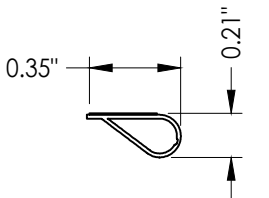
CORROSION RESISTANCE - SALTWATER ENVIRONMENTS
Fasteners & connectors in areas within 3000 ft (914 m) of a saltwater coastline shall comply with FBC Sections 1711.1 or R332.1.



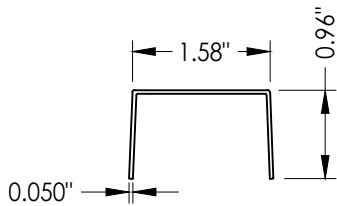
1 HOLLOW METAL FRAME



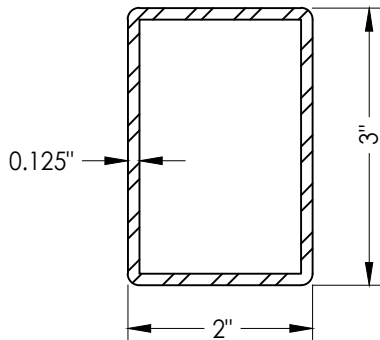
5 OUTSWING BUMP THRESHOLD
HAGER 477S



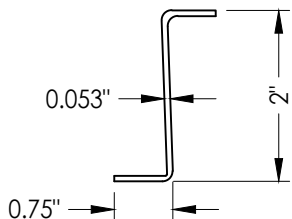
7 WEATHERSTRIP



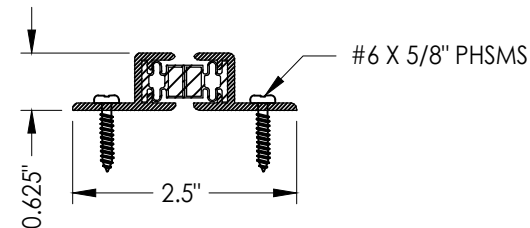
22 FLUSHBOLT GUIDE



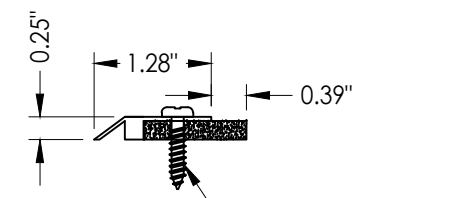
2 MULLION
PDQ 9200M-11 SERIES



3 "Z" ASTRAGAL



6 ASTRAGAL GASKET



8 FRAME WEATHERSTRIP

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 License No. 9813

PRODUCT:

LS18 STEEL DOOR

PART OR ASSEMBLY:

BILL OF MATERIALS
& COMPONENTS

DATE: 4/29/26

SCALE: N.T.S.

DWG. BY: LFS

CHK. BY: RW

DRAWING NO.:

FL-48187.1

SHEET 15 OF 15