



RE (PSF)

GATIVE

80.0

70.0

50.0





November 16, 2020

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

STATE OF FLORIDA
PROFESSIONAL ENGINEER

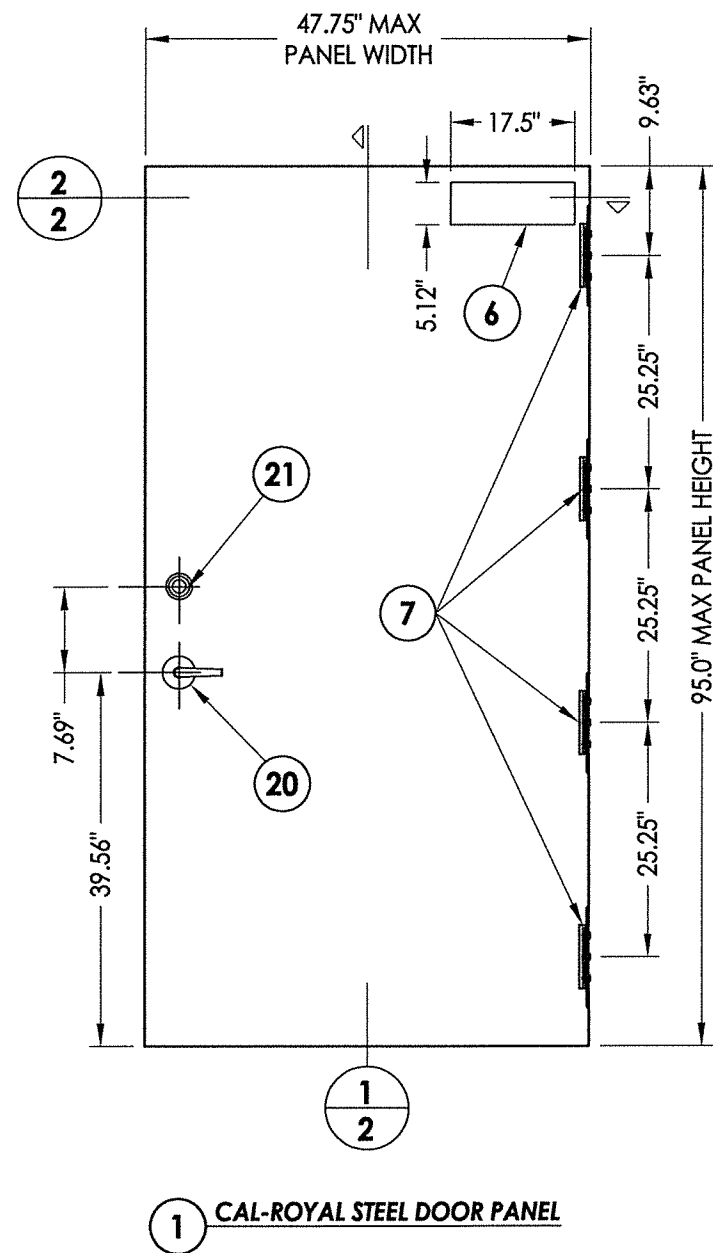


BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

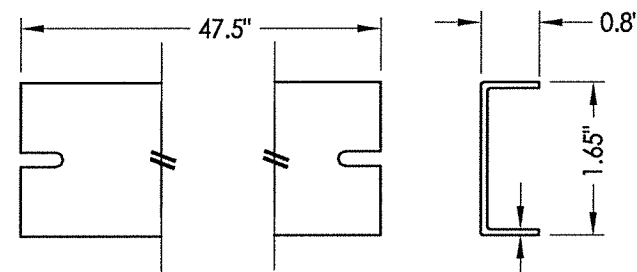
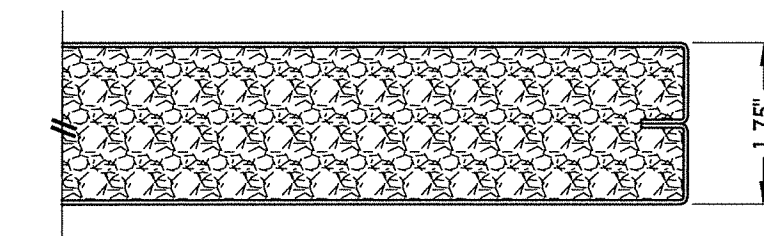
PRODUCT: CAL-ROYAL STEEL COMMERCIAL DOOR									
PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES									
						REVISIONS			

DATE:	3/31/10		
SCALE:	N.T.S.		
DWG. BY:	JK		
CHK. BY:	LFS		
DRAWING NO.:	FL-13624.2		
SHEET	1	OF	5

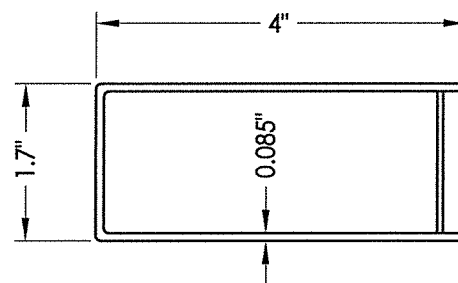
2 HORIZONTAL CROSS SECTION
2 Door panel



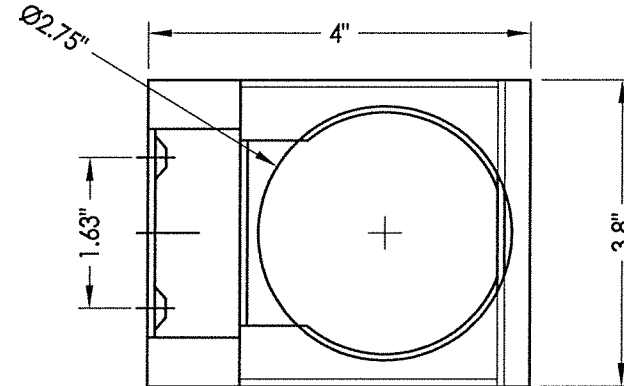
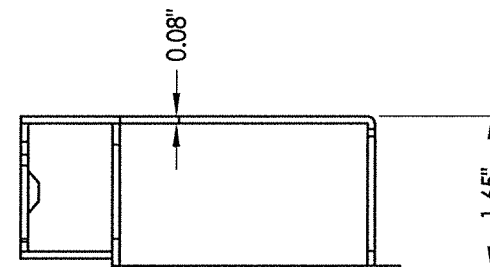
STEEL DOOR SKIN (18 GA.): MIN. 0.045" THK.
STEEL GRADE: ASTM A1008 GALV. STEEL (Fy = 33,000 PSI MIN.)
CORE MATERIAL: EPS FOAM (POLYSTYRENE - 1.0 PCF MIN. DENSITY)



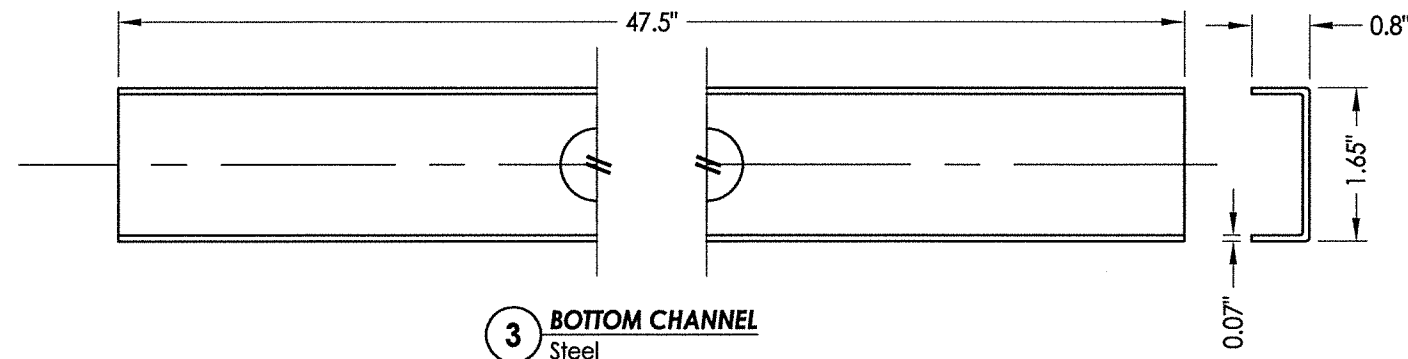
4 FLUSH TOP CHANNEL



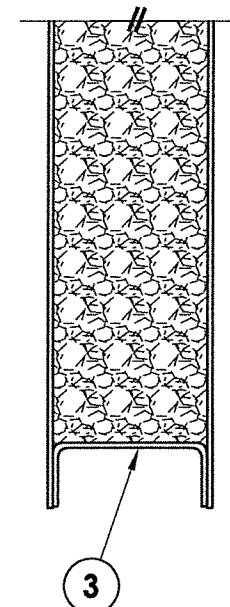
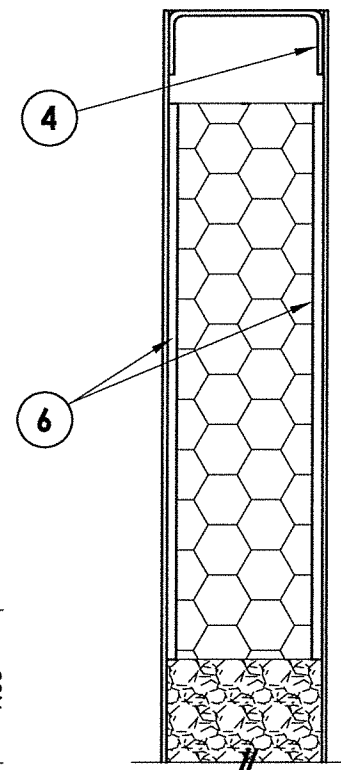
5A STEEL LOCK BOX REINFORCEMENT



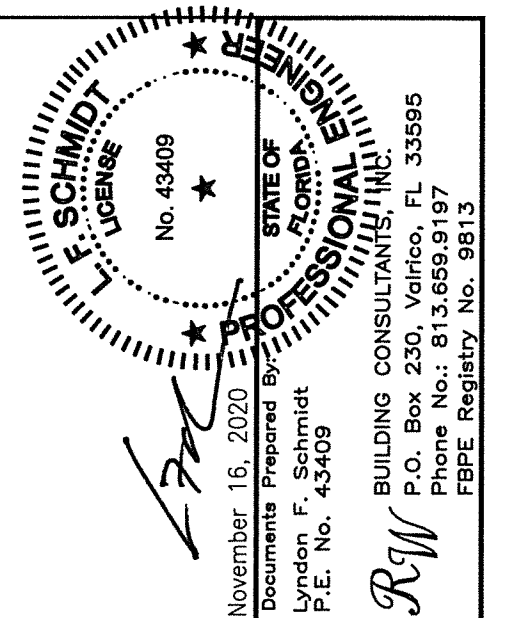
5 STEEL LOCK BOX REINFORCEMENT



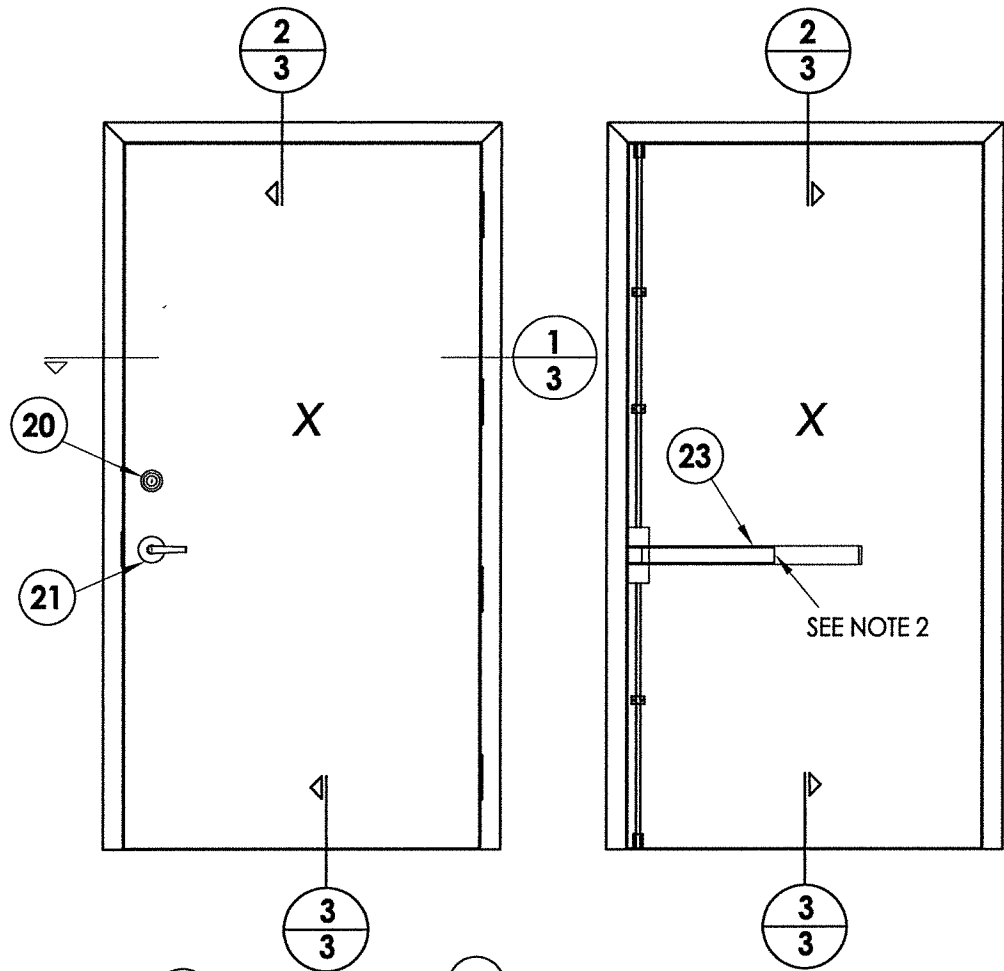
3 BOTTOM CHANNEL
Steel



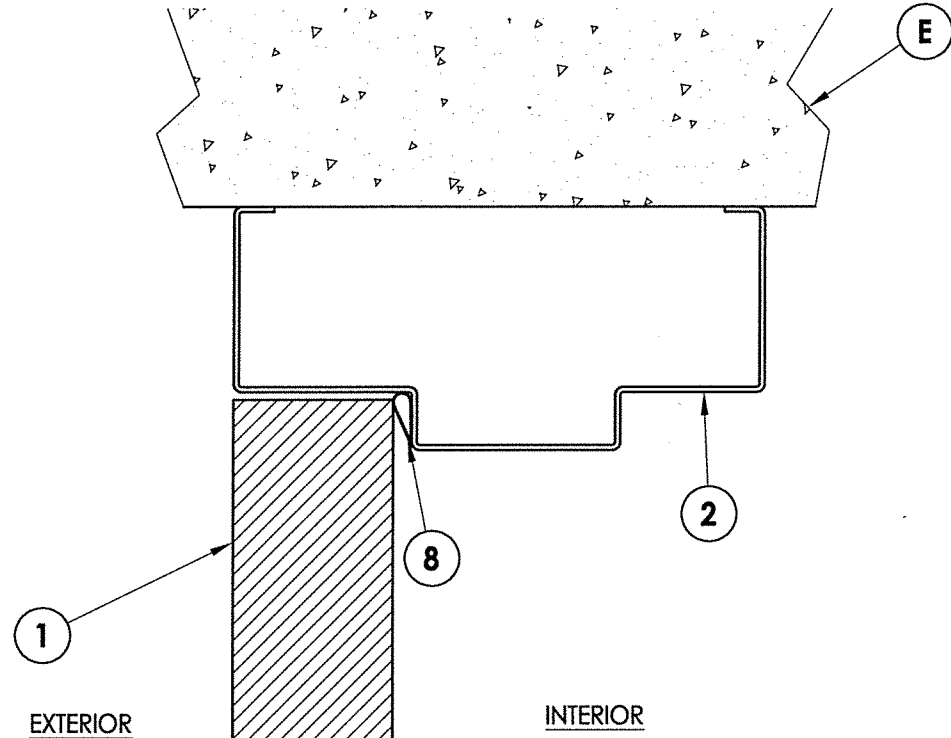
1 VERTICAL CROSS SECTION
2 Door panel



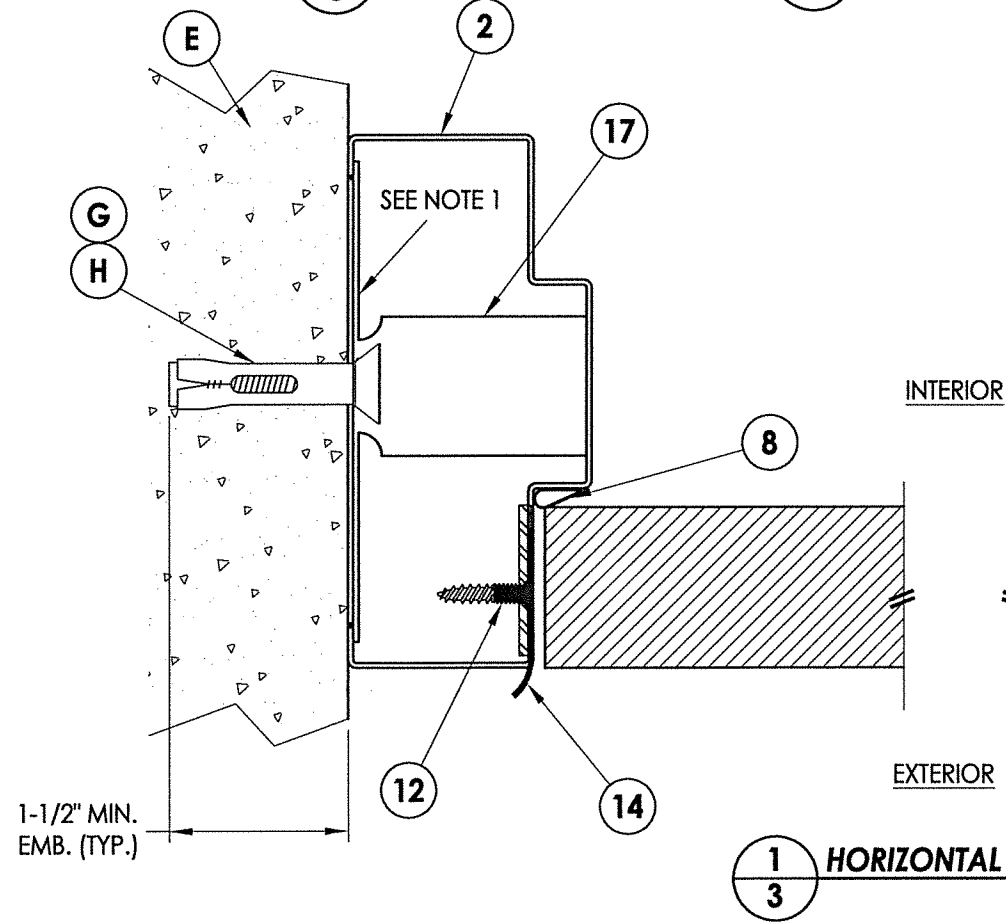
PRODUCT:		CAL - ROYAL		STEEL COMMERCIAL DOOR																																											
PART OR ASSEMBLY:				DOOR PANEL DETAILS																																											
<table border="1"> <thead> <tr> <th colspan="2"></th> <th colspan="4">REVISIONS</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>11/16/20</td> <td>UPDATE TO 7TH ED. (2020)</td> <td>FBC</td> <td>LFS</td> <td></td> </tr> <tr> <td>4</td> <td>9/27/17</td> <td>UPDATE TO 6TH ED. (2017)</td> <td>FBC</td> <td>JK</td> <td></td> </tr> <tr> <td>3</td> <td>1/27/15</td> <td>UPDATE TO 5TH ED. (2014)</td> <td>FBC</td> <td>JK</td> <td></td> </tr> <tr> <td>2</td> <td>7/31/14</td> <td>ADD PANIC BAR HARDWARE</td> <td></td> <td>JK</td> <td></td> </tr> <tr> <td>1</td> <td>1/26/12</td> <td>UPDATE TO 2010 FBC</td> <td></td> <td>JK</td> <td></td> </tr> <tr> <td>NO.</td> <td>DATE</td> <td></td> <td></td> <td>BY</td> <td></td> </tr> </tbody> </table>								REVISIONS				5	11/16/20	UPDATE TO 7TH ED. (2020)	FBC	LFS		4	9/27/17	UPDATE TO 6TH ED. (2017)	FBC	JK		3	1/27/15	UPDATE TO 5TH ED. (2014)	FBC	JK		2	7/31/14	ADD PANIC BAR HARDWARE		JK		1	1/26/12	UPDATE TO 2010 FBC		JK		NO.	DATE			BY	
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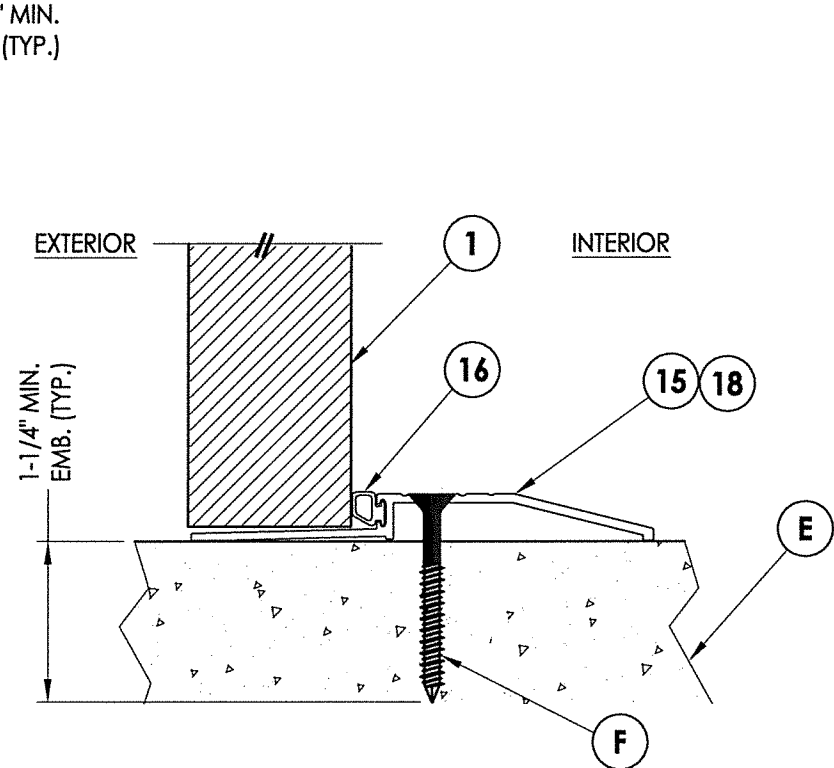
NOTES:
1. Anchor strap (3/4" wide, 18 gauge steel) or Tube Anchor tack welded to frame along each end.
Panic Bar set screws (#12-24 x 5/16") must be activated to achieve impact rating. Locate one screw at top and bottom at center of push rail or locate one screw at each end of bar.



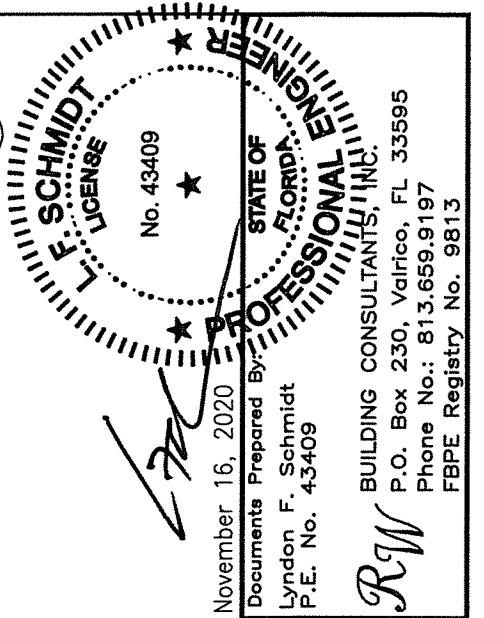
2 VERTICAL CROSS SECTION
3 Outswing configuration



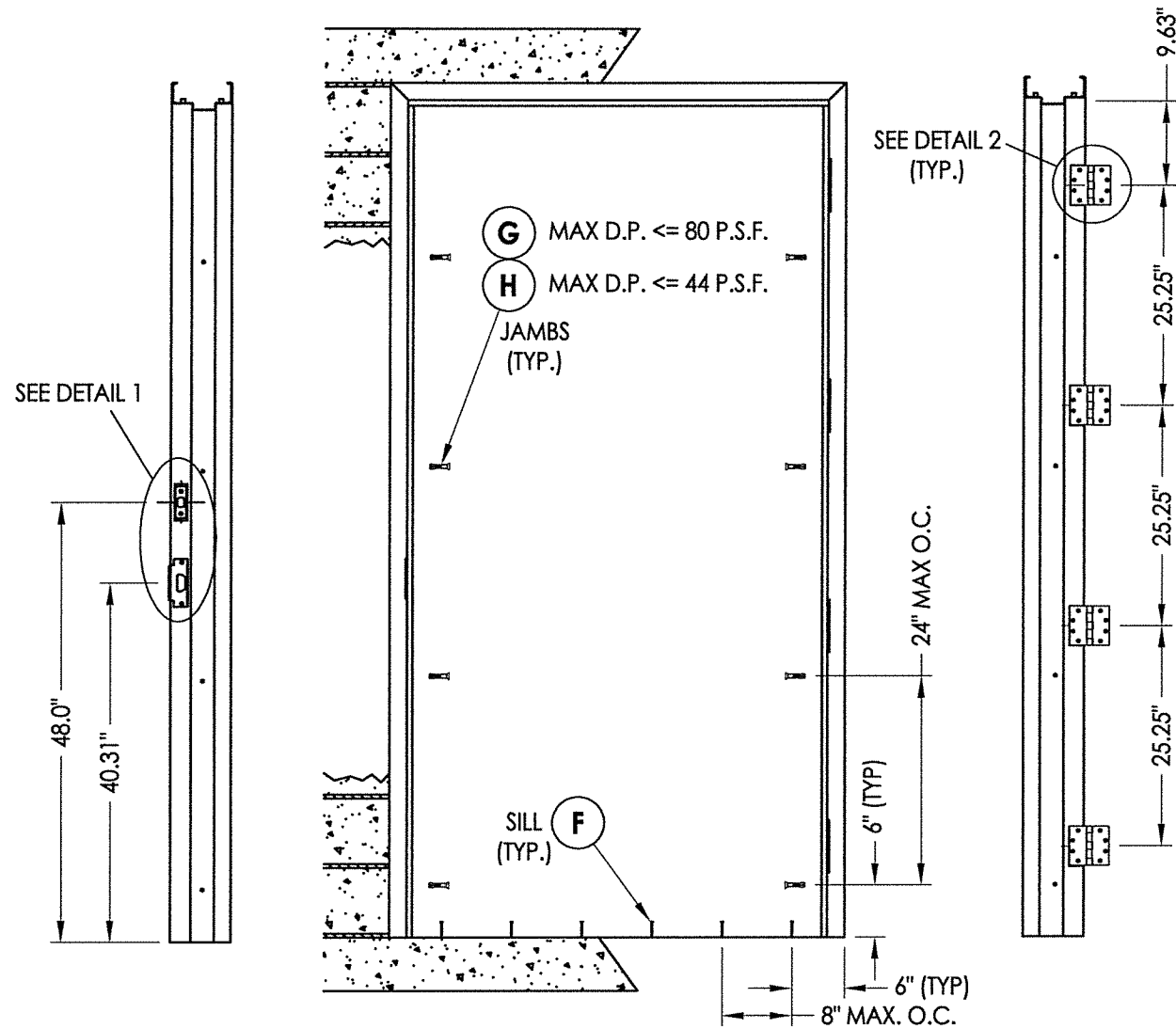
1 HORIZONTAL CROSS SECTION
3



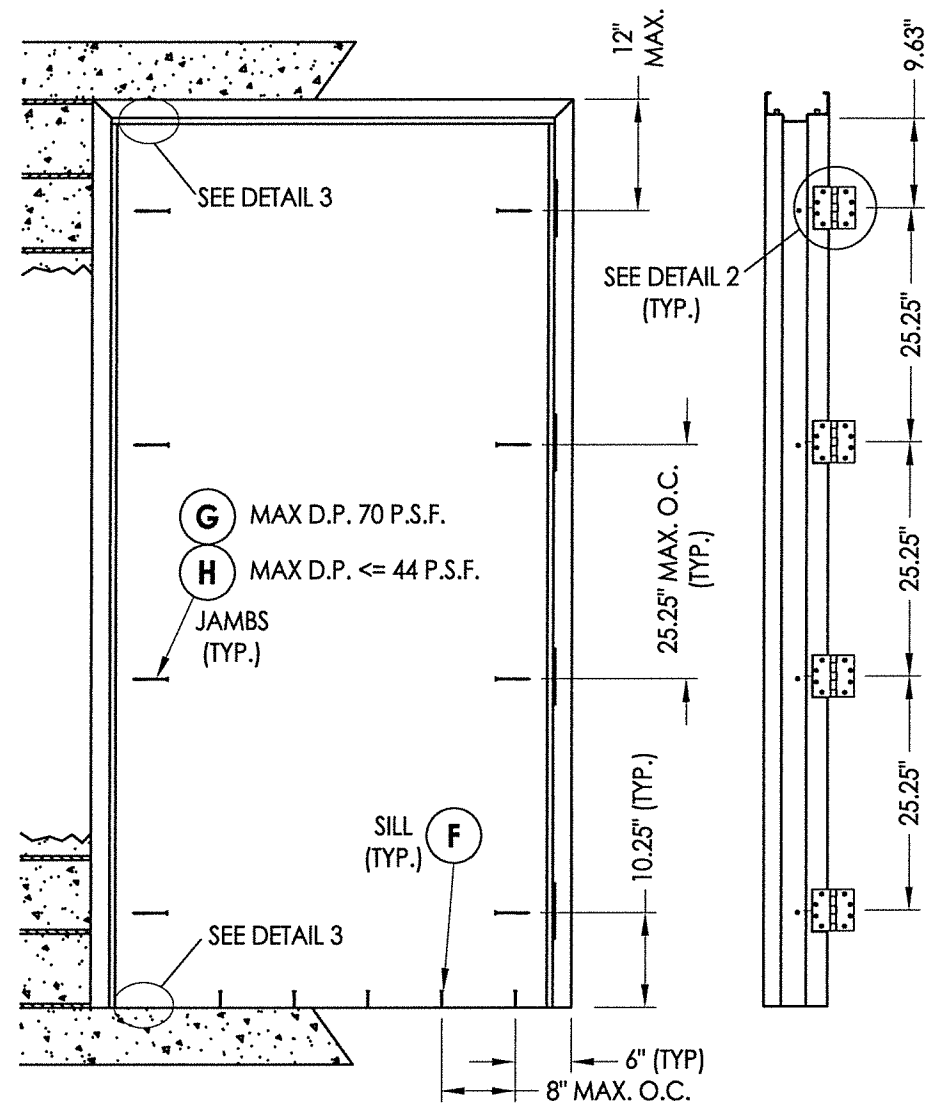
3 VERTICAL CROSS SECTION
3 Outswing configuration



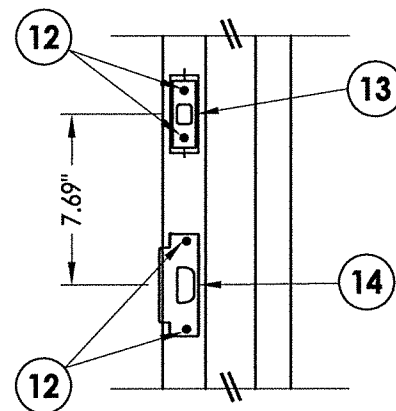
November 16, 2020		Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		R.W. BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813	
CAL-ROYAL		STEEL COMMERCIAL DOOR		PART OR ASSEMBLY: HORIZONTAL AND VERTICAL CROSS SECTIONS	
5	11/16/20	UPDATE TO 7TH ED. (2020)	FBC	LFS	
4	9/27/17	UPDATE TO 6TH ED. (2017)	FBC	JK	
3	1/27/15	UPDATE TO 5TH ED. (2014)	FBC	JK	
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DWG. BY: JK		CHK. BY: LFS			
DRAWING NO.: FL-13624.2					
SHEET 3 OF 5					



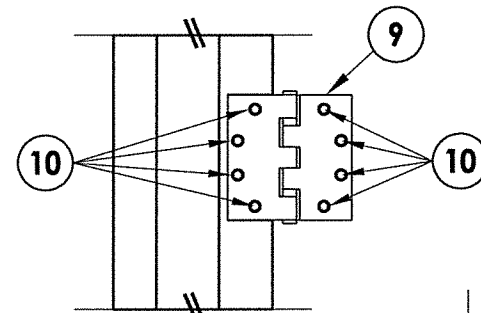
FRAME ANCHORING
161 Latch & Deadbolt



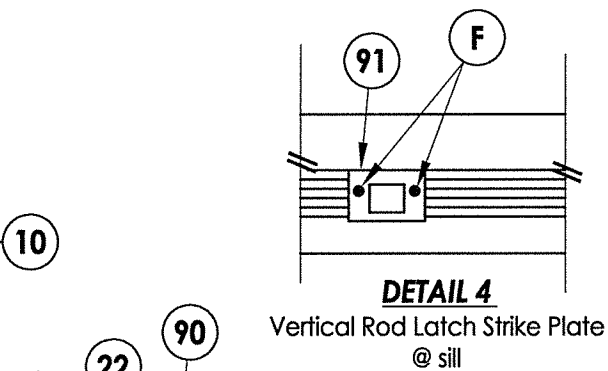
FRAME ANCHORING
Panic Bar Exit Device
w/ Vertical Rods



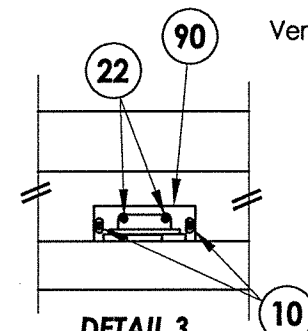
DETAIL 1
Latch & Deadbolt Strike Plates



DETAIL 2
Hinges



DETAIL 4
Vertical Rod Latch Strike Plate
@ sill



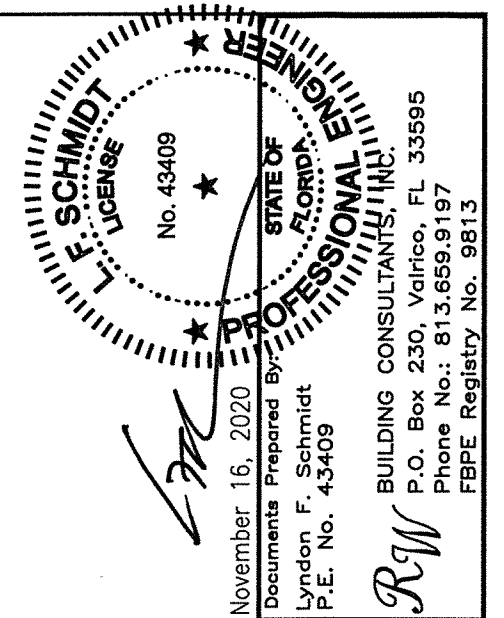
DETAIL 3
Vertical Rod Latch Strike Plate
@ head

CONCRETE ANCHOR NOTES:

1. Substitution of equal concrete screws from a different supplier may have different edge distance and center distance requirements.
2. Concrete screw locations at the corners may be adjusted to maintain the minimum edge distance to mortar joints. If concrete screw locations noted as "MAX. ON CENTER" 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.
3. Concrete anchor table:

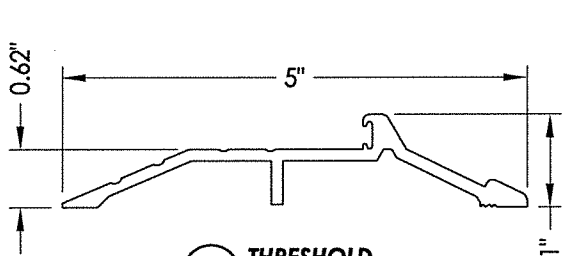
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	4"	2"
TAPPER	3/8"	1-1/2"	4-1/4"	3-3/4"
DYNABOLT SLEEVE ANCHOR	3/8"	1-1/2"	2-1/4"	4-1/2"

4. Embedment may be through 1-1/4" face shell of hollow block.

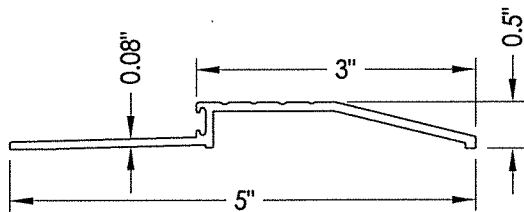


PRODUCT:		CAL-ROYAL STEEL COMMERCIAL DOOR	
PART OR ASSEMBLY:		FRAME ANCHORING	
LFS	JK	JK	JK
JK	JK	JK	JK
JK	JK	JK	JK
BY	DATE	NO.	REVISIONS
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SCALE: N.T.S.			
DWG. BY: JK			
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DRAWING NO.: FL-13624.2			
SHEET 4 OF 5			

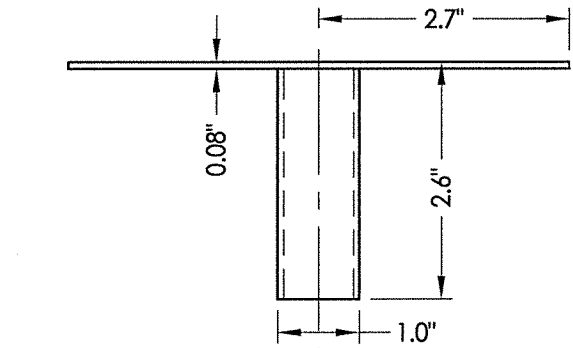
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
F	1/4" X 2-1/4" ITW PFH CONCRETE SCREW	STEEL
G	3/8" PFH ITW DYNABOLT SLEEVE ANCHOR	STEEL
H	3/8" PFH TAPPER CONCRETE SCREW BY POWERS FASTENERS	STEEL
1	DOOR PANEL	STEEL
2	HOLLOW FRAME 2"	STEEL
3	BOTTOM CHANNEL	STEEL
4	FLUSH TOP CHANNEL	STEEL
5	LOCK BOX REINFORCEMENT	STEEL
5A	LOCK BOX REINFORCEMENT	STEEL
6	DOOR CLOSER REINFORCEMENT (11 GA.)	STEEL
7	DOOR HINGE REINFORCEMENT	STEEL
8	WEATHERSTRIP - COMPRESSION BULB 1/4" X 1/2" (PEMCO S88)	NEOPRENE
9	4-1/2" X 4-1/2" X 0.125" TEMPLATE HINGE	STEEL
10	#12-24 X 1/2" PFH MACHINE SCREW	STEEL
11	FRAME HINGE REINFORCEMENT	STEEL
12	#12-24 X 1" COMBINATION MACHINE / WOOD SCREW	STEEL
13	DEAD BOLT STRIKE	STEEL
14	ANSI LATCH STRIKE	STEEL
15	THRESHOLD (PEMCO #181_T)	ALUM
16	WEATHERSTRIP (THERMOSEAL™)	NEOPRENE
17	UNIVERSAL WALL ANCHOR REINFORCEMENT	STEEL
18	THRESHOLD (PEMCO 2001P)	ALUM
19	TUBE ANCHOR REINFORCEMENT	STEEL
20	CAL-ROYAL PIONEER SL/CSL SERIES GRADE 2 CYLINDRICAL LOCK	-
21	CAL-ROYAL T300 MAX. SECURITY HEAVY-DUTY DEAD BOLT GRADE 2 LOCK	-
22	#8-24 X 3/4" COMB. MACHINE / WOOD SCREW	STEEL
23	CAL-ROYAL 7700-V SERIES VERTICAL ROD EXIT DEVICE	-
90	VERTICAL ROD LATCH STRIKE PLATE @ HEAD	STEEL
91	VERTICAL ROD LATCH STRIKE PLATE @ SILL	STEEL



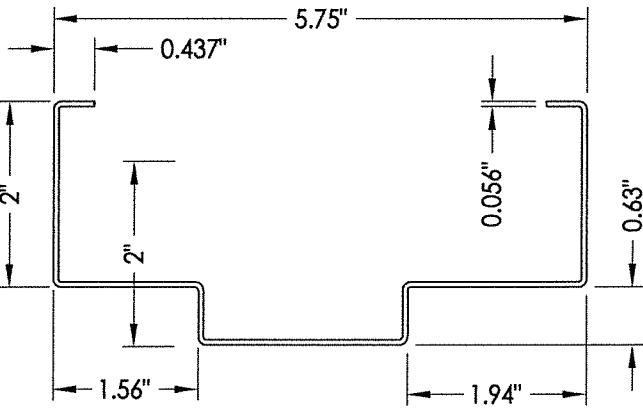
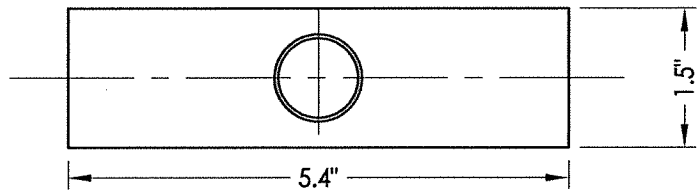
15 THRESHOLD



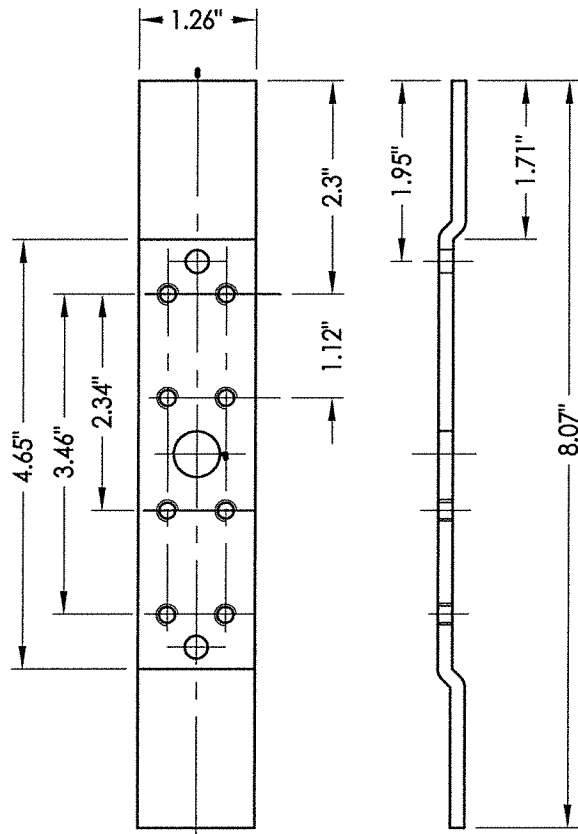
18 THRESHOLD



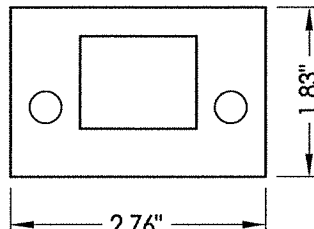
19 TUBE ANCHOR



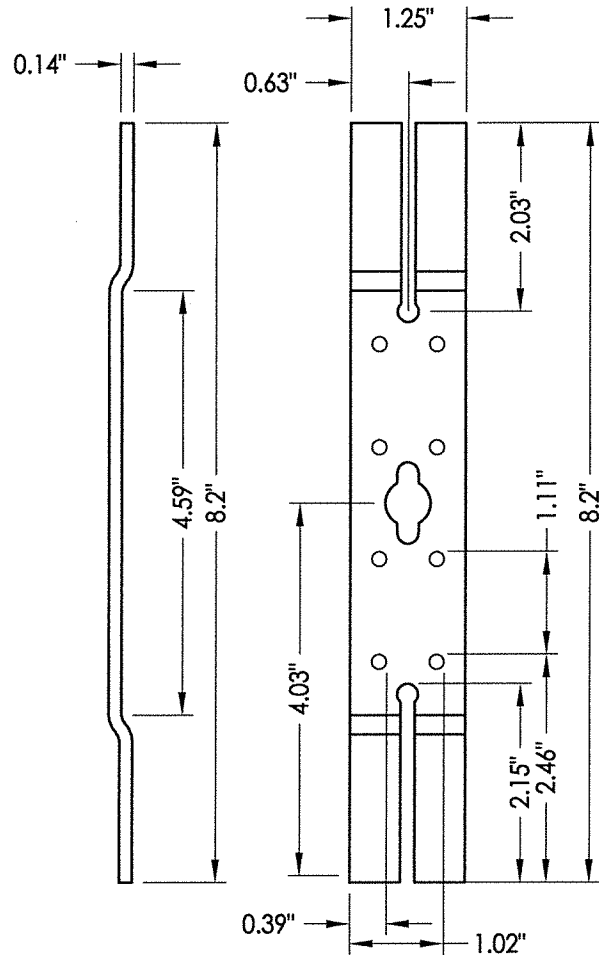
2 FRAME
16 Ga. Steel



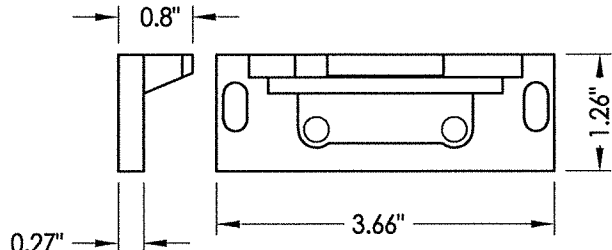
11 FRAME HINGE REINFORCEMENT
8 Ga. Steel



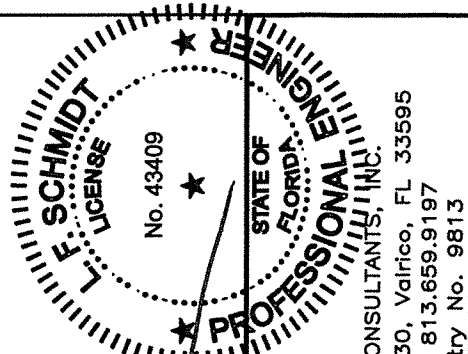
91 VERTICAL ROD LATCH STRIKE PLATE
@ Sill



7 DOOR HINGE REINFORCEMENT
8 Ga. Steel



90 VERTICAL ROD LATCH STRIKE PLATE
@ Head



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