



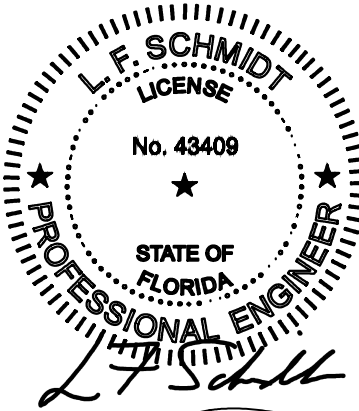
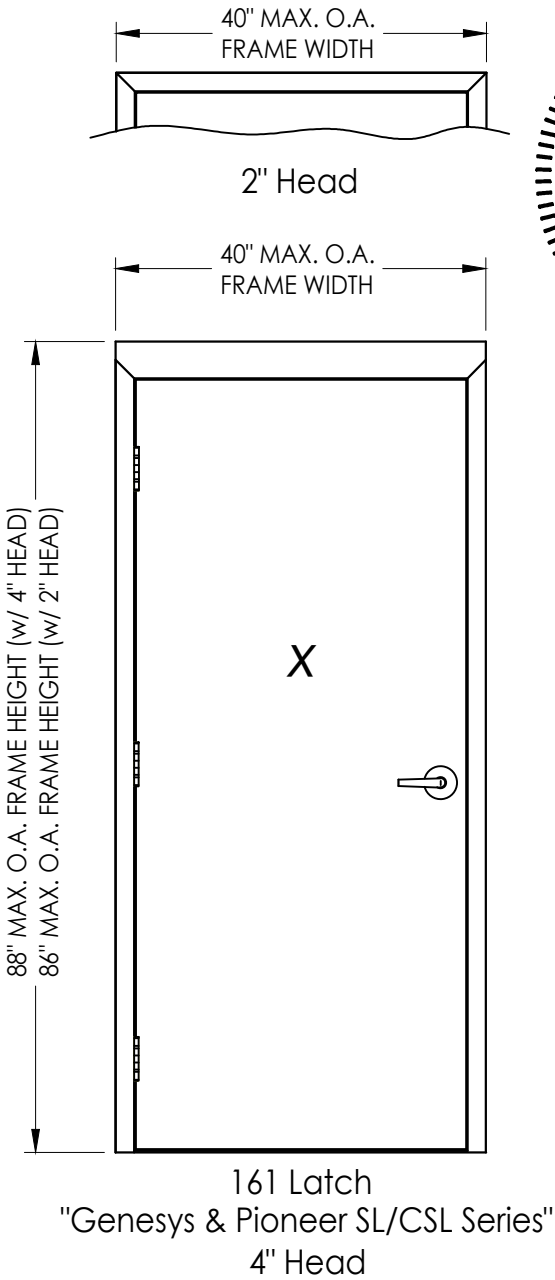
STEEL DOOR & FRAME SYSTEMS, INC.

DKS SERIES 1800
STEEL COMMERCIAL SINGLE DOOR
INSWING / OUTSWING
"IMPACT"

GENERAL NOTES

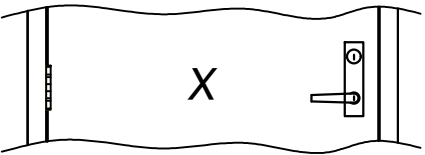
- This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
- Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
- When used in the "HVHZ" this product complies with Section 1626 of the Florida Building Code and does not require an impact resistant covering.
- When used in areas outside of the "HVHZ" 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 E 1996 and FBC Sections 1609.1.2.2 & R301.2.1.2.1.
- Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
- 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.
- When used in the "HVHZ", steel must be protected as specified in FBC Section 2222.6

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

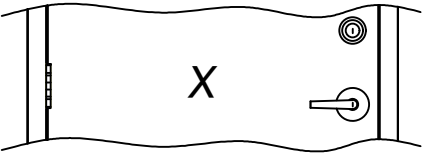


This item has been digitally signed and sealed by
L. F. Schmidt, P.E. on the date adjacent to the seal.
Printed copies of this document are not
considered signed and sealed and the signature
must be verified on any electronic copies.

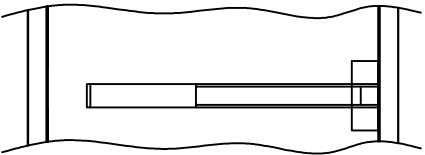
THIS PRODUCT APPROVAL IS VALID
ONLY FOR THE STATE OF FLORIDA



86E Mortise Lock
"M Series"



161 Latch & Deadbolt
"Pioneer SL/CSL Series" Latch
"T300 Series" Deadbolt



"F5000/5000 & F7700/7700 Series"
Panic Bar Exit Device

MAX FRAME DIMENSION	LOCK TYPE	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
40.0" x 88.0"	161 LATCH "Pioneer SL/CSL Series"	+55.0	-55.0	+55.0	-55.0
40.0" x 88.0"	161 LATCH & DEADBOLT "Pioneer SL/CSL & T300 Series"	+55.0	-55.0	+55.0	-55.0
40.0" x 88.0"	161 LATCH "Genesys Series"	+70.0	-70.0	+70.0	-70.0
40.0" x 88.0"	PANIC BAR EXIT DEVICE "F5000/5000 Series"	N/A	N/A	+50.0	-50.0
40.0" x 88.0"	PANIC BAR EXIT DEVICE "F7700/7700 Series"	N/A	N/A	+70.0	-70.0
40.0" x 88.0"	86E Mortise Lock "M Series"	+80.0	-80.0	+80.0	-80.0

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

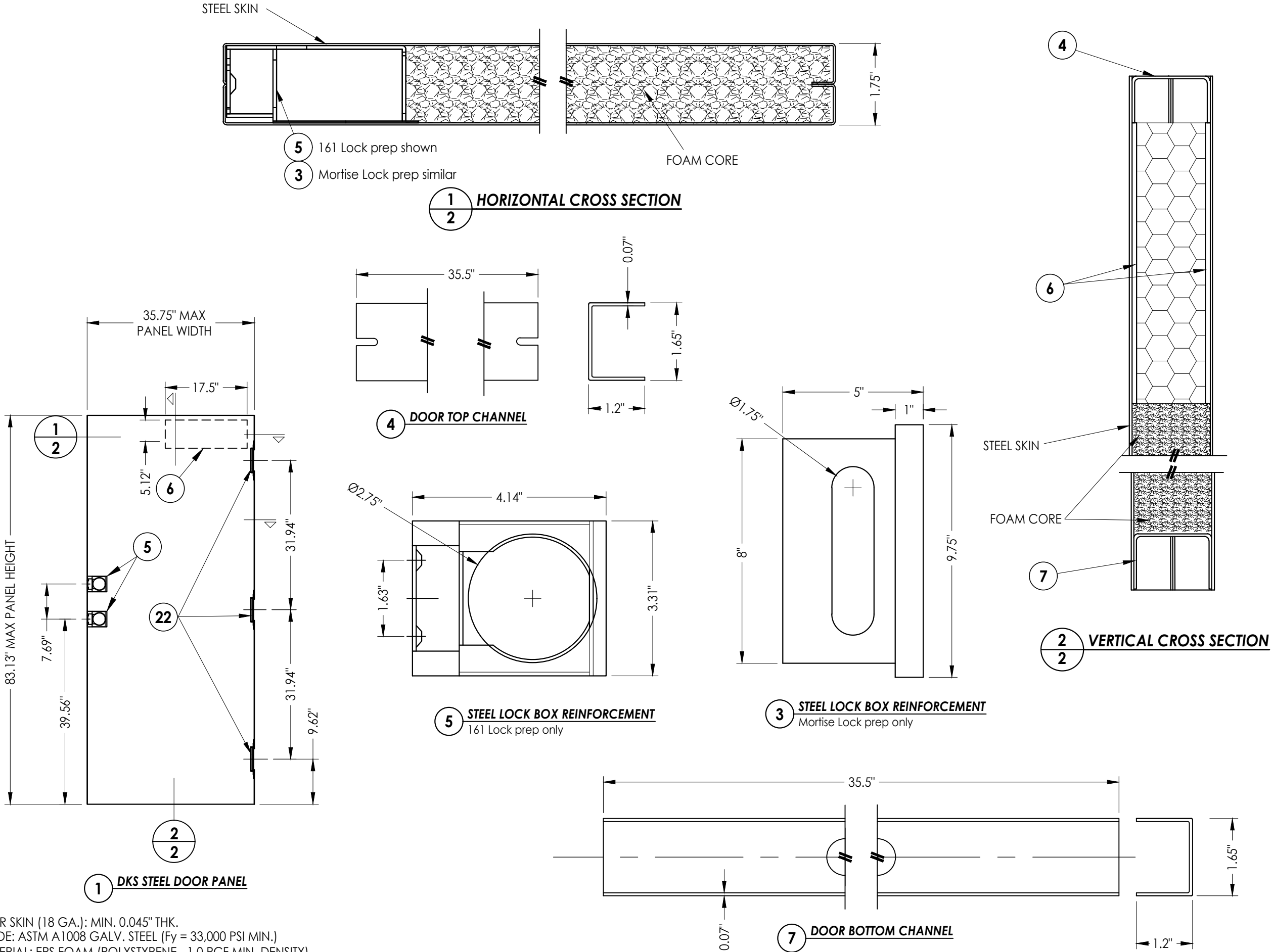
PRODUCT: CAL-ROYAL
STEEL COMMERCIAL DOOR
PART OR ASSEMBLY:
TYPICAL ELEVATION, DESIGN
PRESSURES & GENERAL NOTES

NO.	DATE	REVISIONS
1	7/01/23	UPDATE TO 8TH ED. (2023) FBC

DATE: 3/21/22
SCALE: N.T.S.
DWG. BY: LFS
CHK. BY: RW
DRAWING NO.:
FL-41130.4
SHEET 1 OF 8

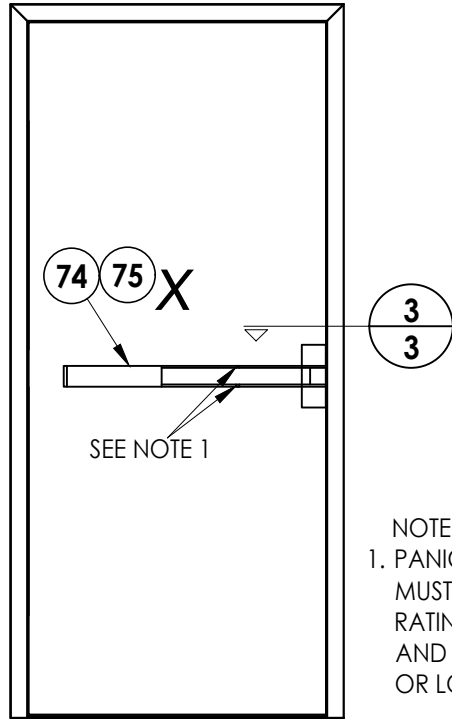
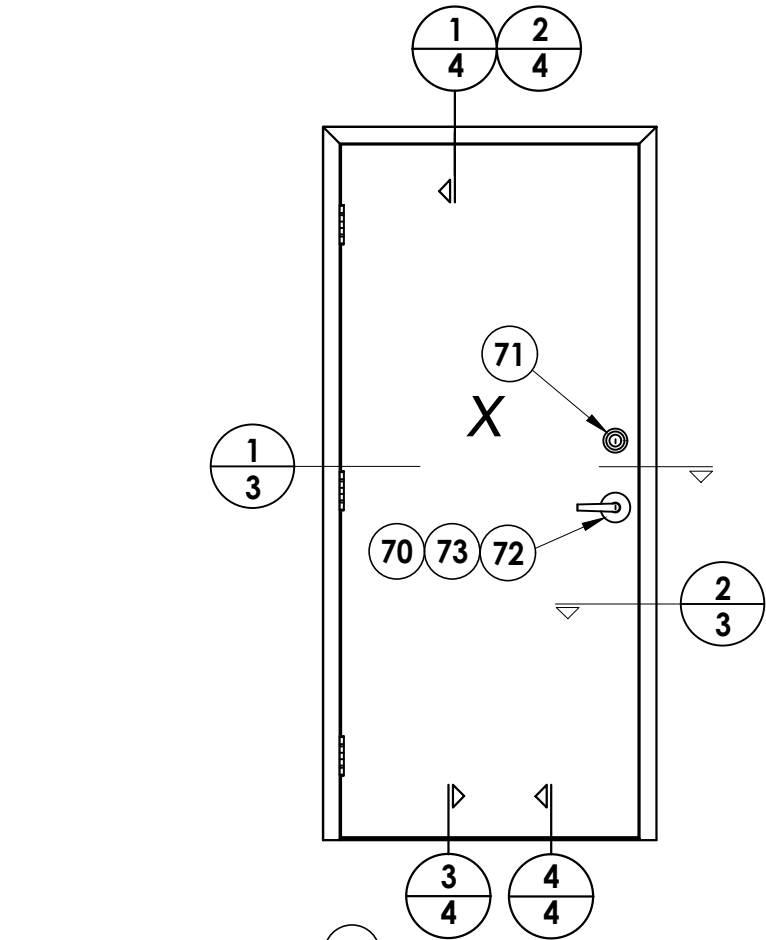
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STEEL DOOR SKIN (18 GA.): MIN. 0.045" THK.
STEEL GRADE: ASTM A1008 GALV. STEEL (F_y = 33,000 PSI MIN.)
CORE MATERIAL: EPS FOAM (POLYSTYRENE - 1.0 PCF MIN. DENSITY)



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PRODUCT: DKS STEEL COMMERCIAL DOOR		PART OR ASSEMBLY: DOOR PANEL DETAILS	
		REVISIONS	
		NO.	DATE
		1	7/01/23
			UPDATE TO 8TH ED. (2023) FBC
			LFS
			BY
DATE: 3/21/22			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: FL-41130.4			
SHEET 2 OF 8			

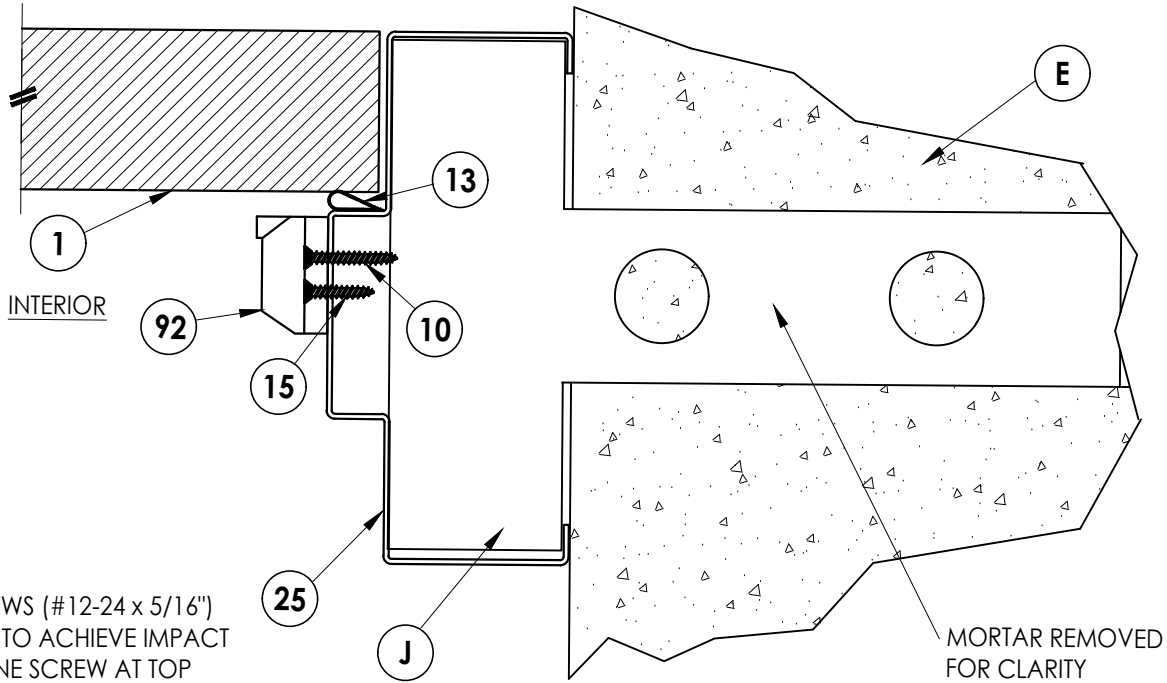
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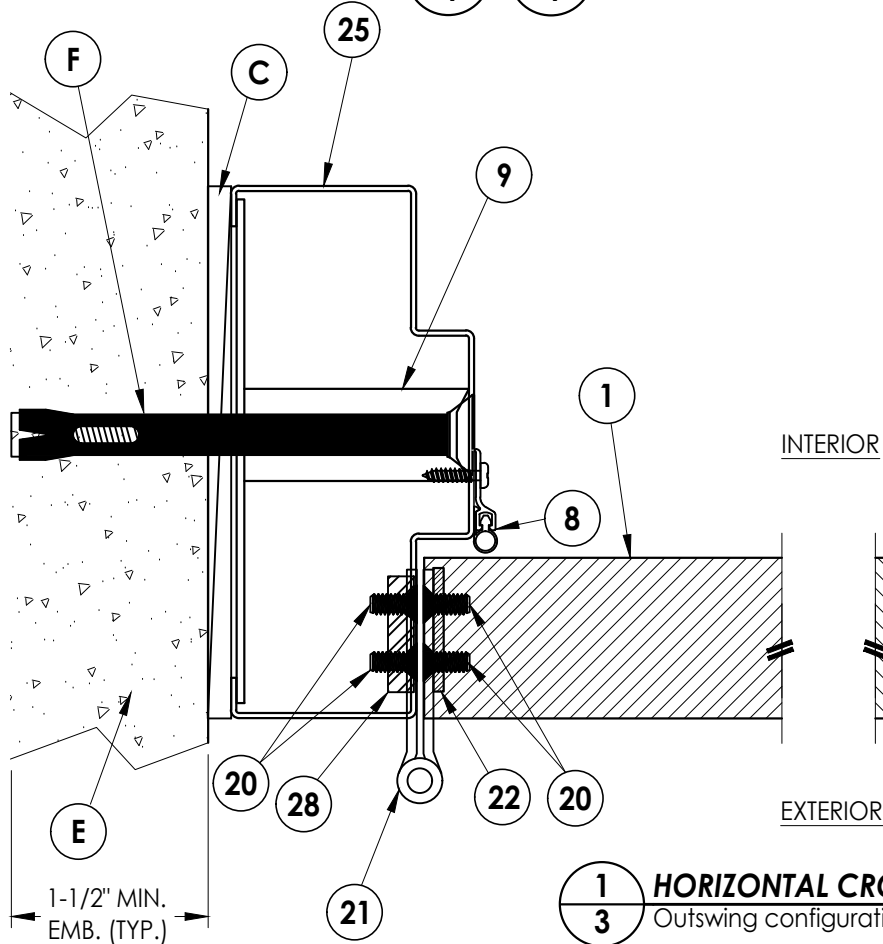
NOTE:
1. PANIC BAR SET SCREWS (#12-24 x 5/16")
MUST BE ACTIVATED TO ACHIEVE IMPACT
RATING. LOCATE ONE SCREW AT TOP
AND BOTTOM AT CENTER OF PUSH RAIL
OR LOCATE ONE SCREW AT EACH END OF BAR.

EXTERIOR

INTERIOR



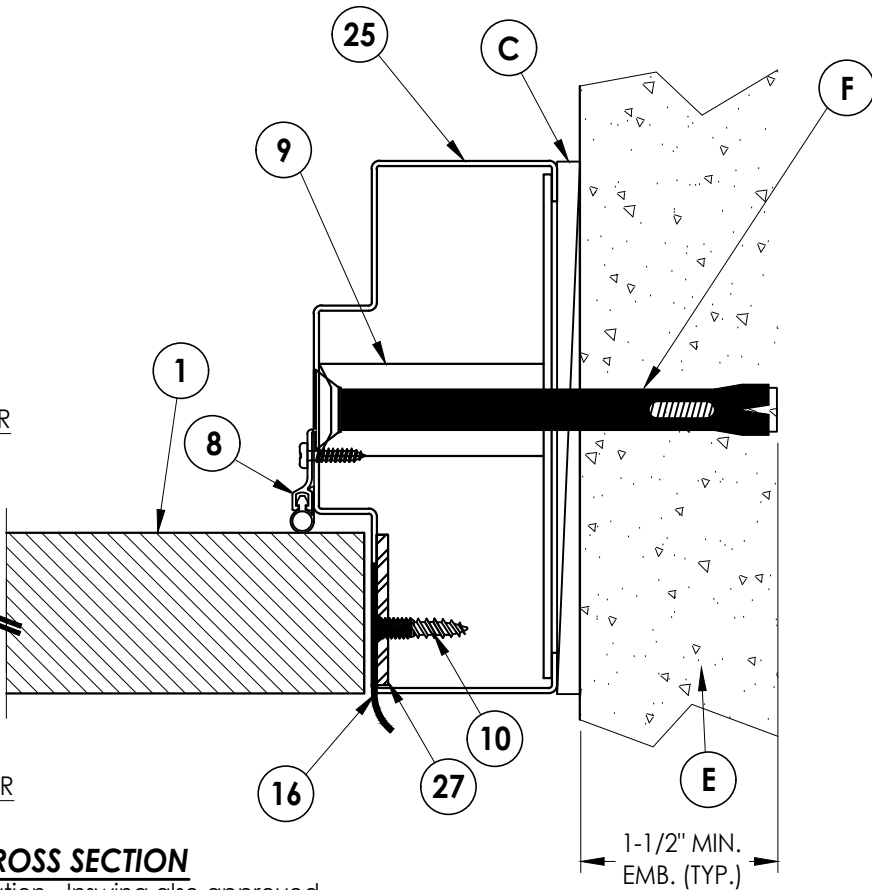
3 HORIZONTAL CROSS SECTION
Masonry Construction
Masonry "Tee" Anchor



1 HORIZONTAL CROSS SECTION
Outswing configuration - Inswing also approved

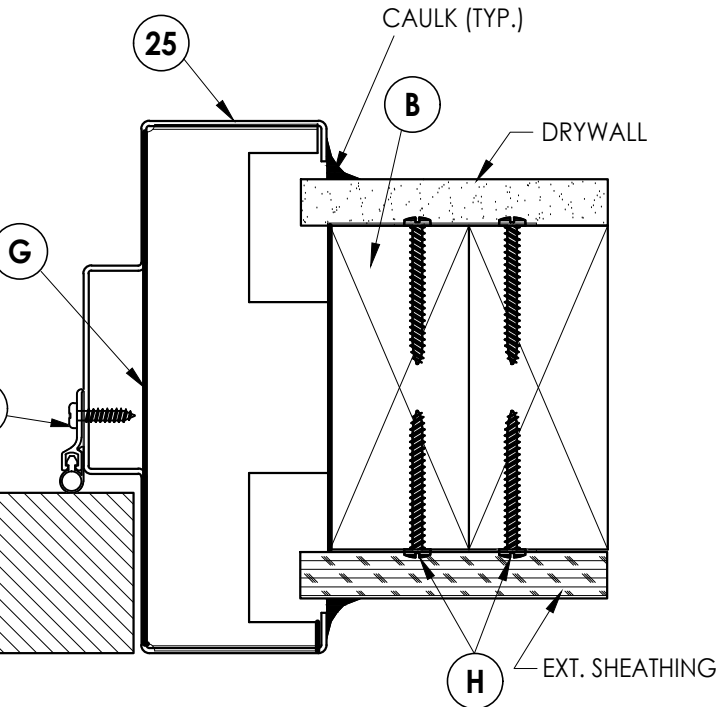
INTERIOR

EXTERIOR



INTERIOR

EXTERIOR



2 HORIZONTAL CROSS SECTION
2X Stud Construction
Wood Stud Anchor

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PRODUCT: DKS
STEEL COMMERCIAL DOOR
PART OR ASSEMBLY:
HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS	
		LFS	BY
1	7/01/23	UPDATE TO 8TH ED. (2023)	FBC

DATE: 3/21/22

SCALE: N.T.S.

DWG. BY: LFS

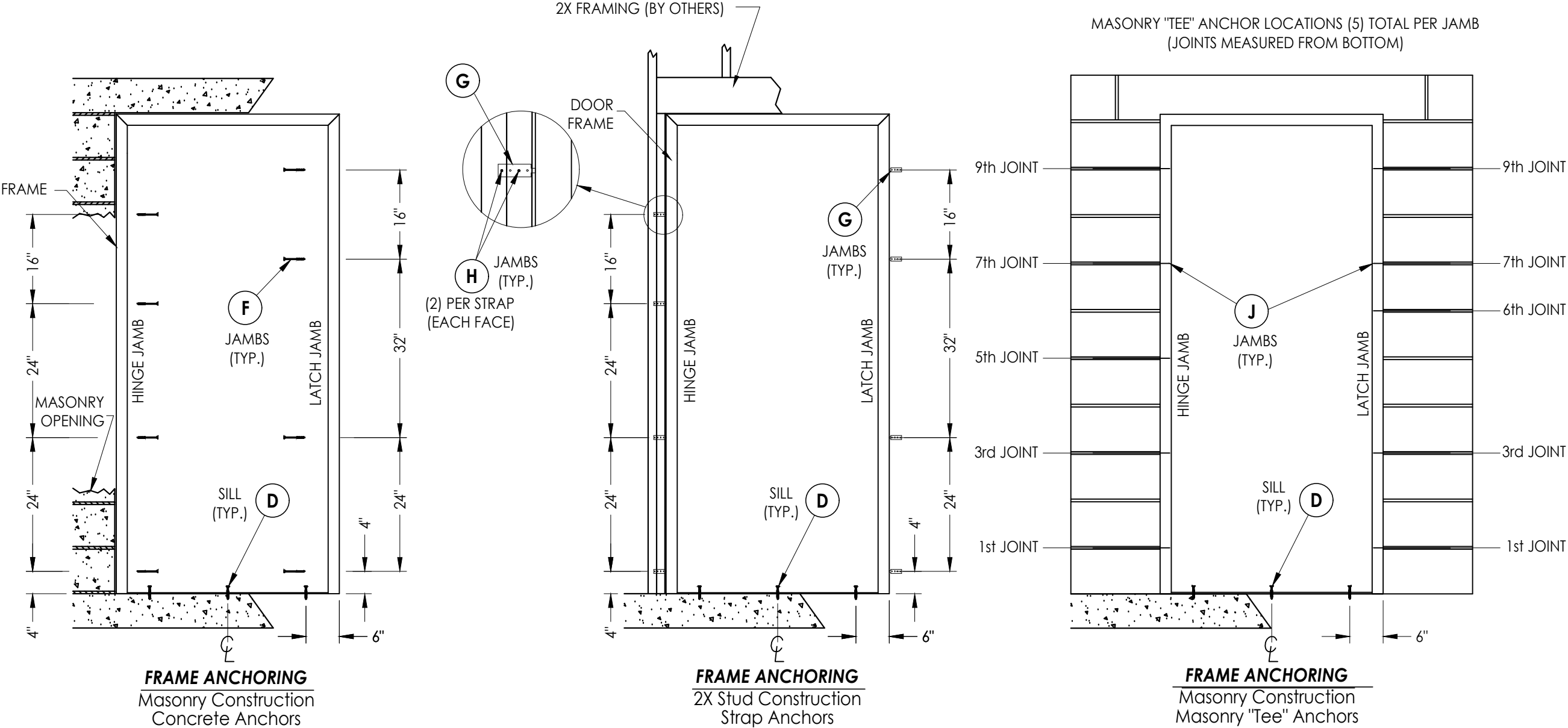
CHK. BY: RW

DRAWING NO.: FL-41130.4

SHEET 3 OF 8

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CONCRETE ANCHOR NOTES:

- Substitution of equal concrete screws from a different supplier may have different edge distance and center distance requirements.
- 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.
- Concrete anchor table:

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

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

WOOD SCREW INSTALLATION NOTES:

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

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PRODUCT: DKS STEEL COMMERCIAL DOOR		PART OR ASSEMBLY: FRAME ANCHORING	
		REVISIONS	
		1 7/01/23 UPDATE TO 8TH ED. (2023) FBC	
		NO. DATE	
		DATE: 3/21/22	
		SCALE: N.T.S.	
		DWG. BY: LFS	
		CHK. BY: RW	
		DRAWING NO.: FL-41130.4	
		SHEET 5 OF 8	

This diagram shows the rear view of the device. It features a mounting bracket with two screws, labeled 10, which are used to secure the device to a surface. The bracket is labeled 16. The device is shown mounted on a surface, with the mounting holes and screws clearly visible.

A diagram showing a vertical assembly. It consists of four vertical bars. A central component, labeled 16, is positioned between the second and third bars from the left. This component has a rectangular cutout in the middle and two circular features, one above and one below the cutout. Callout 10 points to both of these circular features. The entire assembly is bounded by two horizontal lines at the top and bottom, with break symbols (two parallel diagonal lines) indicating that the assembly continues above and below.

A technical diagram of a vertical sliding door assembly. The assembly consists of a central door panel with a handle and a locking mechanism. The door panel is shown in a closed position, flanked by two vertical tracks. Callout 10 points to the top of the door panel. Callout 15 points to the handle. Callout 92 points to the locking mechanism. The diagram is labeled with the number 10 in the top left corner.

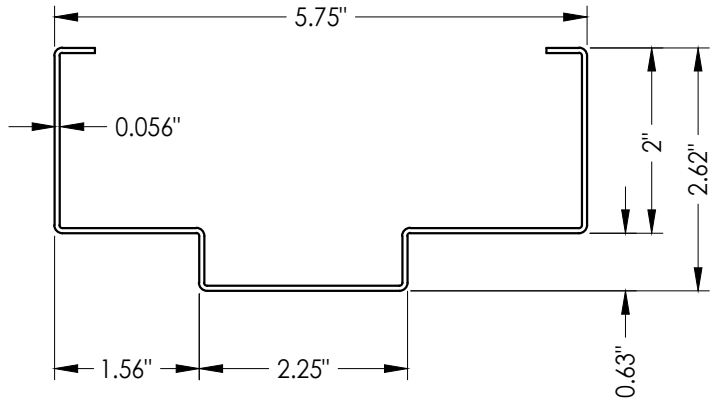
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PRODUCT:	DKS STEEL COMMERCIAL DOOR
PART OR ASSEMBLY:	FRAME ANCHORING DETAILS

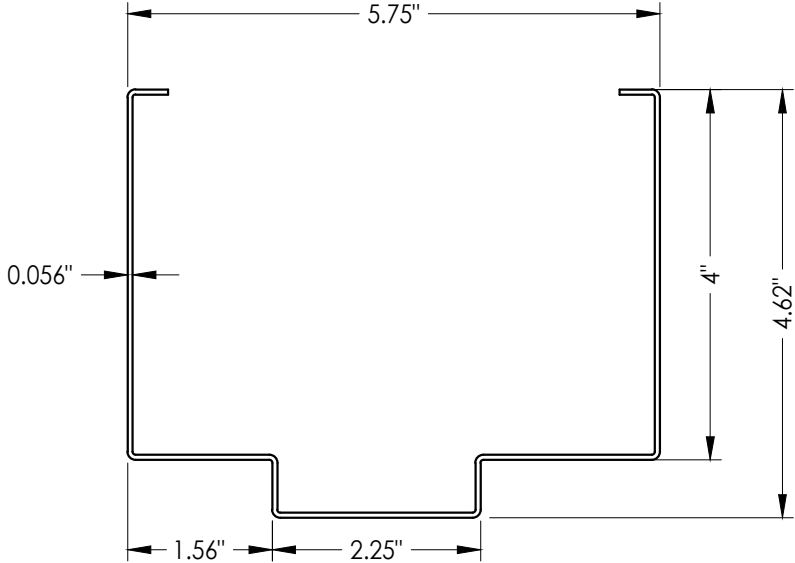
Documents Prepared By:
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P.O. Box 230, Valrico, FL 33595
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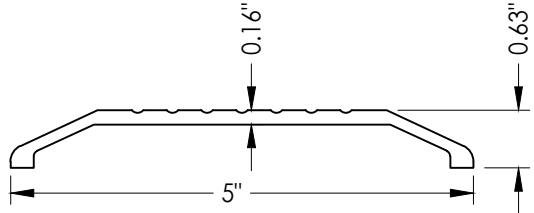
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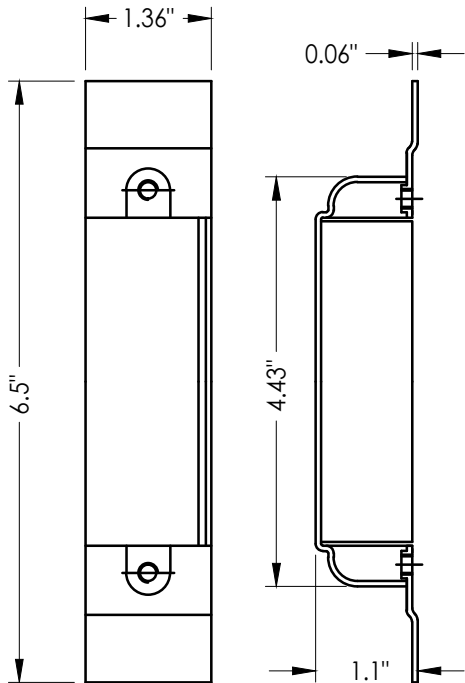
26 HOLLOW METAL FRAME
2" HEAD



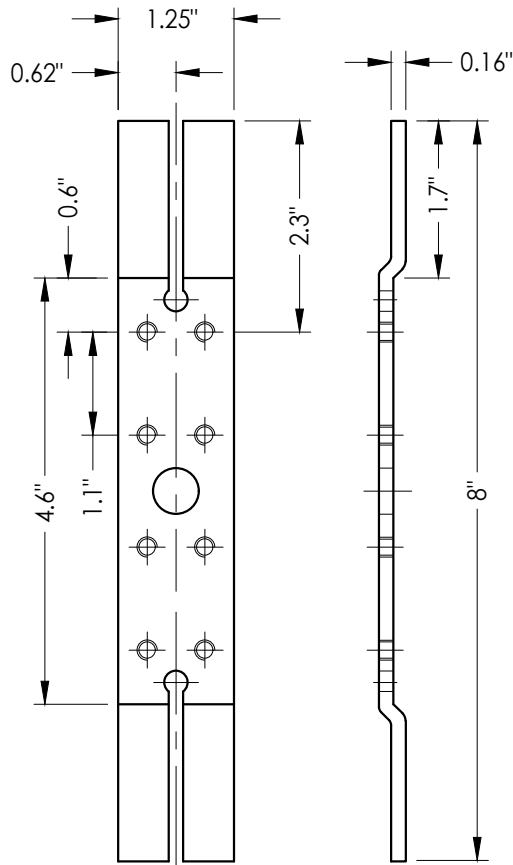
26 HOLLOW METAL FRAME
4" HEAD



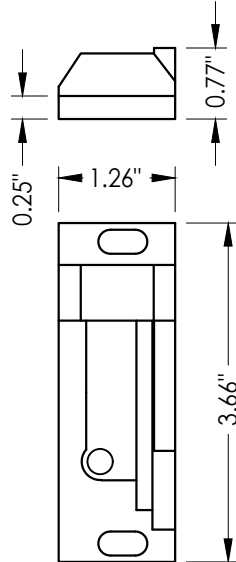
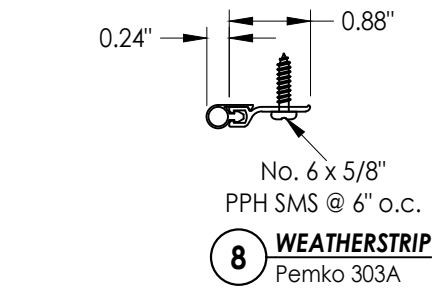
40 THRESHOLD
Pemko 156



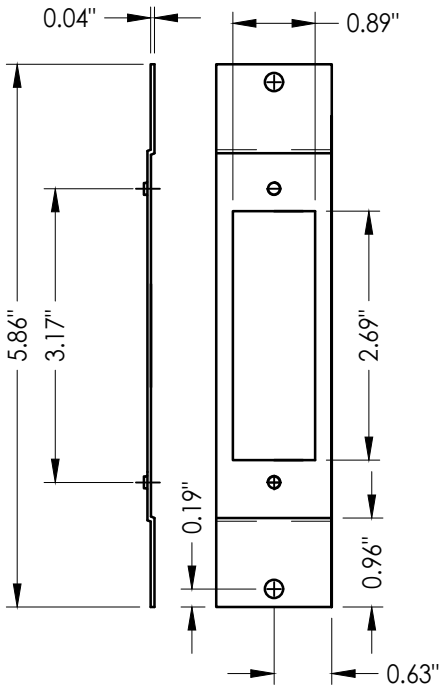
30 DOOR LATCH REINFORCEMENT
Mortise Lock only



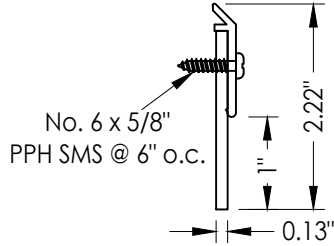
22 DOOR HINGE REINFORCEMENT



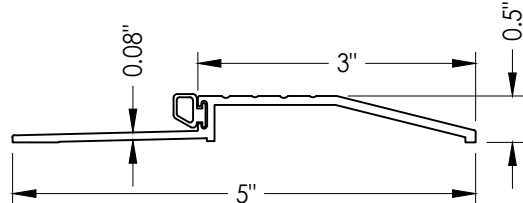
92 PANIC BAR LATCH STRIKE PLATE
@ Jamb



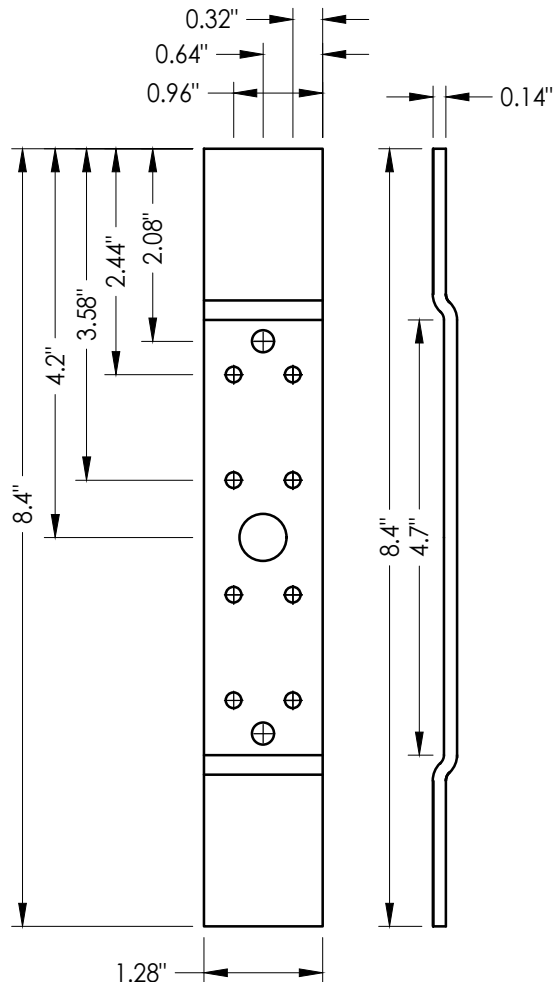
27 FRAME LATCH STRIKE REINFORCEMENT



11 DOOR SWEEP
Pemko 3151



42 THRESHOLD
Pemko 2001P



28 FRAME HINGE REINFORCEMENT

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PRODUCT:
DKS
STEEL COMMERCIAL DOOR

PART OR ASSEMBLY:
COMPONENTS

NO.	DATE	REVISIONS
1	7/01/23	UPDATE TO 8TH ED. (2023) FBC
		LFS
		BY

DATE: 3/21/22

SCALE: N.T.S.

DWG. BY: LFS

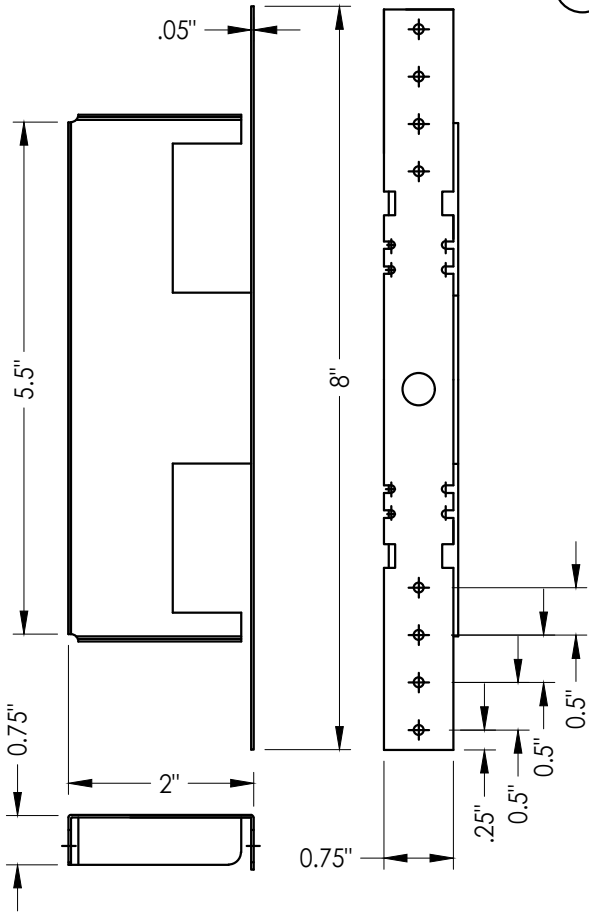
CHK. BY: RW

DRAWING NO.: FL-41130.4

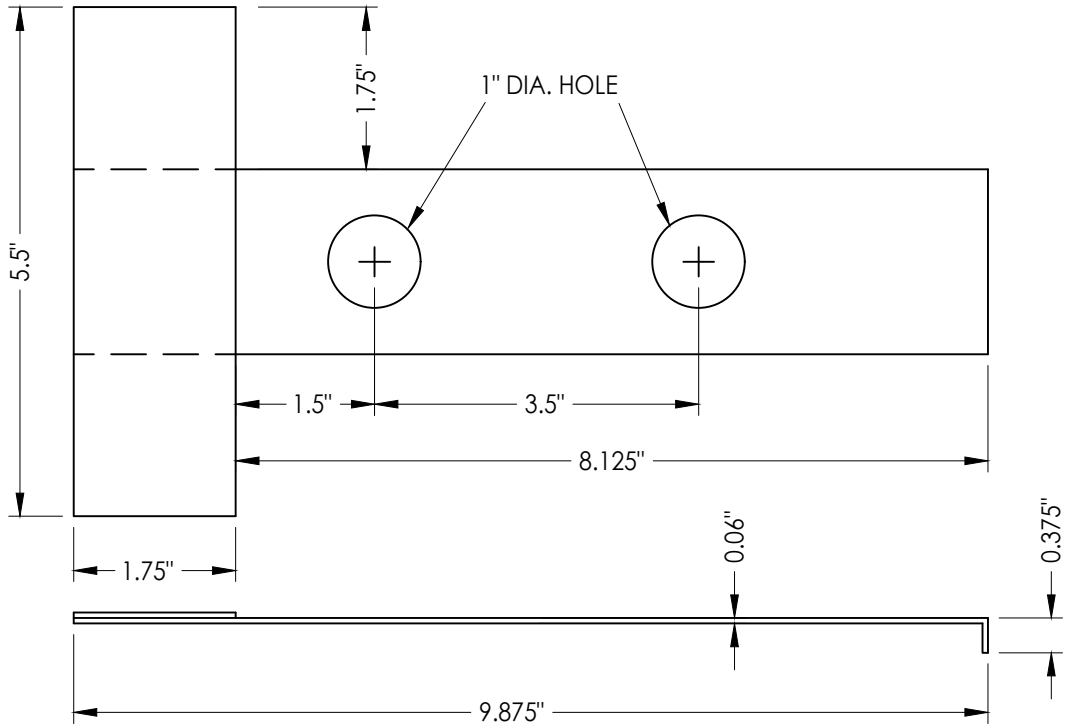
SHEET 7 OF 8

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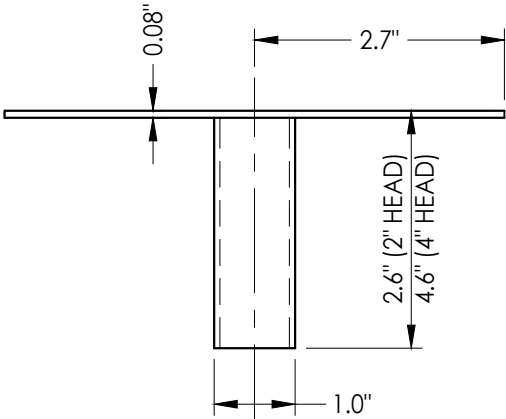
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2 X 4 FRAMING (SG >= 0.55)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
F	3/8" PFH ITW DYNABOLT SLEEVE ANCHOR	STEEL
G	WOOD STRAP ANCHOR	STEEL
H	#8 X 1-1/2" PH WOOD SCREW (1-3/8" MIN. EMBEDMENT)	STEEL
J	MASONRY "TEE" ANCHOR	STEEL
1	DKS DOOR PANEL	-
4	DOOR TOP CHANNEL	STEEL
5	LOCK BOX REINFORCEMENT	STEEL
6	CLOSER REINFORCEMENT (11 GA.)	STEEL
7	DOOR BOTTOM CHANNEL	STEEL
8	WEATHERSTRIP - PEMKO 303A	NEOPRENE
9	TUBE ANCHOR	STEEL
10	#12-24 X 1" COMBINATION MACHINE / WOOD SCREW	STEEL
11	DOOR SWEEP- PEMKO 3151	PVC
13	WEATHERSTRIP - COMPRESSION BULB 1/4" X 1/2" (PEMKO S88)	NEOPRENE
15	#8-24 X 3/4" COMBINATION MACHINE / WOOD SCREW	STEEL
16	ANSI LATCH STRIKE	STEEL
17	DEAD BOLT STRIKE	STEEL
20	#12-24 X 1/2" PFH MACHINE SCREW	STEEL
21	4-1/2" X 4-1/2" X 0.125" TEMPLATE HINGE	STEEL
22	DOOR HINGE REINFORCEMENT	STEEL
25	HOLLOW FRAME 2"	STEEL
26	HOLLOW FRAME 4" HEAD	STEEL
27	FRAME LATCH STRIKE REINFORCEMENT	STEEL
28	FRAME HINGE REINFORCEMENT	STEEL
30	FRAME LATCH STRIKE REINFORCEMENT (MORTISE LOCK)	STEEL
40	INSWING THRESHOLD - PEMKO 156	ALUM
42	OUTSWING THRESHOLD - PEMKO 2001P	ALUM
70	CAL-ROYAL M SERIES MORTISE LOCK	-
71	CAL-ROYAL T300 SERIES DEADBOLT	-
72	CAL-ROYAL PIONEER SL/CSL SERIES CYLINDRICAL LOCK	-
73	CAL-ROYAL GENESYS SERIES CYLINDRICAL LOCK	-
74	CAL-ROYAL F7700/7700 SERIES RIM TYPE PANIC BAR	-
75	CAL-ROYAL F5000/5000 SERIES RIM TYPE PANIC BAR	-
92	PANIC BAR LATCH STRIKE PLATE	STEEL



G WOOD STRAP ANCHOR



J MASONRY "TEE" ANCHOR



9 TUBE ANCHOR

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PRODUCT: DKS STEEL COMMERCIAL DOOR				PART OR ASSEMBLY: BILL OF MATERIALS AND COMPONENTS			
DATE: 3/21/22				REVISIONS			
SCALE: N.T.S.							
DWG. BY: LFS							
CHK. BY: RW							
DRAWING NO.: FL-41130.4							
SHEET 8 OF 8							