



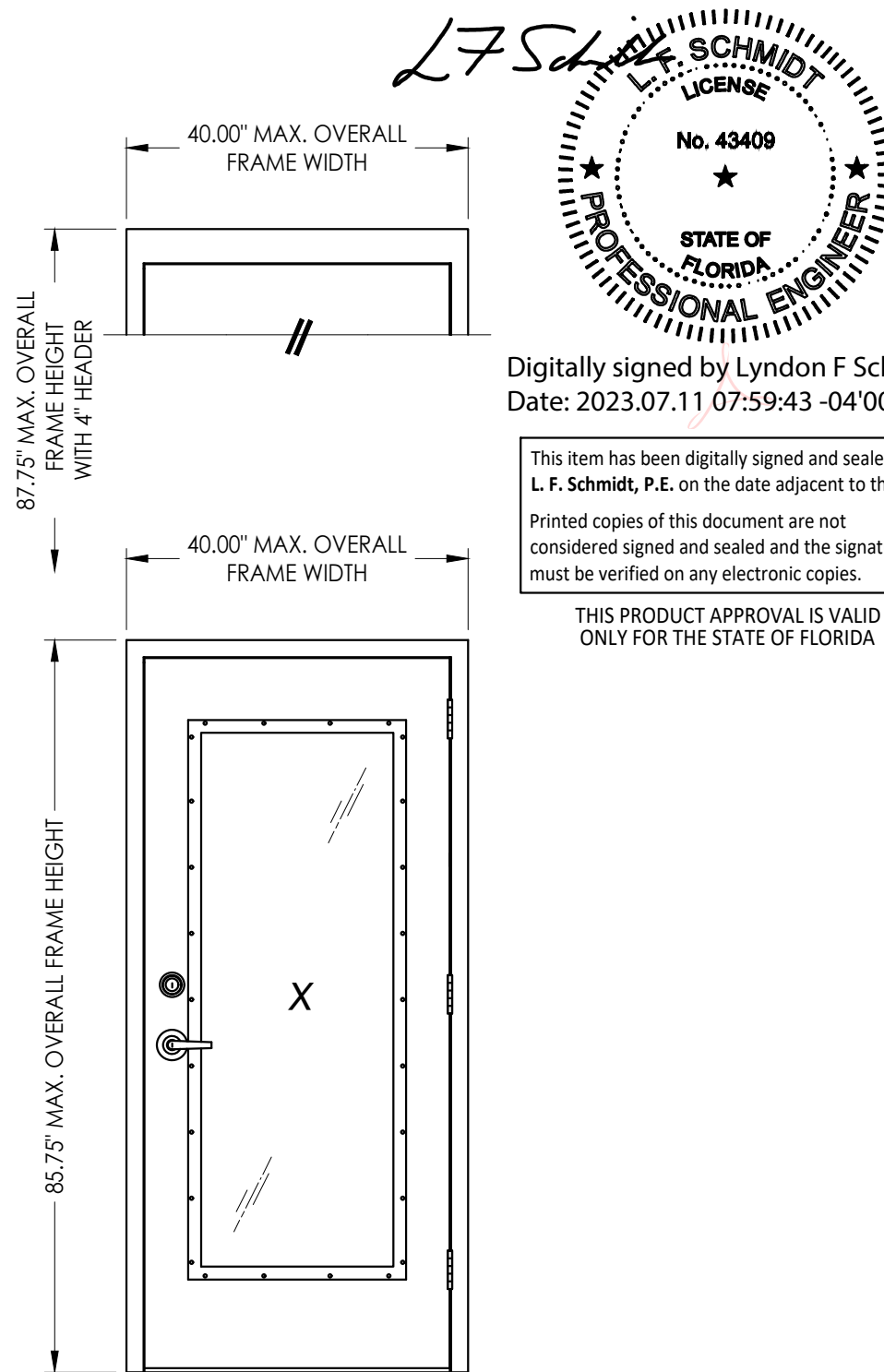
PRIV. DE RIO SANTIAGO #30
COL. LA RAZA
SOLEDAD DE GRACIANO SANCHEZ
SAN LUIS POTOSI, C.P. 78433

"N" SERIES COMMERCIAL STEEL 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 including 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. When used in areas outside of the "HVHZ" requiring wind borne debris protection this product complies with Section 1609.1.2 of the FBC and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E1996 and Section 1609.1.2.2 of the FBC.
5. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
6. Outswing configurations using sill item #40 do 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."
7. The "N" door achieves a Class III stiffness classification per Section 8.2.2 of ANSI A250.13 (based on opaque door).
8. 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	Anchoring details
6	Components
7	Bill of materials, glazing details & components



Digitally signed by Lyndon F Schmidt
Date: 2023.07.11 07:59:43 -04'00'

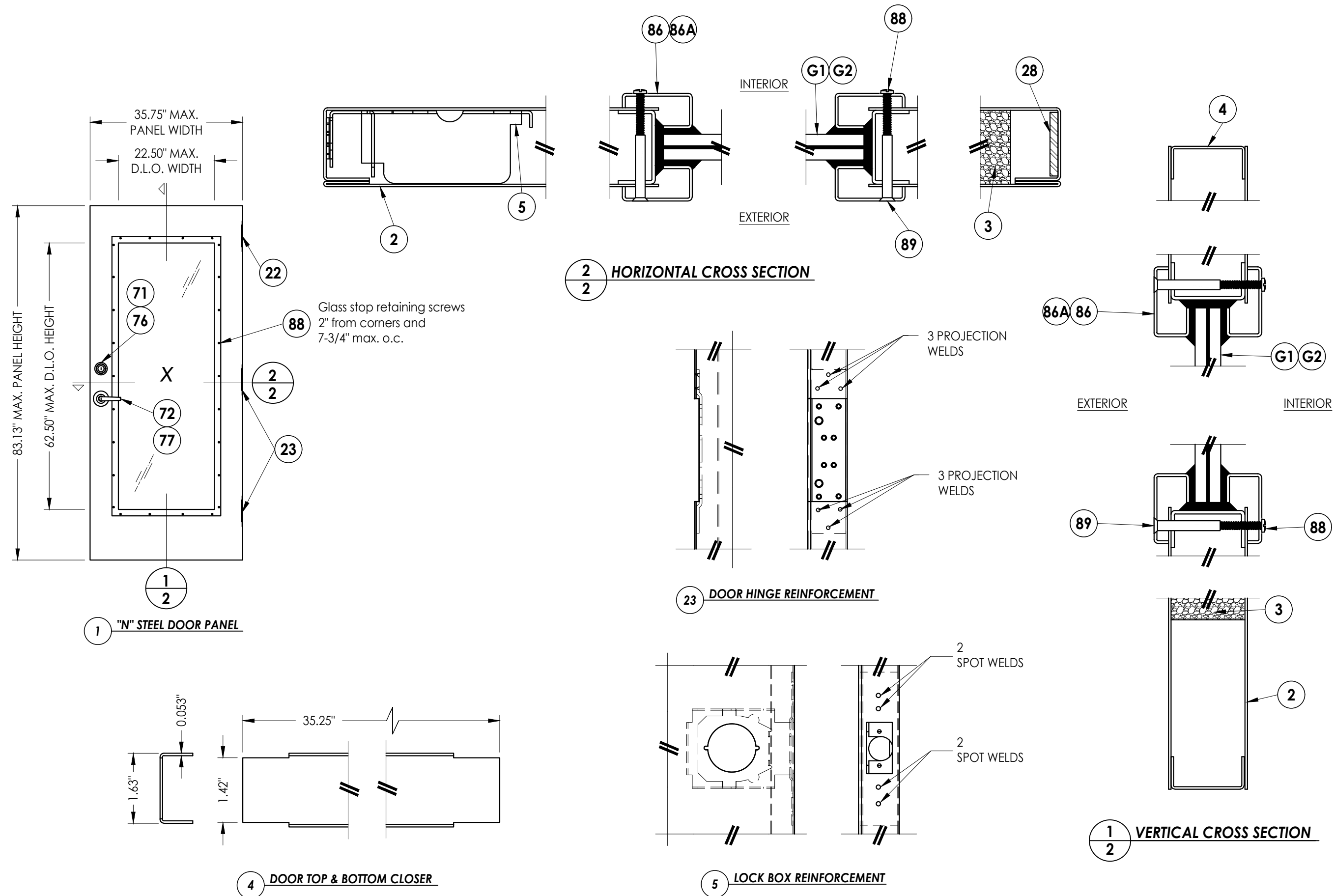
This item has been digitally signed and sealed by
L. F. Schmidt, P.E. on the date adjacent to the seal.

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

OVERALL FRAME DIMENSION	OVERALL D.L.O. DIMENSION	DESIGN PRESSURE (PSF)	
		POSITIVE	NEGATIVE
40.00" x 85.75"	22.50" x 62.50"	+65.0	-70.0

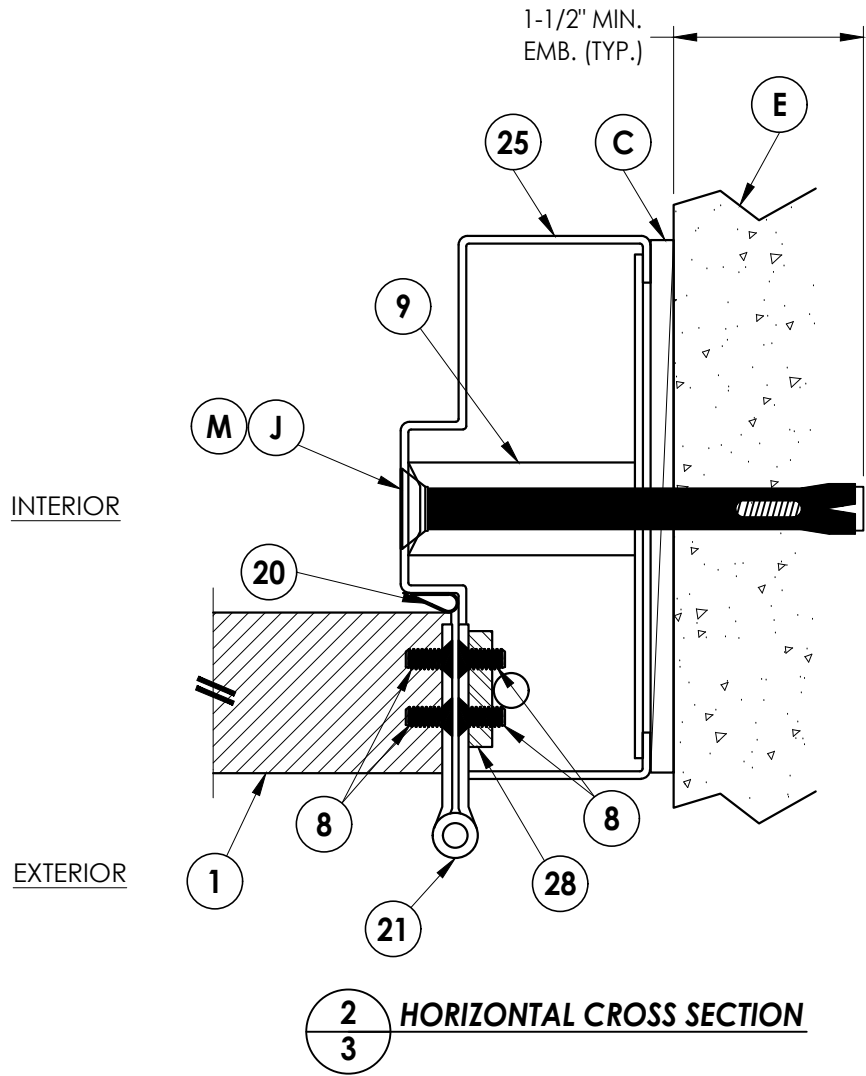
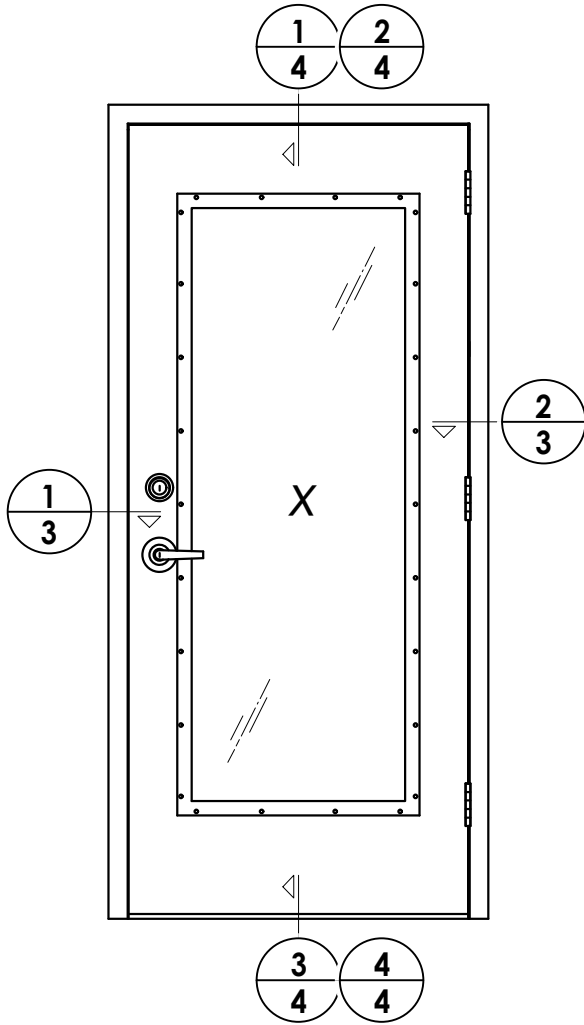
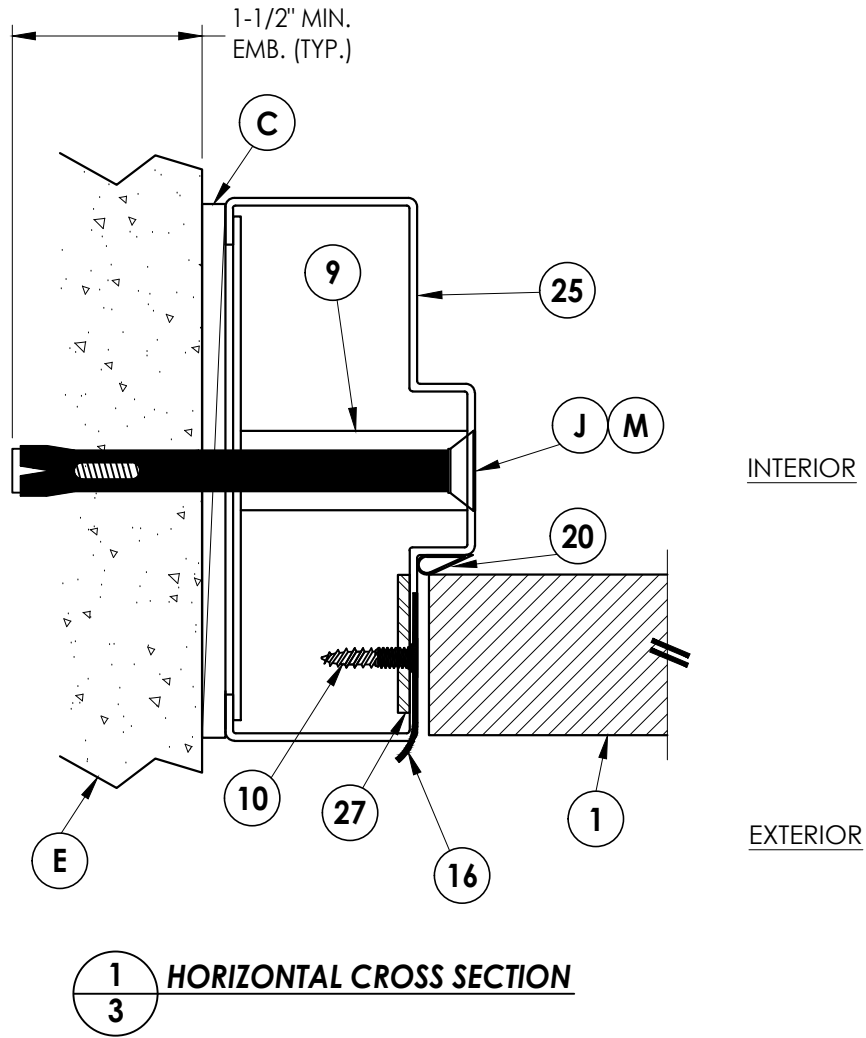
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NOTE: ALL WELDING TO CONFORM w/ AMERICAN WELDING SOCIETY, ANSI/AWS AS PER FBC SECTION 2214.3.4.

BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813																			
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Z:\2023 FBC Drawings\Metal Mfg Industries\FL-12166 R4\FL-12166.1-9.dwg



DATE: 2/23/09				SHEET 3 OF 7			
SCALE: N.T.S.				DRAWING NO.: FL-12166.6			
DWG. BY: AL				CHK. BY: LFS			
NO.				DATE			
1				10/14/16			
2				7/19/17			
3				7/30/20			
4				7/11/23			
REVISIONS				BY			
JK				FBC			
LFS				FBC			
DAC				FBC			
LFS				FBC			
PRODUCT:				METAL MANUFACTURING INDUSTRIES "N" STEEL DOOR			
PART OR ASSEMBLY:				HORIZONTAL CROSS SECTIONS			
Documents Prepared By:				Lyndon F. Schmidt P.E. No. 43409			
R.W. BUILDING CONSULTANTS, INC.				P.O. Box 230, Vairico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813			

1
4 **VERTICAL CROSS SECTION**

2 VERTICAL CROSS SECTION
4

3 VERTICAL CROSS SECTION

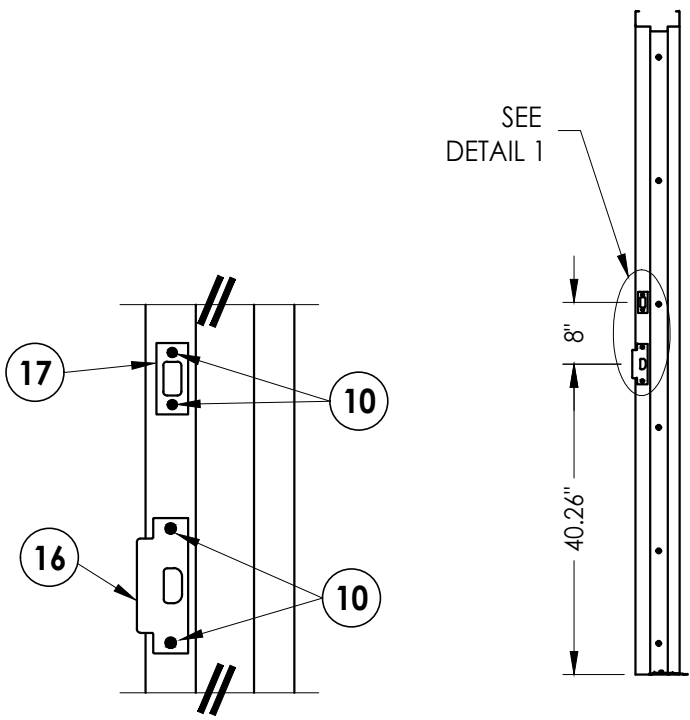
4 **VERTICAL CROSS SECTION**

4	7/11/23	UPDATE TO 8TH ED.	(2023)	FBC	LFS
3	7/30/20	UPDATE TO 7TH ED.	(2020)	FBC	DAC
2	7/19/17	UPDATE TO 6TH ED.	(2017)	FBC	LFS
1	10/14/16	UPDATE TO 5TH ED.	(2014)	FBC	JK
NO.	DATE				BY
					REVISIONS
DATE: 2/23/09					
SCALE: N.T.S.					
DWG. BY: AL					
CHK. BY: LFS					
DRAWING NO.: FL-12166.6					
SHEET 4 OF 7					

Documents Prepared By:
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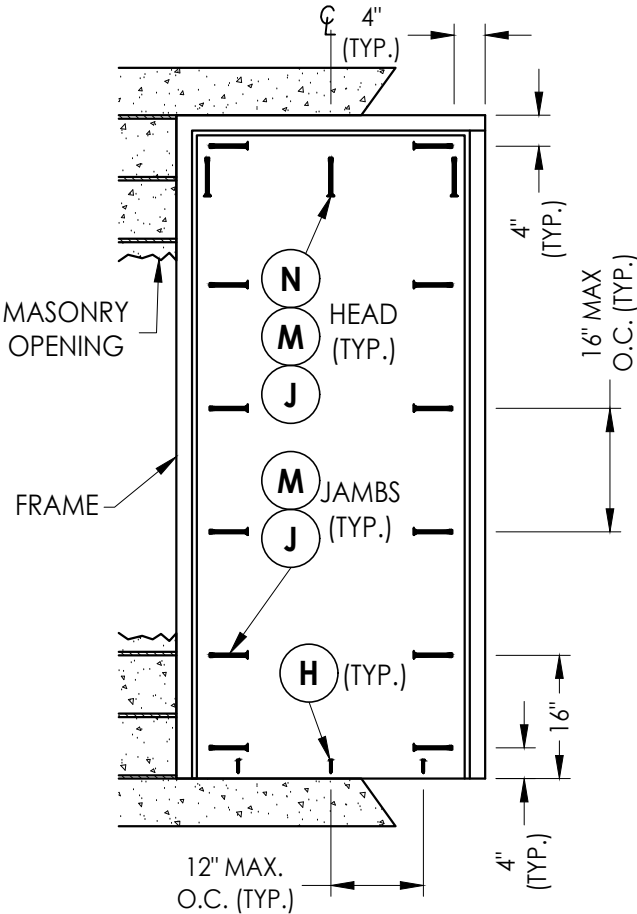
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P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

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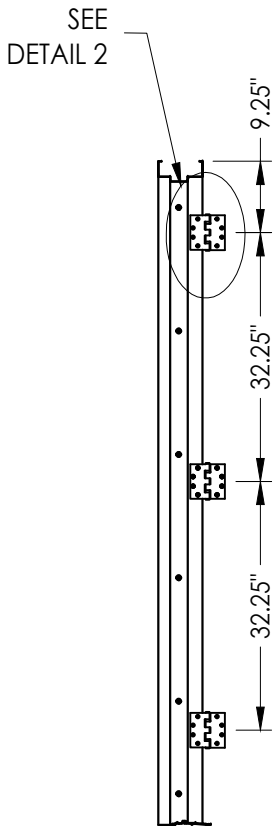


DETAIL 1

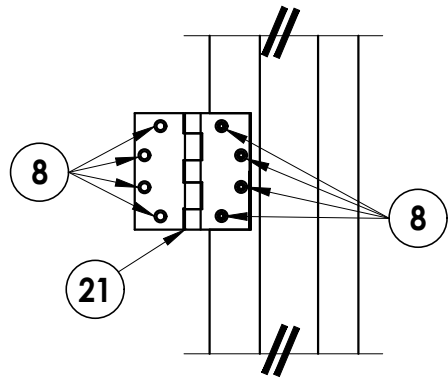
STRIKE JAMB



FRAME ANCHORING



HINGE JAMB



DETAIL 2

CONCRETE ANCHOR NOTES:

- Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
- Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are 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"	1-1/4"	2-1/2"	4"
DYNABOLT SLEEVE ANCHOR	3/8"	1-1/2"	2-1/4"	4-1/2"
TAPPER	3/8"	1-1/2"	4-1/4"	6"
SCREW-BOLT+™	1/2"	2-1/2"	6"	6"

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

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PRODUCT:
METAL MANUFACTURING
INDUSTRIES
"N" STEEL DOOR

PART OR ASSEMBLY:
ANCHORING DETAILS

NO.	DATE	REVISIONS
4	7/11/23	UPDATE TO 8TH ED. (2023) FBC LFS
3	7/30/20	UPDATE TO 7TH ED. (2020) FBC DAC
2	7/19/17	UPDATE TO 6TH ED. (2017) FBC LFS
1	10/14/16	UPDATE TO 5TH ED. (2014) FBC JK

DATE: 2/23/09

SCALE: N.T.S.

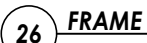
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CHK. BY: LFS

DRAWING NO.:

FL-12166.6

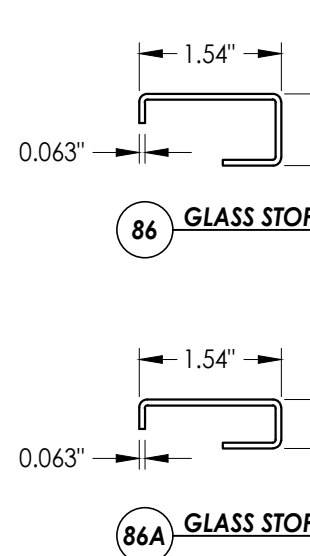
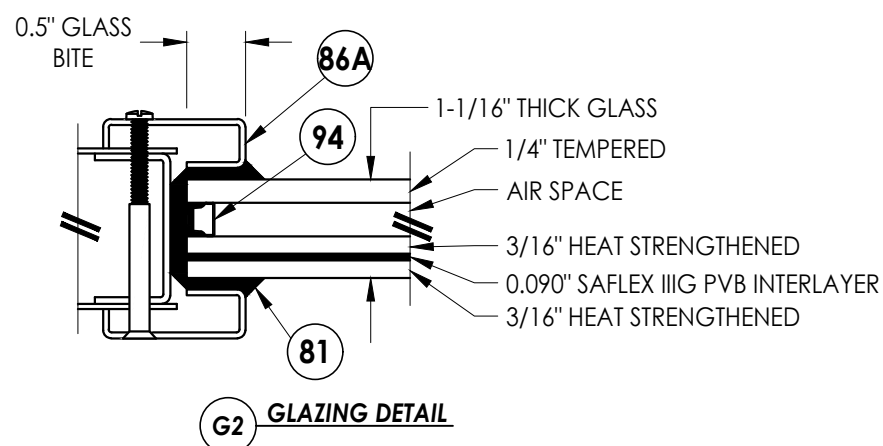
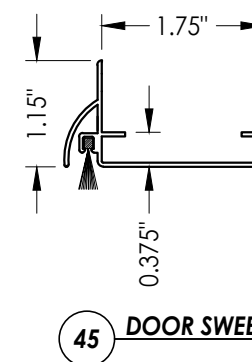
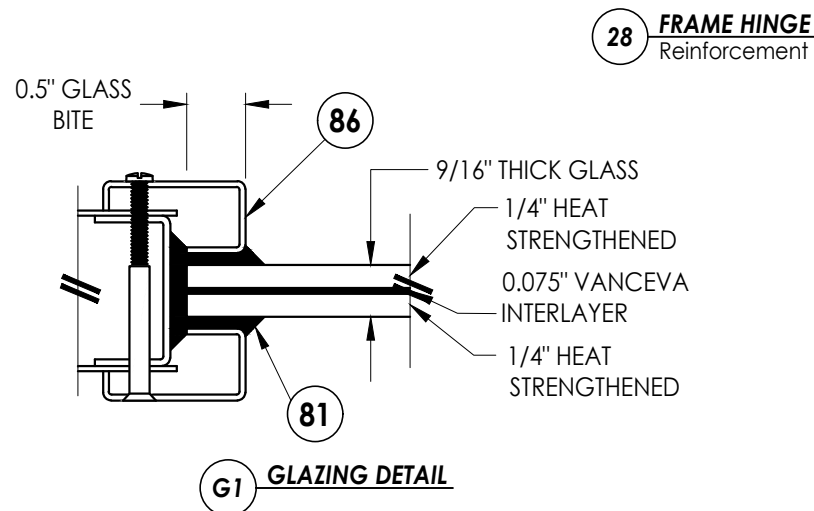
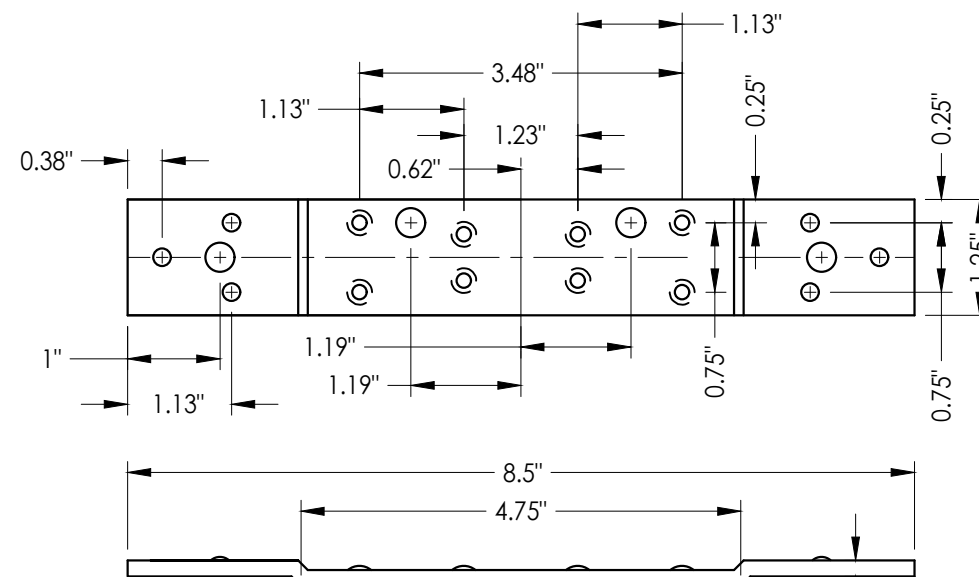
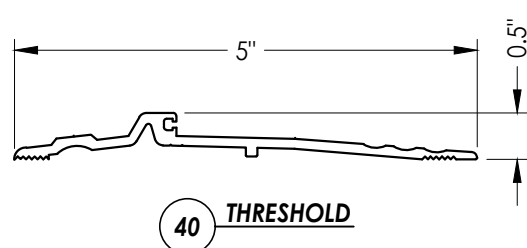
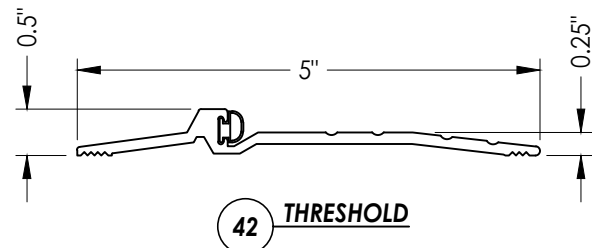
SHEET 5 OF 7



DATE:	2/23/09
SCALE:	N.T.S.
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SHEET	6 OF 7

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BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
C	MAX. 1/4" SHIM SPACE	-
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
H	1/4" x 1-3/4" PFH ITW CONCRETE SCREW	STEEL
J	3/8" X 5" PFH ITW DYNABOLT SLEEVE ANCHOR	STEEL
M	3/8" X 5" PFH TAPPER CONCRETE SCREW BY POWERS FASTENERS	STEEL
N	1/2" X 8" HH SCREW-BOLT+ CONCRETE ANCHOR BY DeWALT/POWERS	STEEL
1	"N" OPAQUE STEEL DOOR PANEL	-
2	DOOR SKIN - 16GA (0.060" THK. STEEL, Fy = 40,300 PSI MIN.)	STEEL
3	FOAM 1.0 PCF MIN. DENSITY	POLYSTYRENE
4	DOOR TOP & BOTTOM CLOSER	STEEL
5	LOCK BOX REINFORCEMENT	STEEL
8	#12-24 x 1/2" SELF TAPPER	STEEL
9	TUBE ANCHOR	STEEL
10	#12-24 X 1" COMBINATION MACHINE / WOOD SCREW	STEEL
16	ANSI LATCH STRIKE	STEEL
17	DEADBOLT STRIKE	STEEL
19	DEADBOLT STRIKE REINFORCEMENT	STEEL
20	WEATHERSTRIP	NEOPRENE
21	4-1/2" X 4-1/2" X 0.125" TEMPLATE HINGE	STEEL
22	STANDARD (LONG) DOOR HINGE TOP HINGE REINFORCEMENT	STEEL
23	STANDARD (SHORT) DOOR HINGE MIDDLE BOTTOM REINFORCEMENT	STEEL
24	WEATHERSTRIP (THRESHOLD)	NEOPRENE
25	FRAME - 14GA (0.075" THK) WITH 2" HEAD	STEEL
26	FRAME - 14GA (0.075" THK) WITH 4" HEAD	STEEL
27	LATCH STRIKE REINFORCEMENT	STEEL
28	FRAME HINGE REINFORCEMENT	STEEL
40	THRESHOLD NATIONAL GUARD PRODUCTS, INC. #896	ALUMINUM
42	OUTSWING THRESHOLD PEMKO #2005V	ALUMINUM
45	95WHA DOOR SWEEP NATIONAL GUARD PRODUCTS, INC.	ALUMINUM
46	#6 X 3/4" PHILIPS HEAD SMS	STEEL
71	DESIGN HARDWARE D1-S SERIES DEADBOLT	STEEL
72	DESIGN HARDWARE "Z" SERIES ENTRY	STEEL
76	DESIGN HARDWARE D2-S SERIES DEADBOLT	STEEL
77	DESIGN HARDWARE "X" SERIES ENTRY	STEEL
81	DOW 995 STRUCTURAL SILICONE	SILICONE
86	LITE FRAME BY AIR LOUVERS #1500-AJ-2464	STEEL
86A	LITE FRAME BY AIR LOUVERS #VLFIG-HRC-2464-01	STEEL
88	#8 X 1-1/2" PPH MS	STEEL
89	SCREW COVER	STEEL
94	GLASS SPACER	ALUM



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SHEET 7 OF 7					