

Z:\2023 FBC Drawings\Metal Mfg Industries\FL-12166 R4\FL-12166.1-9.dwg



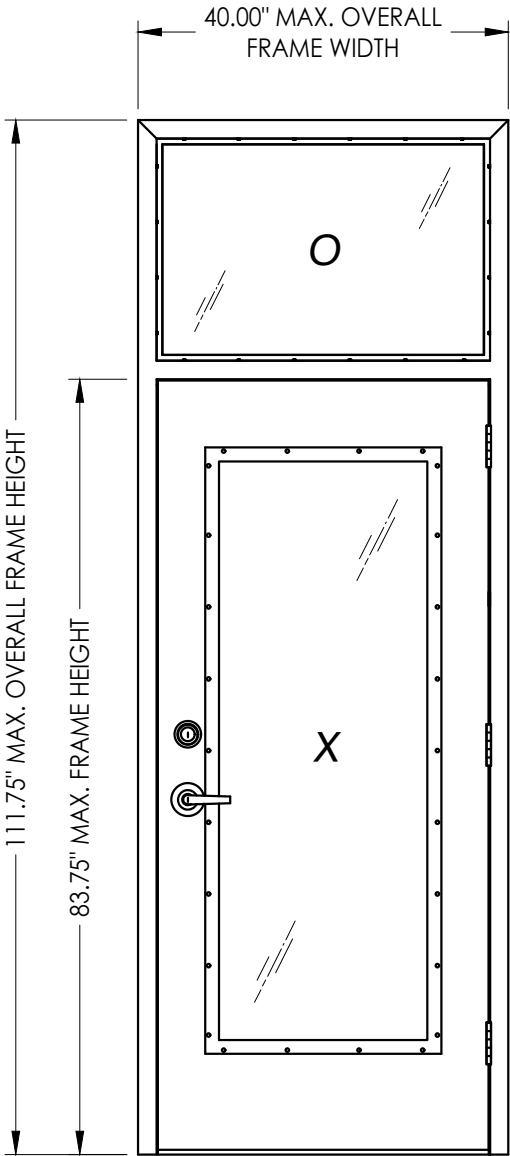
PRIV. DE RIO SANTIAGO #30
COL. LA RAZA
SOLEDAD DE GRACIANO SANCHEZ
SAN LUIS POTOSI, C.P. 78433

"N" SERIES
COMMERCIAL STEEL DOOR
w/ TRANSOM
OUTSWING
"NON-IMPACT"

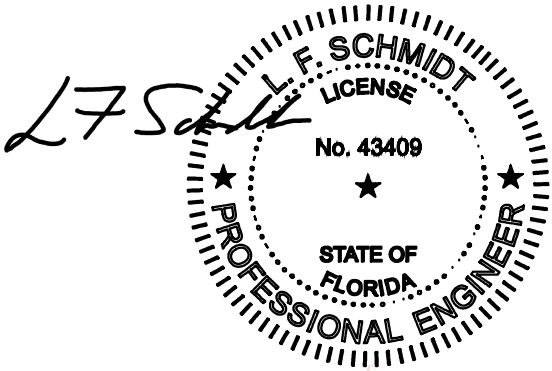
GENERAL NOTES

1. This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements excluding 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 areas requiring wind borne debris protection this product is required to be protected with an impact resistant covering that complies with Section 1609.1.2 of the FBC.
4. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
5. The "N" door achieves a Class III stiffness classification per Section 8.2.2 of ANSI A250.13 (based on opaque door).

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



OVERALL FRAME DIMENSION	DOOR D.L.O. DIMENSION	TRANSOM D.L.O. DIMENSION	DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
40.00" x 111.75"	22.50" x 62.50"	70.50" x 22.75"	+65.0	-70.0



Digitally signed by Lyndon F Schmidt
Date: 2023.07.11 07:58:03 -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

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

PRODUCT:
METAL MANUFACTURING INDUSTRIES
"N" STEEL DOOR

PART OR ASSEMBLY:
TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

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-12166.9

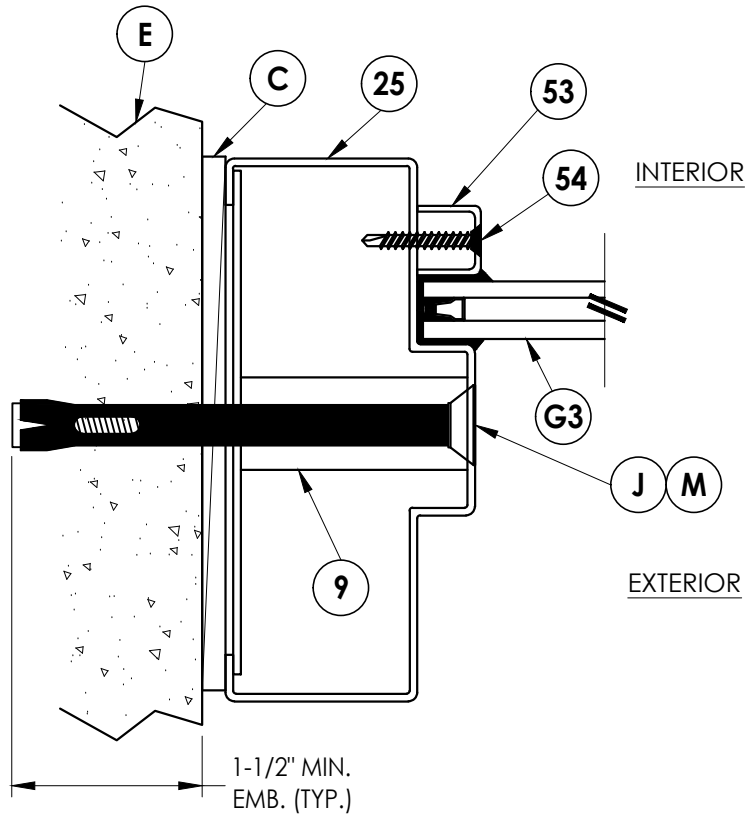
SHEET 1 OF 7

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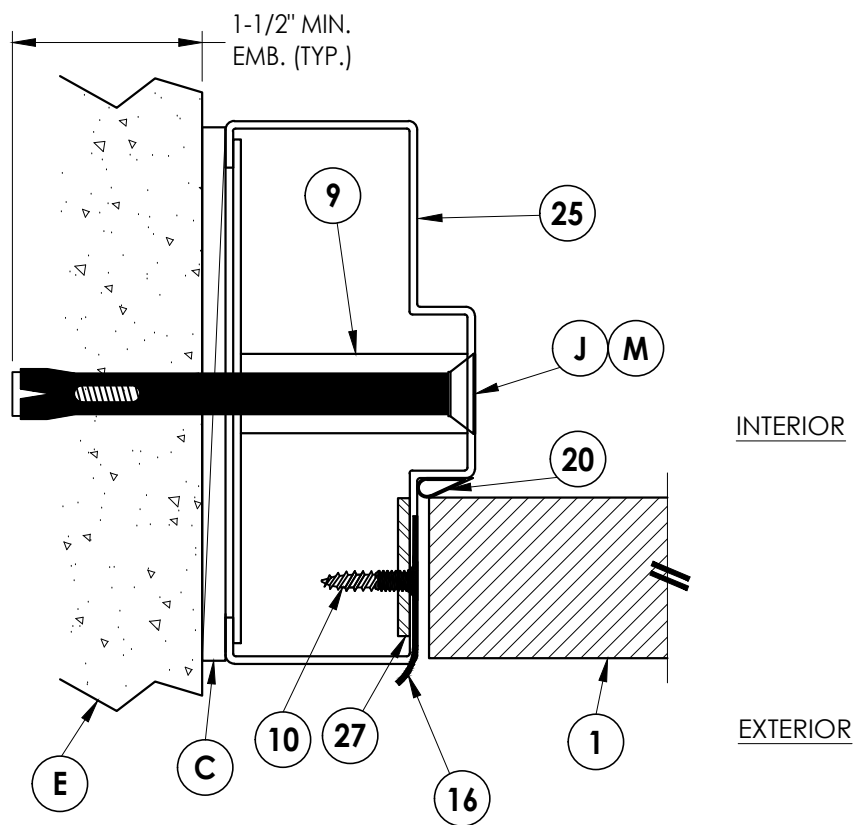
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BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
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FBPE Registry No. 9813

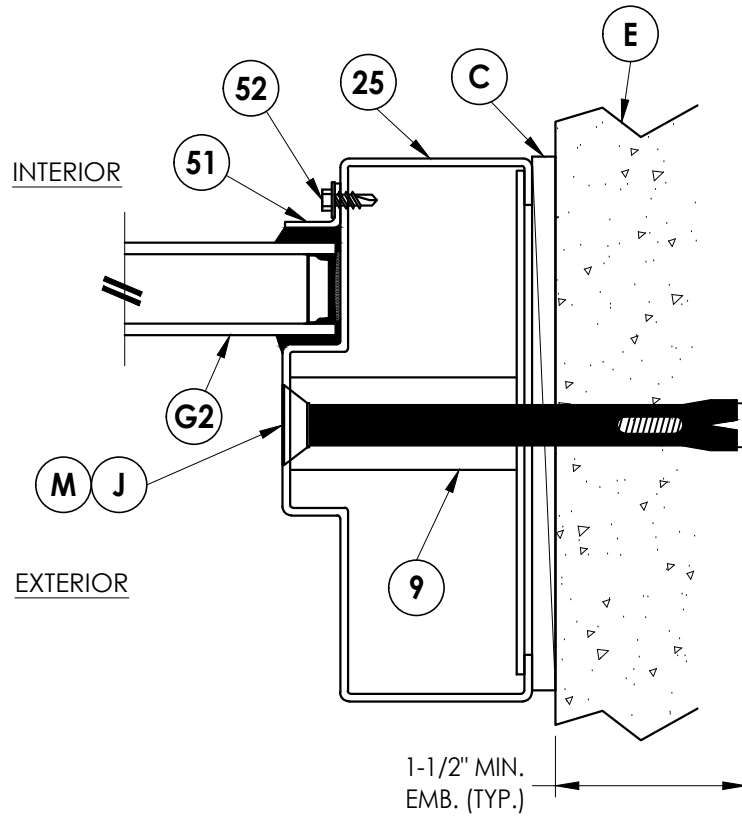
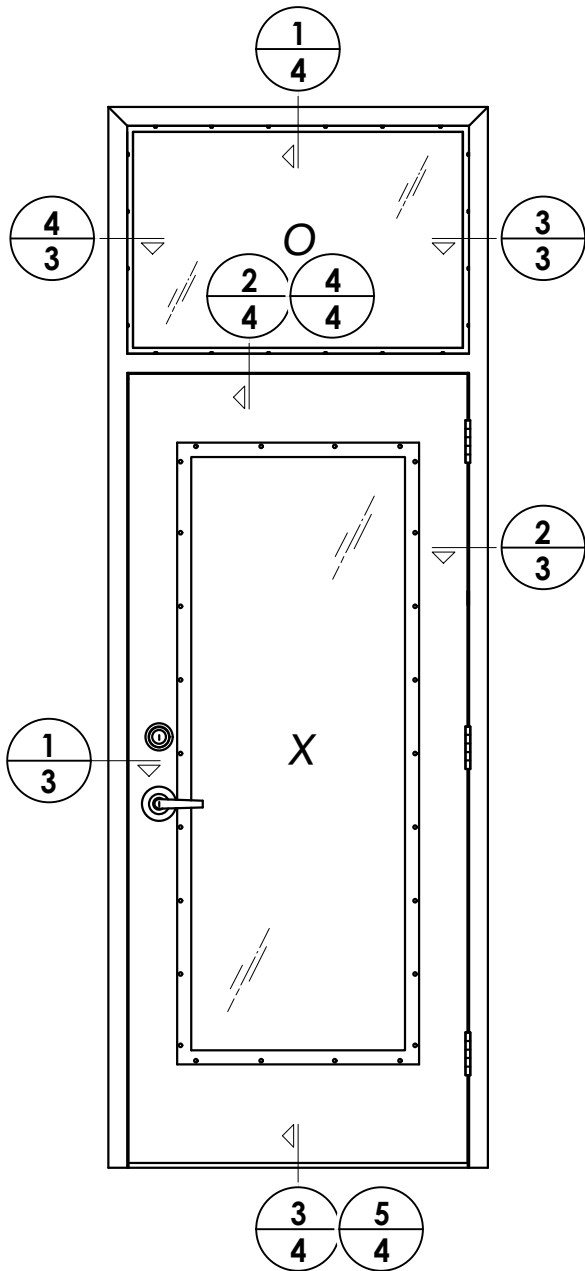
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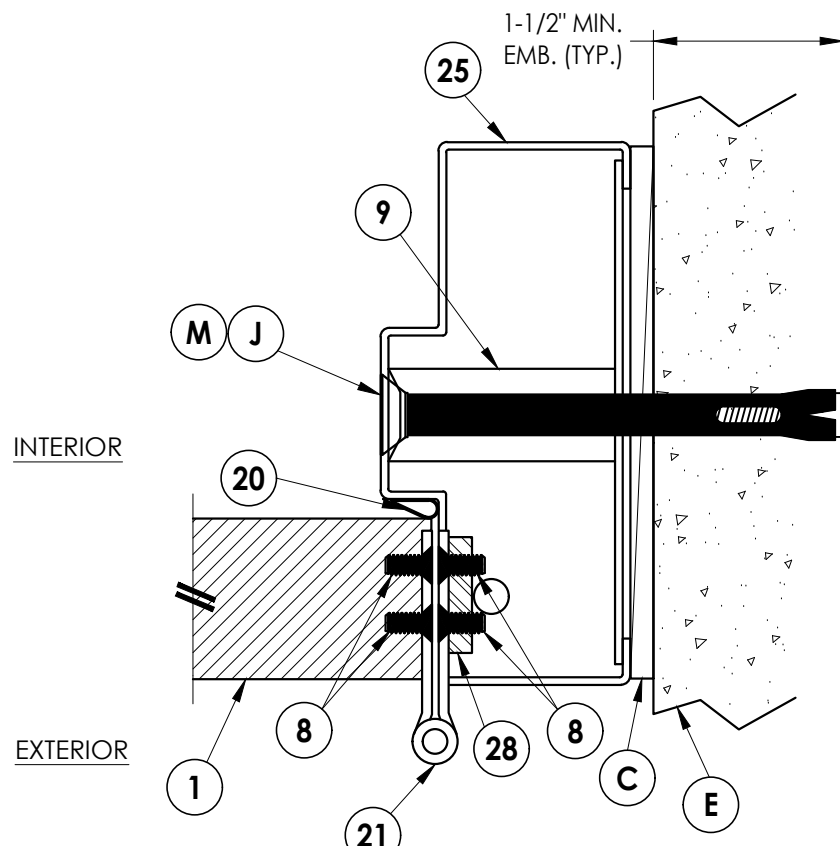
4
3 **HORIZONTAL CROSS SECTION**
Optional glazing



1
3 **HORIZONTAL CROSS SECTION**



3
3 **HORIZONTAL CROSS SECTION**



2
3 **HORIZONTAL CROSS SECTION**

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PRODUCT:
METAL MANUFACTURING
INDUSTRIES
"N" STEEL DOOR

PART OR ASSEMBLY:
HORIZONTAL
CROSS SECTIONS

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

DATE: 2/23/09

SCALE: N.T.S.

DWG. BY: AL

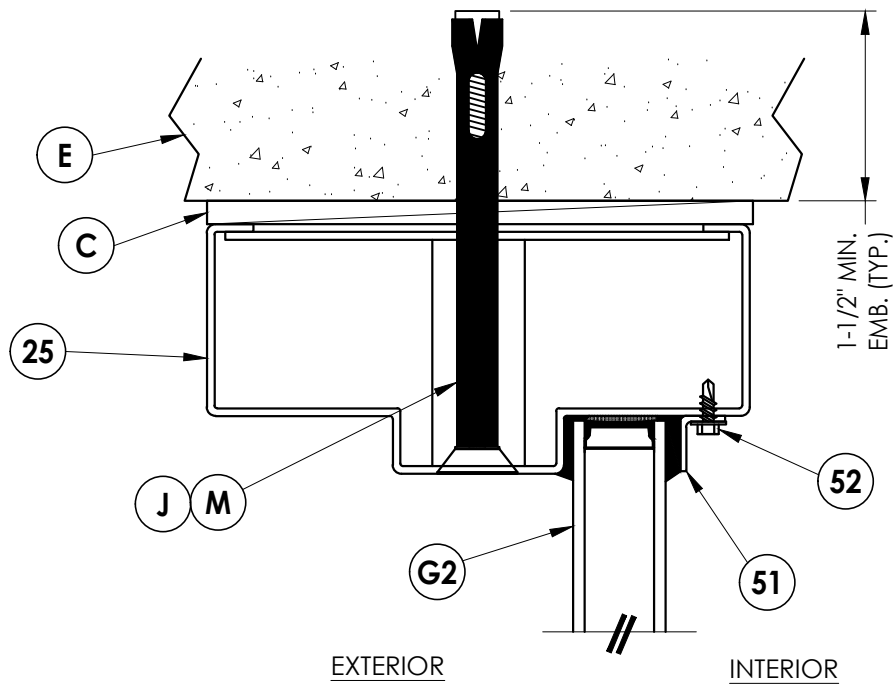
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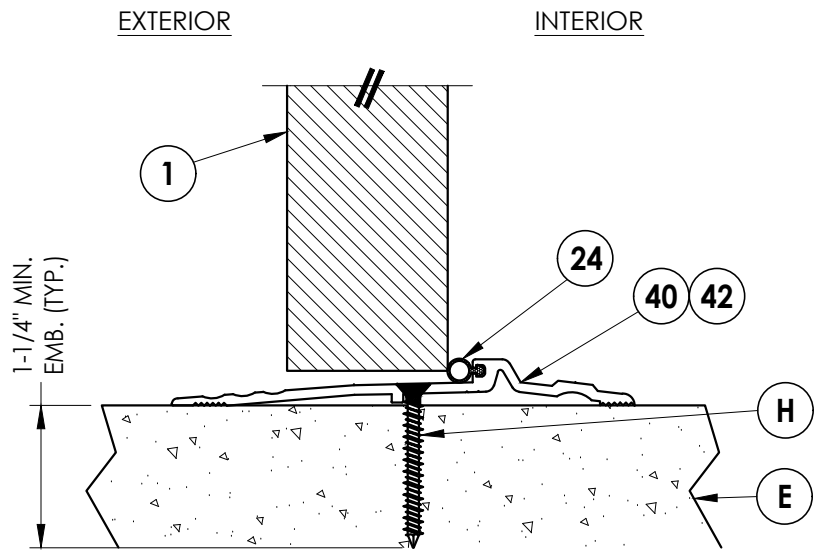
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SHEET 3 OF 7

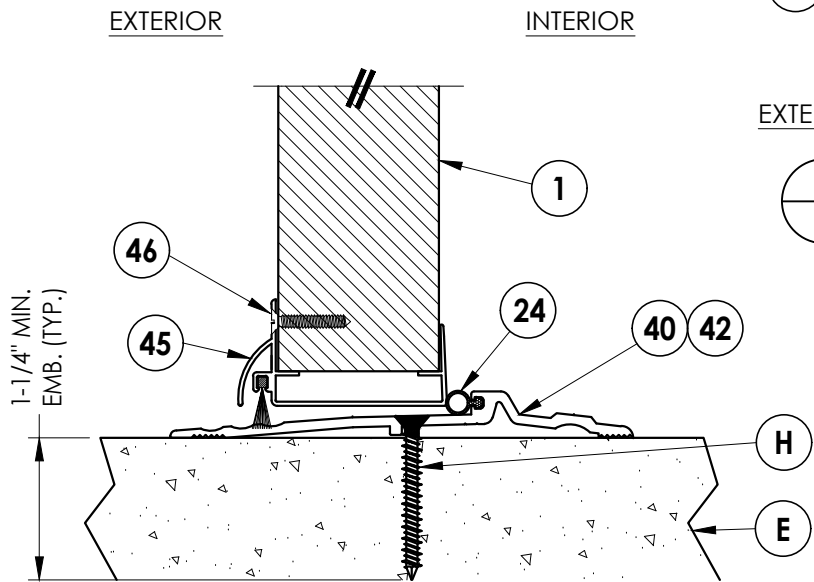
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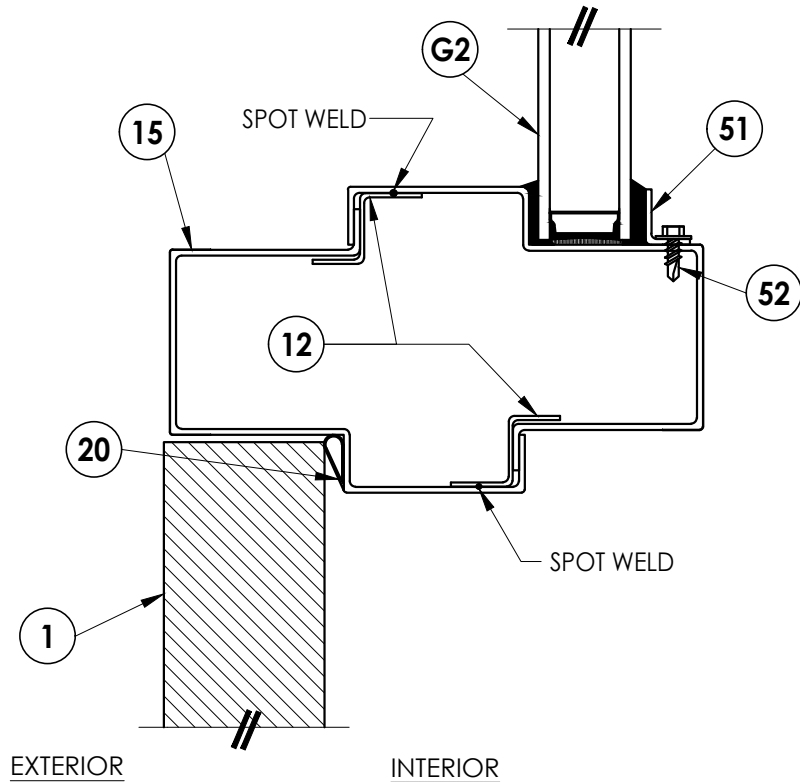
1/4 VERTICAL CROSS SECTION



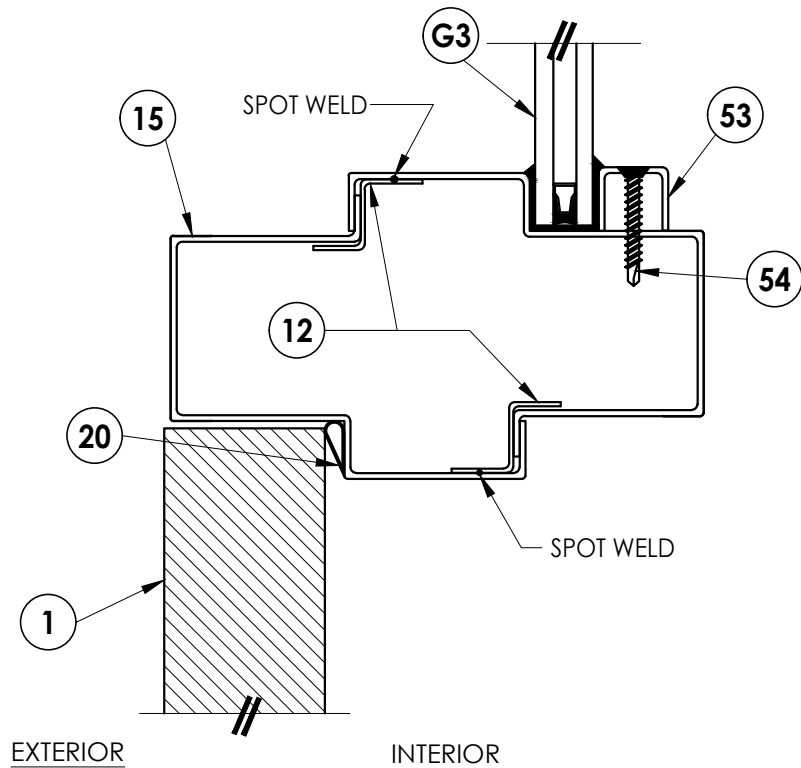
3/4 VERTICAL CROSS SECTION



5/4 VERTICAL CROSS SECTION



2/4 VERTICAL CROSS SECTION



4/4 VERTICAL CROSS SECTION
Optional glazing

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METAL MANUFACTURING
INDUSTRIES
"N" STEEL DOOR

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NO.	DATE	REVISIONS			
		BY	DATE	DESCRIPTION	REVISIONS
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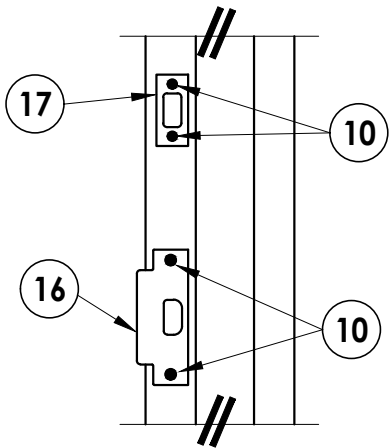
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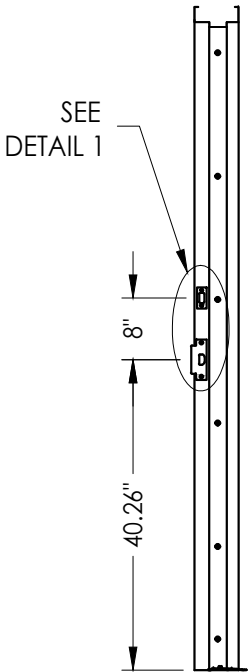
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SHEET 4 OF 7

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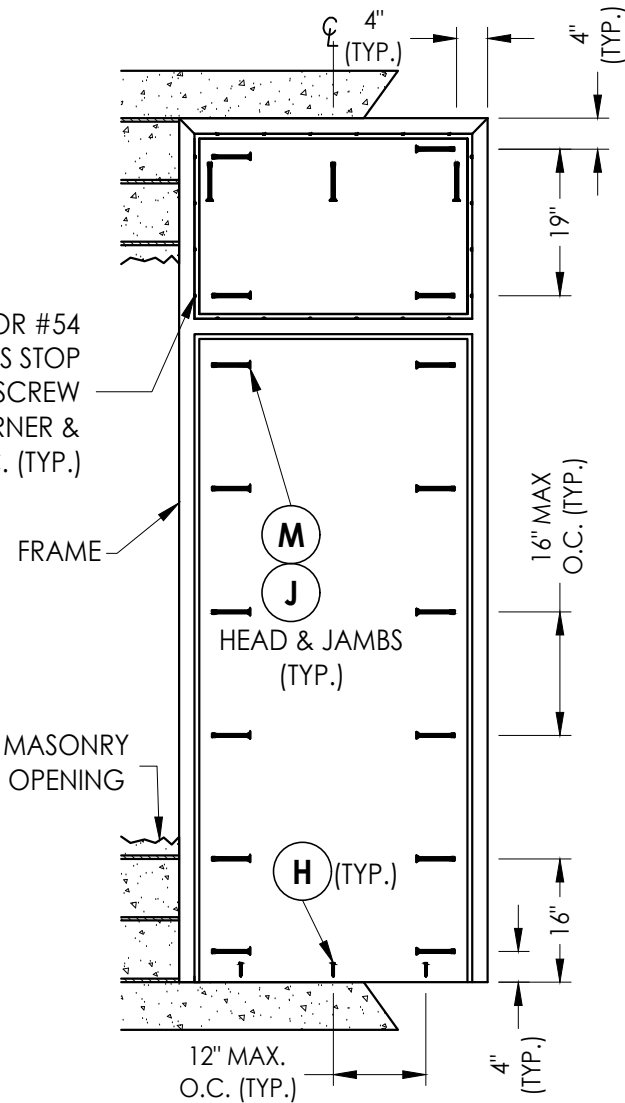


DETAIL 1

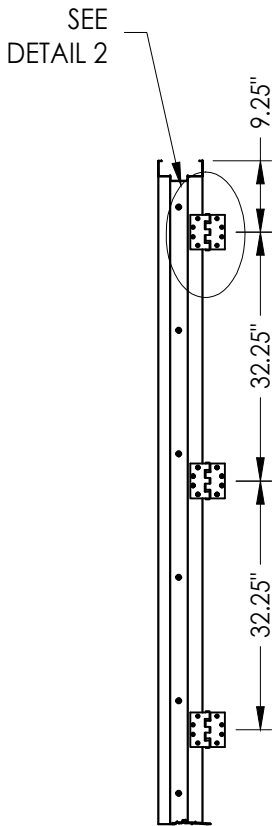


STRIKE JAMB

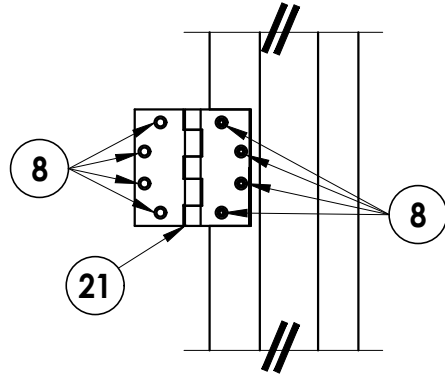
ITEM #52 OR #54
GLASS STOP
RETAINING SCREW
3" FROM CORNER &
6" MAX O.C. (TYP.)



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"

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

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PRODUCT:
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INDUSTRIES
"N" STEEL DOOR

PART OR ASSEMBLY:
ANCHORING DETAILS

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4	7/11/23	UPDATE TO 8TH ED. (2023)	FBC	LFS	
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DWG. BY: AL

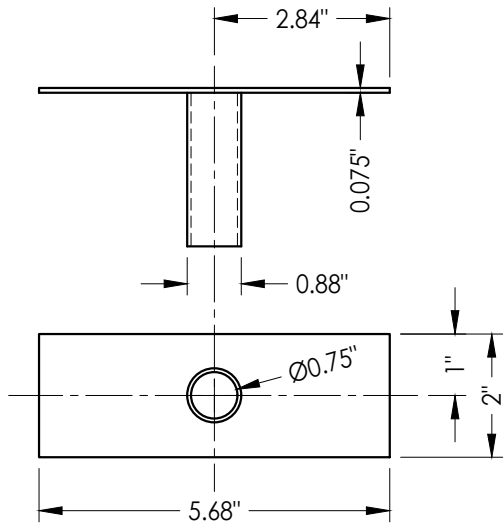
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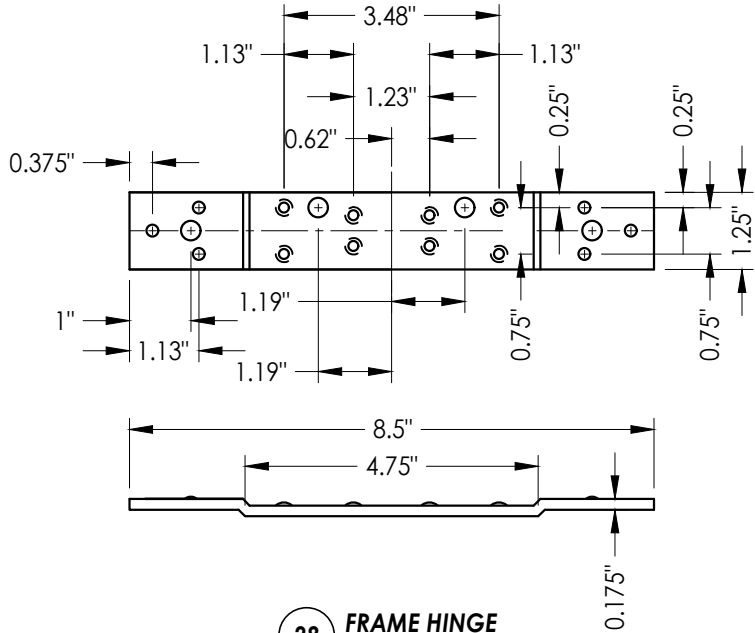
FL-12166.9

SHEET 5 OF 7

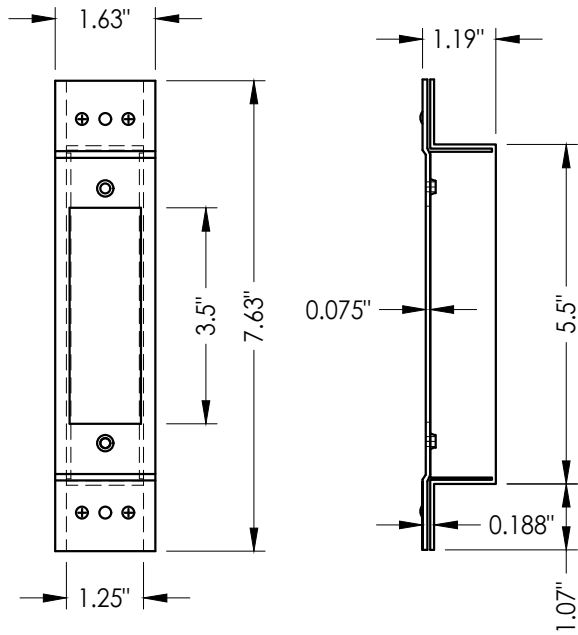
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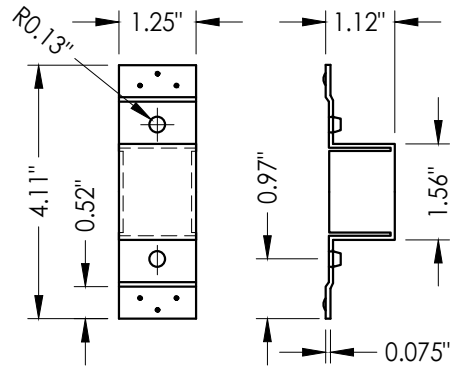
9 **TUBE ANCHOR**



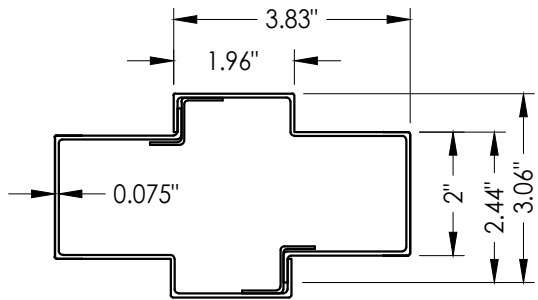
28 **FRAME HINGE**
Reinforcement



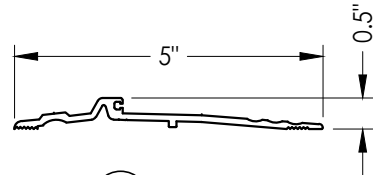
27 **LATCH STRIKE REINFORCEMENT**



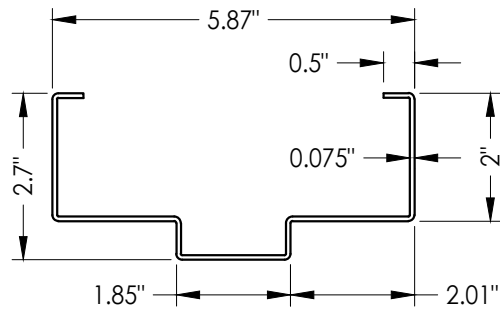
19 **DEADBOLT STRIKE REINFORCEMENT**



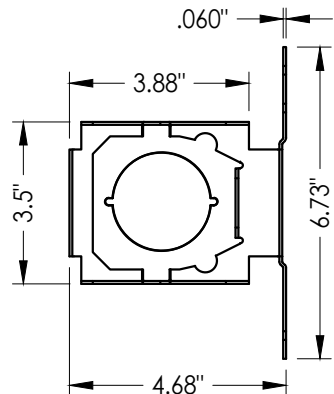
15 **MULLION**



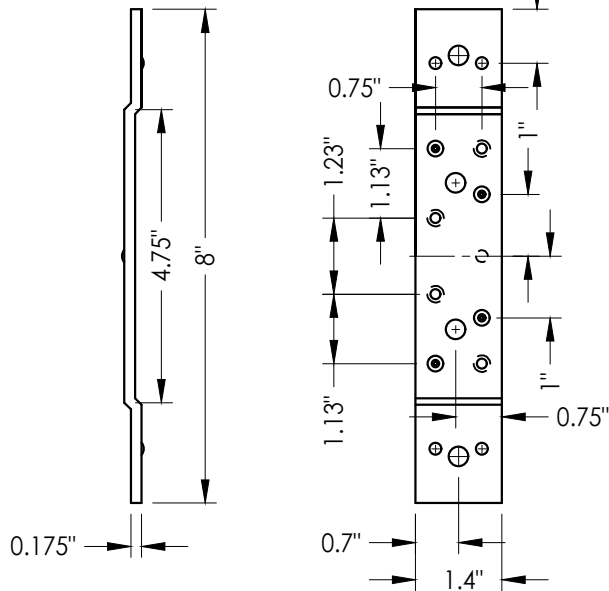
40 **THRESHOLD**



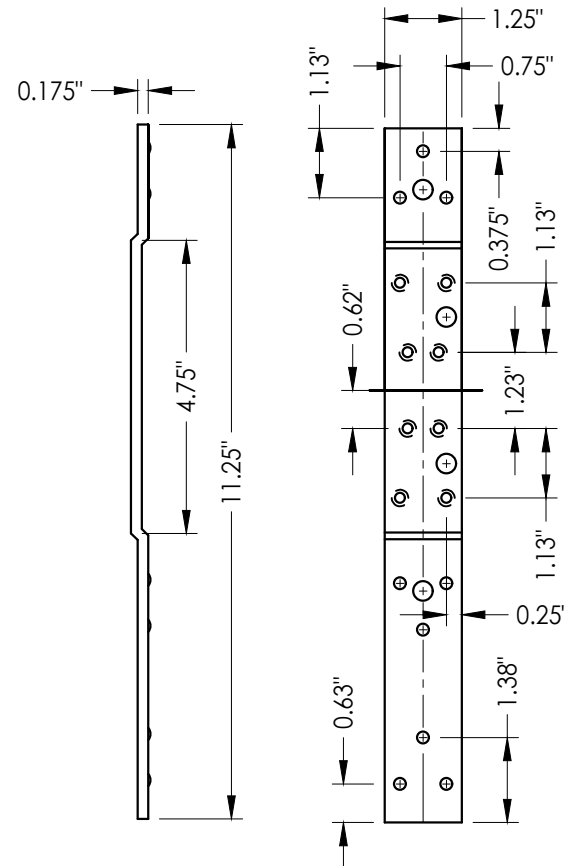
25 **HOLLOW METAL FRAME**



5 **LOCK BOX REINFORCEMENT**



23 **STANDARD (SHORT) DOOR HINGE**
Reinforcement middle and bottom hinge



22 **STANDARD (LONG) DOOR HINGE**
Reinforcement top hinge

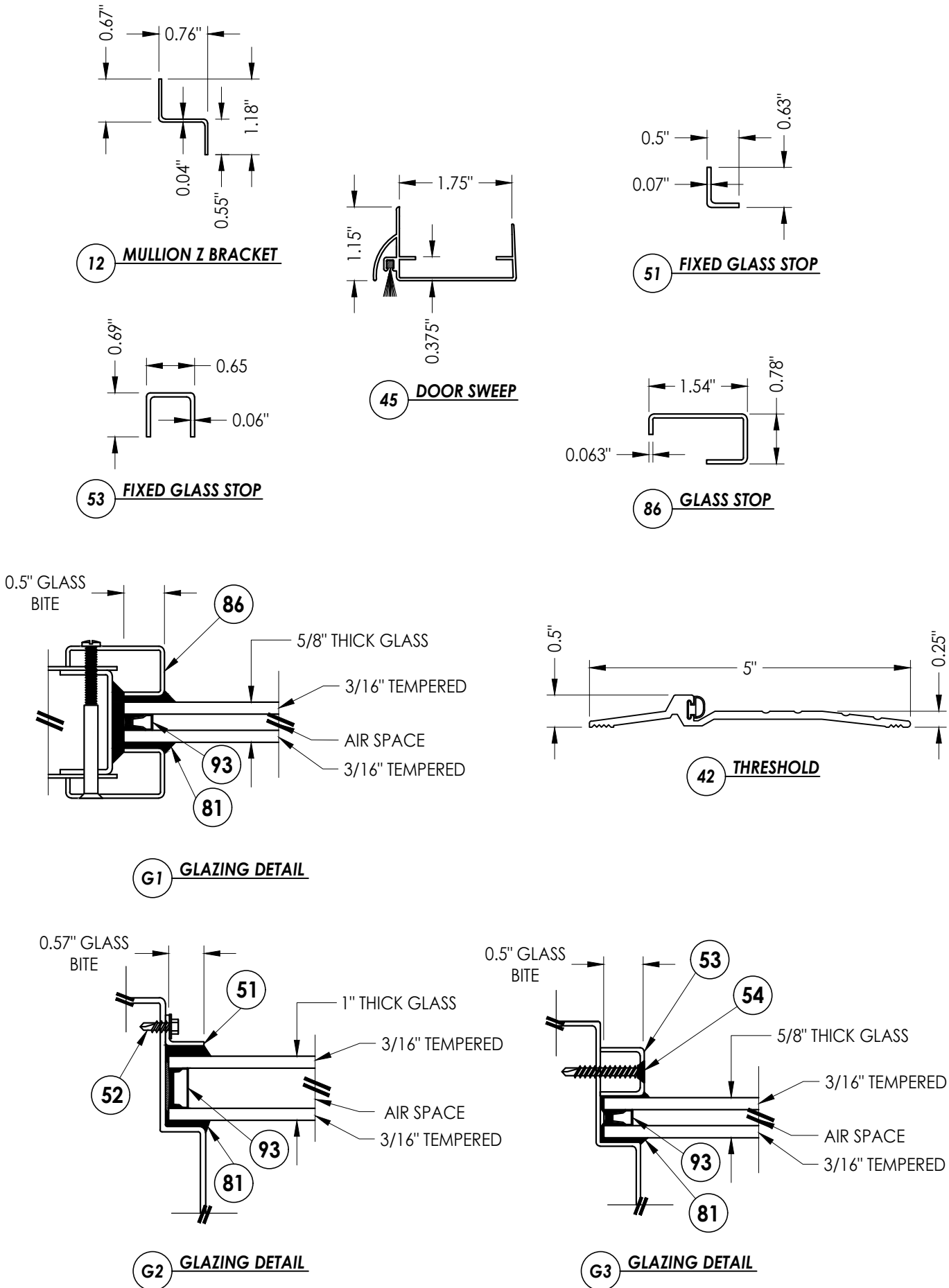
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DWG. BY:		AL	
CHK. BY:		LFS	
DRAWING NO.:		FL-12166.9	
SHEET		6 OF 7	

PRODUCT:		METAL MANUFACTURING INDUSTRIES "N" STEEL DOOR	
PART OR ASSEMBLY:		COMPONENTS	

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Phone No.:		813.659.9197	
FBPE Registry No.		9813	

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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
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
12	MULLION Z BRACKET	STEEL
15	MULLION	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)	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
51	L-CHANNEL FIXED GLASS STOP	STEEL
52	#8 X .5" HH SELF DRILLING SCREW	STEEL
53	U-CCHANNEL FIXED GLASS STOP	STEEL
54	#8 X 1.25" PFH SHEET METAL SCREW	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
88	#8 X 1-1/2" PPH MS	STEEL
89	SCREW COVER	STEEL
93	GLASS SPACER	ALUMINUM



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PRODUCT: METAL MANUFACTURING INDUSTRIES "N" STEEL DOOR

PART OR ASSEMBLY:

BILL OF MATERIALS & COMPONENTS

NO.	DATE	REVISIONS				
		DATE	BY	CHK	APP	DESCRIPTION
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SHEET 7 OF 7