



2501 Northchase Pkwy SE  
Wilmington, NC 28405

# "HH-SRD" STEEL DOOR

## OUTSWING

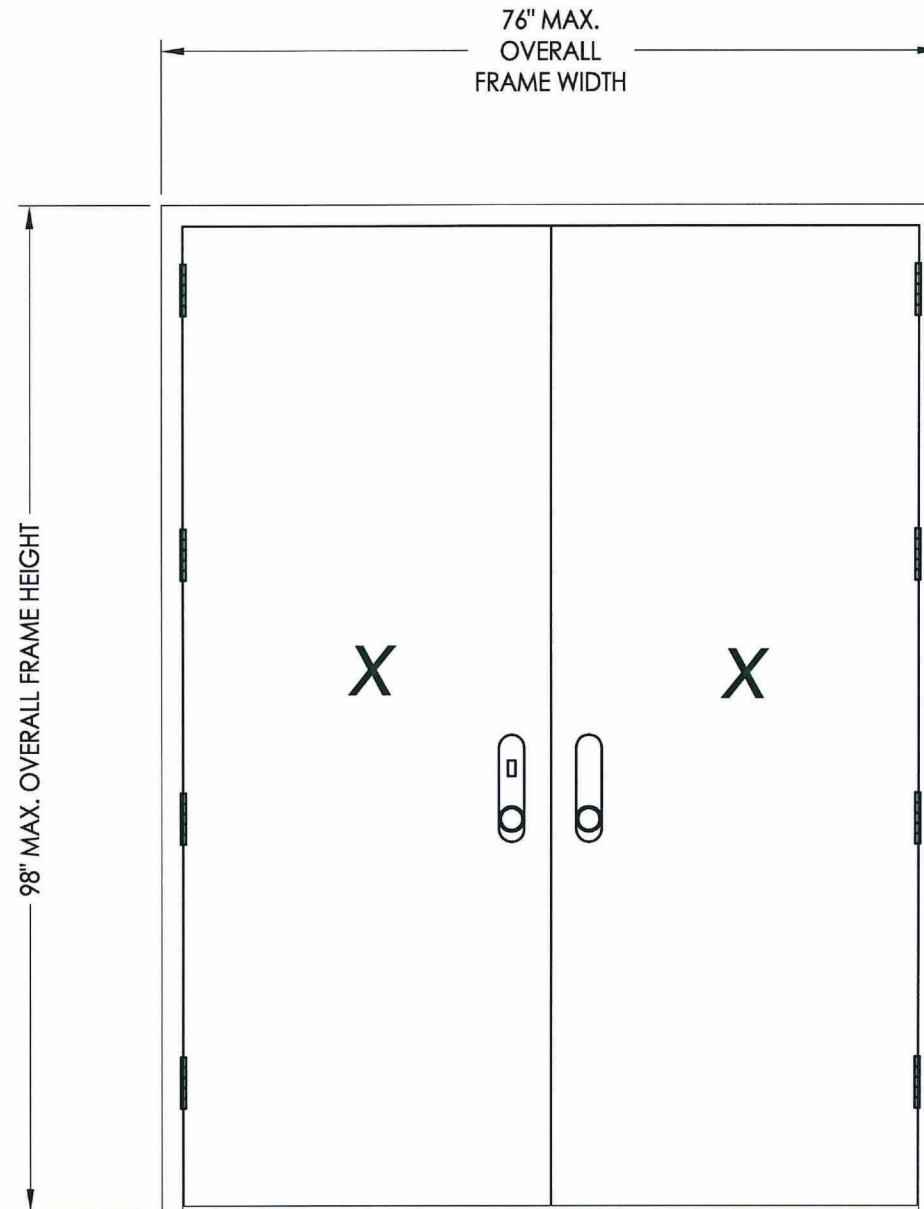
### "IMPACT"

#### GENERAL NOTES

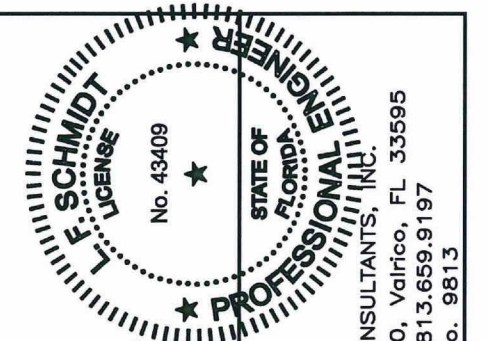
1. This product has been evaluated and is in compliance with the 5th Edition (2014) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be 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. This product meets the water infiltration requirements for the "HVHZ".
7. All steel shall be protected as specified in Section 2222.6 of the FBC.

#### TABLE OF CONTENTS

SHEET#	DESCRIPTION
1	Typical elevations, design pressures, & general notes
2	Door panel details
3	Horizontal cross sections
4	Vertical cross sections
5	Anchoring details
6	Bill of materials and components



MAX. OVERALL DIMENSION	DESIGN PRESSURE (PSF)	
	POSITIVE	NEGATIVE
76.0" X 98.0"	+47.0	-47.0



*LFS*  
9.1.15

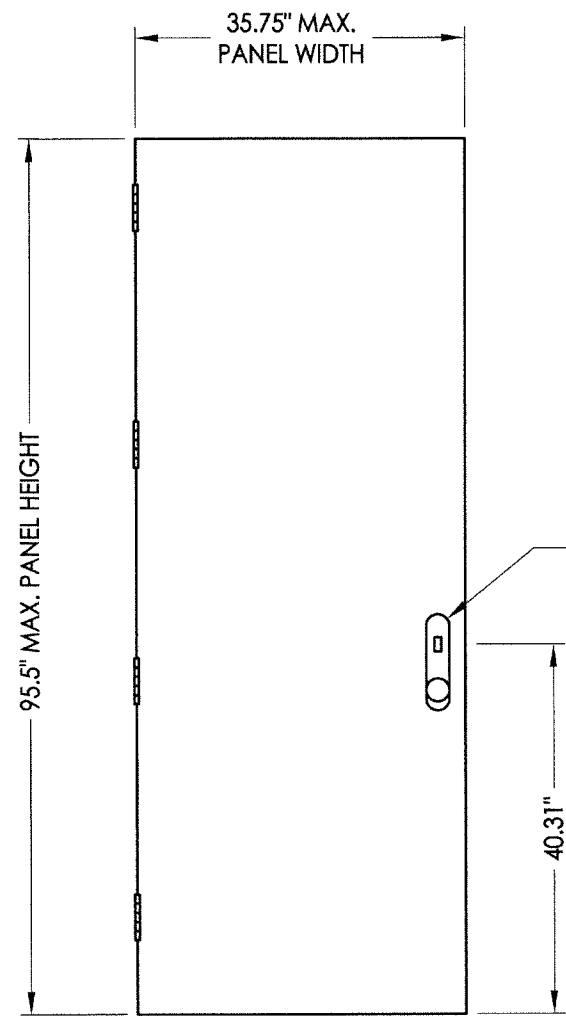
Documents Prepared By:  
Lyndon F. Schmidt  
P.E. No. 43409

**R.W.** BUILDING CONSULTANTS, INC.  
P.O. Box 230, Valrico, FL 33595  
Phone No.: 813.659.9197  
FBPE C.A. No. 9813

PRODUCT: HMF EXPRESS  
PART OR ASSEMBLY: TYPICAL ELEVATIONS, DESIGN PRESSURES & GENERAL NOTES

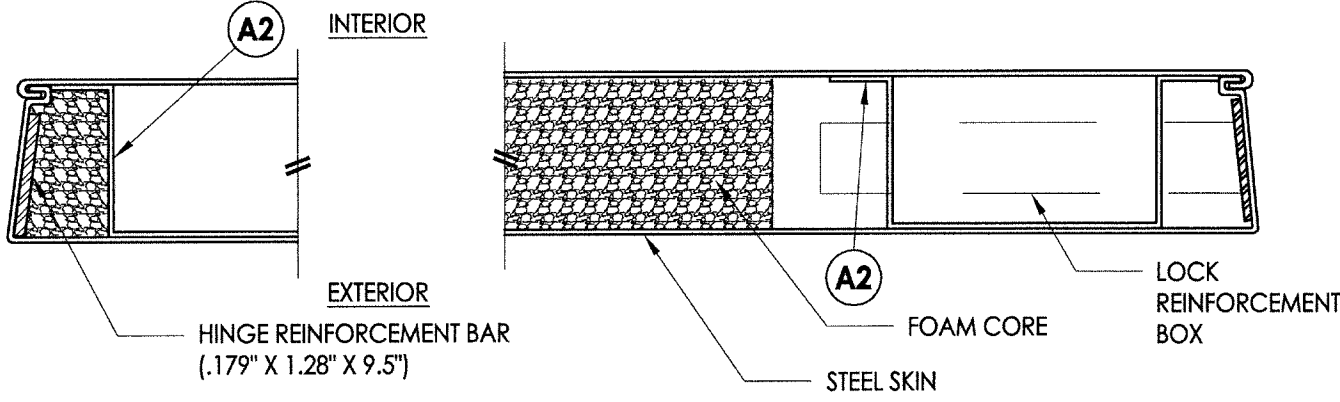
NO.	DATE	BY	REVISIONS

DATE: 8/31/15  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: FL-18506.4  
SHEET 1 OF 6

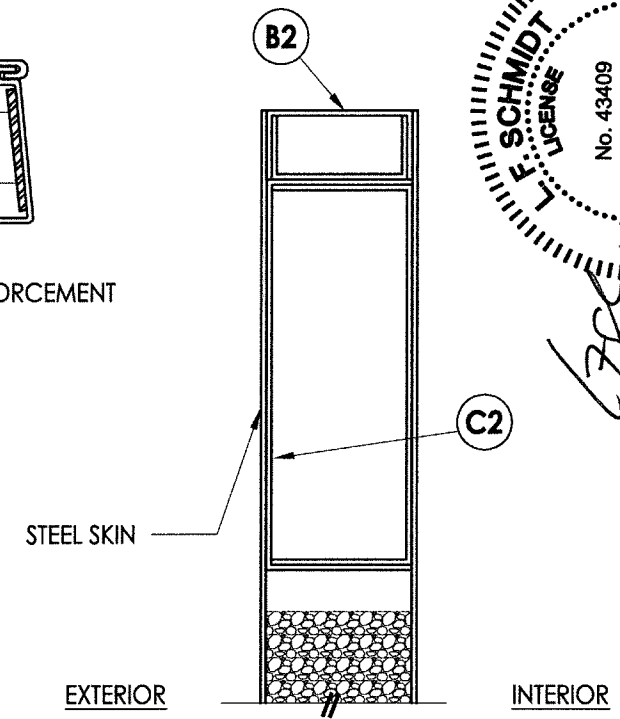


**1 OPAQUE STEEL DOOR PANEL**

STEEL DOOR SKIN: 18 GA. A60 GALV. (min. 0.047" THK., Fy = 36,800 psi min.)  
 CORE MATERIAL: EPS Foam (Polystyrene - 1.0 PCF Min. Density)



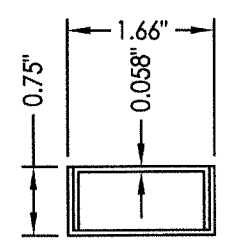
**2 HORIZONTAL CROSS SECTION**



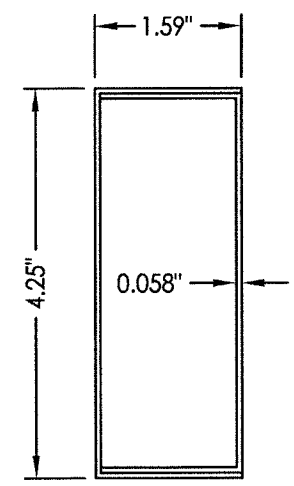
**1 VERTICAL CROSS SECTION**

HARDWARE CHART	
MANUFACTURER	MODEL
SCHLAGE	LOCK: D-Series DEADBOLT: D100
SCHLAGE	MORTISE LOCK: L9457 w/ Deadbolt
VON DUPRIN	LOCK: 9975 Panic Exit Device w/ Mortise Lock (575 Strike Plate)
VON DUPRIN	LOCK: 98NL Panic Exit Device (499 Strike Plate)

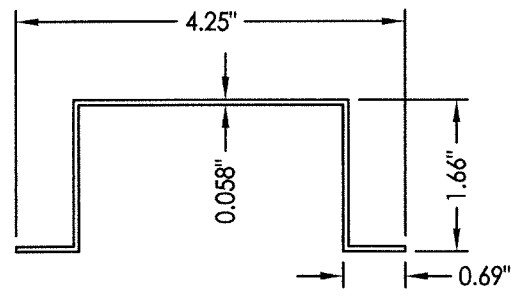
NOTE: Panic exit device for use on one active panel only.



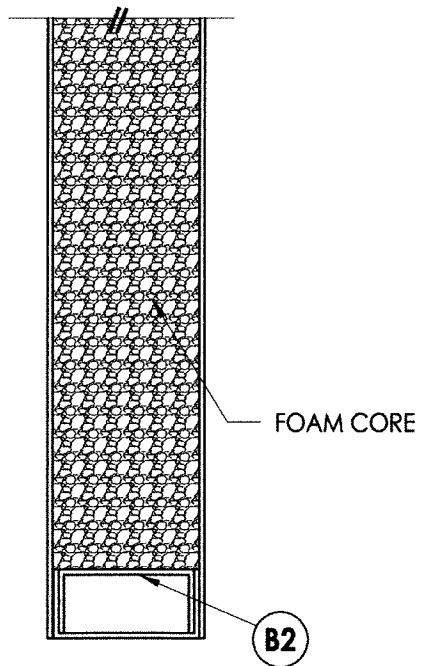
**B2 CHANNEL BOTTOM REINFORCEMENT**  
A60 Galv. Steel



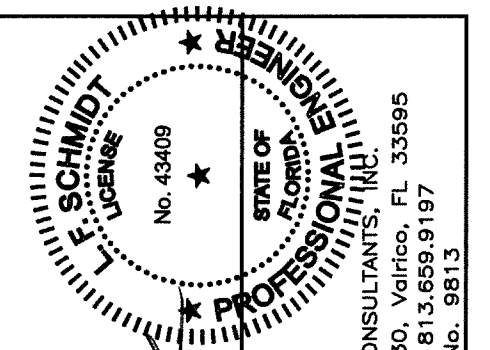
**C2 BOX CHANNEL TOP REINFORCEMENT**  
A60 Galv. Steel



**A2 RIB STIFFENER**  
A60 Galv. Steel



**B2**



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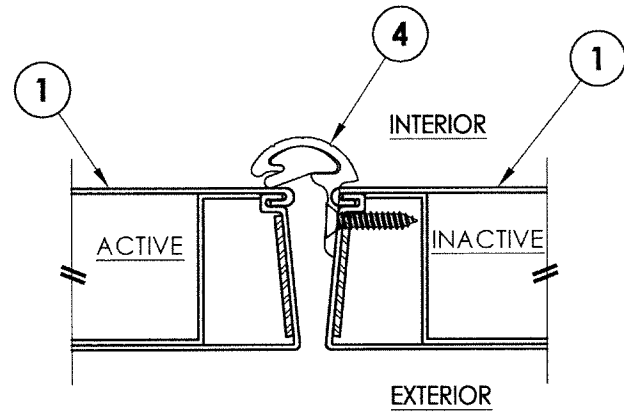
**R.W.** BUILDING CONSULTANTS, INC.  
 P.O. Box 230, Valrico, FL 33595  
 Phone No.: 813.659.9197  
 FBPE C.A. No. 9813

PRODUCT:	HMF EXPRESS
PART OR ASSEMBLY:	DOOR PANEL DETAILS

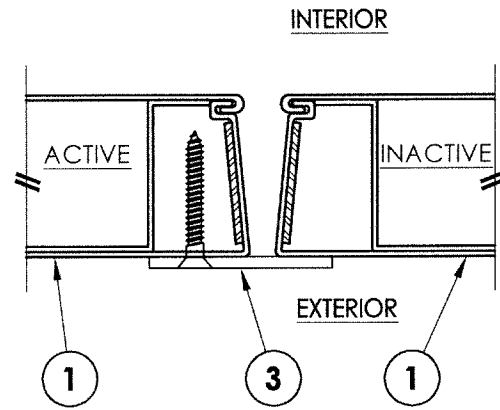
NO.	DATE	BY	REVISIONS

DATE:	8/31/15
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-18506.4
SHEET	2 OF 6

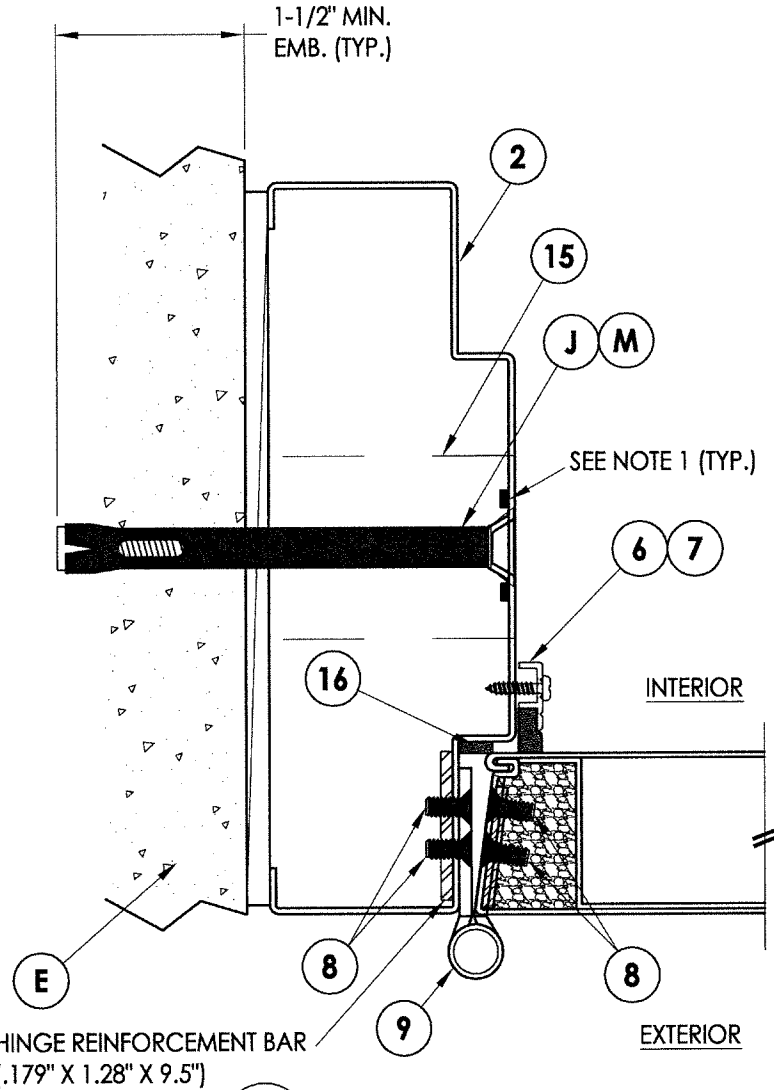
R:\Clients\HMF Express PERMANENT\FL - C - Drawings\FL XXXX (2014)\FL-18506.1-4.dwg, 3.4



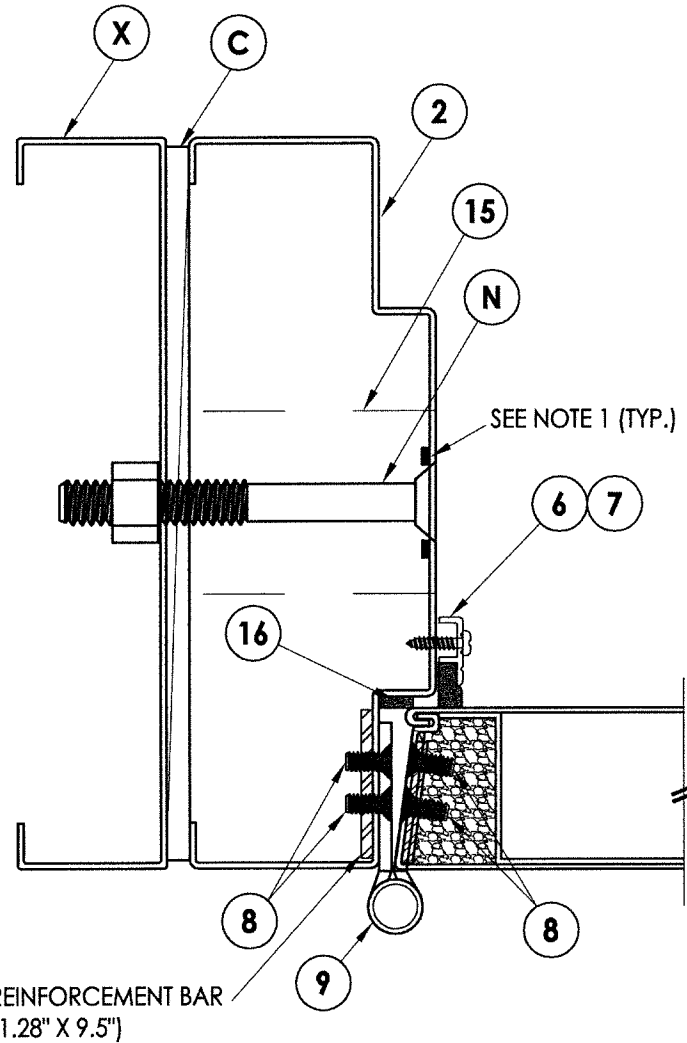
**3 HORIZONTAL CROSS SECTION**  
3 Push side astragal



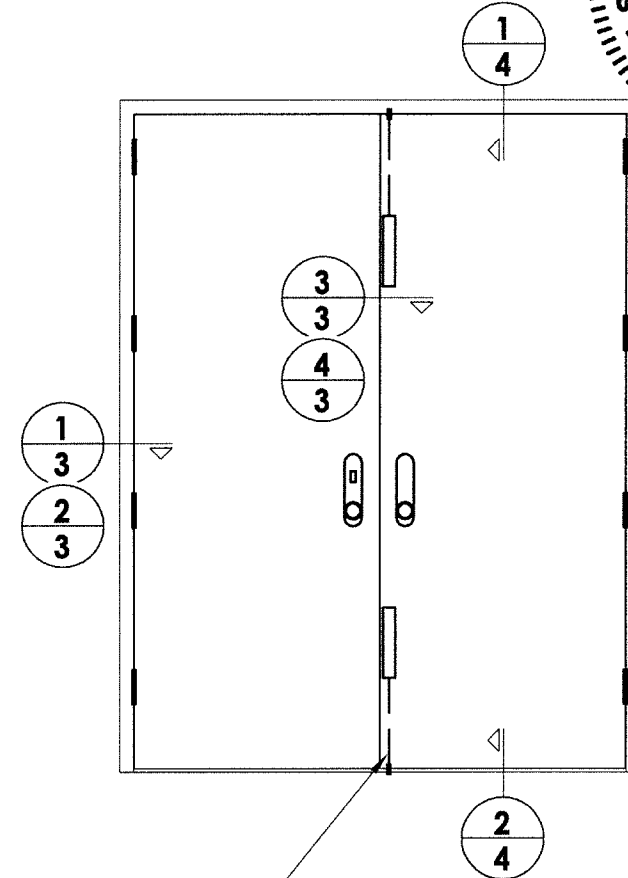
**4 HORIZONTAL CROSS SECTION**  
3 Pull side astragal



**1 HORIZONTAL CROSS SECTION**  
3

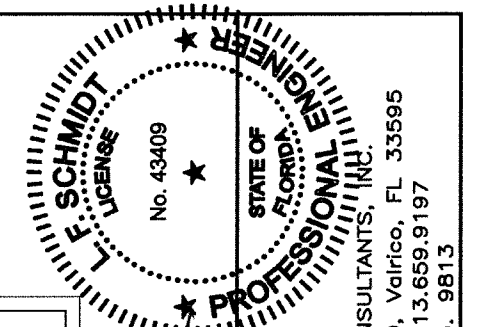


**2 HORIZONTAL CROSS SECTION**  
3 Shown w/ metal stud



ROCKWELL 555 FLUSH BOLT @ head and sill w/ 3/4" throw. Mortise strike plates (15/16" x 2-1/4") attached to frame head and aluminum threshold w/ (2) #8 comb. ws/sms each.

- NOTES:  
1. Spot weld anchor bracket to frame:  
2 welds per flange (4 total per bracket).

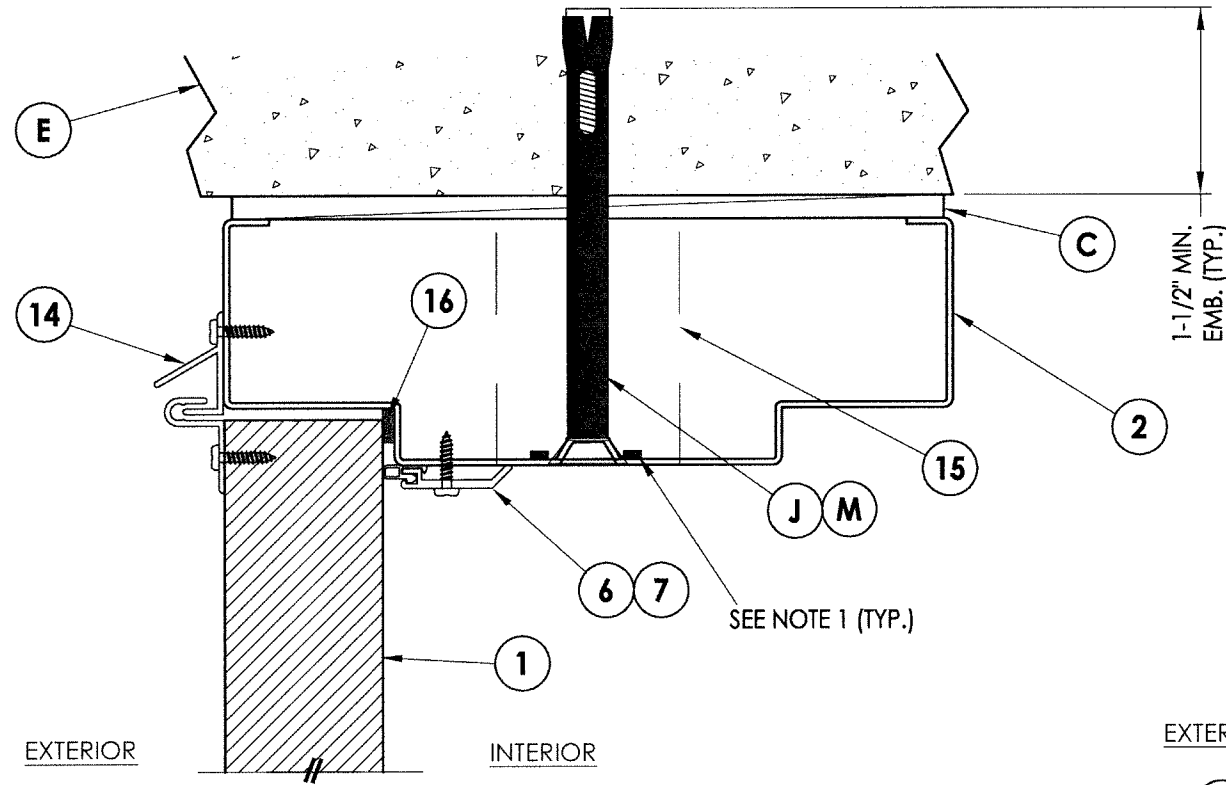


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9.1.15

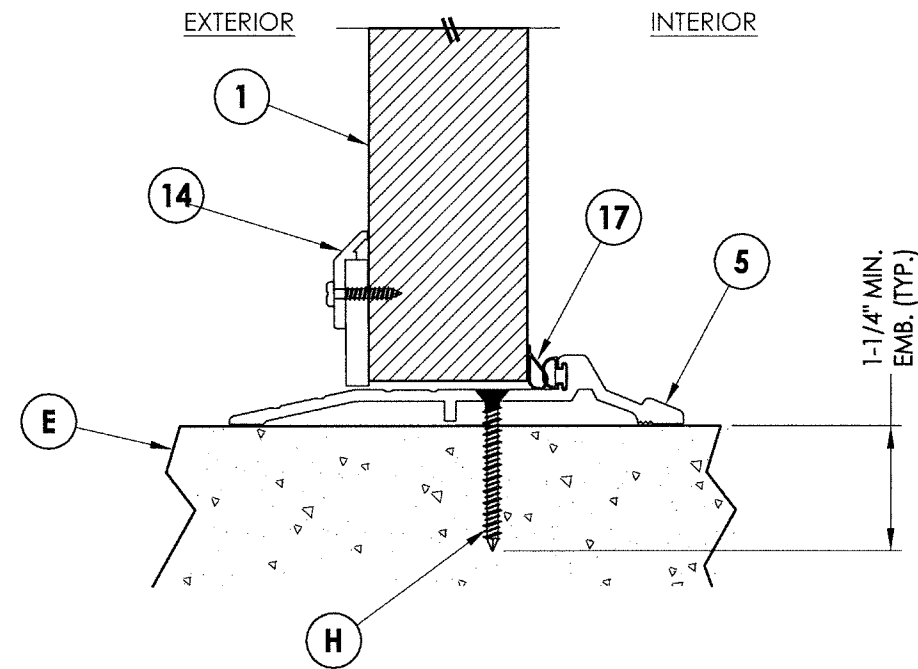
PRODUCT: HMF EXPRESS  
PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	BY	REVISIONS

DATE: 8/31/15  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: FL-18506.4  
SHEET 3 OF 6

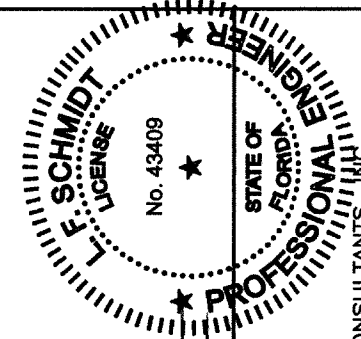


**1** VERTICAL CROSS SECTION  
**4** Direct to masonry construction



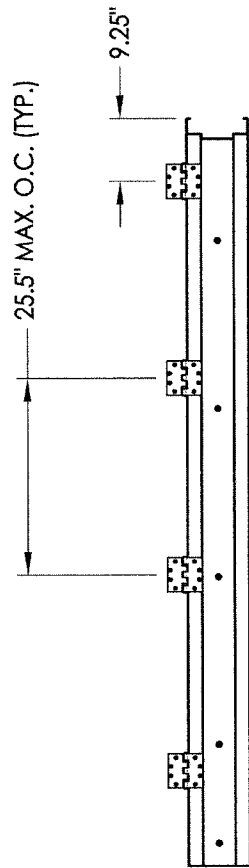
**2** VERTICAL CROSS SECTION  
**4** Concrete sill

NOTES:  
 1. Spot weld anchor bracket to frame:  
 2 welds per flange (4 total per bracket).

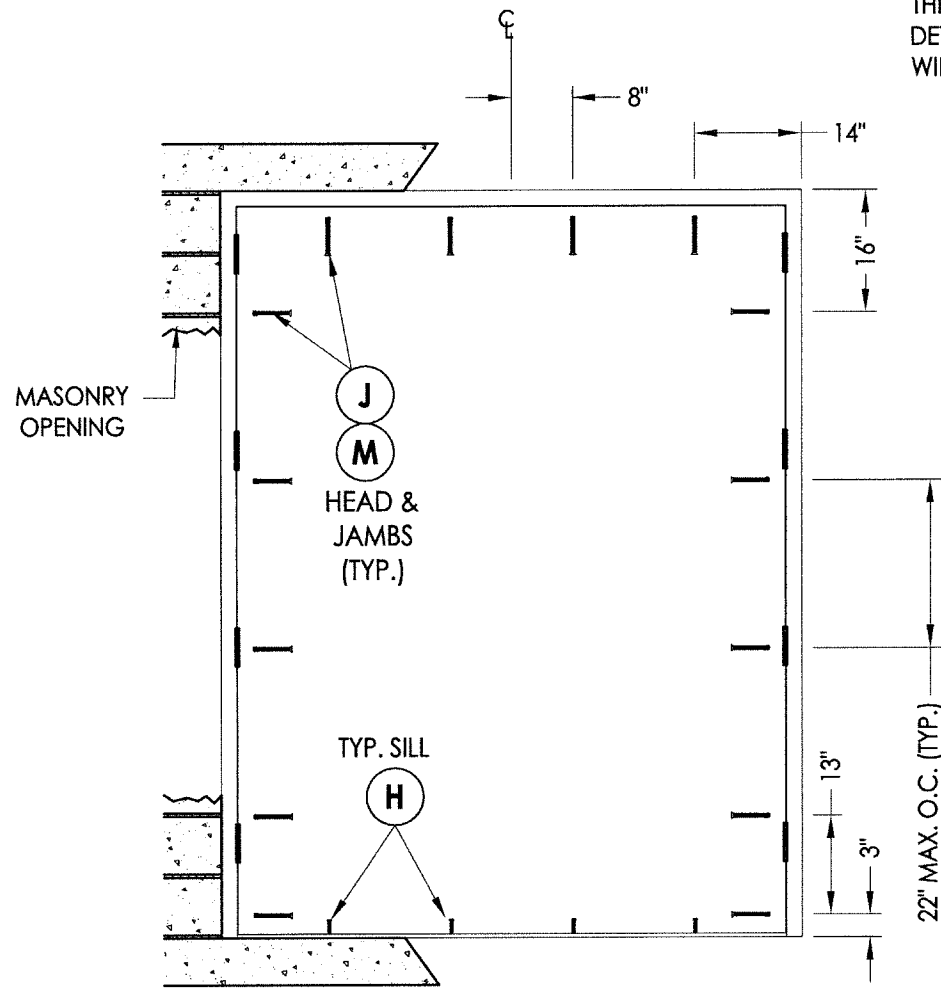


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PRODUCT: HMF EXPRESS	
PART OR ASSEMBLY: VERTICAL CROSS SECTIONS	
NO.	DATE
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SCALE: N.T.S.	
DWG. BY: JK	
CHK. BY: LFS	
DRAWING NO.: FL-18506.4	
SHEET 4 OF 6	

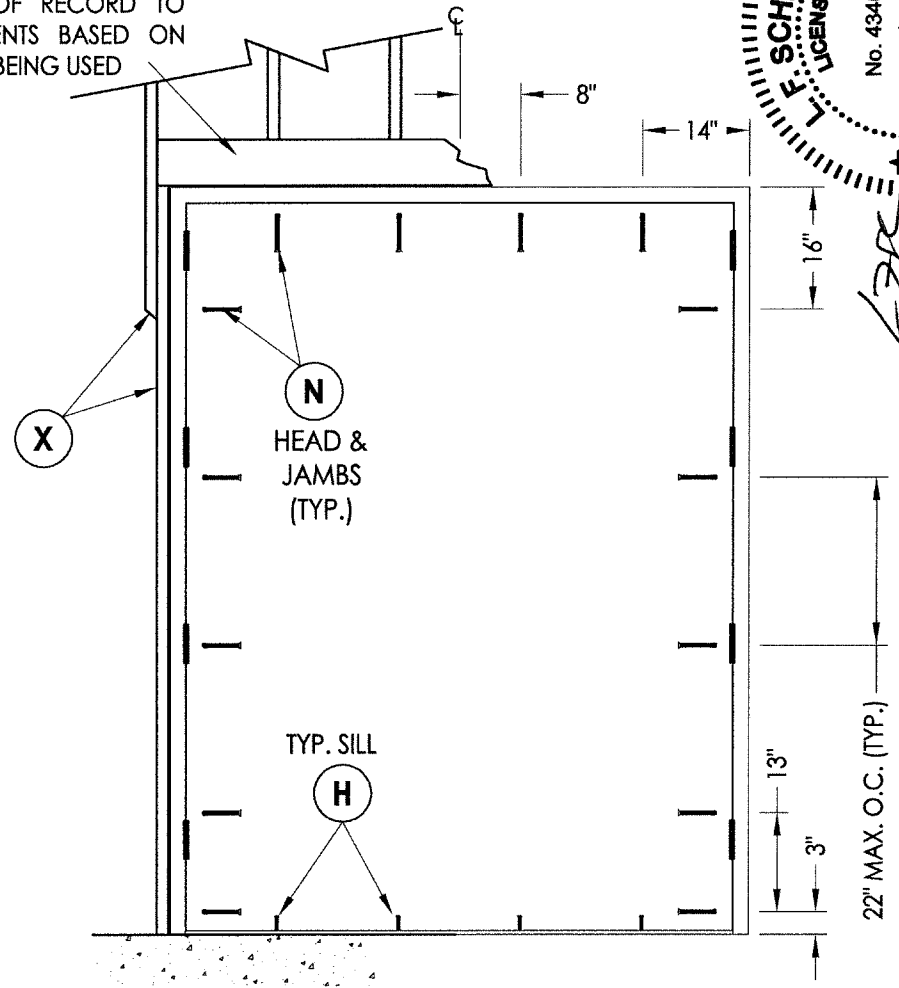


**HINGE JAMB**

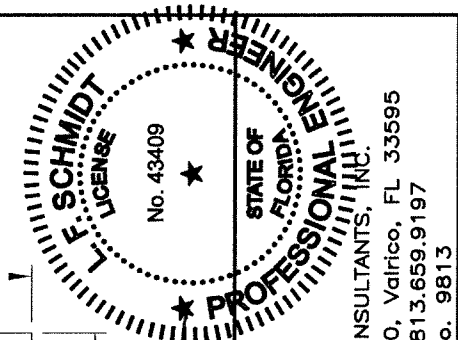


**FRAME ANCHORING**  
Direct to Masonry

THE ENGINEER OR ARCHITECT OF RECORD TO DETERMINE FRAMING REQUIREMENTS BASED ON WIND LOADS AND THE CLADDING BEING USED



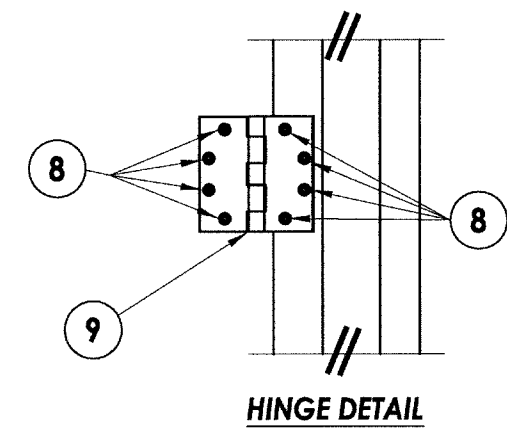
**FRAME ANCHORING**  
Steel Stud



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- CONCRETE ANCHOR NOTES:**
- Concrete screw locations 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	HEAD / JAMBS	3/8"	LDT TAPCON® (ITW BUILDEX)	3"	1-1/2"
	SILL	1/4"	TAPCON® (ITW BUILDEX) ULTRACON® (ELCO) CRETE-FLEX® (ELCO) TAPPER+® (POWERS)	2-1/2"	1-1/4"
CONCRETE SLEEVE ANCHOR	HEAD / JAMBS	3/8"	DYNABOLT SLEEVE ANCHOR® (ITW REDHEAD)	2-1/4"	1-1/2"

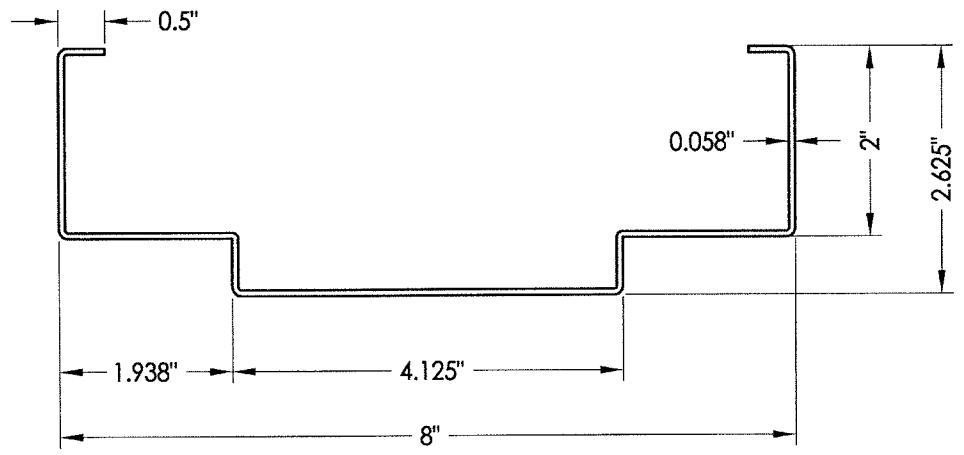


**HINGE DETAIL**

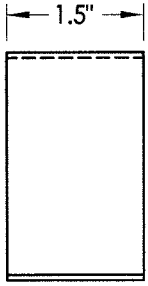
PRODUCT:	HMF EXPRESS
PART OR ASSEMBLY:	ANCHORING DETAILS
NO.	DATE
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DATE:	8/31/15
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-18506.4
SHEET	5 OF 6

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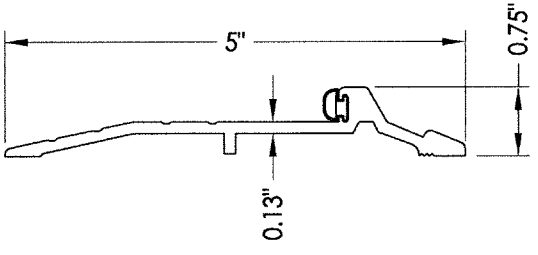
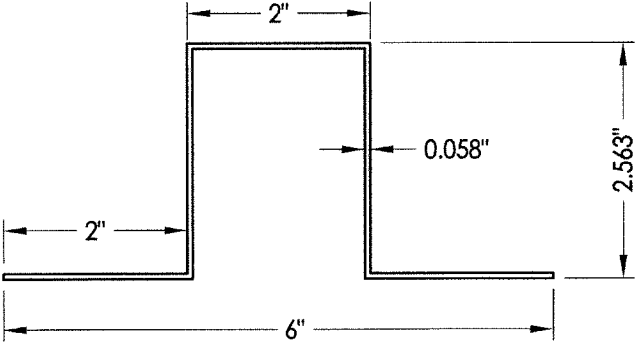
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
C	1/4" MAX. SHIM SPACE	-
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK (GROUT FILLED) CONFORMING TO ASTM C90	CONCRETE
H	1/4" X 1-3/4" PFH CONCRETE SCREW (SEE CONCRETE ANCHOR TABLE)	STEEL
J	3/8" X 5" PFH DYNABOLT SLEEVE ANCHOR (SEE CONCRETE ANCHOR TABLE)	STEEL
M	3/8" X 5" LDT TAPCON CONCRETE SCREW (SEE CONCRETE ANCHOR TABLE)	STEEL
N	3/8" X 5" BOLT (ASTM A307) W/ NUT AND WASHER	STEEL
X	STEEL STUD (14 GA, Fu = 50 ksi, Fy = 33 ksi)	STEEL
1	STEEL DOOR PANEL	-
2	HOLLOW METAL FRAME (HEAD AND JAMB)- 16GA (0.058" THK)	STEEL
3	ASTRAGAL (EXTERIOR PEMKO #357SC)	ALUM
4	ASTRAGAL (INTERIOR PEMKO #352CR)	ALUM
5	THRESHOLD (PEMKO #179AV)	ALUM
6	PERIMETER GASKET (PEMKO #312CR)	-
7	PERIMETER GASKET (PEMKO #315CR)	-
8	.210" X .525" SELF TAP FH SCREW	STEEL
9	HINGE 4.5" X 4.5"	STEEL
10	#12-24 x 1.0" COMBINATION MACHINE / WOOD SCREW	STEEL
11	LATCH STRIKE	STEEL
12	REINFORCEMENT (LOCK BOX)	STEEL
13	DOOR GASKET (PEMKO #347A / 68AR)	-
14	DOOR SWEEP (PEMKO #368CN)	-
15	ANCHOR BRACKET	A60 GALV.
16	WEATHERSTRIPPING TAPE	NEOPRENE
17	PERIMETER GASKET (PEMKO #S88)	-



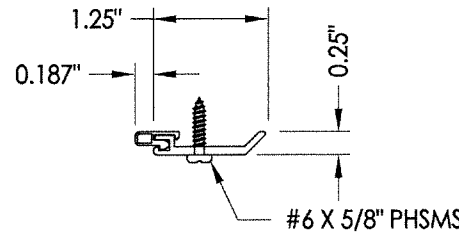
**2 HOLLOW METAL FRAME**  
Head and jamb



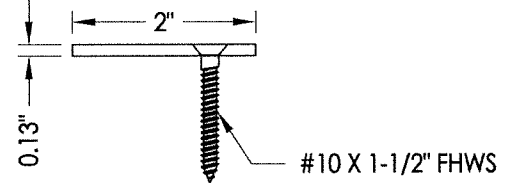
**15 ANCHOR BRACKET**



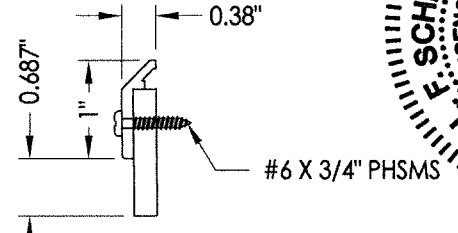
**5 THRESHOLD**



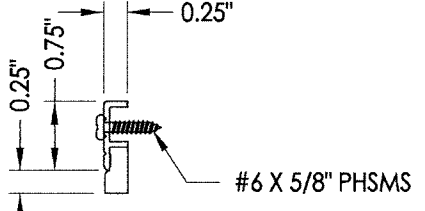
**7 PERIMETER GASKETING**



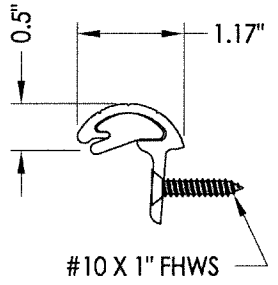
**3 ASTRAGAL Exterior**



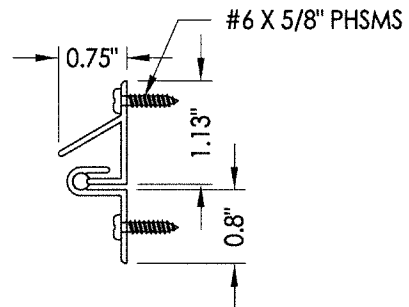
**14 DOOR SWEEP**



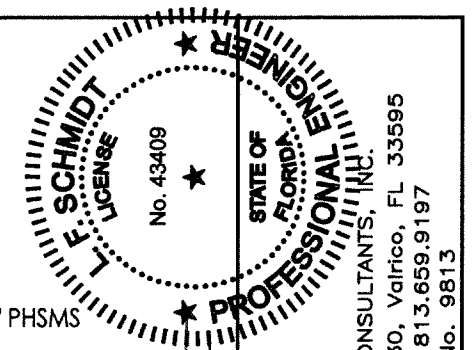
**6 PERIMETER GASKETING**



**4 ASTRAGAL Interior**



**13 DOOR GASKET**



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PRODUCT: HMF EXPRESS

PART OR ASSEMBLY:  
BILL OF MATERIALS  
& COMPONENTS

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SHEET 6 OF 6