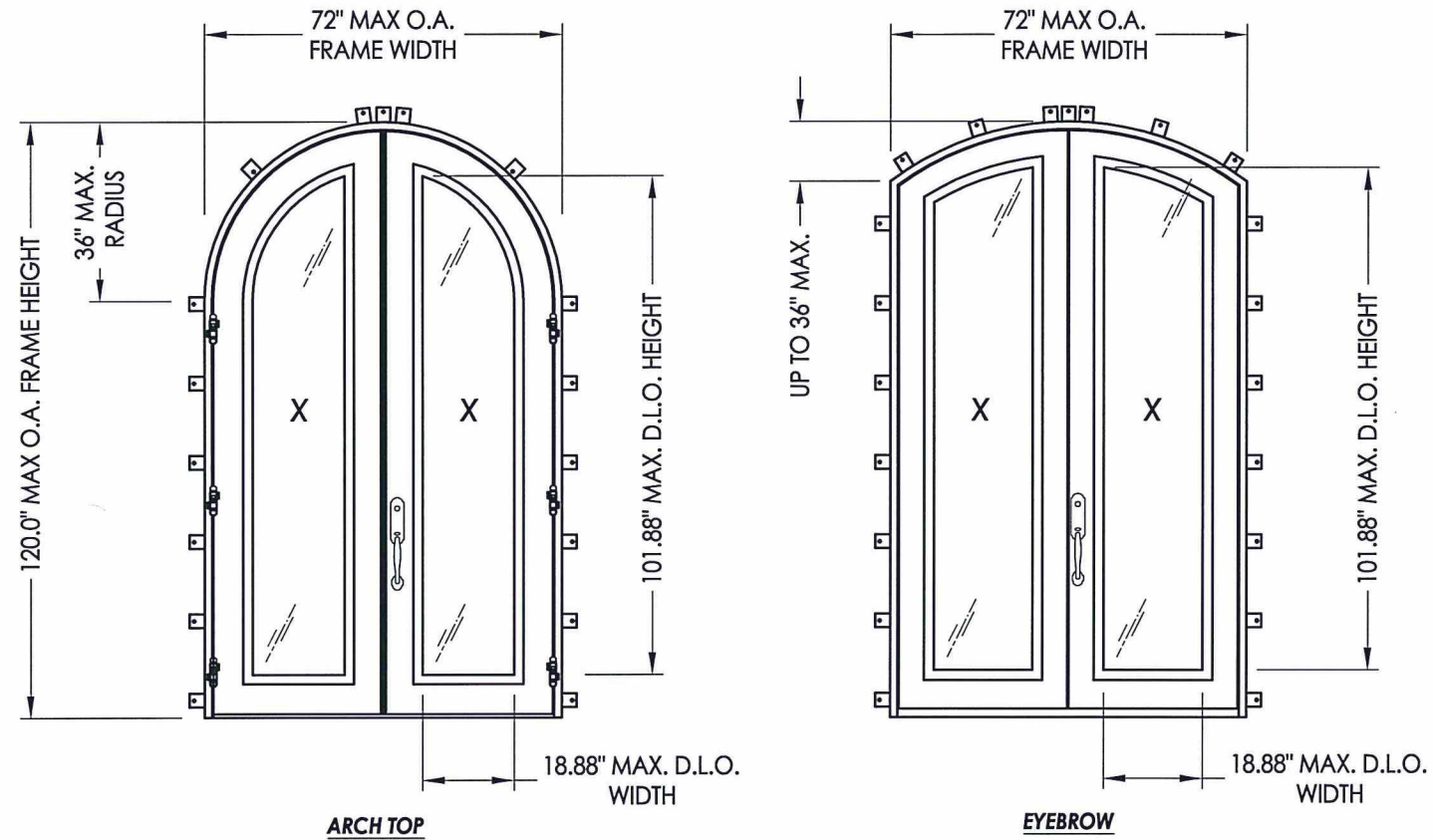


# Clark Hall Iron Doors

## GLAZED IRON DOUBLE DOOR (Arch Top & Eyebrow)

### INSWING/OUTSWING "IMPACT"



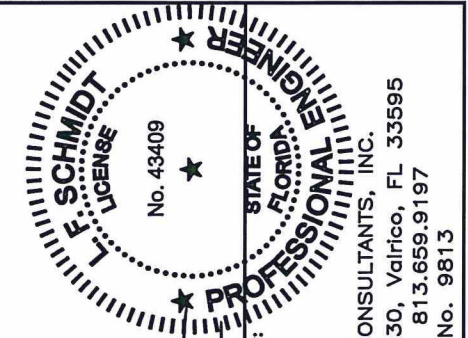
#### GENERAL NOTES

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. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
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 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.
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	Glazing details
4	Horizontal cross sections
5	Vertical cross sections
6	Buck & Frame anchoring
7	Components
8	Bill of materials & components

CONFIGURATION	OVERALL FRAME DIMENSION	DESIGN PRESSURE (PSF)			
		INSWING		OUTSWING	
		POS.	NEG.	POS.	NEG.
XX	72.0" x 120.0"	+65.0	-65.0	+75.0	-75.0

NOTE: See Sheets 3 & 4 for glazing and lock hardware design pressure limitations.



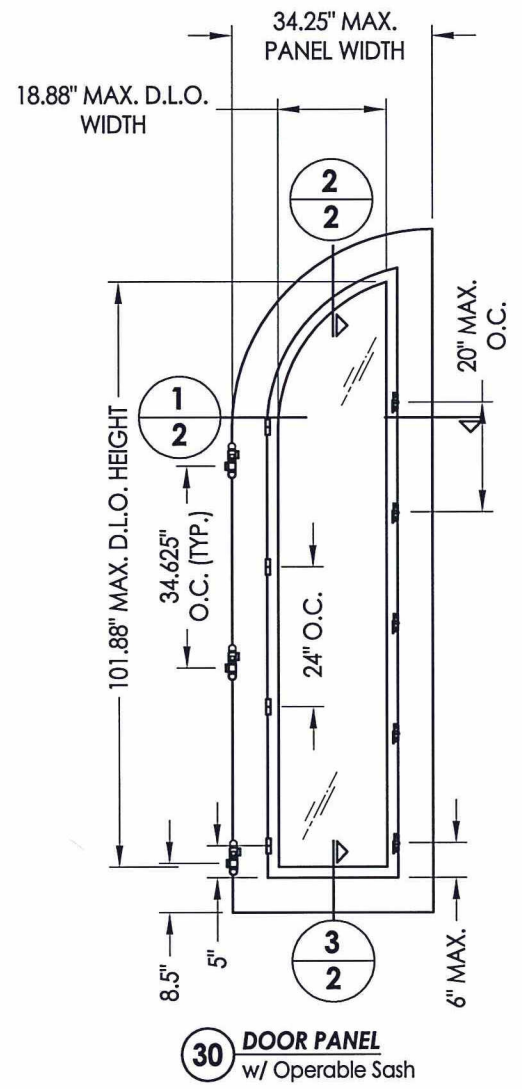
Documents Prepared By:  
Lyndon F. Schmidt  
P.E. No. 43409

*LFS*  
8.18.15

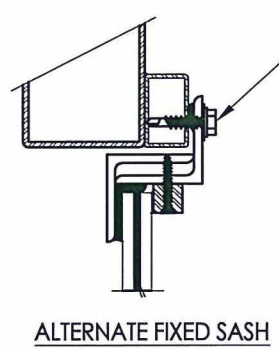
R.W. BUILDING CONSULTANTS, INC.  
P.O. Box 230, Valrico, FL 33595  
Phone No.: 813.659.9197  
FBPE C.A. No. 9813

PRODUCT: CLARK HALL IRON DOORS		PART OR ASSEMBLY: TYPICAL ELEVATIONS, DESIGN PRESSURES & GENERAL NOTES	
NO.	DATE	BY	REVISIONS
1	8/17/15	LFS	UPDATE TO 5TH ED. (2014) FBC
DATE: 10/30/13			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-16663.16			
SHEET 1 OF 8			



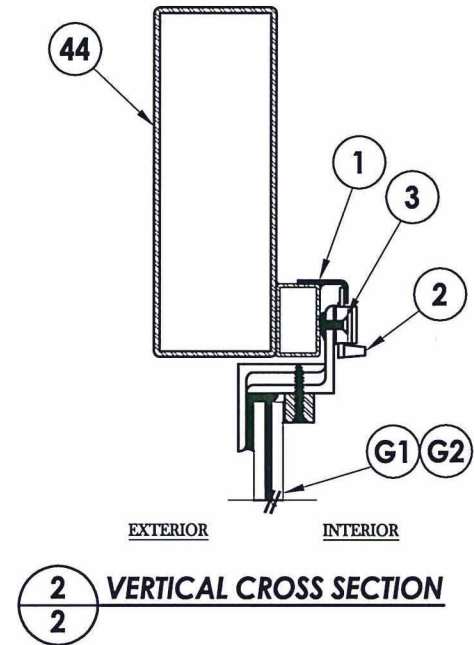


**30 DOOR PANEL**  
w/ Operable Sash

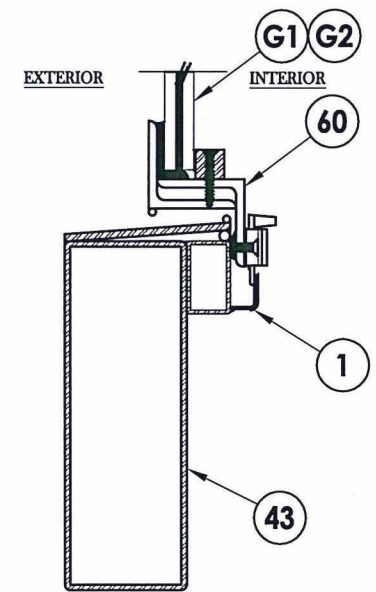


ALTERNATE FIXED SASH

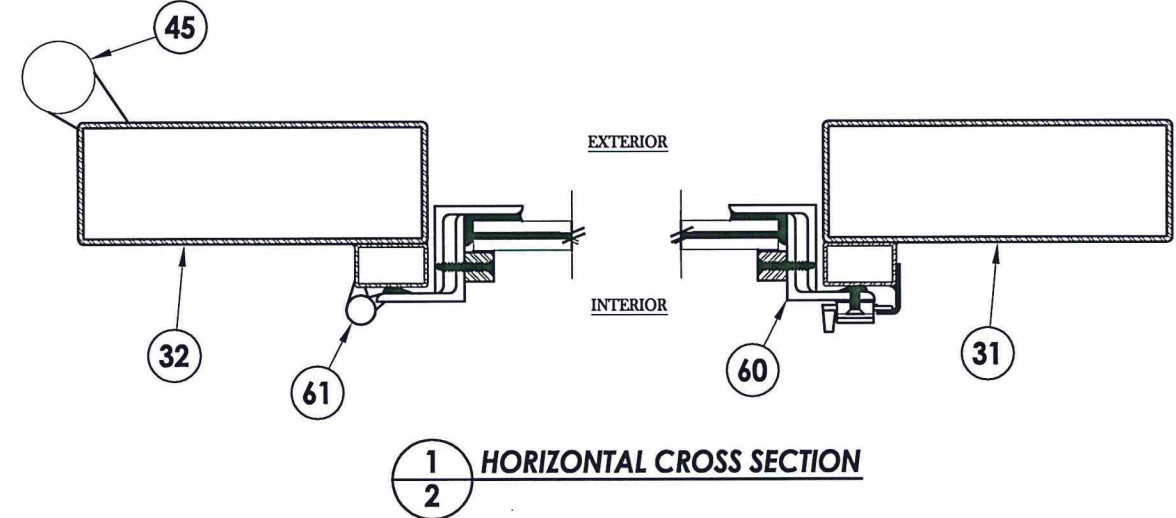
#12-14 x 1" HWH SELF-DRILLING SMS w/  
1/2" CUSHIONED WASHER (6" FROM  
CORNERS & SPACED 12" O.C.) ALL  
AROUND SASH.



**2 VERTICAL CROSS SECTION**



**3 VERTICAL CROSS SECTION**

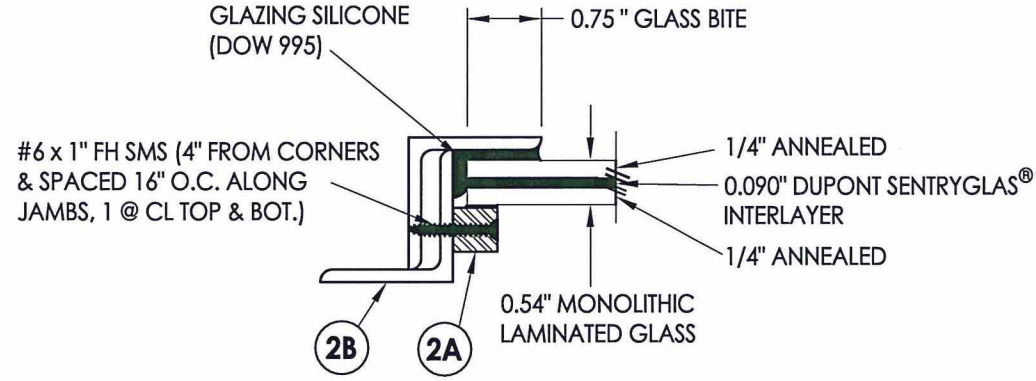


**1 HORIZONTAL CROSS SECTION**

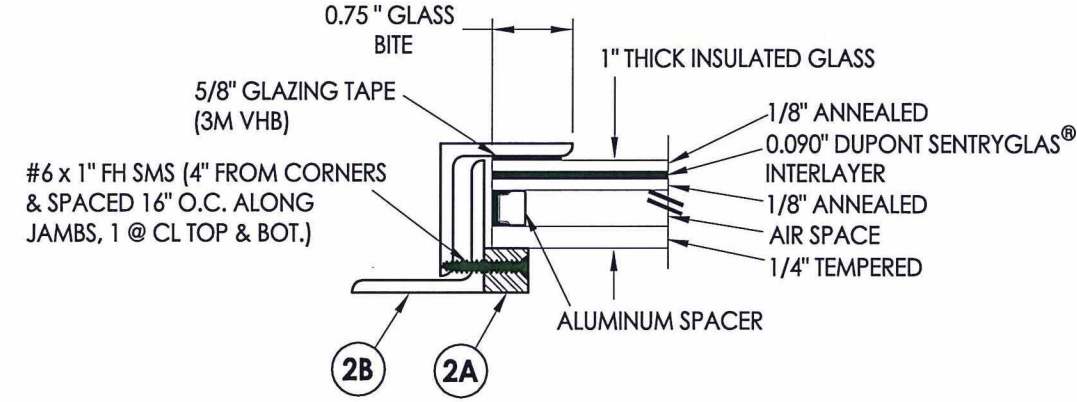
Documents Prepared By: *LFS*  
 Lyndon F. Schmidt  
 P.E. No. 43409  
 8.18.15

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

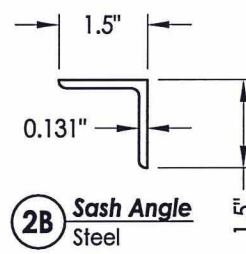
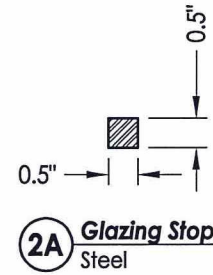
PRODUCT:		CLARK HALL IRON DOORS	
PART OR ASSEMBLY:		DOOR PANEL DETAILS	
DATE:	11/8/13	NO.	DATE
SCALE:	N.T.S.	1	8/17/15
DWG. BY:	JK	UPDATE TO	5TH ED. (2014)
CHK. BY:	LFS	FBC	
DRAWING NO.:	FL-16663.16	LFS	BY
SHEET	2	OF	8
REVISIONS			



**G1** GLAZING DETAIL  
Operable Door/Sidelite

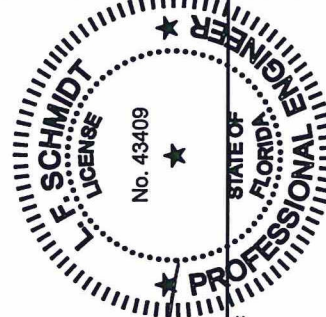


**G2** GLAZING DETAIL  
Operable Door/Sidelite



**GLAZING DESIGN PRESSURE LIMITATIONS**

GLAZING	MAX. DESIGN PRESSURE (PSF)	
	POS.	NEG.
G1	+75.0	-75.0
G2	+65.0	-65.0



LFS  
8-18-15

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 C.A. No. 9813

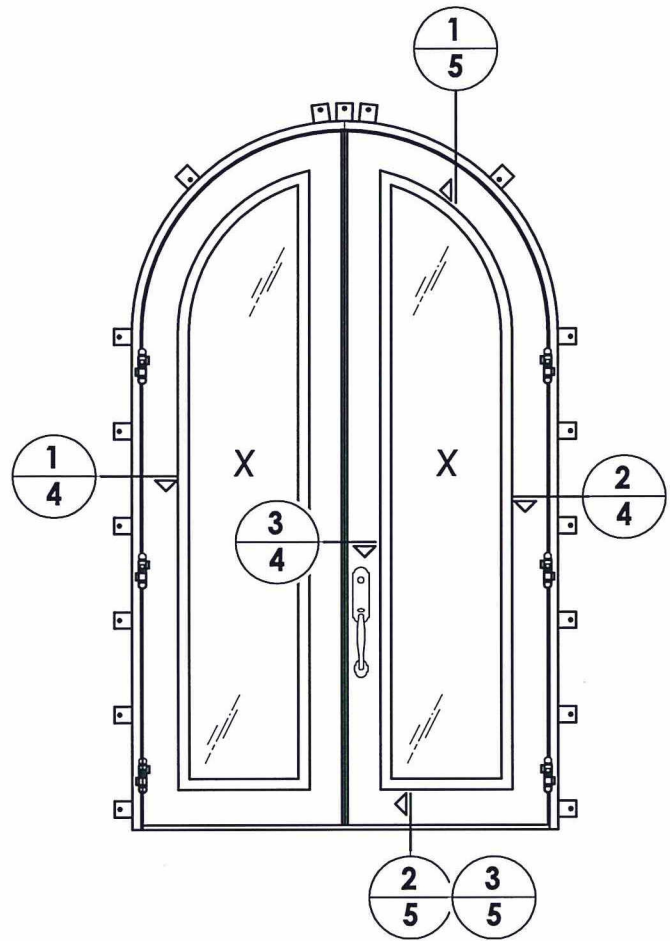
PRODUCT: CLARK HALL IRON DOORS  
PART OR ASSEMBLY: GLAZING DETAILS

NO.	DATE	BY	REVISIONS
1	8/17/15	LFS	UPDATE TO 5TH ED. (2014) FBC

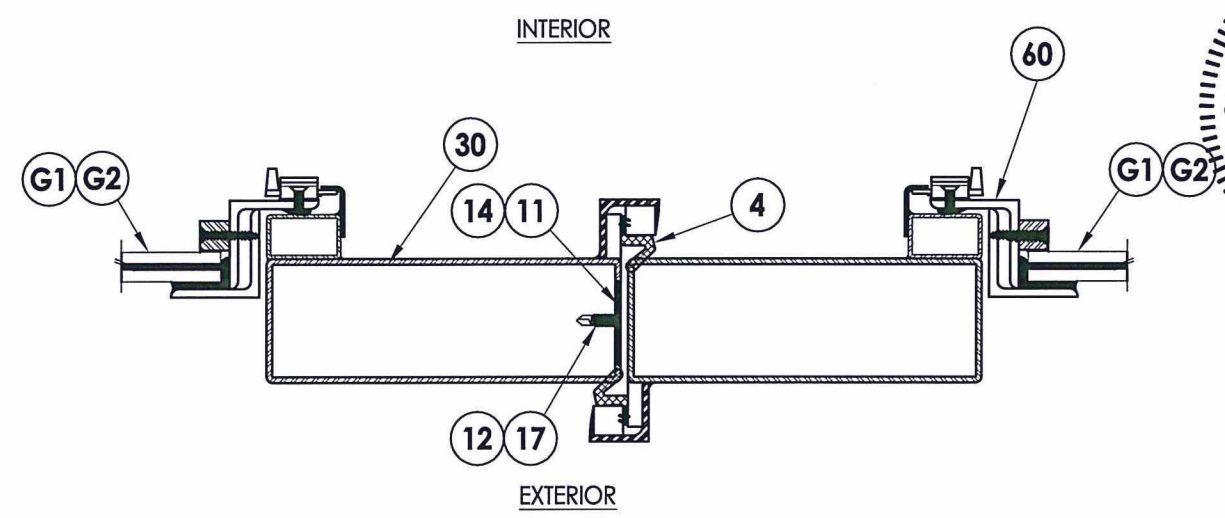
DATE: 11/8/13  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: FL-16663.16  
SHEET 3 OF 8



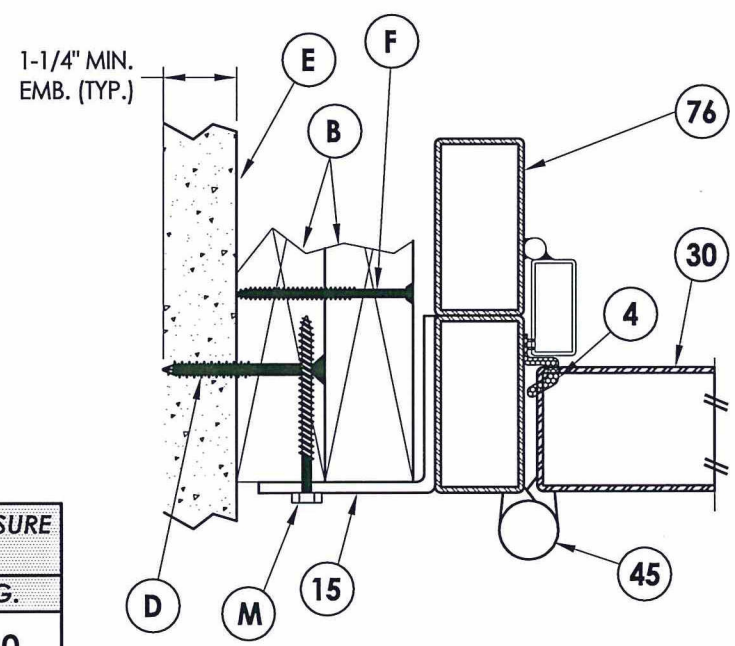
3:\Clients\Clark Hall Iron Doors PERMANENTVA - Florida Product Approvals\FL-16663 Exterior Doors - Iron Doors\C - Drawings\FL 16663 (2014)\FL-16663.16-18.dwg, 4.4



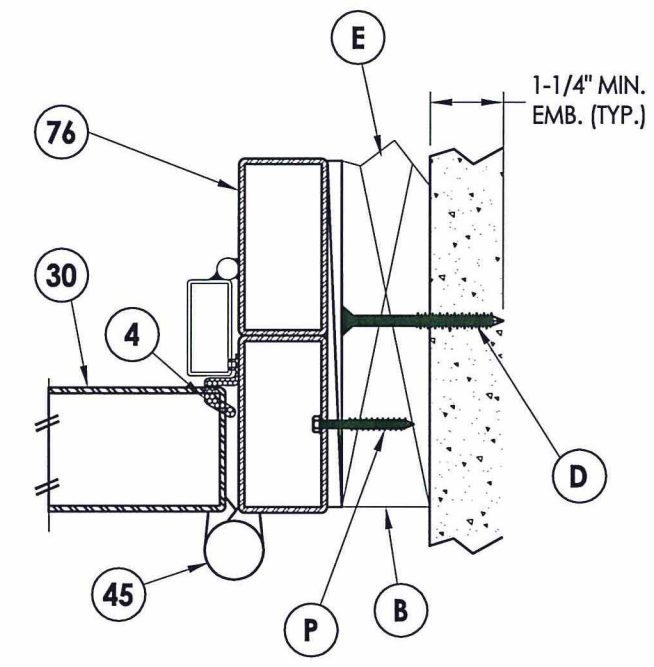
**ARCH TOP**  
(Eyebrow similar)



**3 HORIZONTAL CROSS SECTION**  
7 Outswing Shown (Inswing Similar)



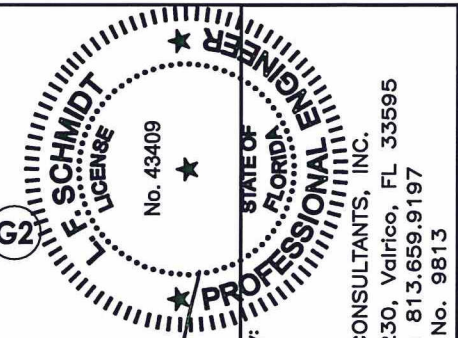
**1 HORIZONTAL CROSS SECTION**  
4 Outswing Shown (Inswing Similar)



**2 HORIZONTAL CROSS SECTION**  
4 Shown w/ Optional Through the Frame Anchoring

**LOCK HARDWARE DESIGN PRESSURE LIMITATIONS**

MANUFACTURER	MODEL	MAX. DESIGN PRESSURE (PSF)	
		POS.	NEG.
EMTEK	TUBULAR ENTRY SET (SHERIDAN - 451812)	+75.0	-75.0
SUN VALLEY BRONZE ACCURATE LOCK & HARDWARE	LEVER/KNOB ENTRY SET (RIDGE: CS-421PLD) MORTISE LOCK	+65.0	-65.0
ASHLEY NORTON	TUBULAR ENTRY SET (SQTUB w/ 900 SERIES KNOB)	+65.0	-65.0
ASHLEY NORTON ACCURATE LOCK & HARDWARE	MORTISE LOCK (SQMOR w/ 900 SERIES KNOB) MORTISE LOCK	+65.0	-65.0



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

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

PRODUCT: CLARK HALL IRON DOORS

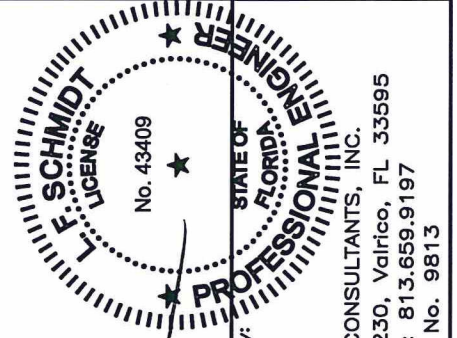
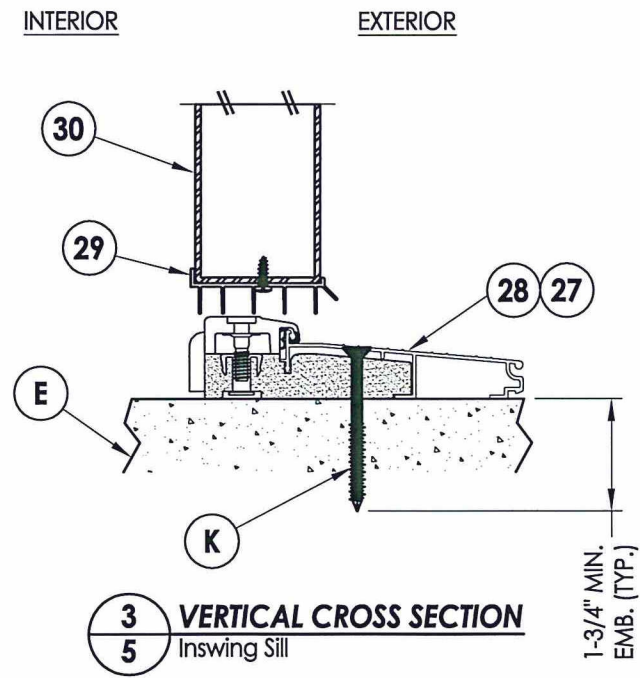
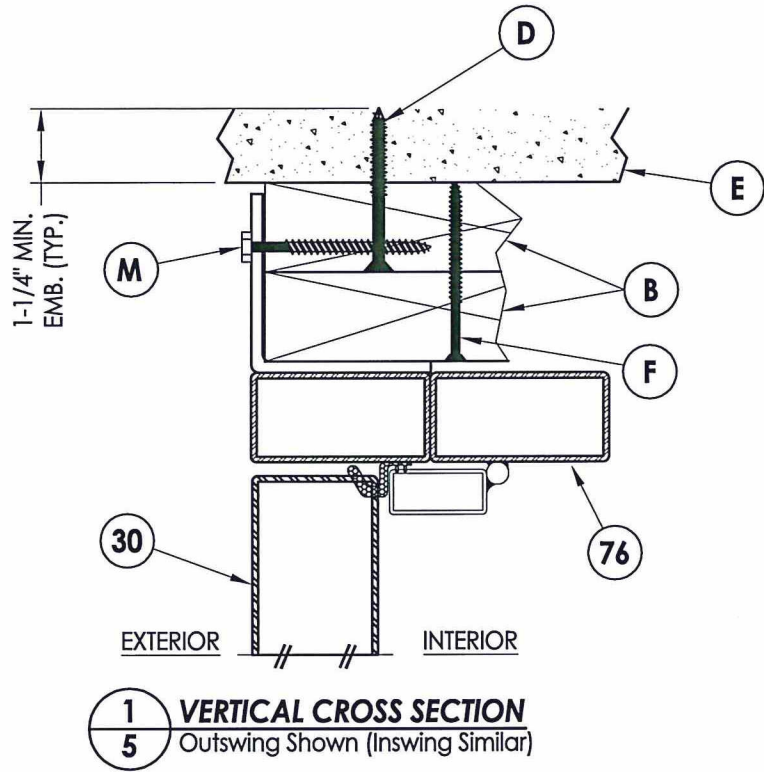
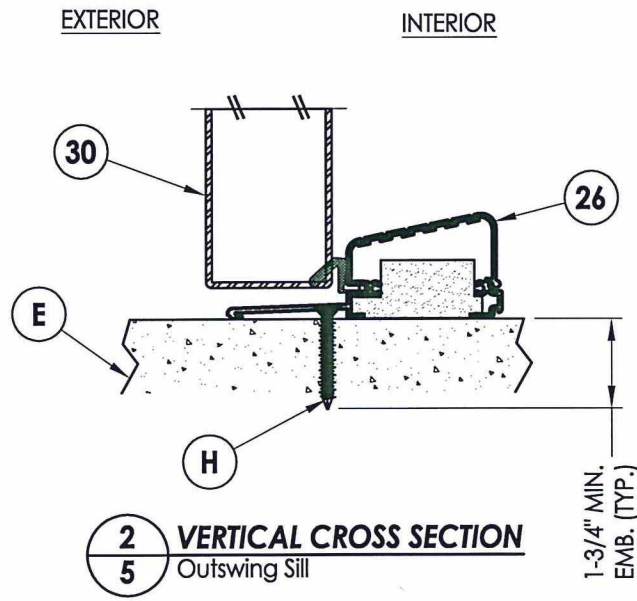
PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	BY	LFS
1	8/17/15	FBC	

REVISIONS

DATE: 10/30/13  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: FL-16663.16  
SHEET 4 OF 8





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

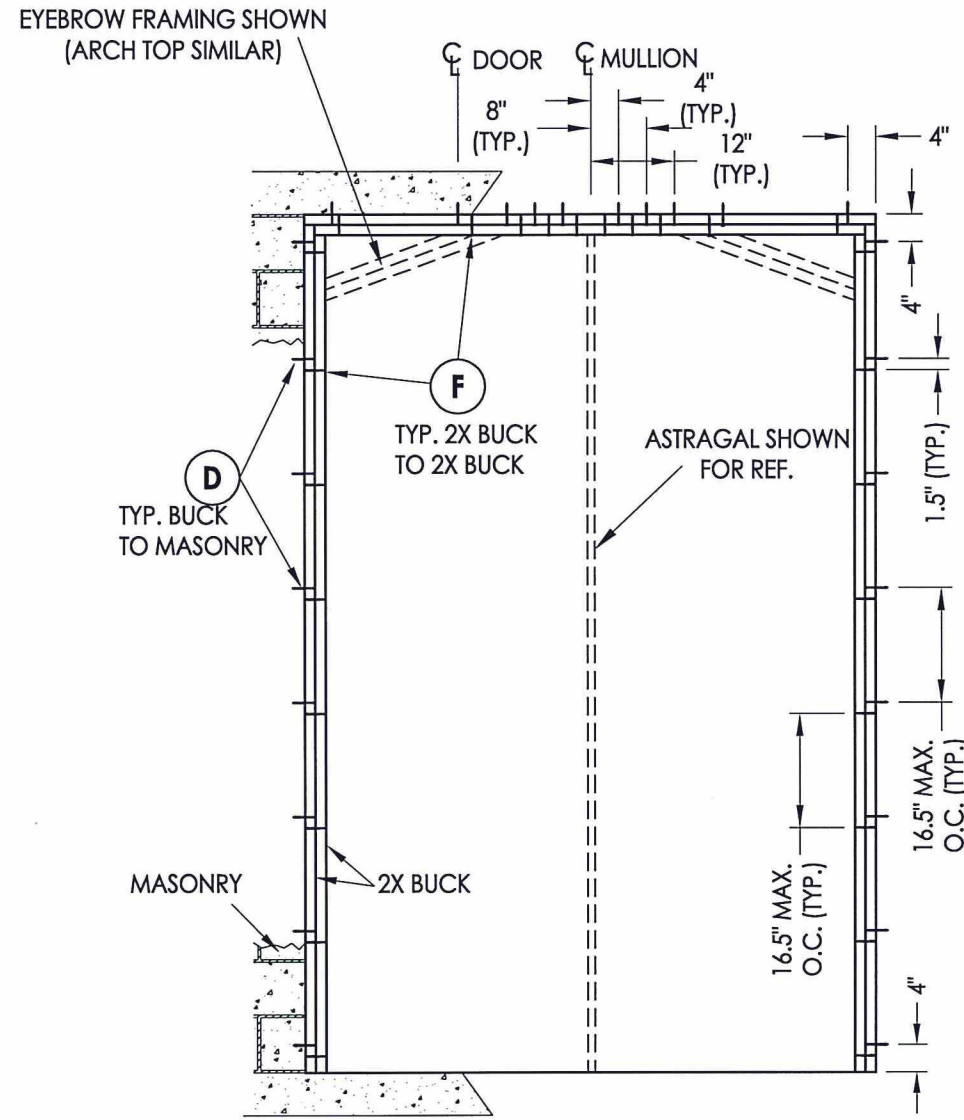
**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230, Valrico, FL 33595  
Phone No.: 813.659.9197  
FBPE C.A. No. 9813

PRODUCT:	CLARK HALL IRON DOORS
PART OR ASSEMBLY:	VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
1	8/17/15	UPDATE TO 5TH ED. (2014) FBC	LFS

DATE: 10/30/13  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: FL-16663.16  
SHEET 5 OF 8

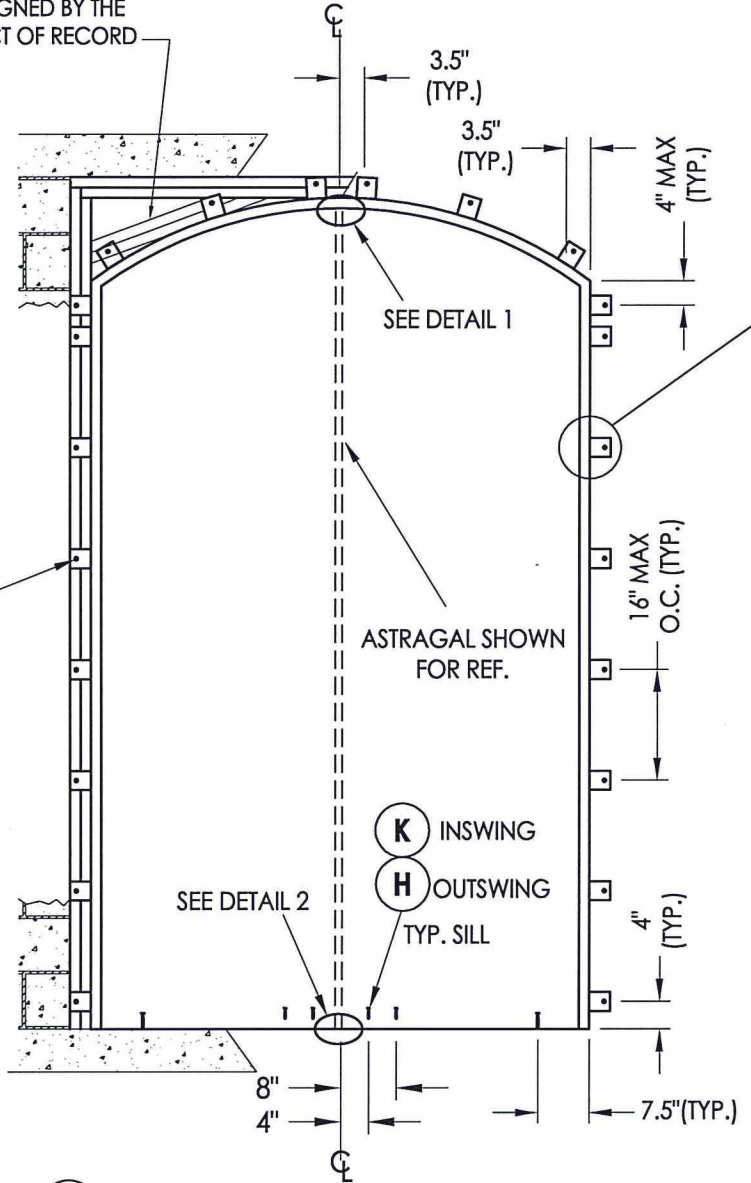




**BUCK ANCHORING**  
XX

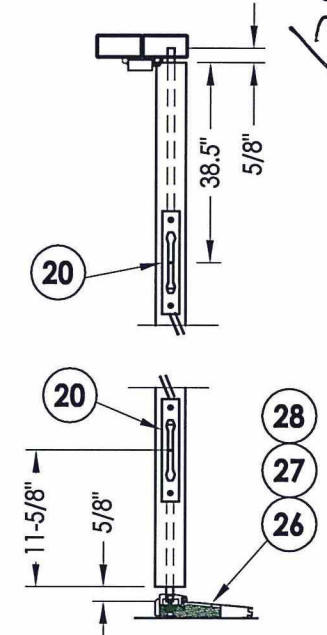
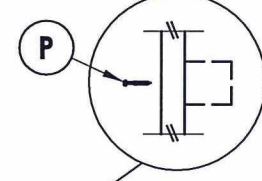
NOTE FOR THROUGH THE FRAME ANCHORING ONLY  
ONE 2X BUCK IS REQUIRED, ANCHORED AS SHOWN.

2X FRAMING TO BE DESIGNED BY THE  
ENGINEER OR ARCHITECT OF RECORD

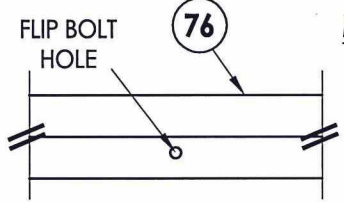


**FRAME ANCHORING**  
XX

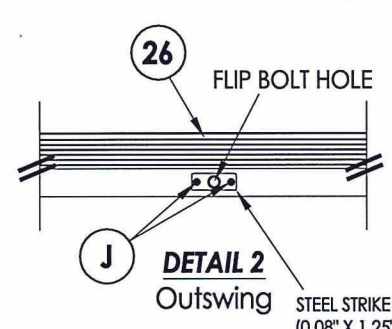
**ALTERNATE ANCHORING**  
THROUGH THE FRAME  
SUBSTITUTE ANCHOR @ EACH BRACKET



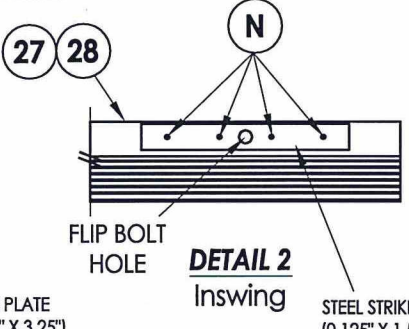
**FLIP BOLT DETAILS**



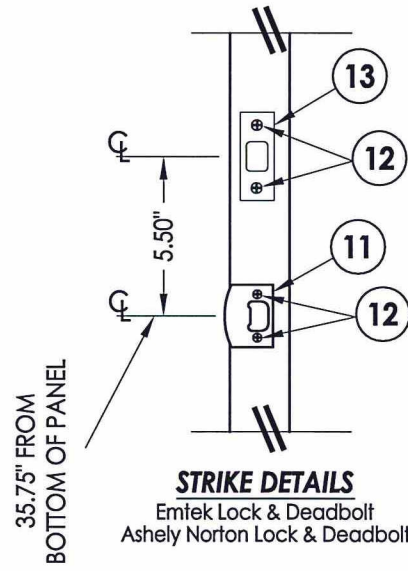
**DETAIL 1**



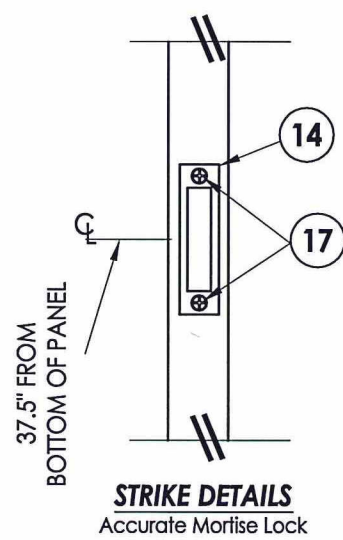
**DETAIL 2**  
Outswing



**DETAIL 2**  
Inswing



**STRIKE DETAILS**  
Emtek Lock & Deadbolt  
Ashely Norton Lock & Deadbolt



**STRIKE DETAILS**  
Accurate Mortise Lock

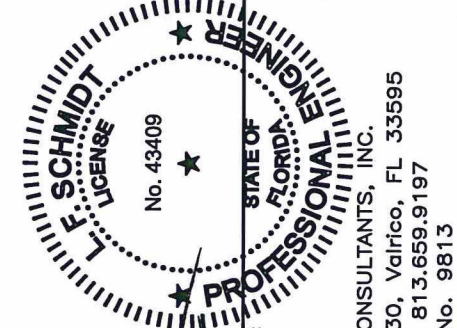
**CONCRETE ANCHOR NOTES:**

- 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®	3/16"	1-1/4"	3"	2-1/2"
	1/4"	1-1/4"	2-1/2"	4"
	5/16" (XL)	1-3/4"	2-1/2"	5"
ELCO ULTRACON®	1/4"	1-1/4"	2-1/2"	4"
	5/16"	1-3/4"	2-1/2"	5"

**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.



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

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

PRODUCT: CLARK HALL IRON DOORS  
PART OR ASSEMBLY: BUCK & FRAME ANCHORING

NO.	DATE	BY	REVISIONS
1	8/17/15	LFS	UPDATE TO 5TH ED. (2014) FBC

DATE: 10/30/13

SCALE: N.T.S.

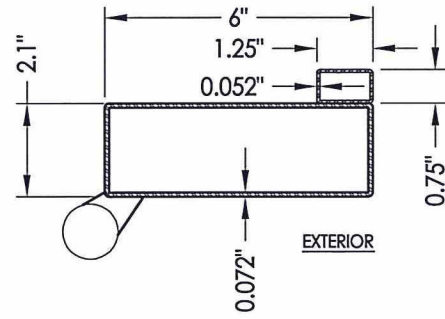
DWG. BY: JK

CHK. BY: LFS

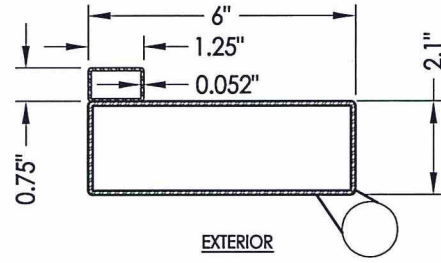
DRAWING NO.: FL-16663.16

SHEET 6 OF 8

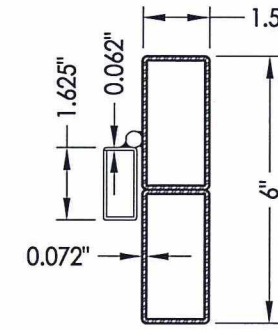




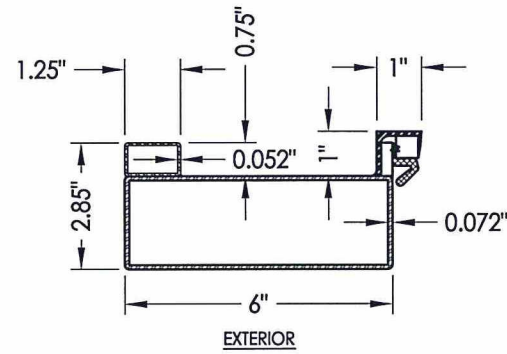
**41 Full Life Door Panel**  
Inactive Hinge Stile



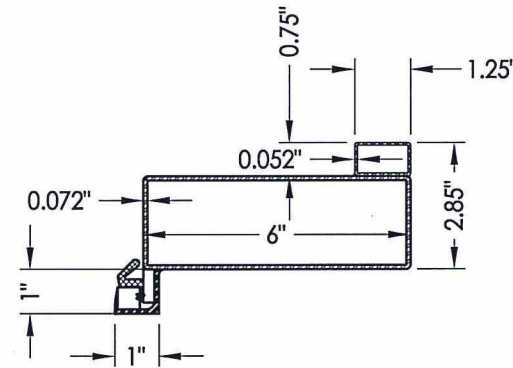
**31 Full Life Door Panel**  
Active Hinge Stile



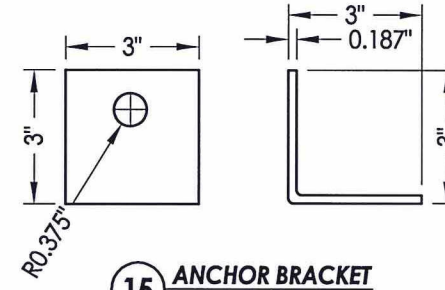
**76 Jamb**



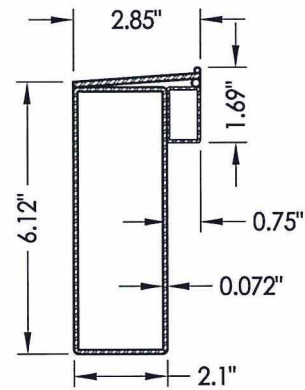
**42 Full Life Door Panel**  
Inactive Latch Stile



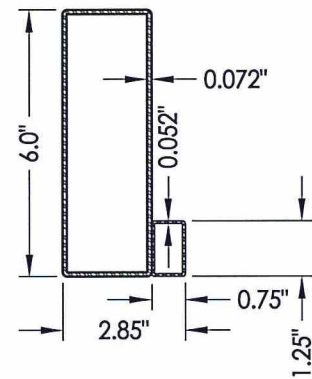
**32 Full Life Door Panel**  
Active Latch Stile



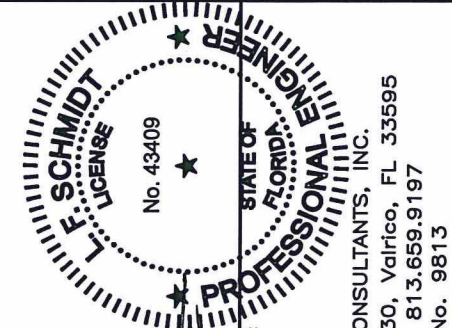
**15 ANCHOR BRACKET**



**43 Full Life Door Panel**  
Bottom Rail



**44 Full Life Door Panel**  
Top Rail



*LFS*  
*RWS*

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

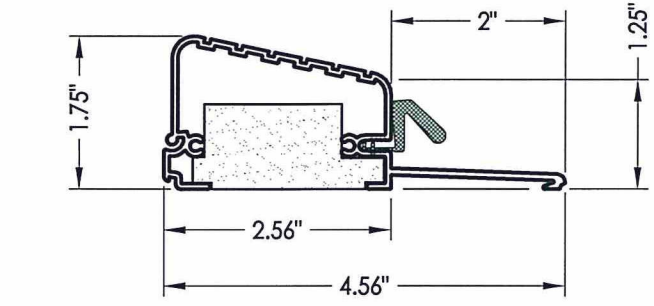
**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230, Valrico, FL 33595  
Phone No.: 813.659.9197  
FBPE C.A. No. 9813

PRODUCT:	CLARK HALL IRON DOORS
PART OR ASSEMBLY:	COMPONENTS

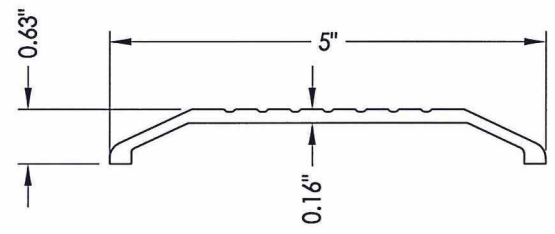
NO.	DATE	REVISIONS	BY
1	8/17/15	UPDATE TO 5TH ED. (2014) FBC	LFS

DATE:	10/30/13
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-16663.16
SHEET	7 OF 8

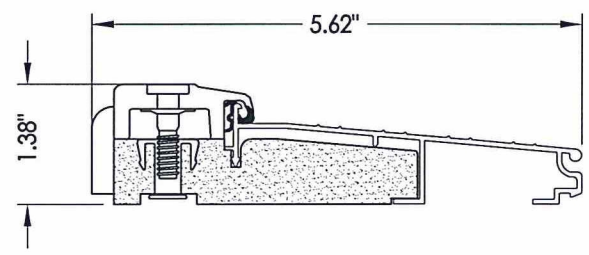
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.55	WOOD
D	1/4" X 2-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
F	#10 X 3" PFH WOOD SCREW	STEEL
G	5/16" X 2-1/4" HH ELCO OR ITW CONCRETE SCREW	STEEL
H	5/16" X 2-1/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
J	3/16" X 2-1/4" PFH ITW CONCRETE SCREW	STEEL
K	5/16" X 2-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
L	5/16-18 X 1-1/2" HH BOLT (GR. 5) w/ LOCK WASHER & NUT	STEEL
M	3/8" X 3" HH LAG SCREW	STEEL
N	3/16" X 2-3/4" PFH ITW CONCRETE SCREW	STEEL
P	#12 X 1-1/2" HWH SMS	STEEL
1	SASH LATCH STRIKE	STEEL
2	SASH LATCH	STEEL
3	#8 X 1/4" PFH SMS	STEEL
4	WEATHERSTRIP (QLON)	FOAM
11	LATCH STRIKE PLATE	STEEL
12	#8 X 3/4" PFH SMS	STEEL
13	DEADBOLT STRIKE PLATE	STEEL
14	MORTISE STRIKE PLATE	STEEL
15	ANCHORING BRACKET	STEEL
17	#12-24 X 13/16" PFH COMBINATION WOOD/MACHINE SCREW	STEEL
20	FLIP BOLT	STEEL
26	OUTSWING THRESHOLD (DLP)	ALUM/COMP
27	ADA THRESHOLD	ALUM
28	INSWING THRESHOLD (AFCO)	ALUM/COMP
29	DOOR SWEEP (w/ #8 x 3/4" SMS)	-
30	DOOR PANEL (FULL LITE)	-
31	HINGE STILE (ACTIVE DOOR)	ASTM A36 STEEL
32	LATCH STILE (ACTIVE DOOR)	ASTM A36 STEEL
41	HINGE STILE (INACTIVE DOOR)	ASTM A36 STEEL
42	LATCH STILE (INACTIVE DOOR)	ASTM A36 STEEL
43	BOTTOM RAIL (FULL LITE)	ASTM A36 STEEL
44	TOP RAIL (FULL LITE)	ASTM A36 STEEL
45	DOOR PANEL HINGE	STEEL
60	SASH LITE FRAME	STEEL
61	SASH HINGE	STEEL
76	JAMB	ASTM A36 STEEL



**26** OUTSWING THRESHOLD  
DLP



**27** ADA THRESHOLD



**28** INSWING THRESHOLD

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

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

PRODUCT: CLARK HALL IRON DOORS  
 PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

NO.	DATE	DESCRIPTION	BY
1	8/17/15	UPDATE TO 5TH ED. (2014) FBC	LFS

DATE: 10/30/13  
 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: FL-16663.16  
 SHEET 8 OF 8