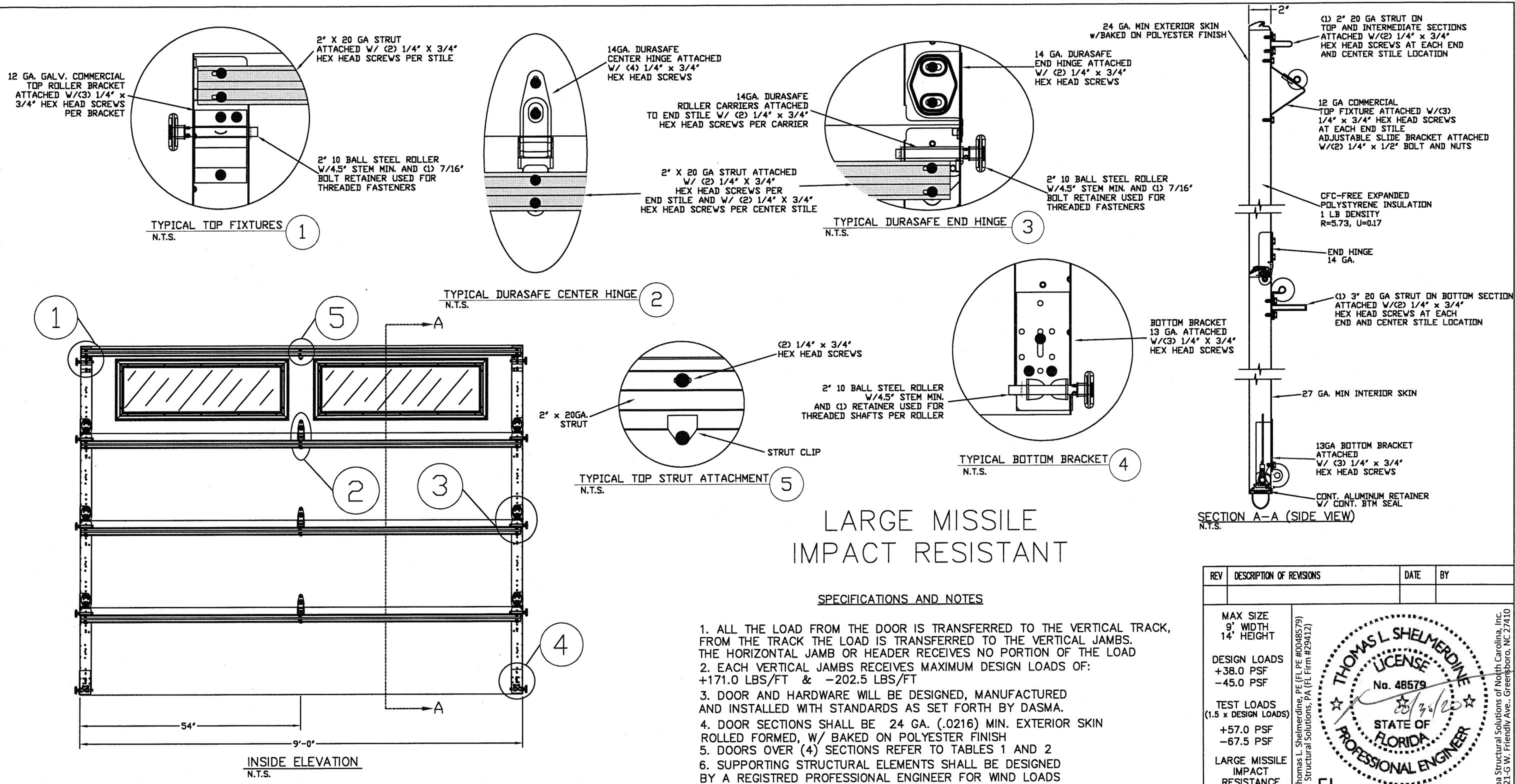




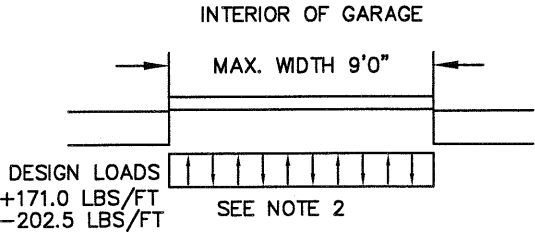
LARGE MISSILE IMPACT RESISTANT

SPECIFICATIONS AND NOTES

1. ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE VERTICAL TRACK, FROM THE TRACK THE LOAD IS TRANSFERRED TO THE VERTICAL JAMBS. THE HORIZONTAL JAMB OR HEADER RECEIVES NO PORTION OF THE LOAD
2. EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF: +171.0 LBS/FT & -202.5 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 24 GA. (.0216) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS OVER (4) SECTIONS REFER TO TABLES 1 AND 2
6. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN DASMA 108 & 115, ASTM E330, E1886, E1996, & F588. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-16 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE):

WIND SPEED (MPH)	200	182	173	165	158
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'



REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
9' WIDTH
14' HEIGHT

DESIGN LOADS
+38.0 PSF
-45.0 PSF

TEST LOADS
(1.5 x DESIGN LOADS)
+57.0 PSF
-67.5 PSF

LARGE MISSILE
IMPACT
RESISTANCE

Thomas L. Shelmerdine, PE (FL PE #0048579)
Structural Solutions, PA (FL Firm #29412)

THOMAS L. SHELMERDINE
LICENSE
No. 48579
STATE OF FLORIDA
PROFESSIONAL ENGINEER
FL

dba Structural Solutions of North Carolina, Inc.
5921-G W. Friendly Ave., Greensboro, NC 27410

AMARR MODEL #1200 AMARR HERITAGE 3000
AMARR MODEL #1200 AMARR OAK SUMMIT 3000
SHORT, LONG, FLUSH & OAK SUMMIT PANELS

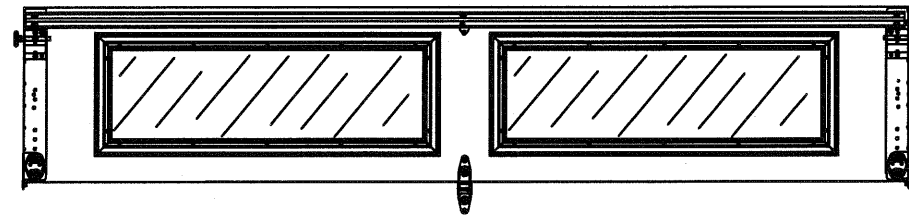
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B	CHECKED BY	RLR	DATE	2/10/15	IRC-1209-155-15-I

ENTREMATIC
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

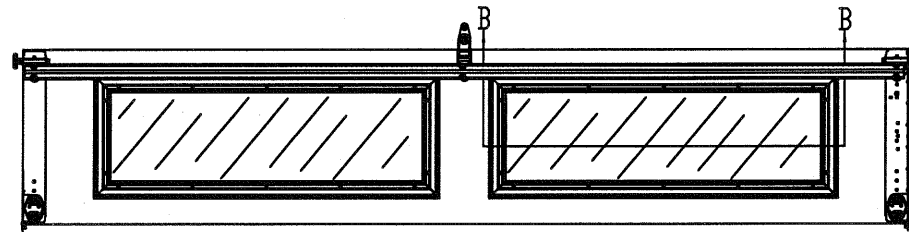
SHEET 1 OF 3

OPTIONAL SHORT AND LONG PANEL GLAZING LAYOUTS

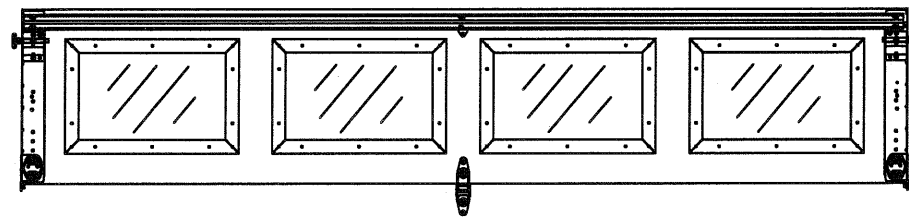
TOP SECTION



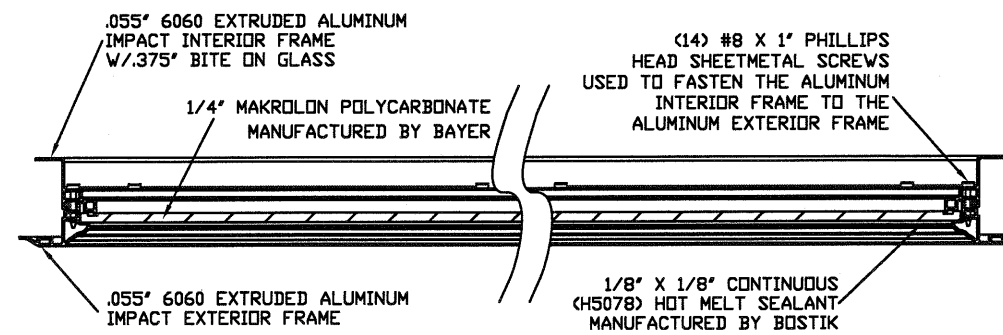
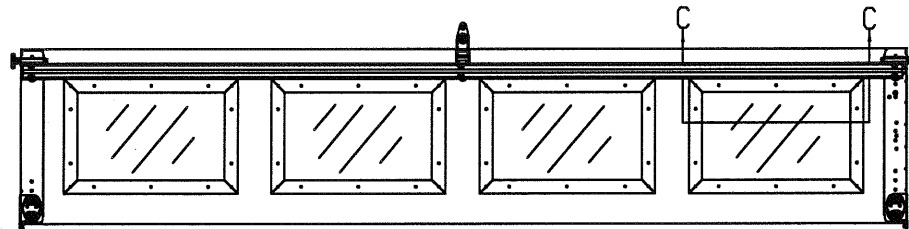
INTERMEDIATE SECTION



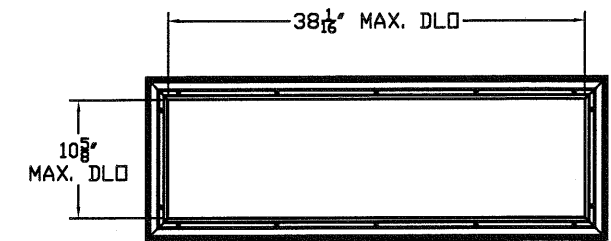
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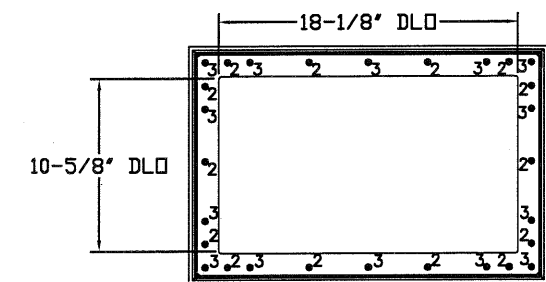
INTERMEDIATE SECTION



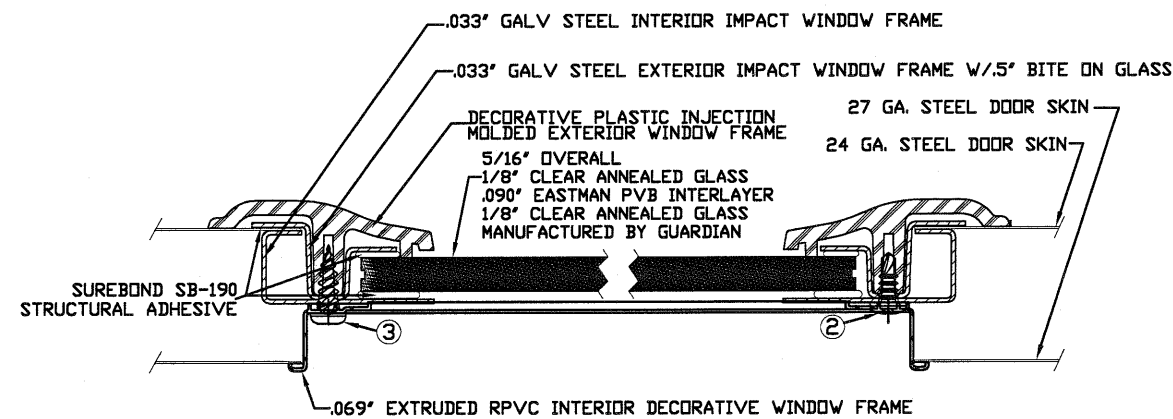
SECTION B-B IMPACT WINDOW DETAIL
N.T.S.



LONG PANEL IMPACT GLAZING FASTENER DETAIL
N.T.S.



IMPACT GLAZING FASTENER DETAIL
N.T.S.
GLAZING MEETS ASTM E1300-04



2. 3/16" X 1/2" SCREW - USED TO FASTEN THE STEEL EXTERIOR IMPACT WINDOW FRAME TO THE STEEL INTERIOR IMPACT WINDOW FRAME.
3. 11/64" X 1/2" SCREW - USED TO FASTEN DECORATIVE MOLDED WINDOW FRAME TO THE ASSEMBLY

SECTION C-C IMPACT WINDOW DETAIL
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
9' WIDTH
14' HEIGHT

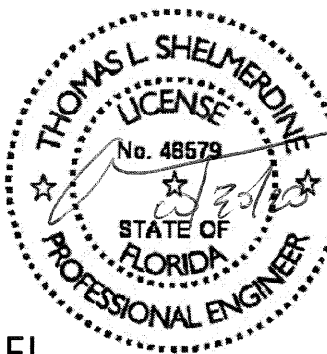
DESIGN LOADS
+38.0 PSF
-45.0 PSF

TEST LOADS
(1.5 x DESIGN LOADS)

+57.0 PSF
-67.5 PSF

LARGE MISSILE
IMPACT
RESISTANCE

Thomas L. Shelmerdine, PE (FL PE #0048579)
Structural Solutions, PA (FL Firm #29412)



ba Structural Solutions of North Carolina, Inc.
221-G W. Friendly Ave., Greensboro, NC 27410

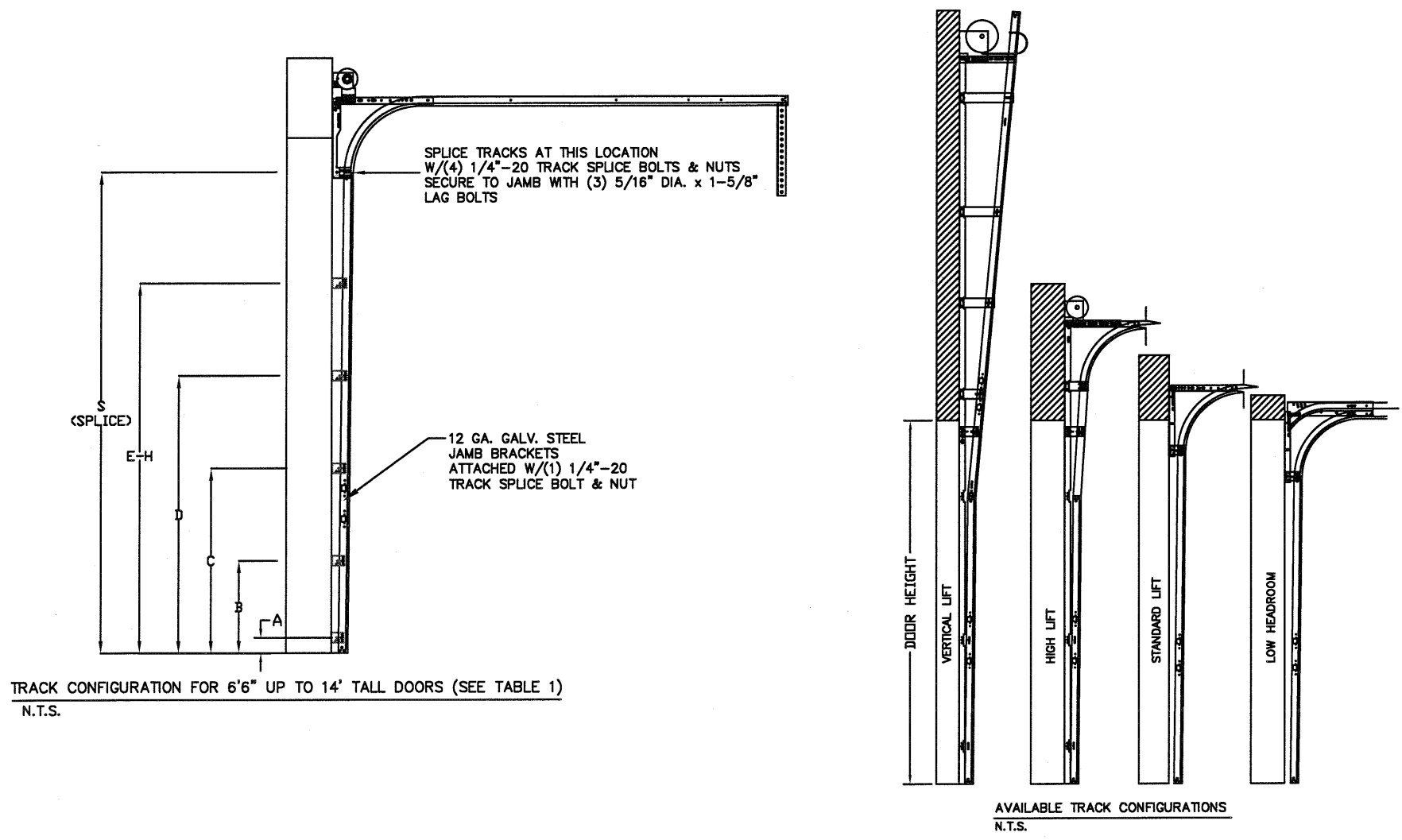
Amarr

AMARR MODEL #1200 AMARR HERITAGE 3000
AMARR MODEL #1200 AMARR OAK SUMMIT 3000
SHORT, LONG, FLUSH & OAK SUMMIT PANELS

SIZE	DRAWN BY	RLR	DATE	2/10/15	DRAWING NUMBER IRC-1209-155-15-1
B	CHECKED BY	RLR	DATE	2/10/15	
ENTREMITIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105					SHEET 2 OF 3

ENTREMATIC
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

SHEET 2 OF 3



WOOD JAMB ATTACHMENT TO STRUCTURE

2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 24" O.C. (1 1/2" EMBEDMENT)
2 X 6 VERTICAL JAMB ATTACHMENT TO 2,000 PSI CONCRETE
HILTI KWIK BOLT 3/8" X 4" STARTING 6" FROM ENDS THEN 24" O.C. (2 1/2" EMBEDMENT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 24" O.C. (1 1/4" EMBEDMENT)
ITW/RAMSET REDHEAD (TRU-BOLT) 3/8" X 4" STARTING 6" FROM ENDS THEN 24" O.C. (2 1/2" EMBEDMENT)
2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK
SIMPSON 1/4" X 3" TITEN SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3" APART) AT 16" O.C. (1 1/2" EMBEDMENT)
HILTI 1/4" X 2-3/4" KWIK-CON II+ SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3" APART) AT 16" O.C. (1 1/4" EMBEDMENT)

2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 24" O.C. (1 1/4" EMBEDMENT) (OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
*PREPARATION OF WOOD JAMBS BY OTHERS

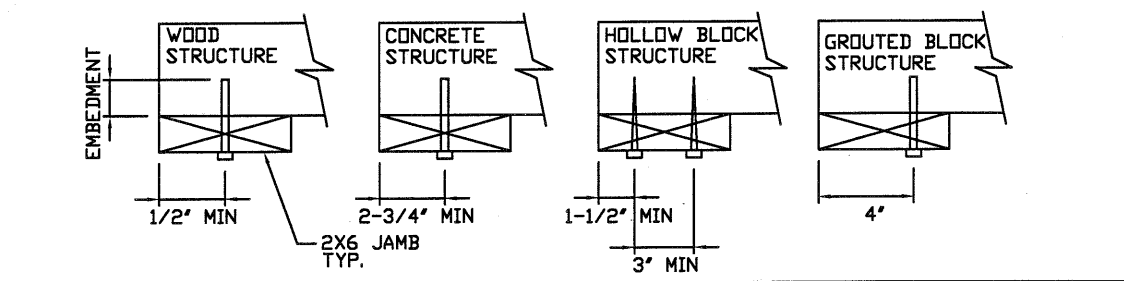


TABLE 1

DOOR HEIGHT	TRACK ATTACHMENT								SPLICE
	A	B	C	D	E	F	G	H	
6' 6"	3.5"	21"	42"	63"					70"
7'	3.5"	21"	42"	63"					76"
7' 6"	3.5"	21"	42"	63"					82"
8'	3.5"	21"	42"	63"					88"
8' 6"	3.5"	21"	42"	63"	84"				94"
9'	3.5"	21"	42"	63"	84"				100"
9' 6"	3.5"	21"	42"	63"	84"				106"
10'	3.5"	21"	42"	63"	84"	105"			112"
10' 6"	3.5"	21"	42"	63"	84"	105"			118"
11'	3.5"	21"	42"	63"	84"	105"			124"
11' 6"	3.5"	21"	42"	63"	84"	105"			130"
12'	3.5"	21"	42"	63"	84"	105"	126"		136"
12' 6"	3.5"	21"	42"	63"	84"	105"	126"		142"
13'	3.5"	21"	42"	63"	84"	105"	126"		148"
13' 6"	3.5"	21"	42"	63"	84"	105"	126"	147"	154"
14'	3.5"	21"	42"	63"	84"	105"	126"	147"	160"

ALL TRACK ATTACHMENT SPACING +/-2" ALLOWED WITH SYP OR SPF NO. 2 OR BETTER ONLY

TABLE 2

DOOR HEIGHT	SECTION HEIGHTS							
	Btm	#2	#3	#4	#5	#6	#7	#8
14' 0"	21"	21"	21"	21"	21"	21"	21"	21"
13' 6"	21"	21"	21"	21"	21"	18"	18"	21"
13' 0"	21"	21"	21"	18"	18"	18"	18"	21"
12' 6"	21"	18"	18"	18"	18"	18"	18"	21"
12' 0"	21"	21"	21"	21"	21"	18"	21"	
11' 6"	21"	21"	21"	18"	18"	18"	21"	
11' 0"	21"	18"	18"	18"	18"	18"	21"	
10' 6"	21"	21"	21"	21"	21"	21"		
10' 0"	21"	21"	21"	18"	18"	21"		
9' 6"	21"	18"	18"	18"	18"	21"		
9' 0"	18"	18"	18"	18"	18"	18"		
8' 6"	21"	21"	21"	18"	21"			
8' 0"	21"	18"	18"	18"	21"			
7' 6"	18"	18"	18"	18"	18"			
7' 0"	21"	21"	21"	21"				
6' 6"	21"	18"	18"	21"				

TABLE 3

Section Width (ft)	Panel Type	Center Stile Location (Measured from Left Edge)	Max Design Loads Allowed	
			Positive (PSF)	Negative (PSF)
8' 0"	Short	48.000	42.7	50.6
8' 0"	Long	48.000	42.7	50.6
8' 2"	Short	49.000	41.8	49.5
8' 2"	Long	49.000	41.8	49.5
8' 4"	Short	50.000	41.0	48.6
8' 4"	Long	50.000	41.0	48.6
8' 6"	Short	51.000	40.2	47.6
8' 6"	Long	51.000	40.2	47.6
8' 8"	Short	52.000	39.4	46.7
8' 8"	Long	52.000	39.4	46.7
8' 10"	Short	53.000	38.7	45.8
8' 10"	Long	53.000	38.7	45.8
9' 0"	Short	54.000	38.0	45.0
9' 0"	Long	54.000	38.0	45.0

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
9' WDT
14' HEIGHT

DESIGN LOADS
+38.0 PSF
-45.0 PSF

TEST LOADS
(1.5 x DESIGN LOADS)
+57.0 PSF
-67.5 PSF

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SHORT, LONG, FLUSH & OAK SUMMIT PANELS

SIZE B	DRAWN BY RLR	DATE 2/10/15	DRAWING NUMBER IRC-1209-155-15-I
CHECKED BY RLR		DATE 2/10/15	
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			
			SHEET 3 OF 3