

12 GA. GALV. RESIDENTIAL TOP ROLLER BRACKET ATTACHED W/ (4) 1/4" x 3/4" HEX HEAD SCREWS PER BRACKET

ADJUSTABLE ROLLER CARRIER ATTACHED W/ (2) 1/4" x 1/2" BOLT & NUT PER BRACKET

2" 10 BALL STEEL 9.5" STEM HURRICANE ROLLER W/ RETAINERS FOR NON THREADED SHAFTS

4 1/2" 20GA. R-TRUSS ATTACHED W/ (3) 1/4" x 3/4" HEX HEAD SCREWS AT EACH END STILE

TYPICAL TOP FIXTURES
N.T.S.

1

14GA. CENTER HINGE ATTACHED W/ (5) 1/4" x 3/4" HEX HEAD SCREWS

4 1/2" 20GA. R-TRUSS ATTACHED W/ (2) 1/4" x 3/4" HEX HEAD SCREWS AT EACH CENTER STILE

TYPICAL CENTER HINGE
N.T.S.

2

LARGE MISSILE IMPACT RESISTANT

25 GA SKIN (M625 & M675) G30 GALVANIZED W/ POLYESTER TOP COAT

12 GA RESIDENTIAL TOP FIXTURE ATTACHED W/ (4) 1/4" x 3/4" HEX HEAD SCREWS ADJUSTABLE SLIDE BRACKET ATTACHED W/ (2) 1/4" x 1/2" BOLT AND NUTS

(1) 3 5/8" H X 22 GA. GALV. STEEL R-TRUSS LOCATED ON TOP OF TOP SECTION ATTACHED W/ (3) 1/4" x 3/4" HEX HEAD SCREWS AT EACH END STILE AND (2) 1/4" x 3/4" HEX HEAD SCREWS AT EACH CENTER STILE

END HINGE 14 GA.

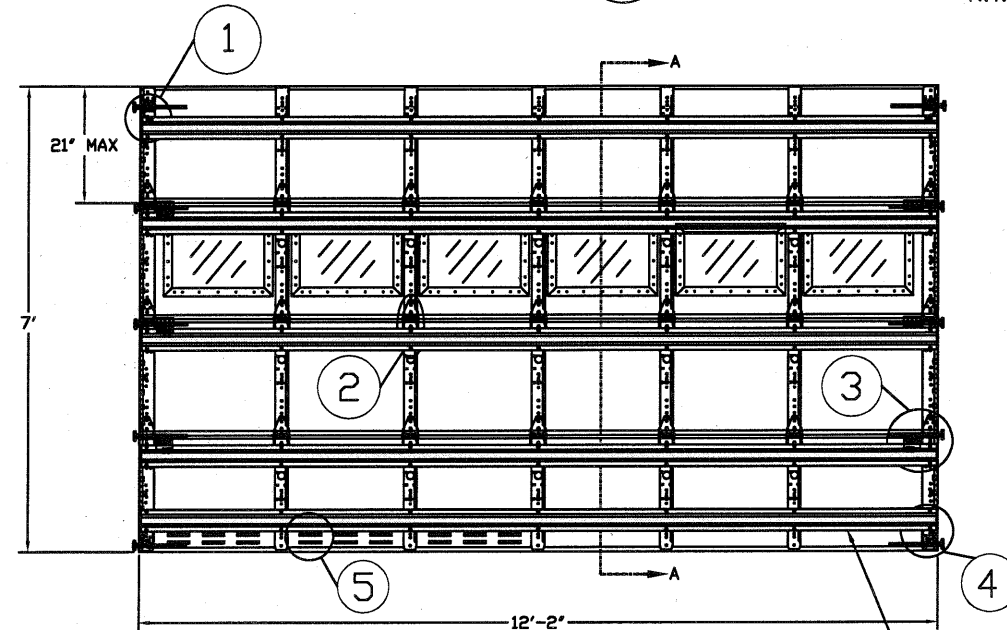
(1) 3 5/8" H X 22 GA. GALV. STEEL R-TRUSS LOCATED ON TOP OF BOTTOM AND INTERMEDIATE SECTIONS ATTACHED W/ (2) 1/4" x 3/4" HEX HEAD SCREWS AT EACH END STILE AND (2) 1/4" x 3/4" HEX HEAD SCREWS AT EACH CENTER STILE

(1) 4 1/2" x 20 GA. GALV. STEEL R-TRUSS LOCATED ON BOTTOM OF BOTTOM SECTION ATTACHED W/ (2) 1/4" x 3/4" HEX HEAD SCREWS AT EACH END AND CENTER STILE

13GA. BOTTOM BRACKET ATTACHED W/ (4) 1/4" x 3/4" HEX HEAD SCREWS

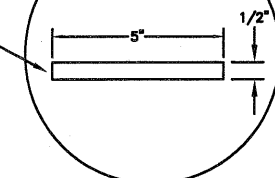
CONT. STEEL RETAINER W/ CONT. BTM SEAL

SECTION A-A (SIDE VIEW)
N.T.S.



INSIDE ELEVATION
N.T.S.

TWO (2) ROWS OF THREE (3) VENTS EQUALS 15 SQ. INCHES



OPTIONAL VENT DETAIL
N.T.S.

5

VENTS PROVIDE 70 sq. in. (62 sq. in. FOR OPTIONAL VENT) OF UNOBSTRUCTED AIR FLOW EACH.

14 GA DURASAFE ADJUSTABLE ROLLER CARRIERS ATTACHED TO 4 1/2" 20GA R-TRUSS W/ (3) 1/4" x 3/4" HEX HEAD SCREWS

4 1/2" 20GA. R-TRUSS ATTACHED W/ (2) 1/4" x 3/4" HEX HEAD SCREWS AT EACH CENTER STILE

14 GA. END HINGE ATTACHED W/ (5) 1/4" x 3/4" HEX HEAD SCREWS

2" 10 BALL STEEL 9.5" STEM HURRICANE ROLLER W/ RETAINERS FOR NON THREADED SHAFTS

TYPICAL END HINGE
N.T.S.

3

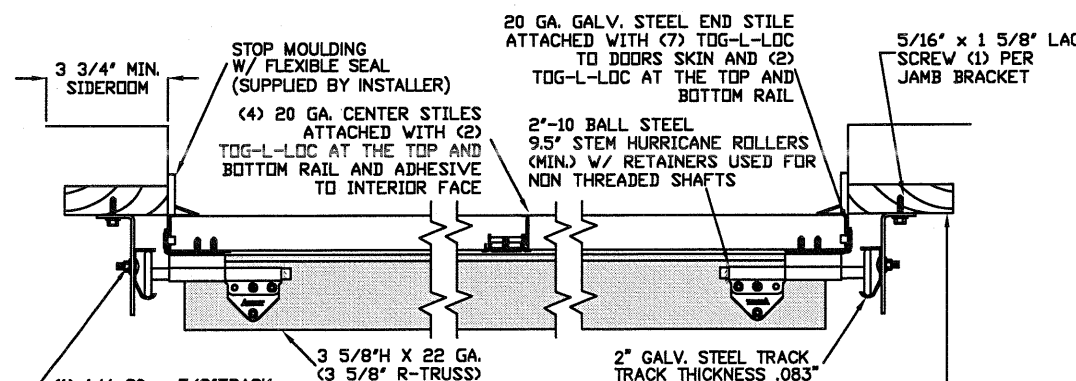
4 1/2" 20GA. R-TRUSS ATTACHED W/ (2) 1/4" x 3/4" HEX HEAD SCREWS

BOTTOM BRACKET 13 GA. THICK ATTACHED W/ (4) 1/4" x 3/4" HEX HEAD SCREWS

2" 10 BALL STEEL 9.5" STEM HURRICANE ROLLER W/ RETAINERS FOR NON THREADED SHAFTS

TYPICAL BOTTOM BRACKET
N.T.S.

4

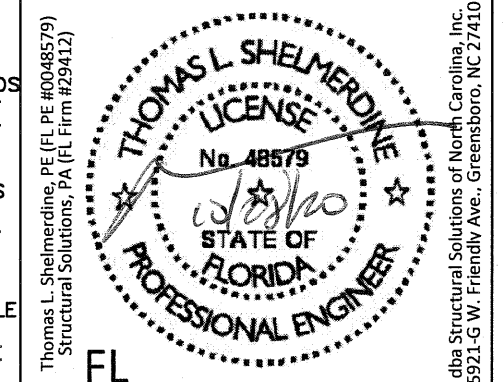


TRACK MOUNTING DETAIL
N.T.S.

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN DASMA 108-05 & 115-05, AND ASTM E330-02, E1886-05, E1996-09, & F588-07. 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):

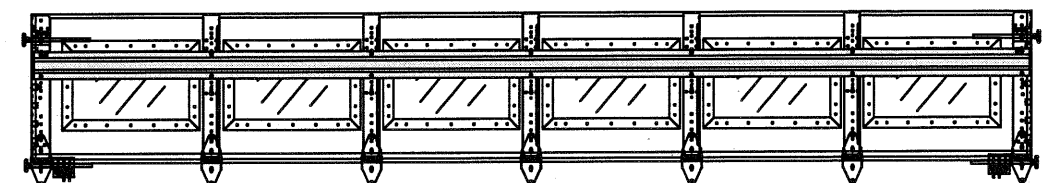
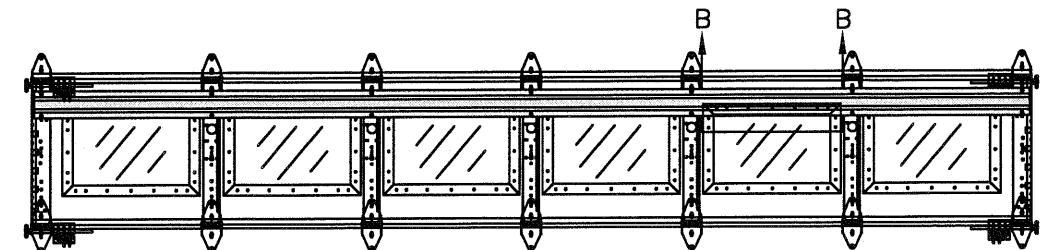
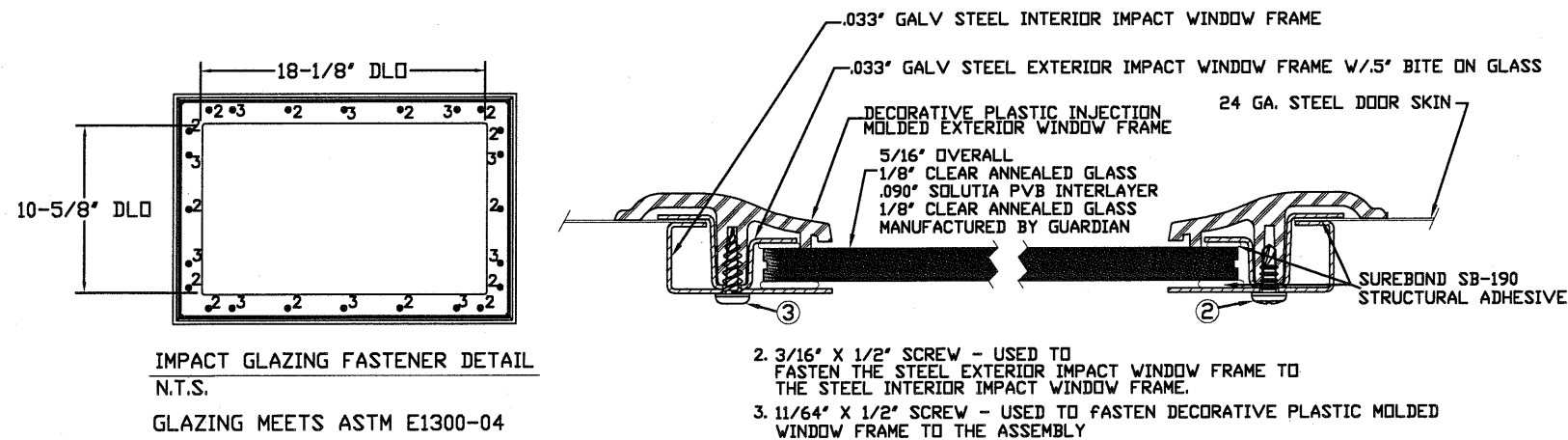
WIND SPEED (MPH)	226	205	195	186	179
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE	12'2" x 14'		
DESIGN LOADS	+47.4 PSF -54.8 PSF		
TEST LOADS	+71.1 PSF -82.2 PSF		
LARGE MISSILE IMPACT RESISTANCE			



MODEL #625 AMARR LINCOLN 1000, 1500, 2000
MODEL #675 AMARR HILLCREST 1000, 1500, 2000

SIZE	DRAWN BY	RJR	DATE	12/04/17	DRAWING NUMBER
B	CHECKED BY	RJR	DATE	12/04/17	IRC-6212-175-24-1
ENTREMATICS					SHEET 1 OF 3
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105					



WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)

2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS
THEN 16" 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 14" 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)

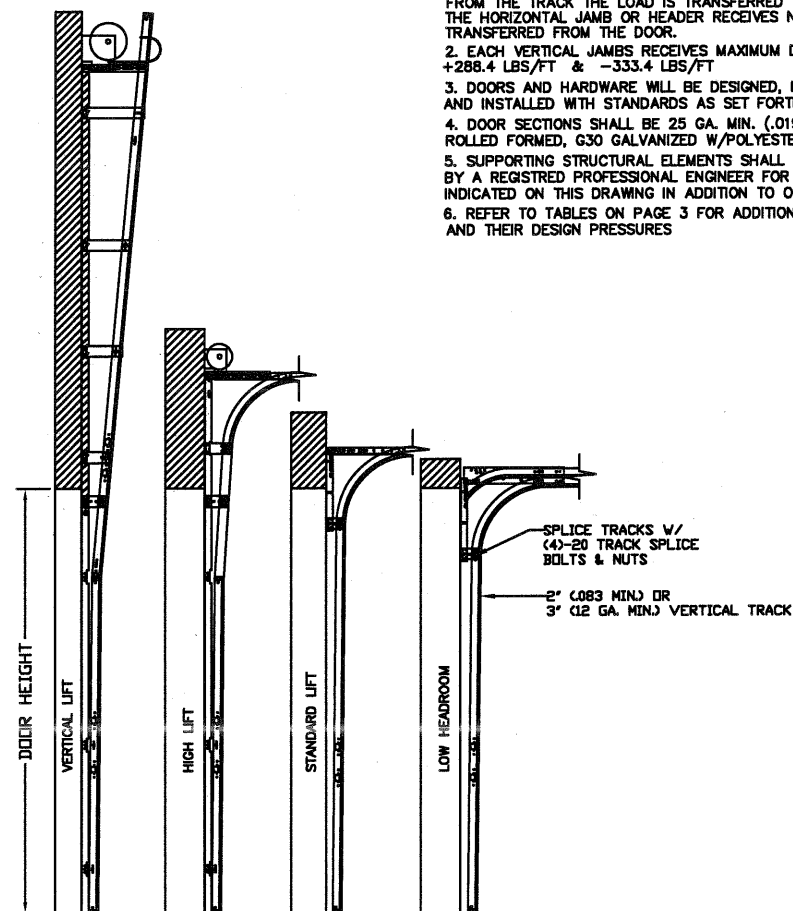
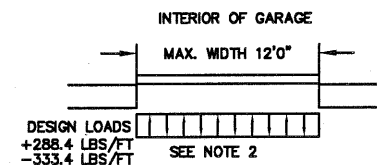
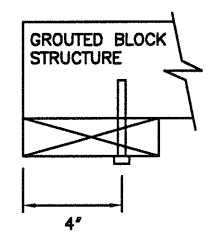
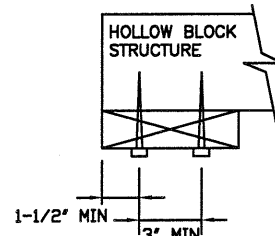
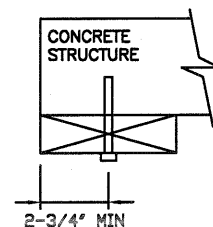
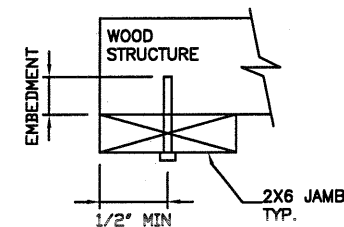
2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK
SIMPSON 1/4" X 3" TITEN SCREWS STARTING 6" FROM ENDS,
USE PAIRS OF FASTENERS (3" APART)
AT 8" O.C. (1 1/2" EMBEDMENT)

HILTI 1/4" X 2-3/4" KWIK-CON II+ SCREWS STARTING 6" FROM ENDS,
USE PAIRS OF FASTENERS (3" APART) AT 8" 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 18" 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



SPECIFICATIONS AND NOTES

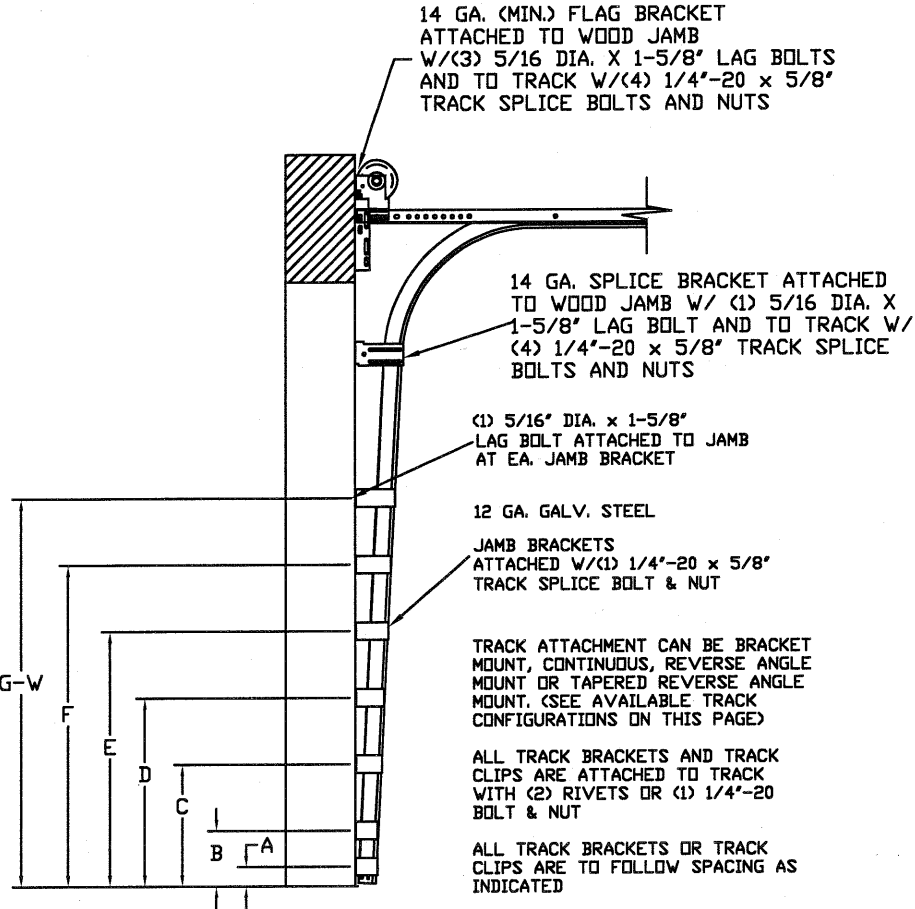
1. ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE VERTICAL TRACK, FROM THE TRACK THE LOAD IS TRANSFERRED TO THE VERTICAL JAMBS. THE HORIZONTAL JAMB OR HEADER RECEIVES NO PORTION OF THE LOAD TRANSFERRED FROM THE DOOR.
2. EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF:
+288.4 LBS/FT & -333.4 LBS/FT
3. DOORS AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASHA.
4. DOOR SECTIONS SHALL BE 25 GA. MIN. (.019") EXTERIOR SKIN ROLLED FORMED, G30 GALVANIZED W/POLYESTER TOP COAT
5. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.
6. REFER TO TABLES ON PAGE 3 FOR ADDITIONAL DOOR WIDTHS AND THEIR DESIGN PRESSURES

REV	DESCRIPTION OF REVISIONS	DATE	BY
	MAX SIZE 12'2" x 14'		
	DESIGN LOADS +47.4 PSF -54.8 PSF		
	TEST LOADS +71.1 PSF -82.2 PSF		
	LARGE MISSILE IMPACT RESISTANCE		
Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412) FL dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410			
MODEL #625 AMARR LINCOLN 1000, 1500, 2000 MODEL #675 AMARR HILLCREST 1000, 1500, 2000			
SIZE	DRAWN BY RLR	DATE 12/04/17	DRAWING NUMBER
B	CHECKED BY RLR	DATE 12/04/17	IRC-6212-175-24-1
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			SHEET 2 OF 3

TABLE 3

DOOR HEIGHT	TRACK ATTACHMENT																			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
7' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"													
7' 6"	3.5"	10.0"	22.0"	34"	46"	58"	70"													
8' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"													
8' 6"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"												
9' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"												
9' 6"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"											
10' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"											
11' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"										
12' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"									
13' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"								
14' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"							
15' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"						
16' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"					
17' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"				
18' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"			
19' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"		
20' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	
21' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"
22' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"
23' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"
24' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"

ALL TRACK ATTACHMENTS +/- 2" ALLOWED USING SYP OR SPF NO.2 OR BETTER ONLY



TRACK CONFIGURATION FOR UP TO 14' TALL DOORS

TABLE 2

Section Width (ft)	Panel Type	Center Stile Location (Measured from Left Edge)					Max Design Loads Allowed	
							Positive (PSF)	Negative (PSF)
8' 0"	Short, Hillcrest	24.8	48.0	71.2			48.8	56.4
8' 2"	Short, Hillcrest	25.8	49.0	72.2			47.8	55.2
8' 4"	Short, Hillcrest	26.6	50.0	73.4			46.8	54.1
8' 6"	Short, Hillcrest	26.7	51.0	75.3			45.9	53.1
8' 8"	Short, Hillcrest	27.3	52.0	76.8			45.0	52.0
8' 10"	Short, Hillcrest	28.0	53.0	78.0			44.2	51.1
9' 0"	Short, Hillcrest	28.6	54.0	79.4			43.4	50.1
9' 2"	Short, Hillcrest	29.4	55.0	80.6			42.6	49.2
9' 4"	Short, Hillcrest	30.4	56.0	81.6			41.8	48.3
9' 6"	Short, Hillcrest	31.4	57.0	82.6			41.1	47.5
9' 8"	Short, Hillcrest	32.4	58.0	83.6			40.4	46.7
9' 10"	Short, Hillcrest	33.4	59.0	84.6			39.7	45.9
10' 0"	Short, Hillcrest	25.2	48.4	71.6	94.8		48.4	55.9
10' 2"	Short, Hillcrest	25.9	49.3	72.7	96.1		47.5	54.9
10' 4"	Short, Hillcrest	26.0	50.3	73.7	97.1		46.5	53.8
10' 6"	Short, Hillcrest	26.4	50.8	75.2	99.6		46.1	53.2
10' 8"	Short, Hillcrest	27.4	51.8	76.2	100.6		45.2	52.2
10' 10"	Short, Hillcrest	27.5	52.5	77.5	102.5		44.6	51.6
11' 0"	Short, Hillcrest	28.5	53.5	78.5	103.5		43.8	50.6
11' 2"	Short, Hillcrest	28.6	54.2	79.8	105.4		43.2	49.9
11' 4"	Short, Hillcrest	29.6	55.2	80.8	106.4		42.4	49.0
11' 6"	Short, Hillcrest	30.6	56.2	81.8	107.4		41.7	48.2
11' 8"	Short, Hillcrest	31.6	57.2	82.8	108.4		40.9	47.3
11' 10"	Short, Hillcrest	24.6	47.8	71.0	94.2	117.4	48.5	56.1
12' 0"	Short, Hillcrest	25.6	48.8	72.0	95.2	118.4	47.8	55.3
12' 2"	Short, Hillcrest	26.2	49.6	73.0	96.4	119.8	47.4	54.8

TABLE 3

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"				

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 12'2 x 14'

DESIGN LOADS +47.4 PSF -54.8 PSF

TEST LOADS +71.1 PSF -82.2 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 #625 AMARR LINCOLN 1000, 1500, 2000

MODEL #675 AMARR HILLCREST 1000, 1500, 2000

SIZE	DRAWN BY	RLR	DATE	12/04/17	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	12/04/17	IRC-6212-175-24-1
ENTREMATIC					SHEET 3 OF 3
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105					