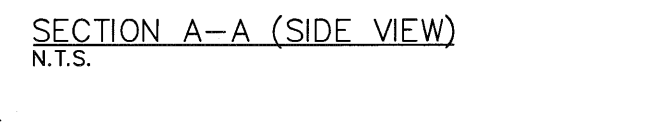
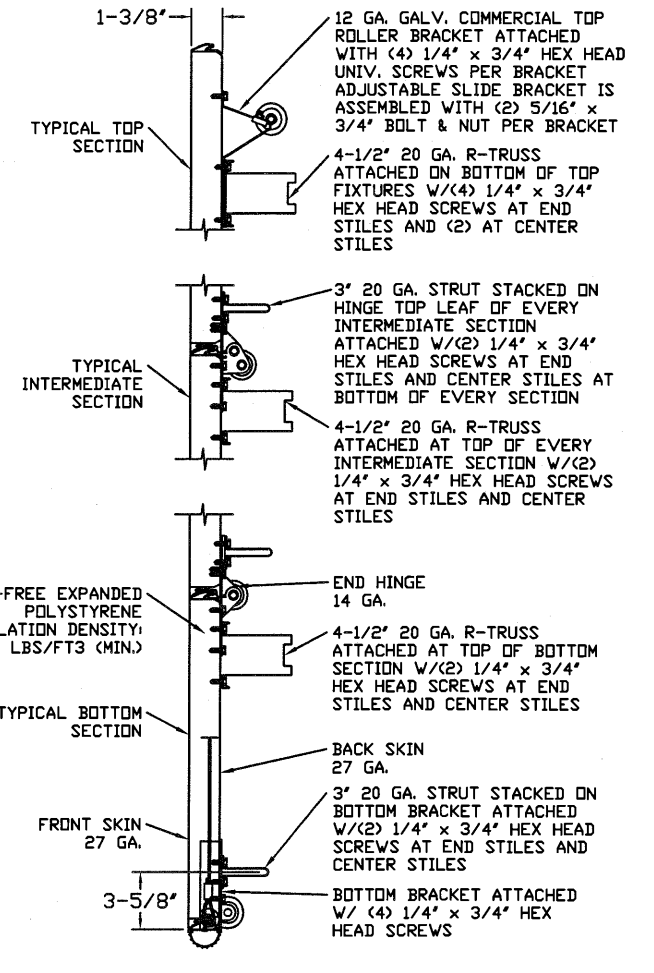


LARGE MISSILE IMPACT RESISTANT



REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 18' x 14'

DESIGN LOADS +25.4 PSF -28.7 PSF

TEST LOADS +38.1 PSF -43.0 PSF

LARGE MISSILE IMPACT RESISTANT

Thomas L. Shelmerdine, PE (TX PE #85829) Structural Solutions, PA (TX Firm #004063)

STATE OF TEXAS  
THOMAS L. SHELMEARDINE  
85829  
LICENSED PROFESSIONAL ENGINEER

TX

5921-G W. Friendly Ave., Greensboro, NC 27410

NOTE: FOR STRUT SCHEDULE SEE TABLE 4 ON PAGE 3

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN DASMA 108 & 115, AND ASTM E330, E1886, E1996, & F588. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE I=1.0):

WIND SPEED (MPH)	130	118	112	107	103
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

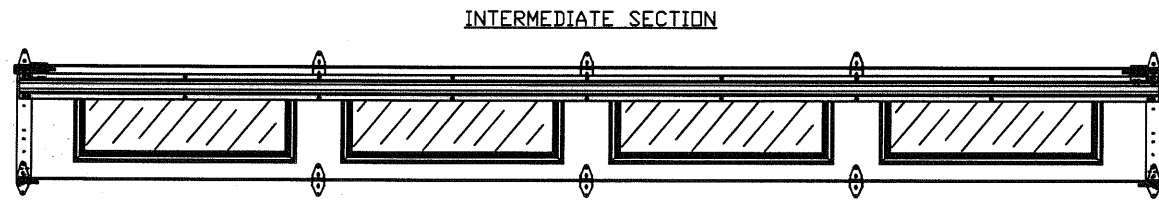
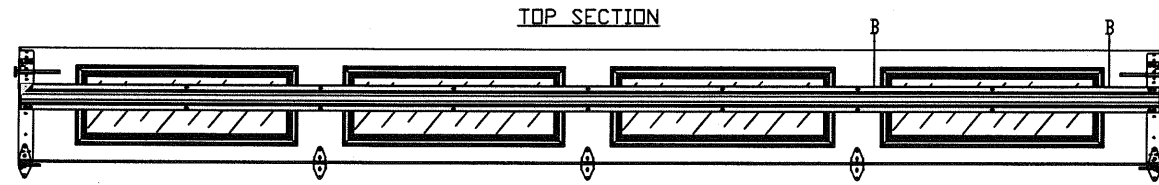
**Amarr**  
ENTREMATIC

MODEL #3100 AMARR LINCOLN 3138  
MODEL #3150 AMARR HILLCREST 3138  
MODEL #1600 AMARR LINCOLN 3000  
MODEL #1650 AMARR HILLCREST 3000

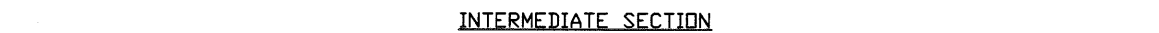
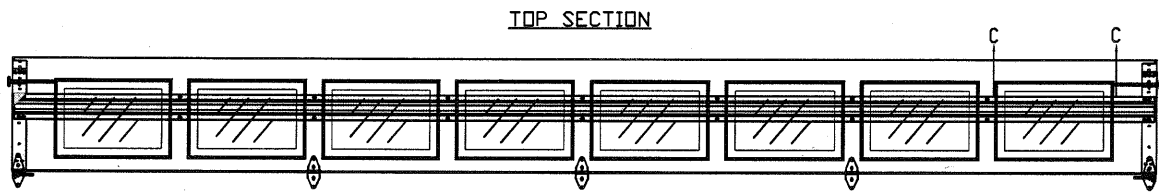
SIZE	DRAWN BY	DRD	DATE	1/23/19	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	3/20/19	IRC-3118-130-24-1

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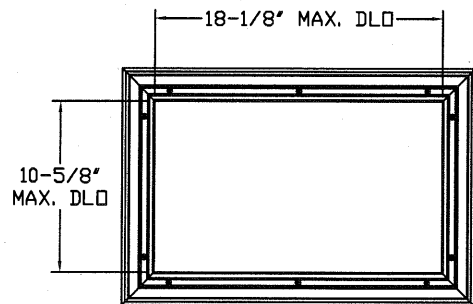
SHEET 1 OF 3



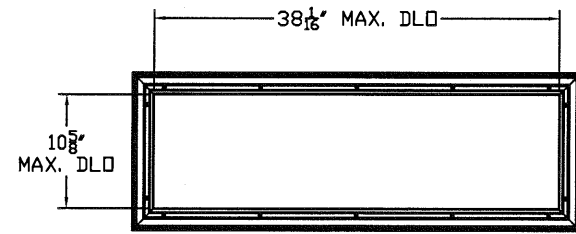
OPTIONAL LONG PANEL GLAZED SECTION R-TRUSS AND STILE LAYOUT  
N.T.S.



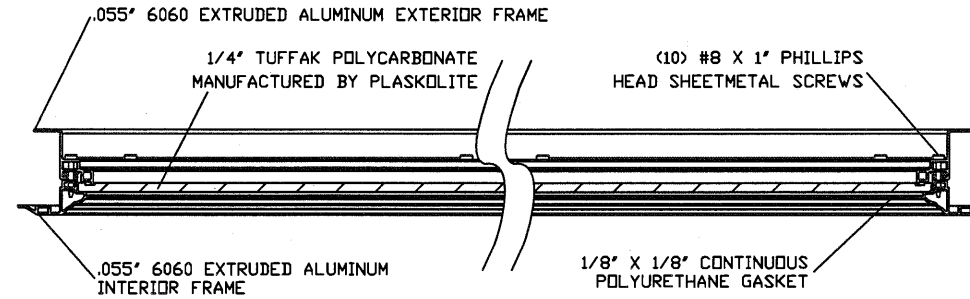
OPTIONAL SHORT PANEL GLAZED SECTION R-TRUSS AND STILE LAYOUT  
N.T.S.



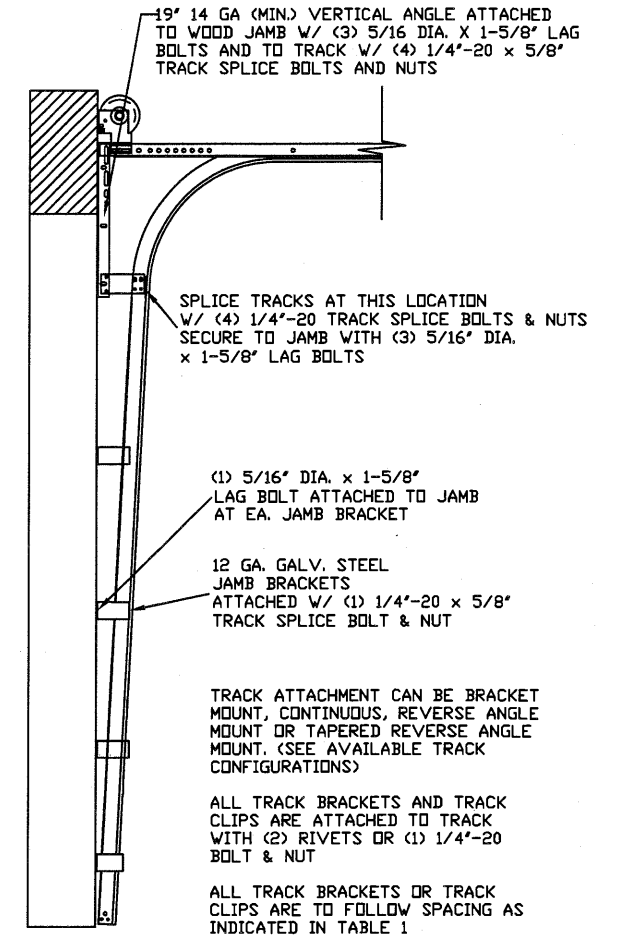
SHORT PANEL IMPACT GLAZING FASTENER DETAIL  
N.T.S.



LONG PANEL GLAZING FASTENER DETAIL  
N.T.S.



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



TRACK CONFIGURATION FOR UP TO 14' TALL DOORS  
N.T.S.

TABLE 1

DOOR HEIGHT	TRACK ATTACHMENT								
	A	B	C	D	E	F	G	H	I
6' 6"	3.5"	10"	21"	42"	63"				
7'	3.5"	10"	21"	42"	63"				
7' 6"	3.5"	10"	21"	42"	63"	56"			
8'	3.5"	10"	21"	42"	63"	56"			
8' 6"	3.5"	10"	21"	42"	63"	56"			
9'	3.5"	10"	21"	42"	63"	56"	68"		
9' 6"	3.5"	10"	21"	42"	63"	56"	68"		
10'	3.5"	10"	21"	42"	63"	56"	68"		
10' 6"	3.5"	10"	21"	42"	63"	56"	68"		
11'	3.5"	10"	21"	42"	63"	56"	68"	78"	
11' 6"	3.5"	10"	21"	42"	63"	56"	68"	78"	
12'	3.5"	10"	21"	42"	63"	56"	68"	78"	
12' 6"	3.5"	10"	21"	42"	63"	56"	68"	78"	88"
13'	3.5"	10"	21"	42"	63"	56"	68"	78"	88"
13' 6"	3.5"	10"	21"	42"	63"	56"	68"	78"	88"
14'	3.5"	10"	21"	42"	63"	56"	68"	78"	88"

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

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 18' x 14'  
DESIGN LOADS +25.4 PSF -28.7 PSF  
TEST LOADS +38.1 PSF -43.0 PSF  
LARGE MISSILE IMPACT RESISTANT

Thomas L. Shelmerdine, PE (TX PE #85829)  
Structural Solutions, PA (TX Firm #004063)

TX  
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SIZE	DRAWN BY DRD	DATE 1/23/19	DRAWING NUMBER
B	CHECKED BY RLR	DATE 3/20/19	IRC-3118-130-24-1

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SHEET 2 OF 3

**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: +228.6 LBS/FT & -258.3 LBS/FT.
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 27GA MIN. INTERIOR AND 27GA MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH.
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. PANEL STAMP DOES NOT AFFECT WINDLOAD CAPABILITIES.

**TABLE 2**

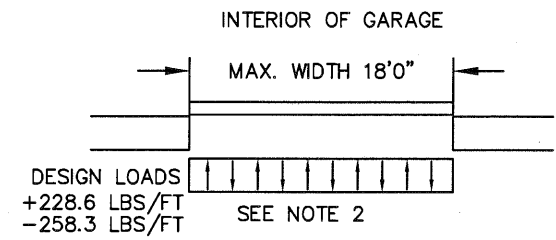
DOOR HEIGHT	SECTION HEIGHTS							
	Btm	#2	#3	#4	#5	#6	#7	#8
6' 0"	18"	18"	18"	18"				
6' 6"	21"	18"	18"	21"				
7' 0"	21"	21"	21"	21"				
7' 6"	18"	18"	18"	18"	18"			
8' 0"	21"	18"	18"	18"	21"			
8' 6"	21"	21"	21"	18"	21"			
9' 0"	18"	18"	18"	18"	18"	18"		
9' 6"	21"	18"	18"	18"	18"	21"		
10' 0"	21"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

**TABLE 3**

Section	Panel Type	Center Stile Locations (Measured from Left Edge)		
		1st (in)	3rd (in)	5th (in)
16' 2"	Short	50.27	97.00	143.73
16' 2"	Long	51.17	97.00	142.83
16' 2"	Hillcrest	48.75	97.00	145.25
16' 4"	Short	51.27	98.00	144.73
16' 4"	Long	52.17	98.00	143.83
16' 4"	Hillcrest	49.08	98.00	146.92
16' 6"	Short	52.27	99.00	145.73
16' 6"	Long	51.34	99.00	146.66
16' 6"	Hillcrest	49.42	99.00	148.59
16' 8"	Short	51.34	100.00	148.66
16' 8"	Long	52.20	100.00	147.80
16' 8"	Hillcrest	49.92	100.00	150.09
16' 10"	Short	51.50	101.00	150.50
16' 10"	Long	53.20	101.00	148.80
16' 10"	Hillcrest	50.15	101.00	151.59
17' 0"	Short	53.34	102.00	150.66
17' 0"	Long	54.20	102.00	149.80
17' 0"	Hillcrest	50.92	102.00	153.09
17' 2"	Short	53.00	103.00	153.00
17' 2"	Long	55.20	103.00	150.80
17' 2"	Hillcrest	51.42	103.00	154.59
17' 4"	Short	54.00	104.00	154.00
17' 4"	Long	56.20	104.00	151.80
17' 4"	Hillcrest	51.92	104.00	156.09
17' 6"	Short	55.00	105.00	155.00
17' 6"	Long	57.20	105.00	152.80
17' 6"	Hillcrest	52.42	105.00	157.59
17' 8"	Short	54.80	106.00	157.20
17' 8"	Long	55.80	106.00	156.20
17' 8"	Hillcrest	52.92	106.00	159.09
17' 10"	Short	55.80	107.00	158.20
17' 10"	Long	56.25	107.00	157.75
17' 10"	Hillcrest	53.42	107.00	160.59
18' 0"	Short	57.25	108.00	158.75
18' 0"	Long	57.80	108.00	158.20
18' 0"	Hillcrest	53.92	108.00	162.09

**TABLE 4**

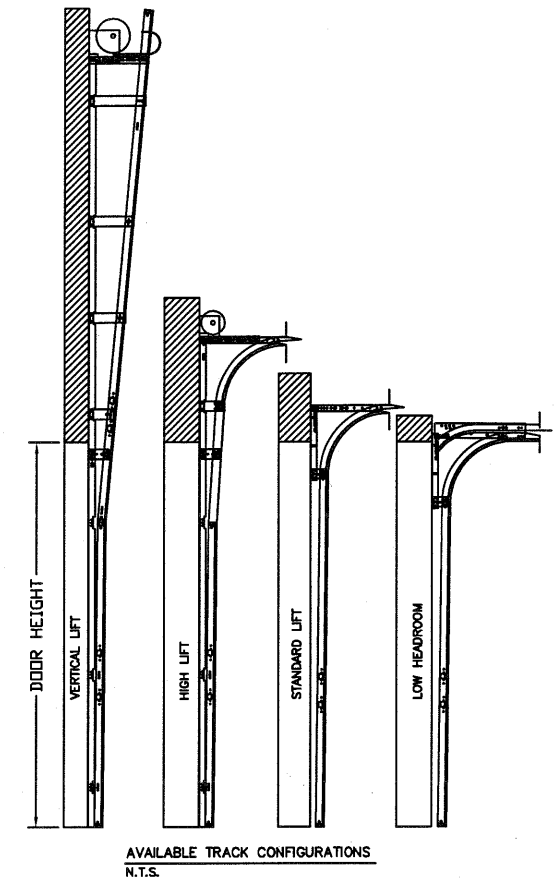
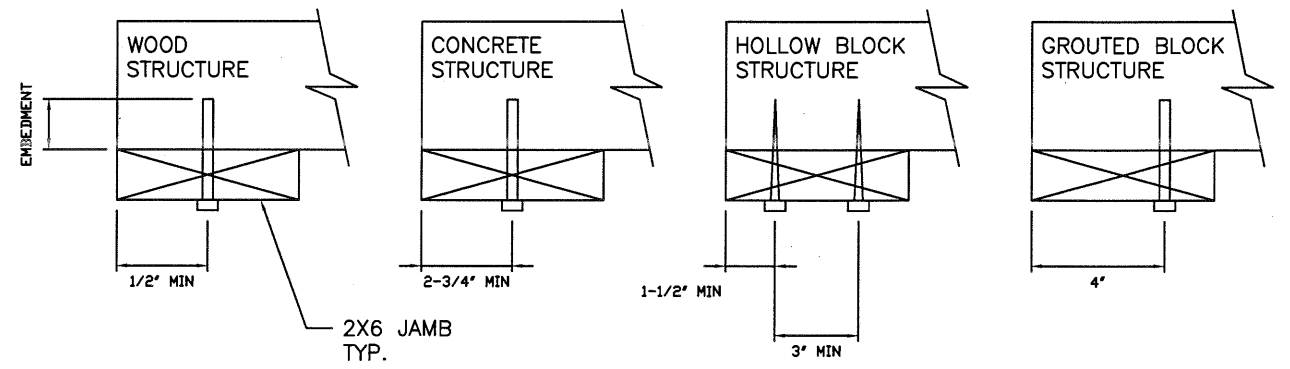
SECTION	STRUT SIZE
TOP	4.5"
7TH	4.5"
	3"
6TH	4.5"
	3"
5TH	4.5"
	3"
	4.5"
4TH	3"
	4.5"
	3"
3RD	4.5"
	3"
2ND	4.5"
	3"
BOTTOM	4.5"
	3"



**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 20" 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 18" 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 22" 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



REV	DESCRIPTION OF REVISIONS	DATE	BY

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SIZE B	DRAWN BY DRD	DATE 1/23/19	DRAWING NUMBER IRC-3118-130-24-1
	CHECKED BY RLR	DATE 3/20/19	

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SHEET 3 OF 3

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