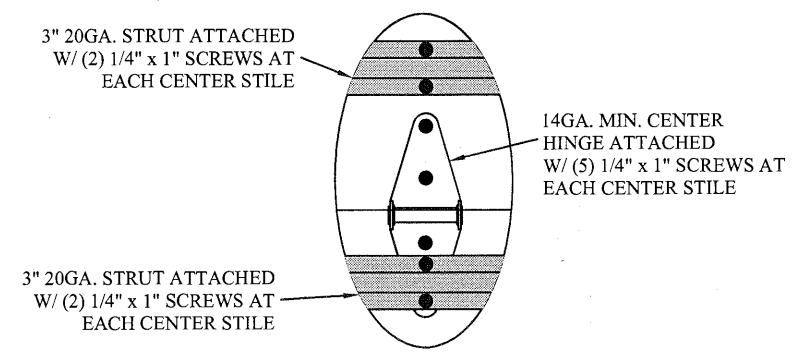
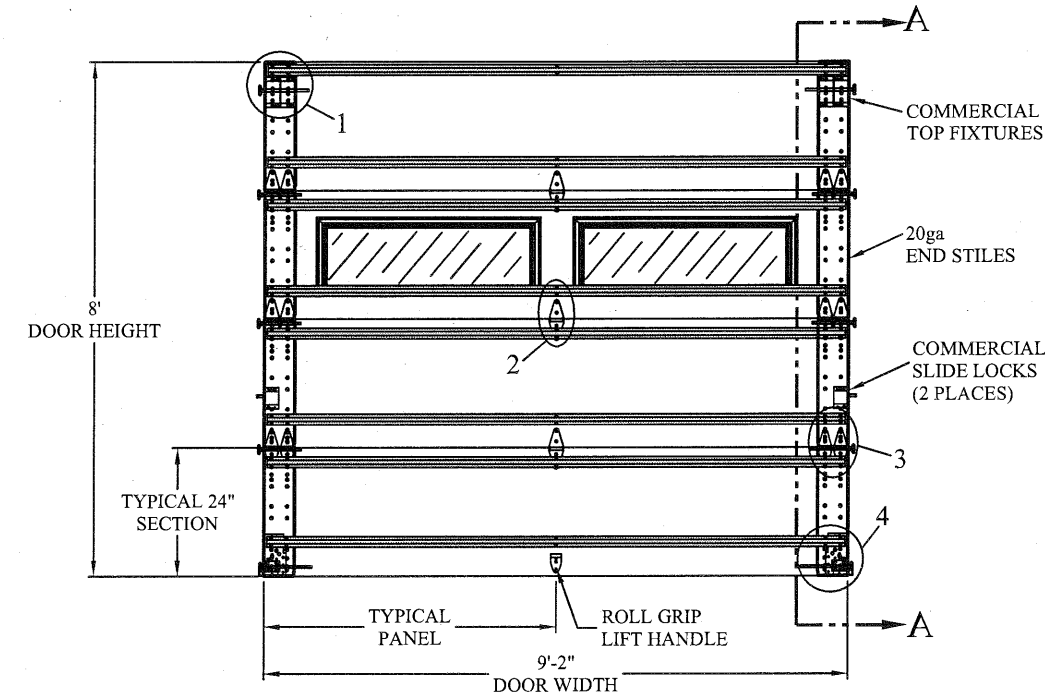


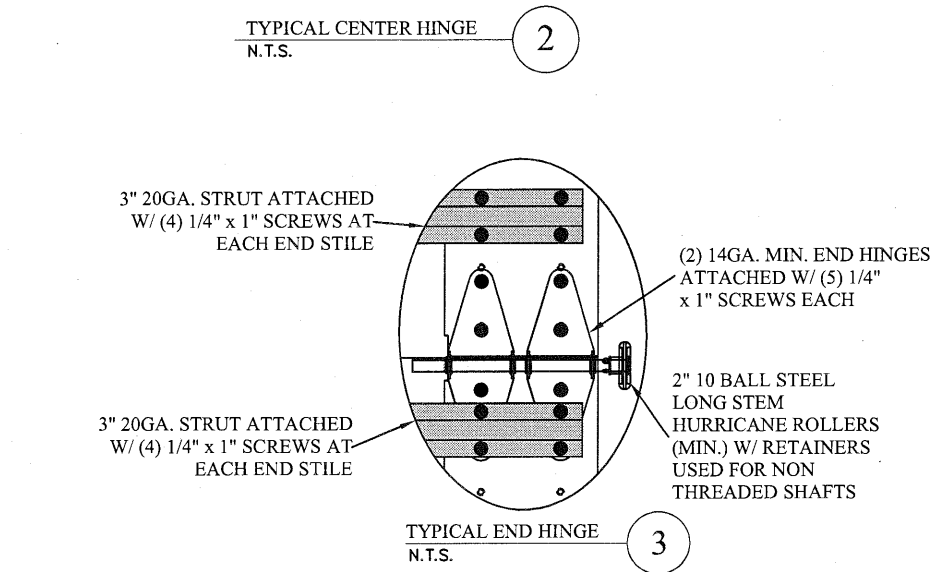
TYPICAL TOP FIXTURES  
N.T.S. 1



TYPICAL CENTER HINGE  
N.T.S. 2

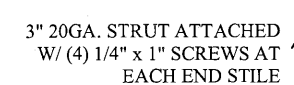


DOOR INTERIOR ELEVATION  
N.T.S.

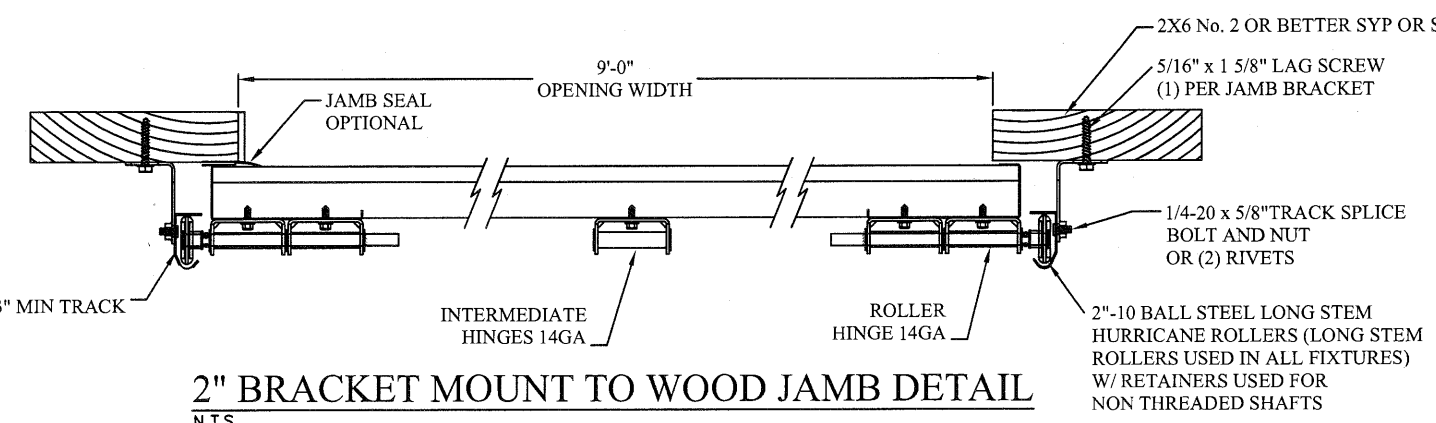


TYPICAL END HINGE  
N.T.S. 3

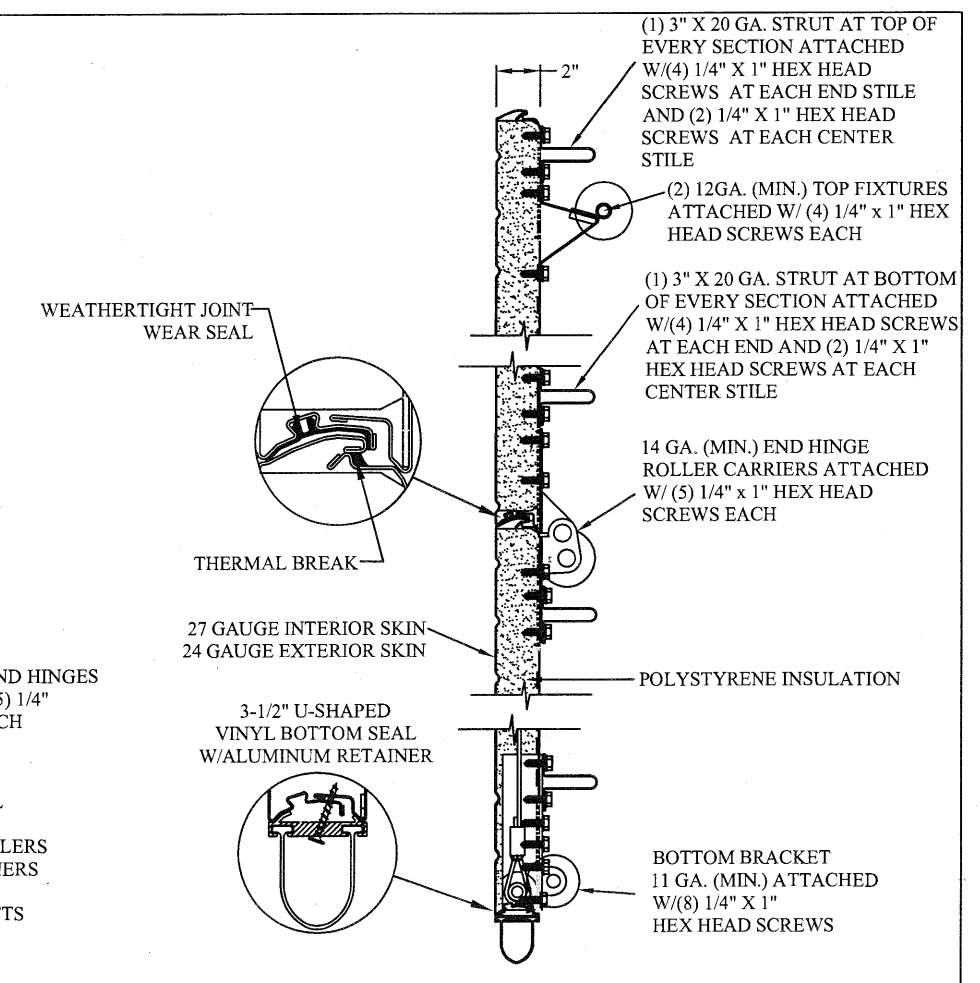
LARGE MISSILE IMPACT  
RESISTANT



TYPICAL BOTTOM BRACKET  
N.T.S. 4



2\"/>



SECTION A-A (SIDE VIEW)  
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 7-05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF LESS THAN OR EQUAL TO 10 DEGREES SLOPE, I=1.0).

WIND SPEED (MPH)	196	178	169	161	155
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 9'2 x 24'

DESIGN LOADS +55.1 PSF -64.5 PSF

TEST LOADS +82.7 PSF -96.8 PSF

LARGE MISSILE IMPACT RESISTANCE

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

STATE OF TEXAS  
THOMAS L. SHELMERDINE  
85829  
LICENSED PROFESSIONAL ENGINEER

TX

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

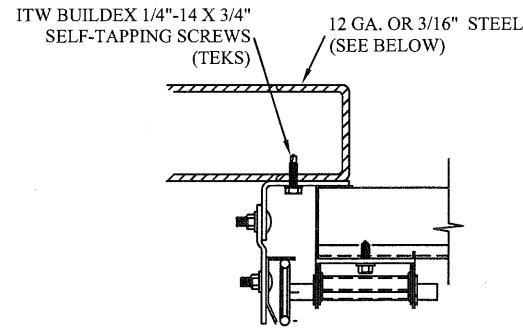


MODEL 1000 AMARR 2432

SIZE	DRAWN BY	DRD	DATE	11/16/16	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	12/05/16	IBC-1009-195-15-1
ENTREMATICS					SHEET 1 OF 4

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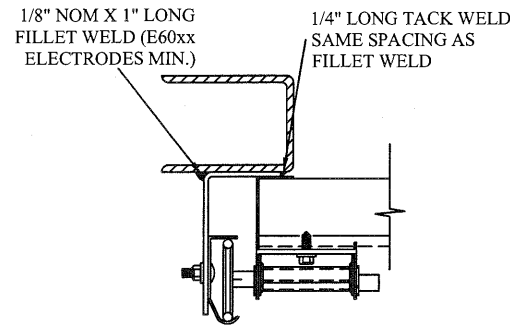
## TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



CLIP STYLE REVERSE ANGLE MOUNT SHOWN  
BRACKET, CONTINUOUS AND TAPERED ANGLE  
MOUNT AVAILABLE

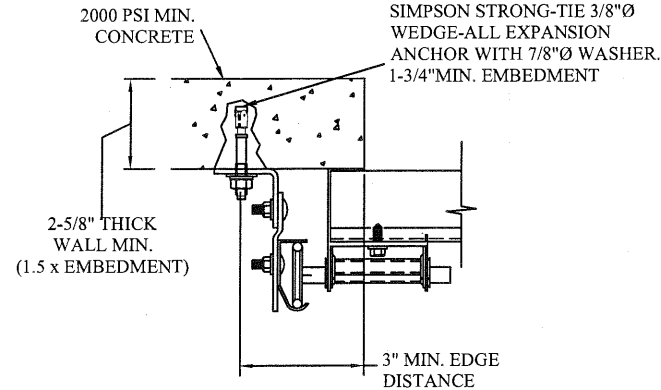
**12 GA. STEEL FRAMING**  
232 LBS./SCREW ALLOWABLE LOAD - 6" FROM ENDS  
AND 10" O.C.  
REFER TO NOTES: 1, 2 AND 5

**3/16" STEEL FRAMING**  
569 LBS./SCREW ALLOWABLE LOAD - 6" FROM ENDS  
AND 24" O.C.  
REFER TO NOTES: 1, 2 AND 5



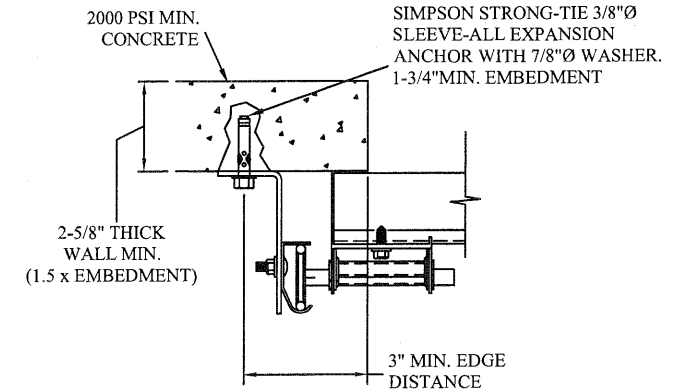
REVERSE ANGLE MOUNT SHOWN  
BRACKET, CONTINUOUS AND TAPERED  
ANGLE MOUNT AVAILABLE

**STEEL FRAMING 12GA OR BETTER**  
1590 LBS./IN. ALLOWABLE LOAD - 6"  
FROM ENDS AND 24" O.C.  
REFER TO NOTES: 1, 2, 5, 6, 7, 8 AND 9



CLIP STYLE CONTINUOUS ANGLE MOUNT SHOWN  
BRACKET, REVERSE AND TAPERED ANGLE MOUNT  
AVAILABLE

**2000 PSI CONCRETE OR GREATER**  
351 LBS./EXPANSION ANCHOR ALLOWABLE LOAD - 6"  
FROM ENDS AND 16" O.C.  
REFER TO NOTES: 1, 2, 3, 4 AND 5



CONTINUOUS ANGLE MOUNT SHOWN  
BRACKET, CONTINUOUS AND TAPERED ANGLE  
MOUNT AVAILABLE

**2000 PSI CONCRETE OR GREATER**  
336 LBS./EXPANSION ANCHOR ALLOWABLE LOAD - 6"  
FROM ENDS AND 16" O.C.  
REFER TO NOTES: 1, 2, 3, 4 AND 5

## 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 18" 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 16" 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)

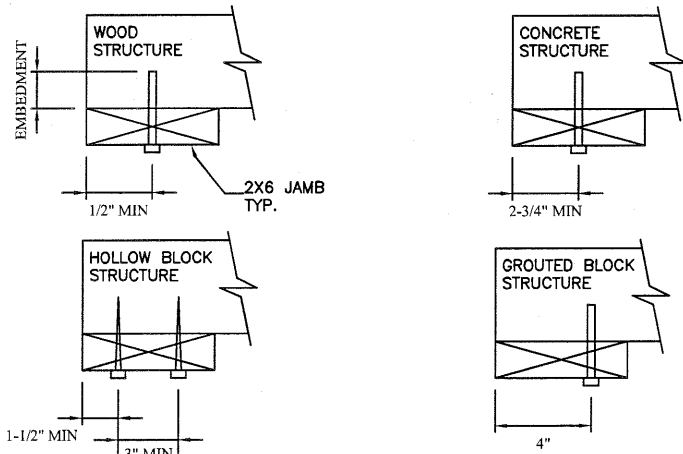
### 2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)

HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS  
THEN 20" 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

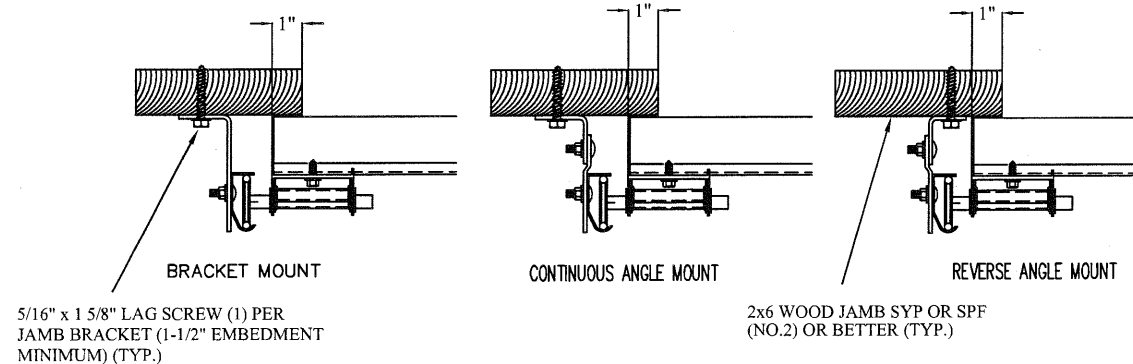


### NOTES:

1. ANCHORS TO BE EVENLY SPACED BETWEEN THE HEADER AND FLOOR.
2. FIRST (BOTTOM) ANCHOR STARTING AT NO MORE THAN HALF OF THE MAXIMUM ON-CENTER DISTANCE. HIGHEST ANCHOR INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING.
3. MIN. EDGE DISTANCE OF 3" REQUIRED.
4. USE WASHERS PROVIDED BY THE ANCHOR MANUFACTURER.
5. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS IN ADDITION TO OTHER LOADS.
6. MOST GARAGE DOOR TRACK IS GALVANIZED STEEL. USE ALL NECESSARY PRECAUTIONS WHEN WELDING GALVANIZED STEEL.
7. ALL WELDS SHOULD BE PERFORMED BY A CERTIFIED WELDER OR INSPECTED BY A CERTIFIED WELDING INSPECTOR TO VERIFY THE INTEGRITY OF THE WELD.
8. FILLET WELDS TO HAVE A STRAIGHT OR CONVEX FACE SURFACE.
9. TACK WELD TOE OF ANGLE AT SAME SPACING TO PREVENT ROTATION OF TRACK ANGLE.

## TRACK CONNECTION TO WOOD JAMB OPTIONS

FOR LAG SCREWS & BRACKET SPACING SEE PAGE 3 FOR TRACK CONFIGURATION DETAIL



5/16" x 1 5/8" LAG SCREW (1) PER  
JAMB BRACKET (1-1/2" EMBEDMENT  
MINIMUM) (TYP.)

2x6 WOOD JAMB SYP OR SPF  
(NO.2) OR BETTER (TYP.)

REV	DESCRIPTION OF REVISIONS	DATE	BY
	MAX SIZE 9'2 x 24'		
	DESIGN LOADS +55.1 PSF -64.5 PSF		
	TEST LOADS +82.7 PSF -96.8 PSF		
	LARGE MISSILE IMPACT RESISTANCE		

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

TX

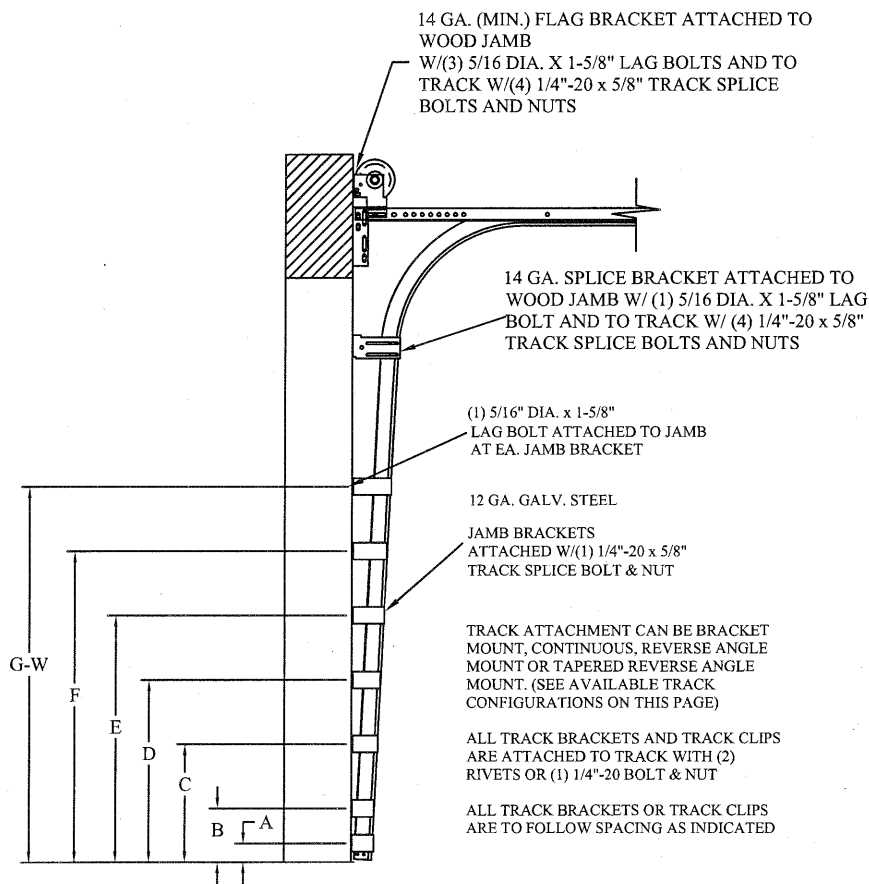
5921-G W. Friendly Ave., Greensboro, NC 27410

**Amarr**  
ENTRE/MATIC

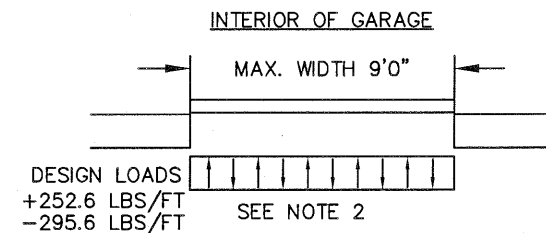
MODEL 1000 AMARR 2432

SIZE	DRAWN BY	DRD	DATE	11/16/16	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	12/05/16	IBC-1009-195-15-1
ENTRE/MATIC					SHEET 2 OF 4

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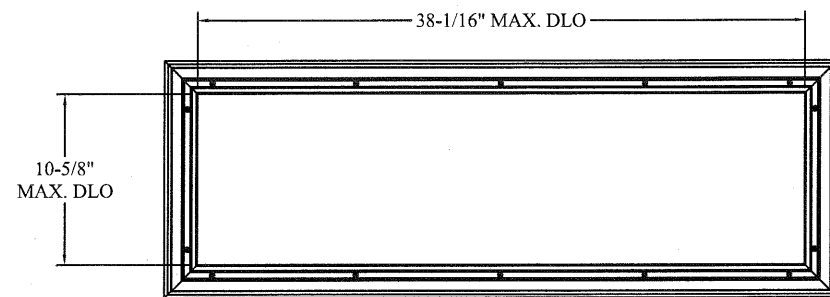


TRACK CONFIGURATION FOR UP TO 24' TALL DOORS  
SEE TABLE 1 ON PAGE 4

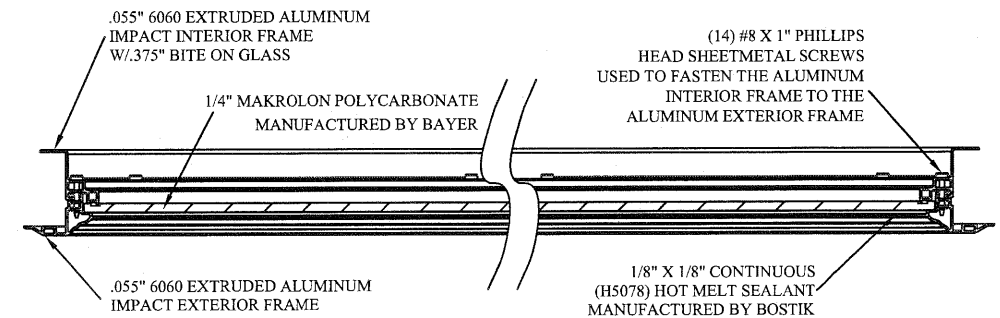


**SPECIFICATIONS AND NOTES**

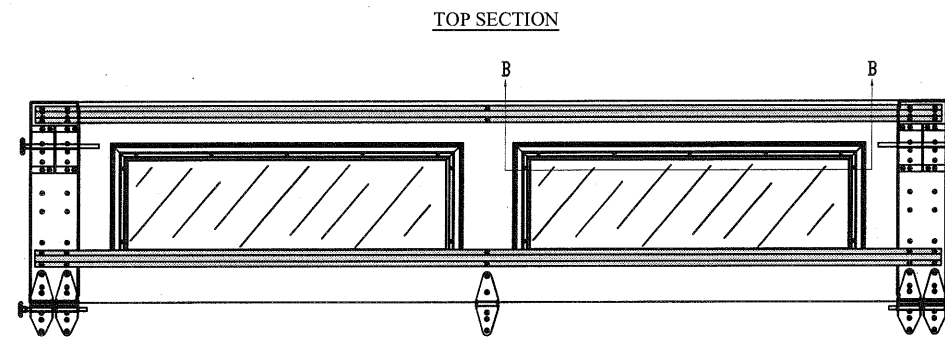
1. ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE VERTICAL TRACK. FROM THE TRACK THE LOAD IS TRANSFERRED TO THE VERTICAL JAMBS. THE HORIZONTAL JAMB OR HEADER RECEIVES NO PORTION OF THE LOAD TRANSFERRED FROM THE DOOR.
2. EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF: +252.6 LBS/FT & -295.6 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 24 GA. (.021) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 24'0" HIGH HAVE (2) 3" 20GA STRUTS PER SECTION
6. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.



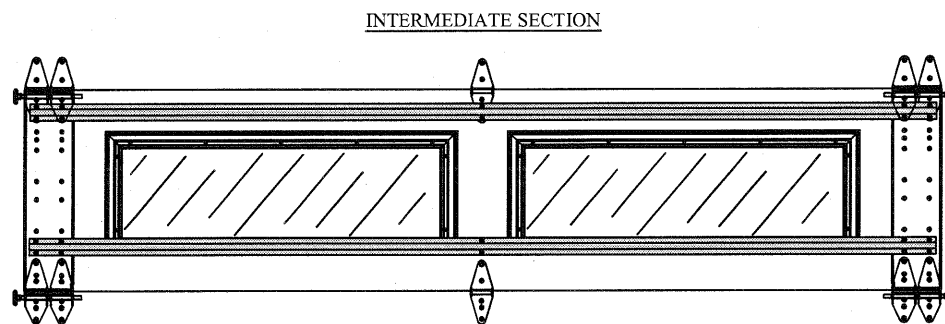
LONG PANEL IMPACT GLAZING FASTENER DETAIL  
N.T.S.



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



OPTIONAL GLAZED SECTION W/LONG PANEL IMPACT WINDOWS  
N.T.S.



OPTIONAL GLAZED SECTION W/LONG PANEL IMPACT WINDOWS  
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY

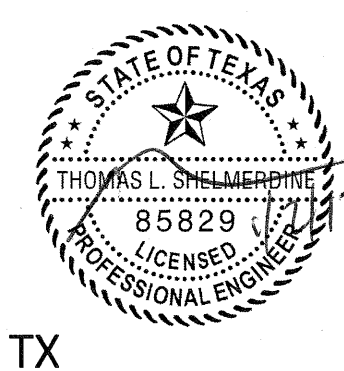
MAX SIZE  
9'2 x 24'

DESIGN LOADS  
+55.1 PSF  
-64.5 PSF

TEST LOADS  
+82.7 PSF  
-96.8 PSF

LARGE MISSILE IMPACT RESISTANCE

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



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



MODEL 1000 AMARR 2432

SIZE	DRAWN BY	DRD	DATE	11/16/16	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	12/05/16	IBC-1009-195-15-1
ENTREMATIC					SHEET 3 OF 4

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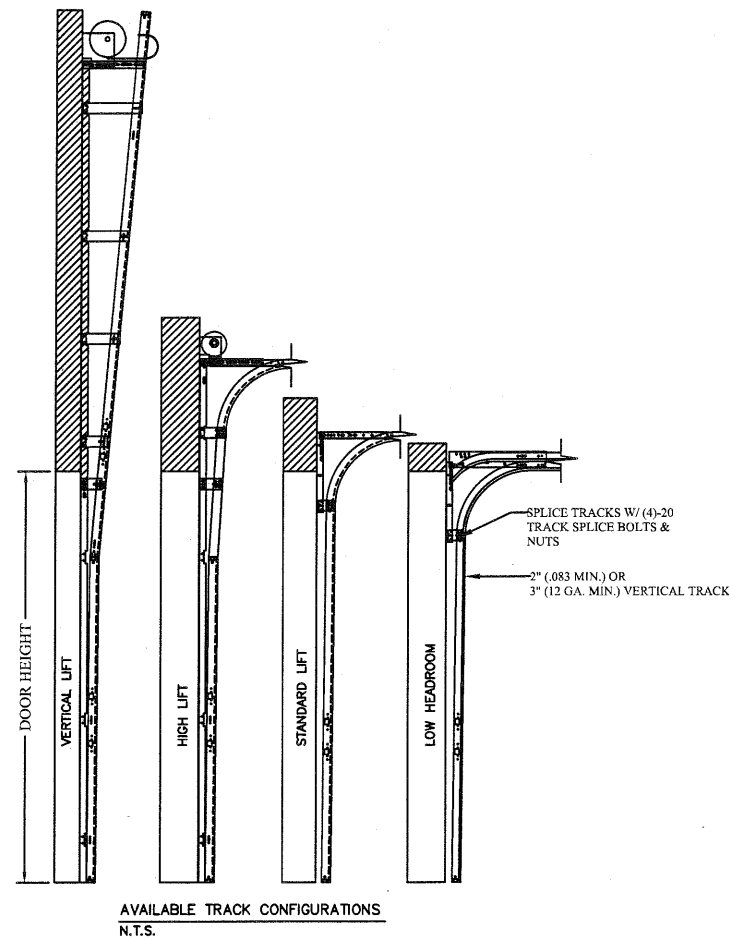
TABLE 1

DOOR HEIGHT	TRACK ATTACHMENT																							
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
7' 0"	3.5"	10.0"	22.0"	34"	46"	58"																		
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"	238"			
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"	238"	250"		
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"	238"	250"	262"	

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

TABLE 2

Section Width (ft)	Center Stile Locations (Measured from Left Edge)
6' 0"	36"
6' 2"	37"
6' 4"	38"
6' 6"	39"
6' 8"	40"
6' 10"	41"
7' 0"	42"
7' 2"	43"
7' 4"	44"
7' 6"	45"
7' 8"	46"
7' 10"	47"
8' 0"	48"
8' 2"	49"
8' 4"	50"
8' 6"	51"
8' 8"	52"
8' 10"	53"
9' 0"	54"
9' 2"	55"



REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE  
9'2 x 24'

DESIGN LOADS  
+55.1 PSF  
-64.5 PSF

TEST LOADS  
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-96.8 PSF

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ENTREMATIC

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SHEET 4 OF 4

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