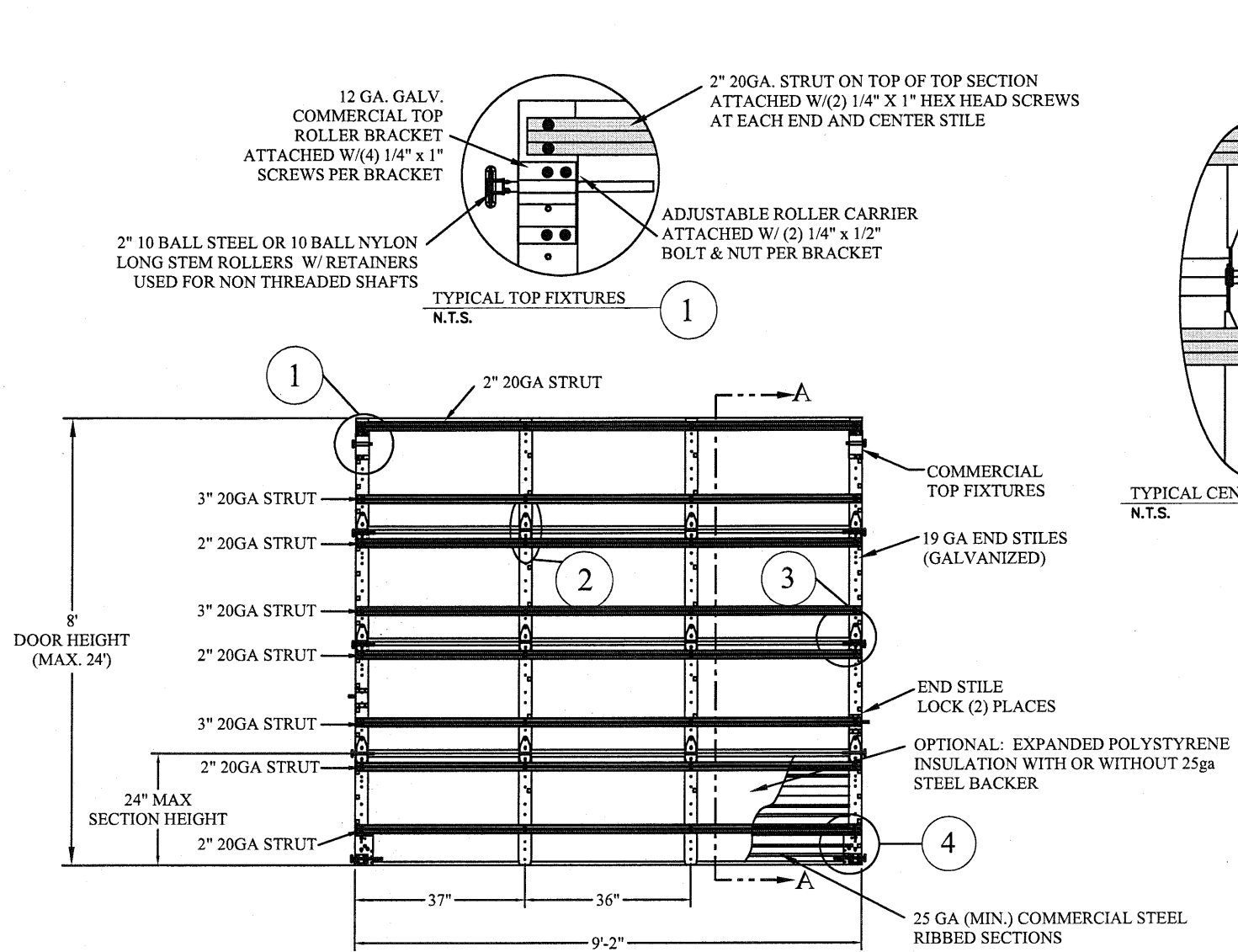
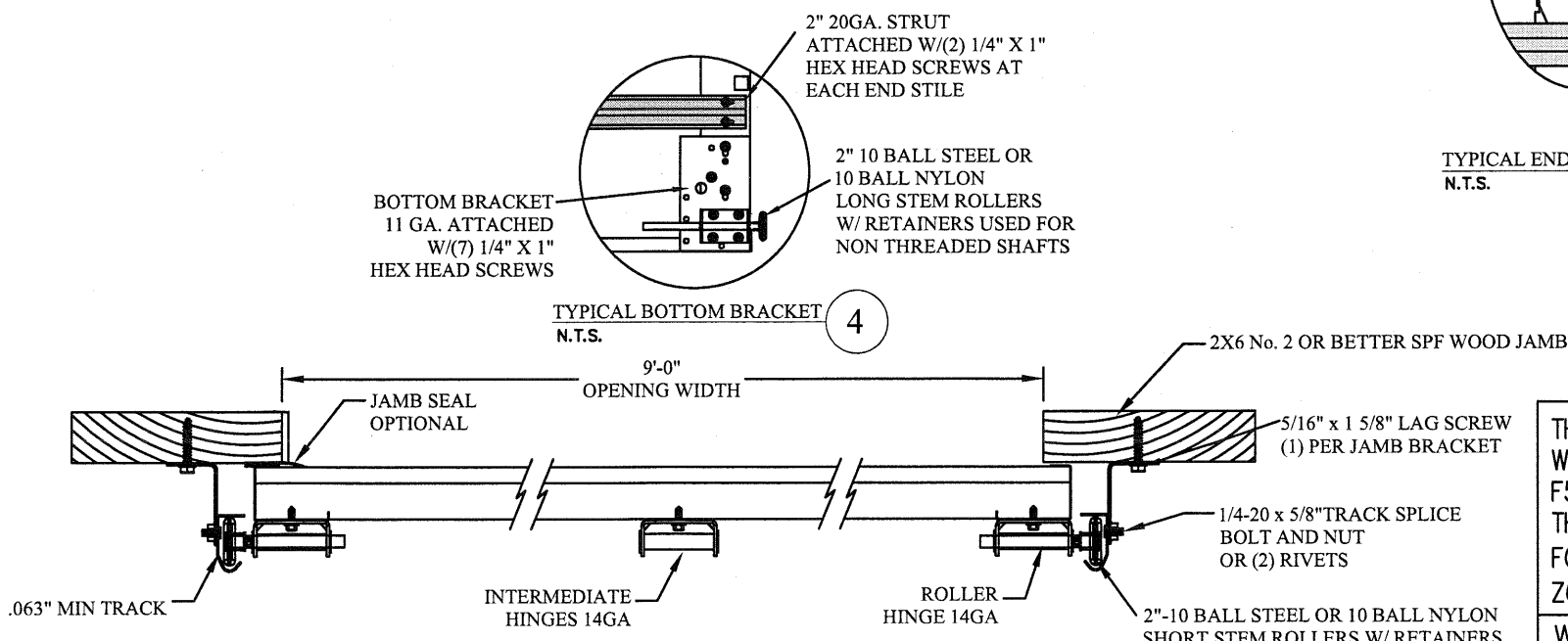
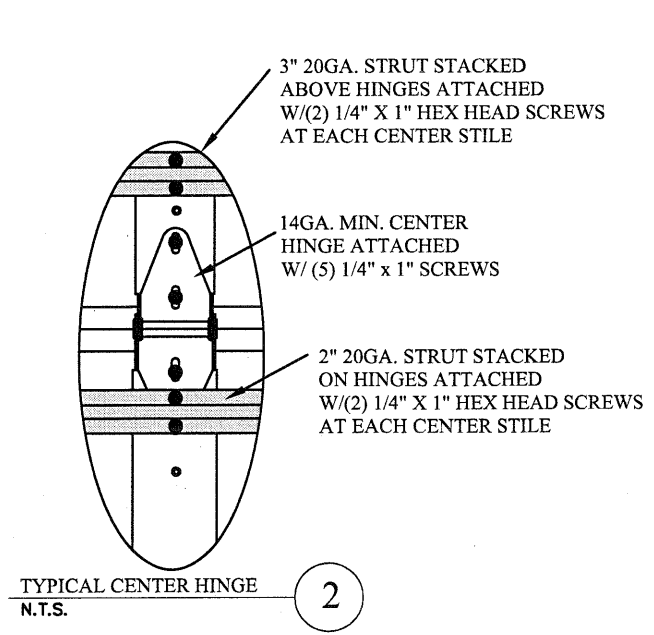




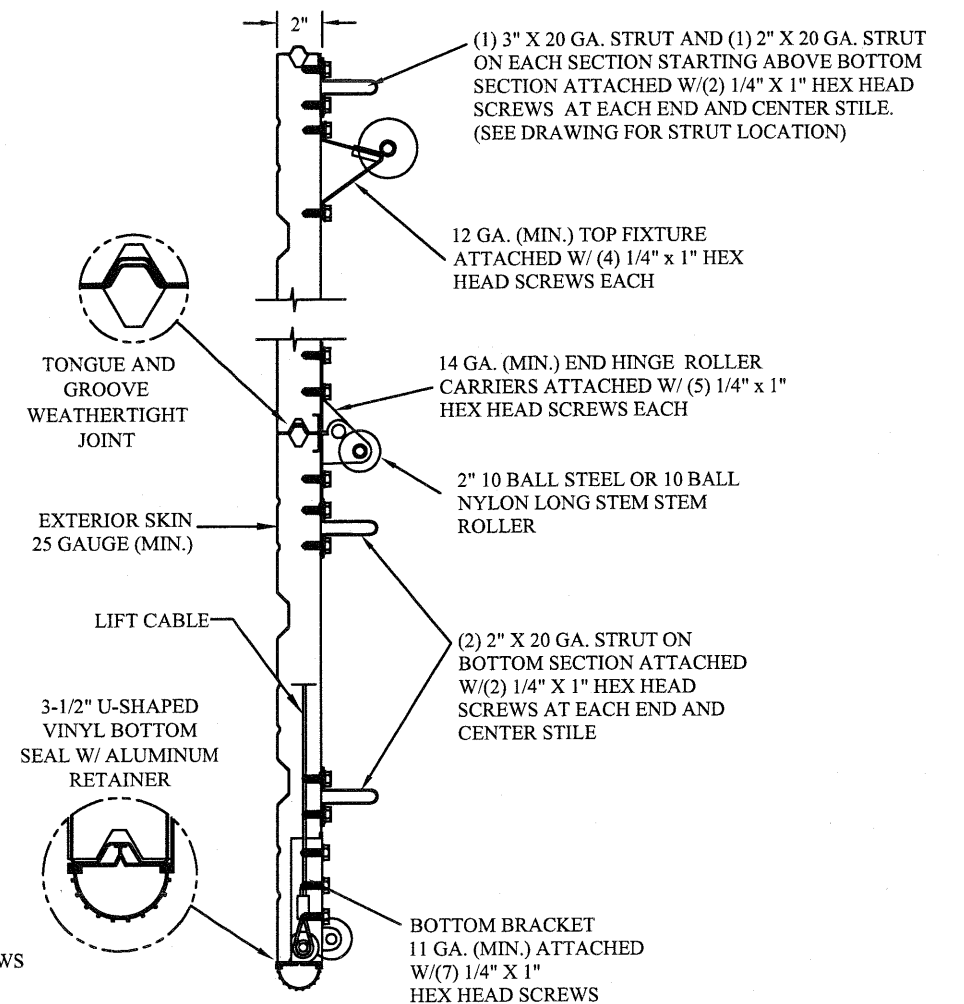
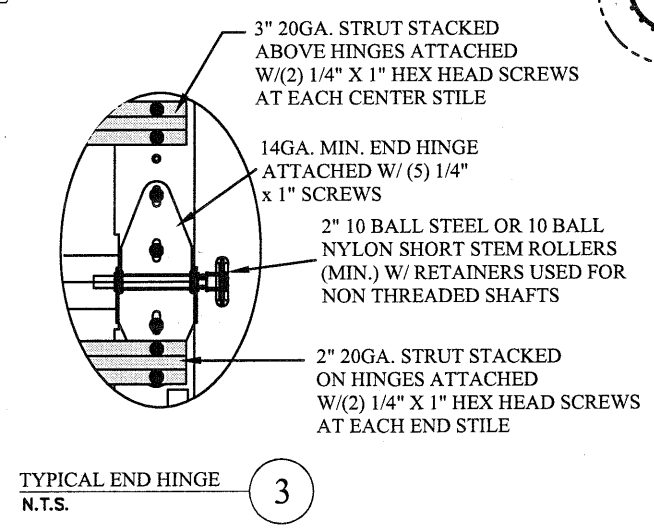
DOOR INTERIOR ELEVATION



2\"



LARGE MISSILE IMPACT RESISTANT



STEEL SECTION PROFILE

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURES DESCRIBED IN ASTM E1886, E1996, F588 AND DASMA 108, 115. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-16 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN END ZONE, ROOF SLOPE 10° OR LESS):

WIND SPEED (MPH)	195	177	168	160	154
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
+32.6 PSF
-38.3 PSF

TEST LOADS
+48.9 PSF
-57.5 PSF

LARGE MISSILE IMPACT RESISTANCE

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

FL

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

MODEL 2500 AMARR 2502, 2512 (25GA)			
MODEL 2400 AMARR 2402, 2412, 2422 (24GA)			
MODEL 2000 AMARR 2002, 2012, 2022 (20GA)			

SIZE B	DRAWN BY RS	DATE 1/30/15	DRAWING NUMBER IBC-2509-150-15-1
	CHECKED BY RLR	DATE 1/30/15	

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

SHEET 1 OF 3

ITW BUILDDEX 1/4"-14 X 3/4"
SELF-TAPPING SCREWS
(TEKS)

12 GA. OR 3/16" STEEL
(SEE BELOW)

1/8" NOM X 1" LONG
FILLET WELD (E60xx
ELECTRODES MIN.)

1/4" LONG TACK WELD
SAME SPACING AS
FILLET WELD

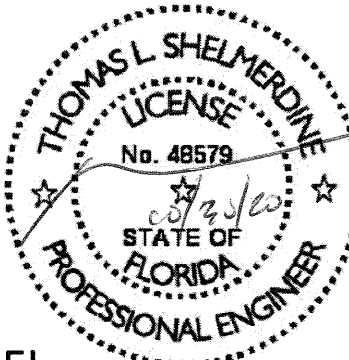
The diagram shows a cross-section of a fillet weld joint between two plates. A label points to the fillet weld with the text: "1/8" NOM X 1" LONG FILLET WELD (E60xx ELECTRODES MIN.)". Another label points to a tack weld on the side of the joint with the text: "1/4" LONG TACK WELD SAME SPACING AS FILLET WELD". The diagram also shows a bolted connection on the bottom plate.

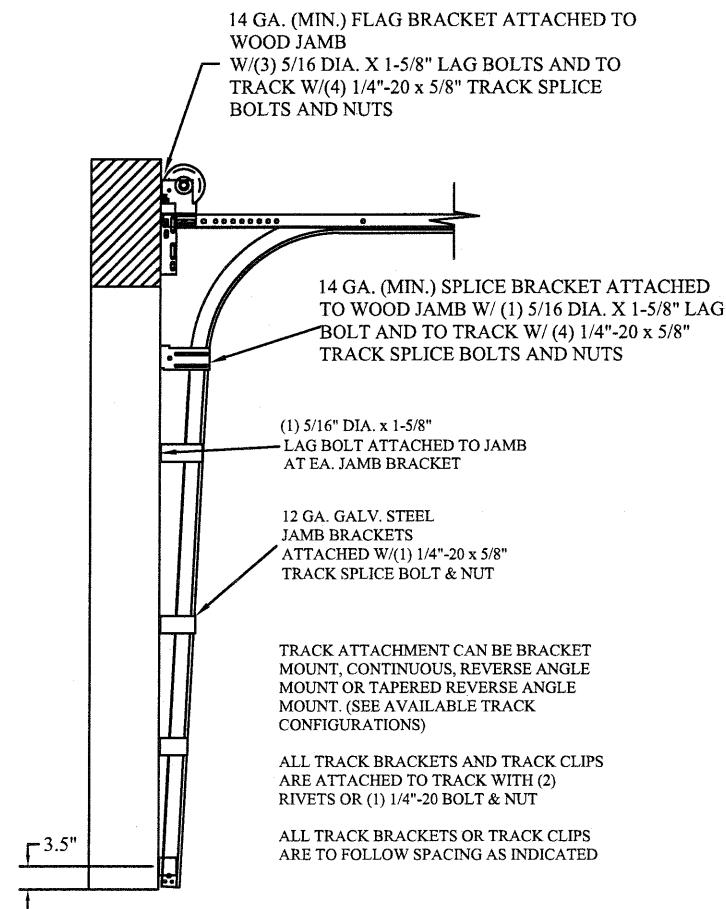
The top drawing shows a cross-section of a **WOOD STRUCTURE**. A vertical rod passes through the structure, with a dimension of **1/2" MIN** indicated for the embedment length. A label **2X6 JAMB TYP.** points to the structure. A vertical dimension line on the left is labeled **EMBEDMENT**.

The bottom drawing shows a cross-section of a **HOLLOW BLOCK STRUCTURE**. Two vertical rods pass through the structure. A dimension of **1-1/2" MIN** is shown for the embedment length of one rod, and a dimension of **3" MIN** is shown for the spacing between the two rods.

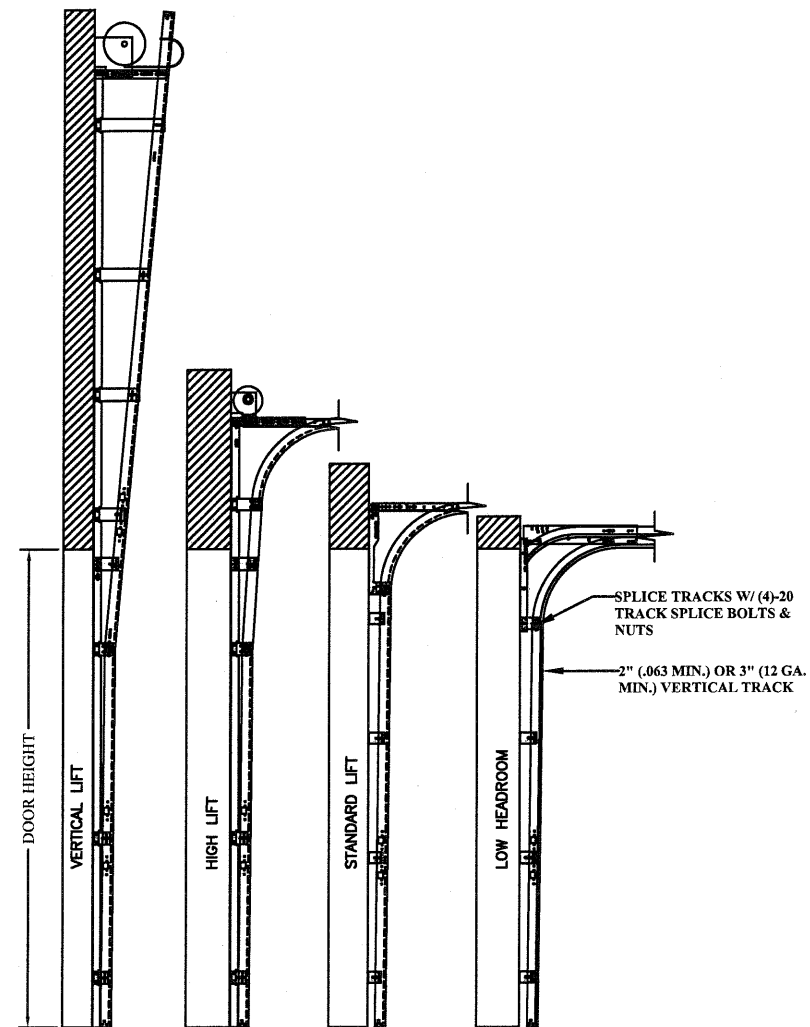
Diagram illustrating the design loads and interior width of a garage floor slab:

- INTERIOR OF GARAGE MAX. WIDTH 9'0"**: The width of the slab is 9 feet 0 inches.
- DESIGN LOADS**:
 - $+149.4 \text{ LBS/FT}$ (Dead Load)
 - -175.5 LBS/FT (Live Load)
- SEE NOTE 2**: Reference to additional design specifications.

REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE 9'2 x 24' DESIGN LOADS +32.6 PSF -38.3 PSF TEST LOADS +48.9 PSF -57.5 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 2500 AMARR 2502, 2512 (25GA) MODEL 2400 AMARR 2402, 2412, 2422 (24GA) MODEL 2000 AMARR 2002, 2012, 2022 (20GA)			
SIZE	DRAWN BY	RS	DATE 1/30/15
B	CHECKED BY	RLR	DATE 1/30/15
DRAWING NUMBER			IBC-2509-150-15-I
ENTERMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			SHEET 2 OF 3



TRACK CONFIGURATION FOR UP TO 24' TALL DOORS
SEE TABLE 2



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

TABLE 1

Section	Center Stile	Max Design Loads Allowed	
		Positive (PSF)	Negative (PSF)
Width (ft)	1st (in)		
6'0	36"	33.0	38.8
6'2	37"	32.1	37.7
6'4	23"	53"	44.9
6'6	24"	54"	44.0
6'8	25"	55"	43.2
6'10	26"	56"	42.4
7'0	27"	57"	41.7
7'2	28"	58"	41.0
7'4	27"	61"	39.0
7'6	28"	62"	38.3
7'8	29"	63"	37.7
7'10	30"	64"	37.1
8'0	31"	65"	36.6
8'2	32"	66"	36.0
8'4	32"	68"	34.9
8'6	33"	69"	34.4
8'8	34"	70"	33.9
8'10	35"	71"	33.5
9'0	36"	72"	33.0
9'2	37"	73"	32.6

TABLE 2

DOOR HEIGHT		TRACK ATTACHMENT													TYPICAL SPLICE
		A	B	C	D	E	F	G	H	I	J	K	L	M	
7'	0"	3.5"	22"	46"	58"										76"
7'	6"	3.5"	22"	46"	70"										82"
8'	0"	3.5"	22"	46"	70"										88"
8'	6"	3.5"	22"	46"	70"										94"
9'	0"	3.5"	22"	46"	70"	82"									100"
9'	6"	3.5"	22"	46"	70"	94"									106"
10'	0"	3.5"	22"	46"	70"	94"									112"
11'	0"	3.5"	22"	46"	70"	94"	106"								124"
12'	0"	3.5"	22"	46"	70"	94"	118"								136"
13'	0"	3.5"	22"	46"	70"	94"	118"	130"							148"
14'	0"	3.5"	22"	46"	70"	94"	118"	142"							160"
15'	0"	3.5"	22"	46"	70"	94"	118"	142"	154"						172"
16'	0"	3.5"	22"	46"	70"	94"	118"	142"	166"						184"
17'	0"	3.5"	22"	46"	70"	94"	118"	142"	166"	178"					196"
18'	0"	3.5"	22"	46"	70"	94"	118"	142"	166"	190"					208"
19'	0"	3.5"	22"	46"	70"	94"	118"	142"	166"	190"	202"				220"
20'	0"	3.5"	22"	46"	70"	94"	118"	142"	166"	190"	214"				232"
21	0"	3.5"	22"	46"	70"	94"	118"	142"	166"	190"	214"	226"			244"
22	0"	3.5"	22"	46"	70"	94"	118"	142"	166"	190"	214"	238"			256"
23	0"	3.5"	22"	46"	70"	94"	118"	142"	166"	190"	214"	238"	250"		268"
24	0"	3.5"	22"	46"	70"	94"	118"	142"	166"	190"	214"	238"	250"	262"	280"

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

AMARR MODEL 2500 ONLY AVAILABLE UP TO 14'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
9'2 x 24'

DESIGN LOADS
+32.6 PSF
-38.3 PSF

TEST LOADS
+48.9 PSF
-57.5 PSF

LARGE MISSILE IMPACT RESISTANCE

Thomas L. Shelmerdine, PE (FL PE #0048579)
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SIZE	DRAWN BY	RS	DATE 1/30/15
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ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IBC-2509-150-15-1 SHEET 3 OF 3