

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

2" 10 BALL STEEL
LONG STEM ROLLERS

TYPICAL TOP FIXTURES
N.T.S.

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

14GA. MIN. CENTER
HINGE ATTACHED
W/ (4) 1/4" x 1" SCREWS

TYPICAL CENTER HINGE
N.T.S.

2" 20GA. STRUT ABOVE HINGES
ATTACHED W/(2) 1/4" x 1"
HEX HEAD SCREWS AT
EACH END AND CENTER STILE

2" 10 BALL STEEL 4"
STEM ROLLERS (MIN.)

TYPICAL END HINGE
N.T.S.

2" 20GA. STRUT STACKED ABOVE
HINGES ATTACHED W/(2) 1/4" x 1"
HEX HEAD SCREWS AT
EACH END AND CENTER STILE

14GA. MIN. END HINGE
ATTACHED W/ (4) 1/4"
x 1" SCREWS

14GA. MIN. END HINGES
ATTACHED W/ (4) 1/4"
x 1" SCREWS EACH

TYPICAL M2500/SUPERFLEX END HINGE
N.T.S.

2" 10 BALL STEEL
4" STEM ROLLERS (MIN.)

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

2" 10 BALL STEEL
7" STEM ROLLERS (MIN.)

TYPICAL BOTTOM BRACKET
N.T.S.

14GA. MIN. END HINGES
ATTACHED W/ (4) 1/4"
x 1" SCREWS EACH

2" 10 BALL STEEL
4" STEM ROLLERS (MIN.)

TYPICAL SUPERFLEX END HINGE
N.T.S.

5

EXTERIOR SKIN
25 GAUGE (MIN.)

12 GA. (MIN.) TOP FIXTURE
ATTACHED W/ (3) 1/4" x 1" HEX
HEAD SCREWS EACH

(1) 2" x 20 GA. STRUT ON EVERY
MODEL 2500, 2400, OR 2000
SECTION ATTACHED W/(2) 1/4"
x 1" HEX HEAD SCREWS AT
EACH END AND CENTER STILE

TONGUE AND
GROOVE
WEATHERTIGHT
JOINT

14 GA. (MIN.) END HINGE
ROLLER
CARRIERS ATTACHED W/ (4)
1/4" x 1" HEX HEAD SCREWS
EACH

THERMOPLASTIC
POLYOLEFIN (TPO) INTERIOR
& EXTERIOR POLYMER SKIN

POLYSTYRENE INSULATION

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

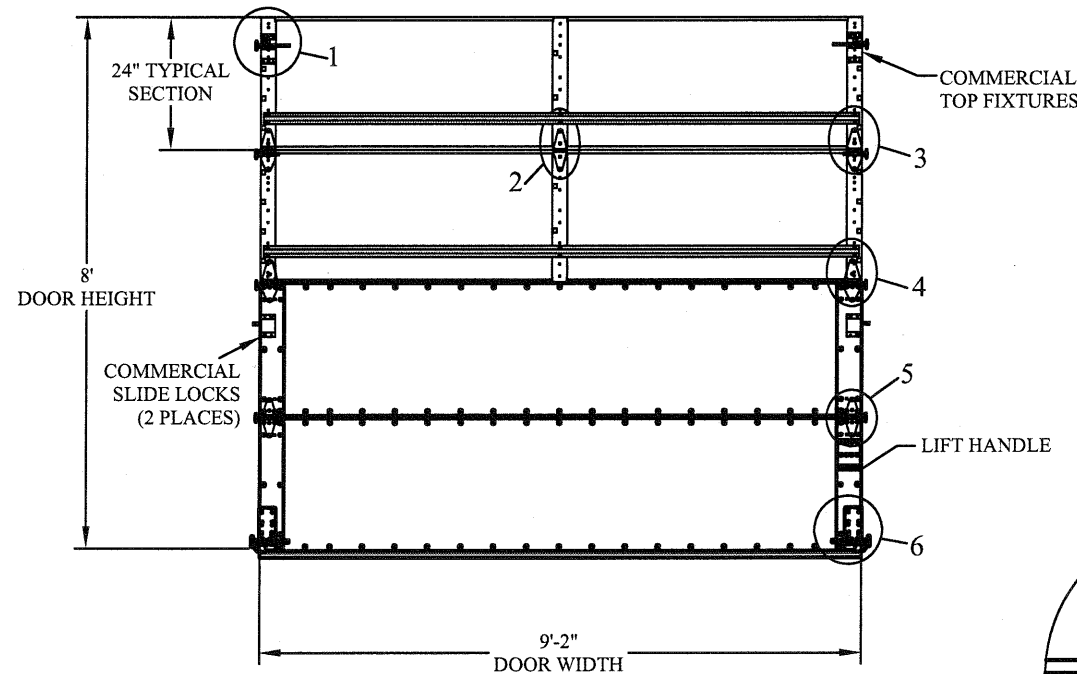
STEEL SECTION PROFILE

REV	DESCRIPTION OF REVISIONS	DATE	BY
A			
MAX SIZE 9'2" x 24' DESIGN LOADS +15.6 PSF -18.3 PSF TEST LOADS +23.4 PSF -27.5 PSF Thomas L. Shelmerdine, P.E. (FL PE #0048579) Structural Solutions, PA (FL Firm #29412) FL Thomas L. Shelmerdine LICENSE No. 48579 STATE OF FLORIDA PROFESSIONAL ENGINEER dha Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410			

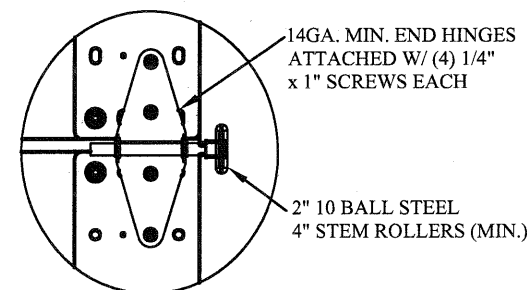
Amarr

MODEL 2500 AMARR 2502/SUPERFLEX, 2512/SUPERFLEX
MODEL 2400 AMARR 2402/SUPERFLEX, 2412/SUPERFLEX, 2422/SUPERFLEX
MODEL 2000 AMARR 2002/SUPERFLEX, 2012/SUPERFLEX, 2022/SUPERFLEX

SIZE	DRAWN BY	RLR	DATE	3/8/18	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	3/8/18	IBC-2509-104-11-S
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105					SHEET 1 OF 3

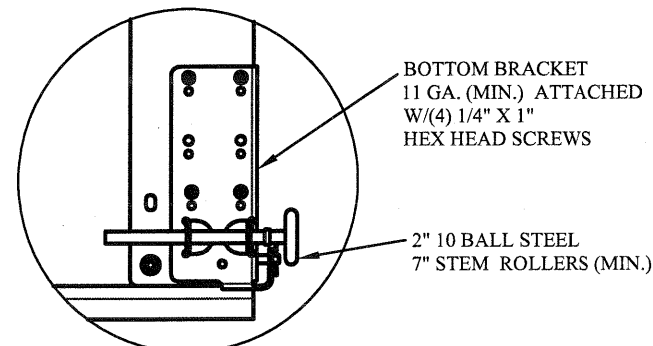


DOOR INTERIOR ELEVATION
N.T.S.



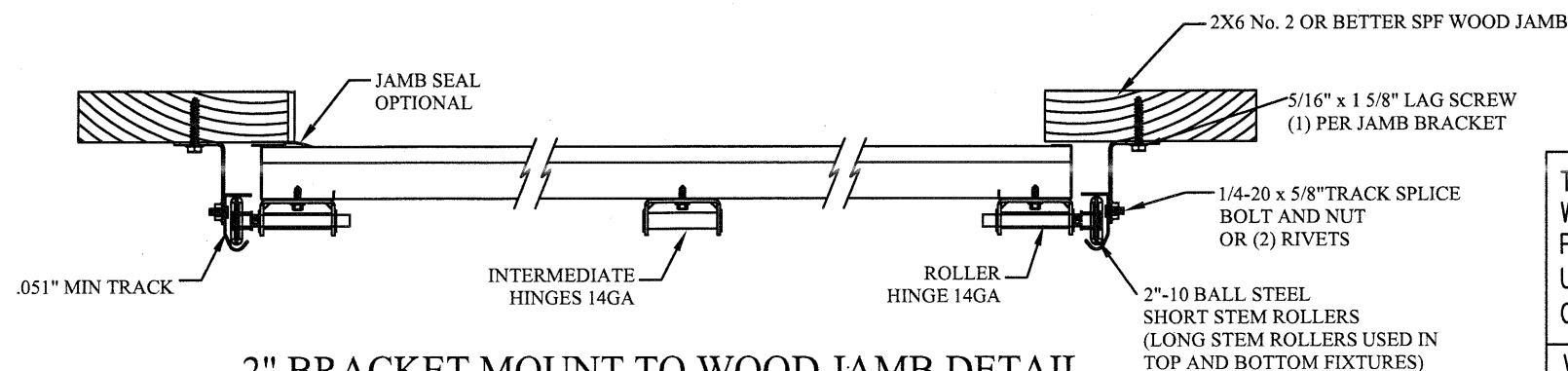
TYPICAL SUPERFLEX END HINGE
N.T.S.

5



TYPICAL BOTTOM BRACKET
N.T.S.

6

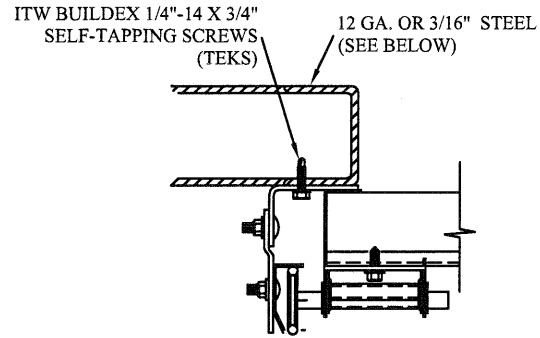


2" BRACKET MOUNT TO WOOD JAMB DETAIL
N.T.S.

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURES DESCRIBED IN DASMA 108. 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)	135	122	116	111	106
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

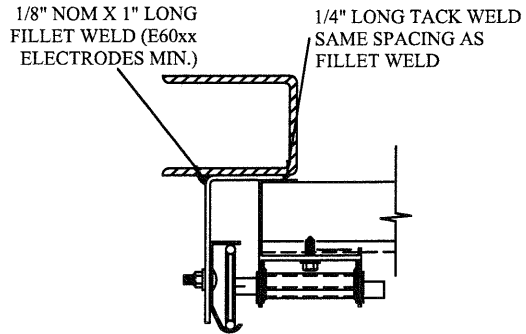
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



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

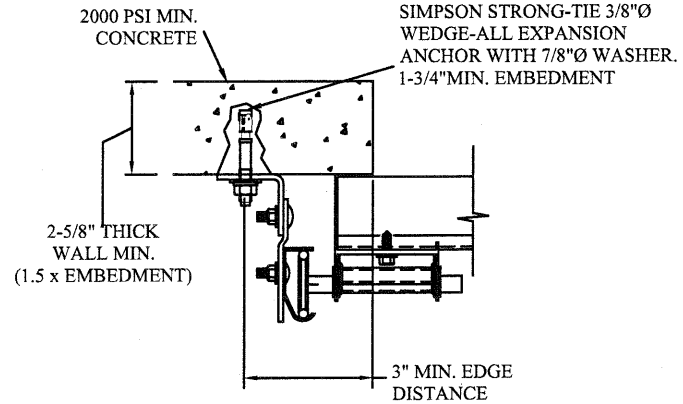
12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6" FROM ENDS
AND 24" O.C.
REFER TO NOTES: 1, 2 AND 5

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



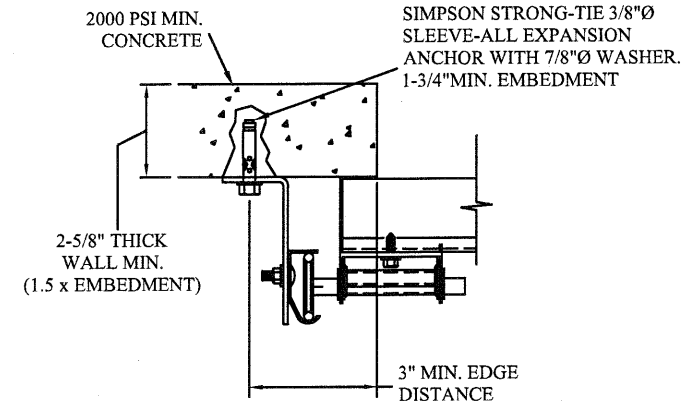
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED
ANGLE MOUNT AVAILABLE

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 24" 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 24" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

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:
+71.5 LBS/FT & -83.9 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 25 GA. (.018) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 24'0" HIGH USE 2" 20 GA STRUT ON EVERY MODEL 2000, 2400, OR 2500 SECTION LOCATED ABOVE THE HINGE LINE
6. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

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 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 24" 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 24" O.C. (1 1/4" EMBEDMENT)

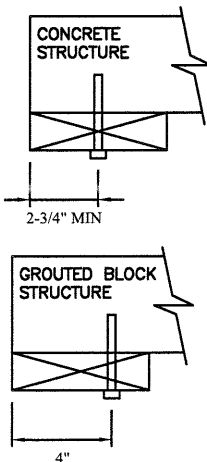
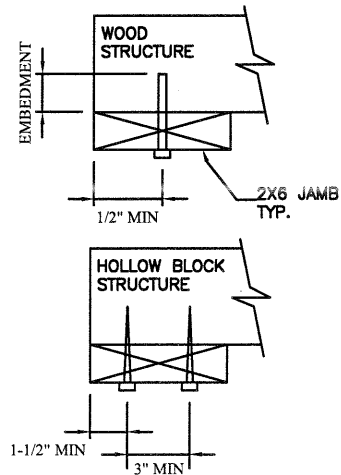
2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)

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)

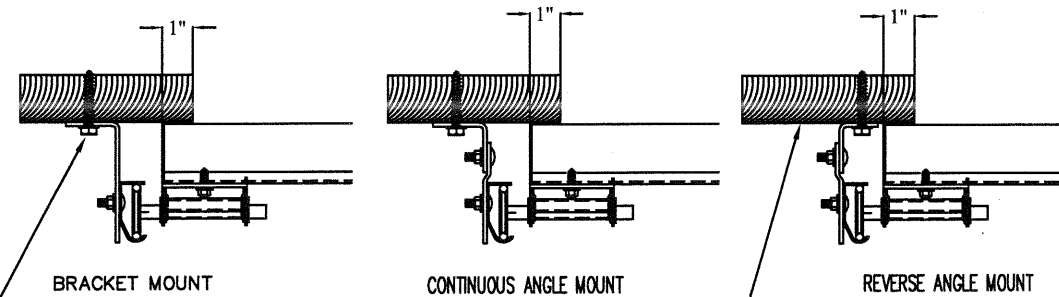
*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.

*PREPARATION OF WOOD JAMBS BY OTHERS



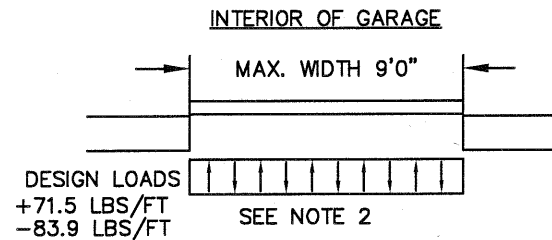
TRACK CONNECTION TO WOOD JAMB OPTIONS

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

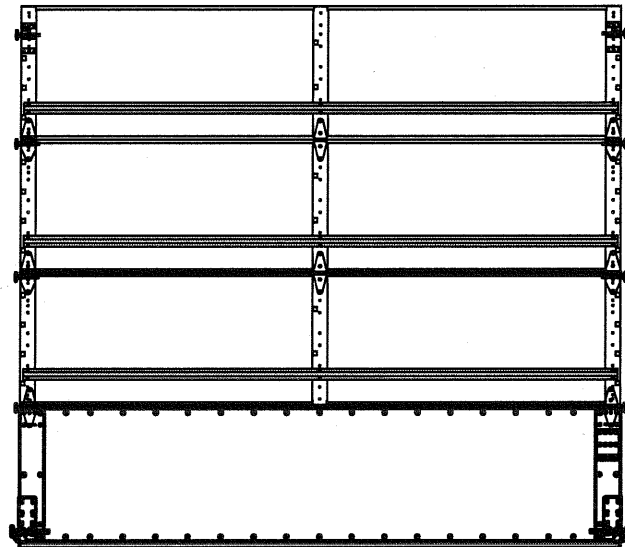


5/16" x 1 5/8" LAG SCREW (1) PER
JAMB BRACKET (1-1/2" EMBEDMENT
MINIMUM) (TYP.)

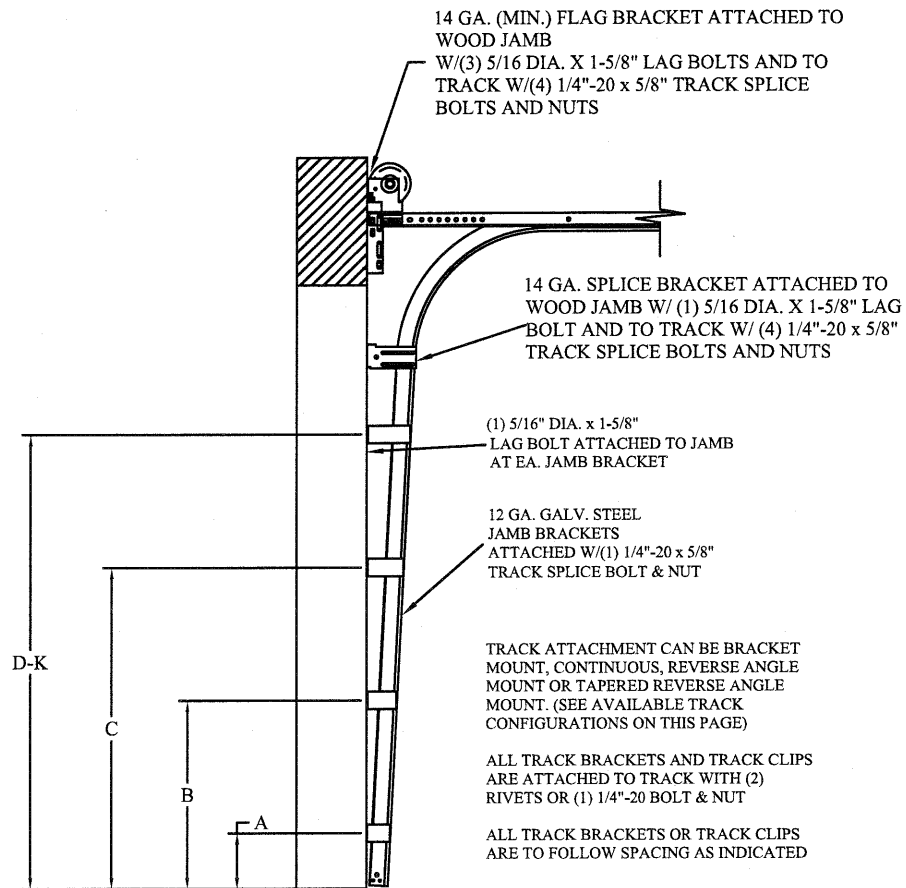
2x6 WOOD JAMB SYP OR SPF
(NO.2) OR BETTER (TYP.)



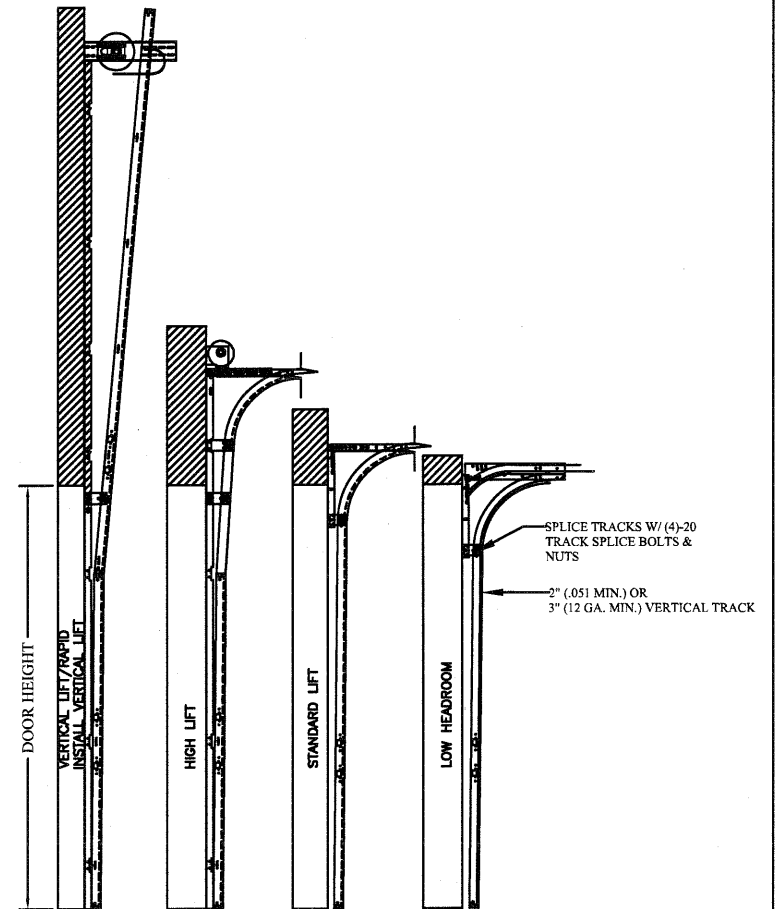
REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE 9'2" x 24' DESIGN LOADS +15.6 PSF -18.3 PSF TEST LOADS +23.4 PSF -27.5 PSF		Thomas L. Shelmerdine, PE (FL PE #00048579) Structural Solutions, PA (FL Firm #294112) FL dba Structural Solutions of North Carolina, Inc. 5921-G.W. Friendiv Ave., Greensboro, NC 27410	
MODEL 2500 AMARR 2502/SUPERFLEX, 2512/SUPERFLEX MODEL 2400 AMARR 2402/SUPERFLEX, 2412/SUPERFLEX, 2422/SUPERFLEX MODEL 2000 AMARR 2002/SUPERFLEX, 2012/SUPERFLEX, 2022/SUPERFLEX			
SIZE	DRAWN BY	R/LR	DATE 3/8/18
	CHECKED BY	R/LR	DATE 3/8/18
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IBC-2509-104-11-S SHEET 2 OF 3



OPTIONAL SINGLE SUPERFLEX SECTION
N.T.S.



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	
Width (ft)	1st (in)	Positive (PSF)	Negative (PSF)
6' 0	36"	23.7	27.8
6' 2	37"	23.0	27.1
6' 4	38"	22.4	26.3
6' 6	39"	21.9	25.7
6' 8	40"	21.3	25.0
6' 10	41"	20.8	24.4
7' 0	42"	20.3	23.8
7' 2	43"	19.8	23.3
7' 4	44"	19.4	22.7
7' 6	45"	18.9	22.2
7' 8	46"	18.5	21.7
7' 10	47"	18.1	21.3
8' 0	48"	17.7	20.8
8' 2	49"	17.4	20.4
8' 4	50"	17.0	20.0
8' 6	51"	16.7	19.6
8' 8	52"	16.4	19.2
8' 10	53"	16.0	18.8
9' 0	54"	15.7	18.5
9' 2	55"	15.6	18.3

TABLE 2

DOOR HEIGHT		TRACK ATTACHMENT											TYPICAL SPLICE
		A	B	C	D	E	F	G	H	I	J	K	
7' 0"	0"	10.0"	34"	58"									76"
7' 6"	6"	10.0"	34"	58"									82"
8' 0"	0"	10.0"	34"	58"									88"
9' 0"	0"	10.0"	34"	58"	82"								100"
9' 6"	6"	10.0"	34"	58"	82"								106"
10' 0"	0"	10.0"	34"	58"	82"								112"
11' 0"	0"	10.0"	34"	58"	82"	106"							124"
12' 0"	0"	10.0"	34"	58"	82"	106"							136"
13' 0"	0"	10.0"	34"	58"	82"	106"	130"						148"
14' 0"	0"	10.0"	34"	58"	82"	106"	130"						160"
15' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"					172"
16' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"					184"
17' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"	178"				196"
18' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"	178"				208"
19' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"			220"
20' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"			232"
21' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"	226"		244"
22' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"	226"		256"
23' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"	226"	250"	268"
24' 0"	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"	226"	250"	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
+15.6 PSF
-18.3 PSF

TEST LOADS
+23.4 PSF
-27.5 PSF

FL

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

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

MODEL 2500 AMARR 2502/SUPERFLEX, 2512/SUPERFLEX			
MODEL 2400 AMARR 2402/SUPERFLEX, 2412/SUPERFLEX, 2422/SUPERFLEX			
MODEL 2000 AMARR 2002/SUPERFLEX, 2012/SUPERFLEX, 2022/SUPERFLEX			

SIZE	DRAWN BY	RLR	DATE	3/8/18	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	3/8/18	IBC-2509-104-11-S

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

SHEET 3 OF 3