

1-3/8"

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

POLYSTYRENE INSULATION

WEATHERTIGHT JOINT WEAR SEAL

TOP SECTION: 5 1/2"H X 18 GA. (5" R-TRUSS) GALV. STEEL R-TRUSS ATTACHED STACKED ON BOTTOM OF TOP FIXTURE W/ (2) 1/4" x 1" HEX HEAD SCREWS AT EACH END AND CENTER STILE

14GA. ADJUSTABLE ROLLER CARRIER ATTACHED TO R-TRUSS W/ (2) 1/4" x 1" HEX HEAD SCREWS

5 1/2"H X 18 GA. GALV. STEEL R-TRUSS (5" R-TRUSS) ON INTERMEDIATE AND BOTTOM SECTIONS ATTACHED W/ (2) 1/4" x 1" HEX HEAD SCREWS AT EACH END STILE AND AT EACH CENTER STILE

THERMAL BREAK

27 GAUGE INTERIOR SKIN

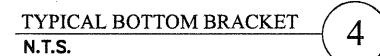
27 GAUGE EXTERIOR SKIN

3-1/2" U-SHAPED VINYL BOTTOM SEAL W/ALUMINUM RETAINER

(1) 3" X 20 GA. STRUTS ON BOTTOM SECTION ATTACHED W/ (2) 1/4" X 1" HEX HEAD SCREWS AT EACH END AND CENTER STILE

BOTTOM BRACKET 11 GA. (MIN.) ATTACHED W/ (7) 1/4" X 1" HEX HEAD SCREWS

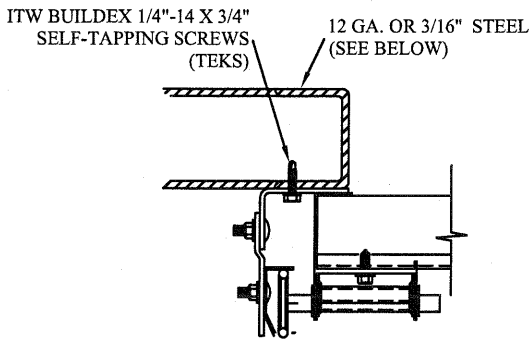
SECTION A-A (SIDE VIEW)
N.T.S.



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 AT ANY SLOPE):

WIND SPEED (MPH)	175	159	151	144	138
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

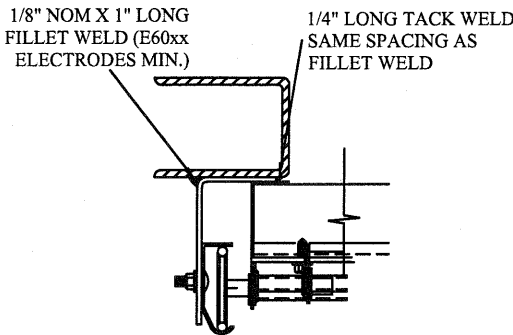
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



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

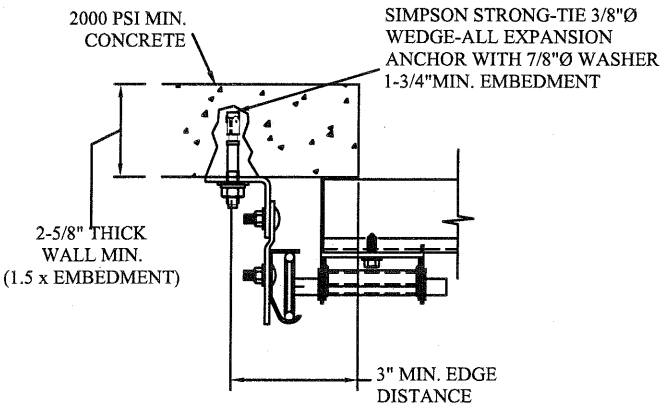
12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6" FROM ENDS
AND 12" O.C.
REFER TO NOTES: 1, 2 AND 5

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



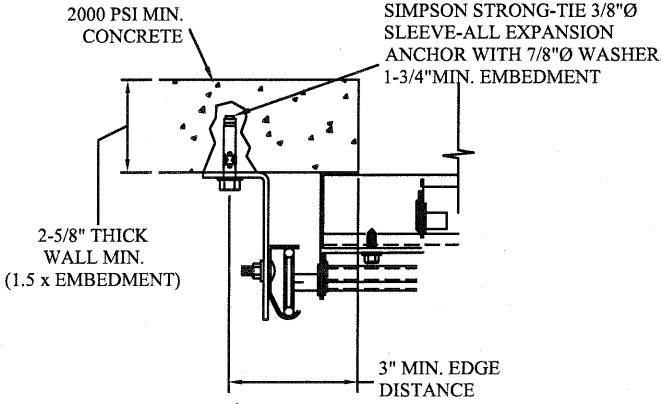
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED
ANGLE MOUNT AVAILABLE

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

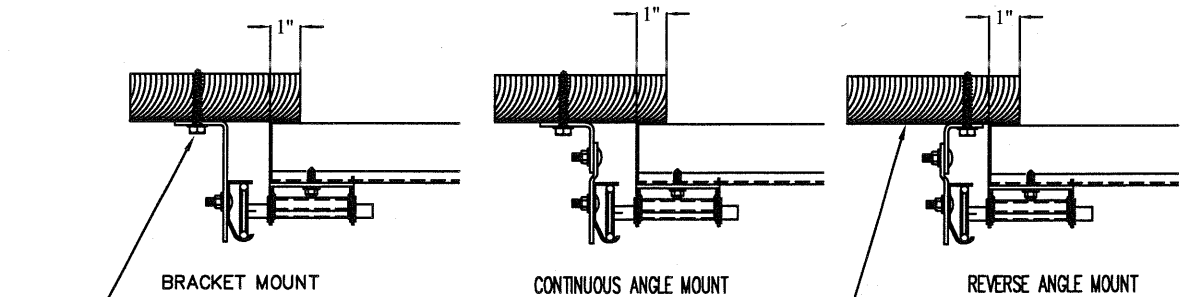


CONTINUOUS ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED ANGLE
MOUNT AVAILABLE

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

TRACK CONNECTION TO WOOD JAMB OPTIONS

FOR LAG SCREWS & BRACKET SPACING SEE 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.)

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. EGDE 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.

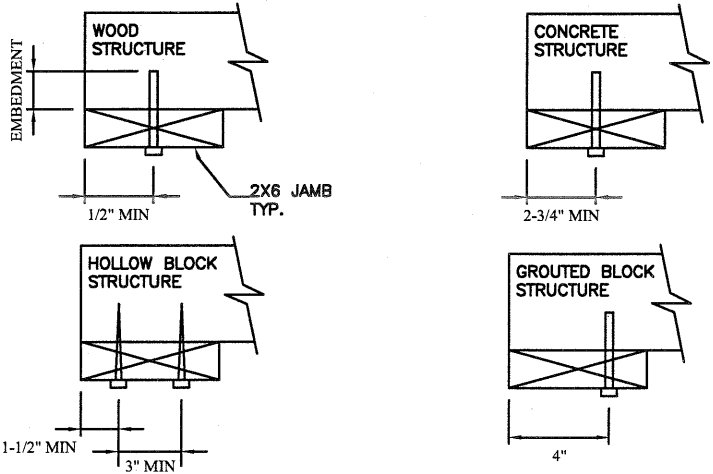
WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)

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

MAX SIZE
18'2 x 14'

DESIGN LOADS
+25.1 PSF
-28.4 PSF

TEST LOADS
+37.7 PSF
-42.6 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

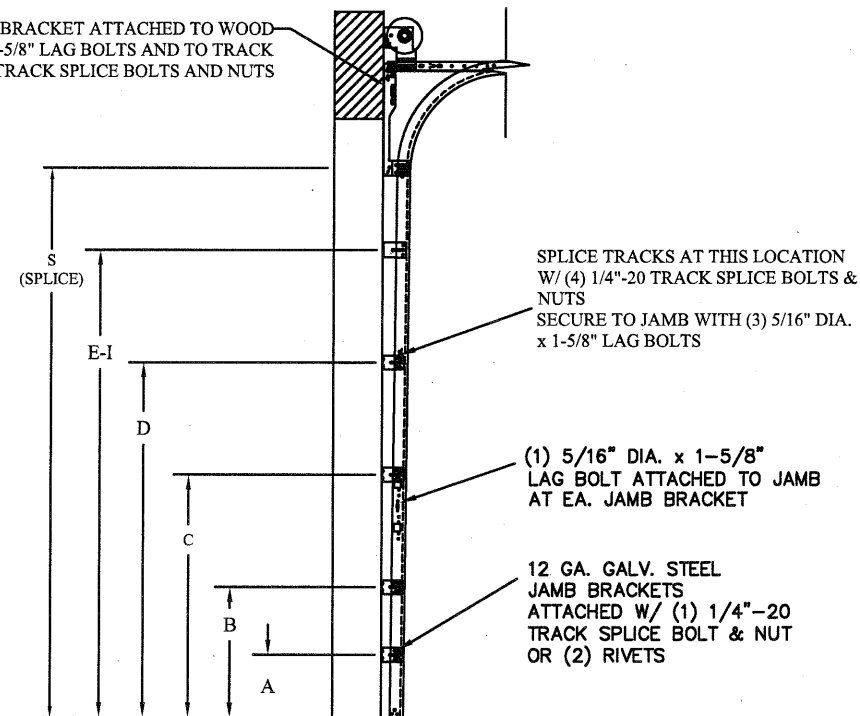
MODEL 1380 AMARR 2731
MODEL 1700 AMARR 2732
MODEL 1000 AMARR 2432

SIZE B	DRAWN BY RLR	DATE 12/08/14	IBC-1818-136-26-1
CHECKED BY RLR	DATE 12/08/14		

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

SHEET 2 OF 3

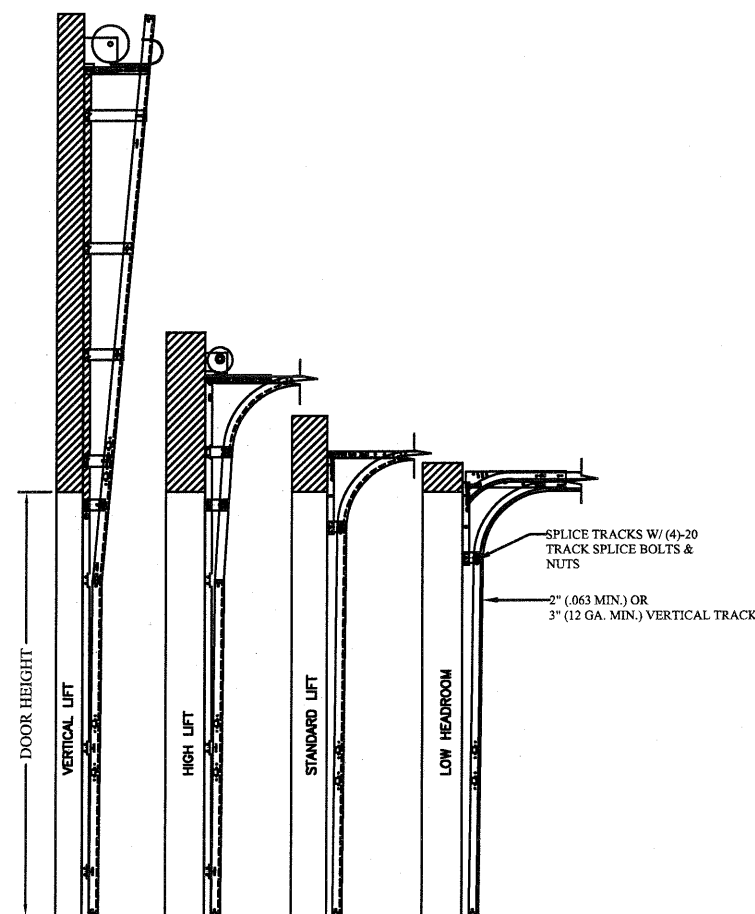
14 GA. FLAG BRACKET ATTACHED TO WOOD JAMB W/ (3) 5/16 DIA. X 1-5/8" LAG BOLTS AND TO TRACK W/ (4) 1/4"-20 X 5/8" TRACK SPLICE BOLTS AND NUTS



TRACK CONFIGURATION FOR 8' TALL DOORS

N.T.S.

SEE TABLE 2 FOR TRACK ATTACHMENT SPACING



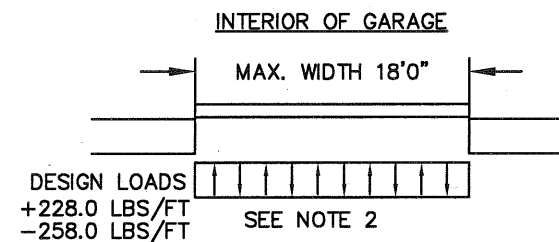
AVAILABLE TRACK CONFIGURATIONS

N.T.S.

TABLE 2

DOOR HEIGHT		TRACK ATTACHMENT										TYPICAL SPLICE
		A	B	C	D	E	F	G	H	I	J	
7'	0"	3.5"	22"	34"	58"							76"
7'	6"	3.5"	22"	34"	58"							82"
8'	0"	3.5"	22"	34"	58"	70"						88"
9'	0"	3.5"	22"	34"	58"	70"						100"
9'	6"	3.5"	22"	34"	58"	70"	82"					106"
10'	0"	3.5"	22"	34"	58"	70"	82"					112"
11'	0"	3.5"	22"	34"	58"	70"	82"	106"				124"
12'	0"	3.5"	22"	34"	58"	70"	82"	106"	118"			136"
13'	0"	3.5"	22"	34"	58"	70"	82"	106"	118"	130"		148"
14'	0"	3.5"	22"	34"	58"	70"	82"	106"	118"	130"	142"	160"

ALL TRACK ATTACHMENT SPACING +/-1.5" ALLOWED WITH SPF OR SYP NO. 2 OR BETTER ONLY



SPECIFICATIONS AND NOTES

- 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.
- EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF: +228.0 LBS/FT & -258.0 LBS/FT
- DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
- DOOR SECTIONS SHALL BE 27 GA. (.015) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
- DOORS UP TO 14'0" HIGH HAVE (1) 5.5" 18GA R-TRUSS PER SECTION AND (1) 3" 20GA STRUT ON THE BOTTOM SECTION
- SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

TABLE 1

Section Width (ft)	Center Stile Locations (Measured from Left Edge)			Max Design Loads Allowed	
	1st (in)	2nd (in)	3rd (in)	Positive (PSF)	Negative (PSF)
16' 4"	52.168	98.000	143.834	27.7	31.4
16' 6"	51.340	99.000	146.660	27.4	31.1
16' 8"	52.200	100.000	147.800	27.2	30.8
16' 10"	53.200	101.000	148.800	26.9	30.4
17' 0"	54.200	102.000	149.800	26.6	30.1
17' 2"	55.2	103.0	150.8	26.4	29.9
17' 4"	56.200	104.000	151.800	26.1	29.6
17' 6"	57.200	105.000	152.800	25.9	29.3
17' 8"	55.800	106.000	156.200	25.6	29.0
17' 10"	56.250	107.000	157.750	25.4	28.7
18' 0"	57.800	108.000	158.200	25.2	28.5
18' 2"	57.3	109.0	160.7	25.1	28.4

DESCRIPTION OF REVISIONS		DATE	BY
MAX SIZE 18'2 x 14'			
DESIGN LOADS +25.1 PSF -28.4 PSF			
TEST LOADS +37.7 PSF -42.6 PSF			
LARGE MISSILE IMPACT RESISTANCE			
Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412) FL Thomas L. Shelmerdine, Inc. dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410			
Amarr MODEL 1380 AMARR 2731 MODEL 1700 AMARR 2732 MODEL 1000 AMARR 2432			
SIZE	DRAWN BY	RLR	DATE 12/08/14
B	CHECKED BY	RLR	DATE 12/08/14
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IBC-1818-136-26-1
			SHEET 3 OF 3