

LARGE MISSILE IMPACT RESISTANT

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330, E1886, E1996, F588 AND DASMA 108, 115. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-98/02/05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE, AND I=1.0):

| | | | | | |
|------------------|-----|-----|-----|-----|-----|
| WIND SPEED (MPH) | 180 | 163 | 155 | 148 | 142 |
| EXPOSURE LEVEL | B | C | C | D | D |
| MEAN ROOF HEIGHT | 30' | 15' | 25' | 15' | 25' |

| REV | DESCRIPTION OF REVISIONS | DATE | BY |
|-----|--|----------|-----|
| A | AFFIRMATION TO 2007 FBC, MODEL 655 & PG3 ADDED | 06/11/08 | SKW |
| B | WIND SPEED TABLE & TRACK CONFIGURATIONS | 05/01/12 | RLR |

MAX SIZE 9' x 14'

DESIGN LOADS +51.1 PSF -60.3 PSF

LARGE MISSILE IMPACT RESISTANCE

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

TX

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165 CARRIAGE COURT WINSTON-SALEM, NC. 27105 WWW.AMARR.COM

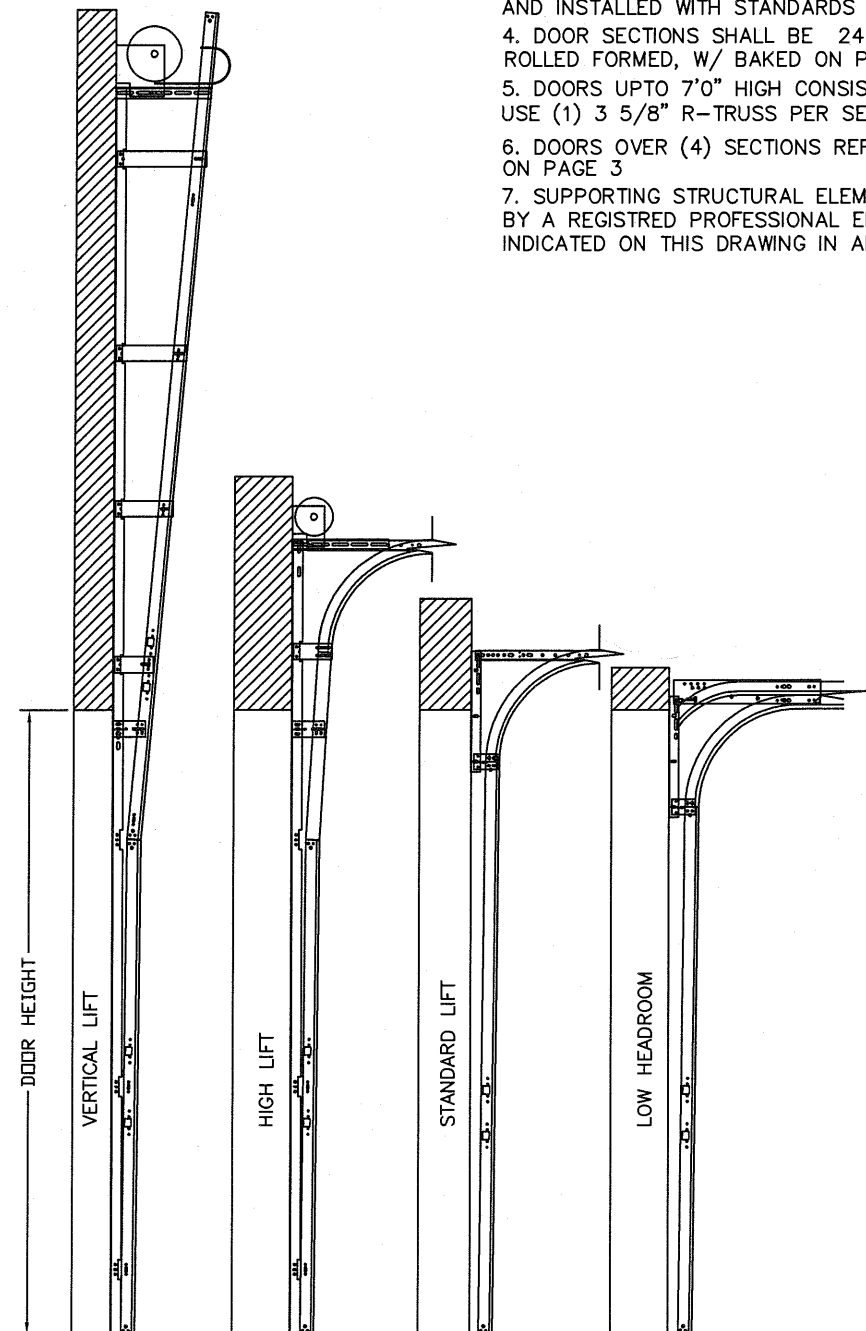
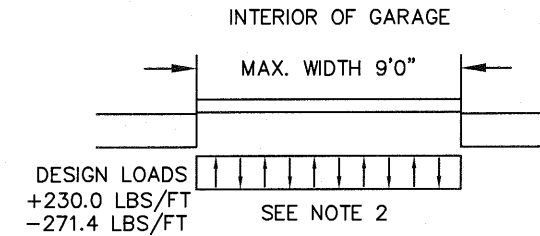
MODEL 950 HERITAGE (24 GA) 1000, 2000
MODEL 655 OAK SUMMIT (24 GA) 1000, 2000
SHORT, LONG, FLUSH, AND OAK SUMMIT PANELS

| | | | |
|------|----------------|---------------|-----------------|
| SIZE | DRAWN BY DLJ | DATE 03/12/03 | DRAWING NUMBER |
| B | CHECKED BY AAE | DATE 03/14/03 | IRC-9509-180-21 |

SHEET 1 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: +230.0 LBS/FT & -271.4 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. (.024) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UPTO 7'0" HIGH CONSIST OF (4) SECTIONS AS SHOWN. USE (1) 3 5/8" R-TRUSS PER SECTION
6. DOORS OVER (4) SECTIONS REFER TO TABLES 1 AND 2 ON PAGE 3
7. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

WOOD JAMB ATTACHMENT TO STRUCTURE

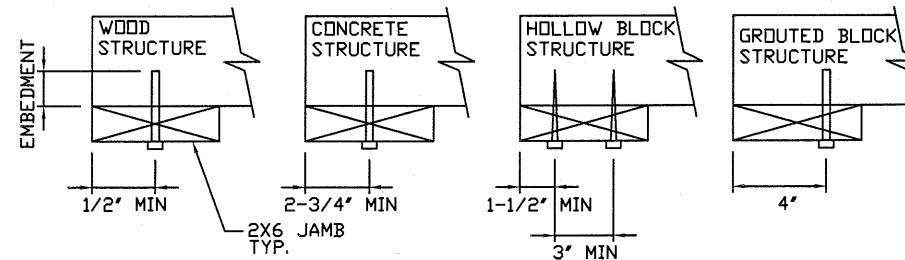
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 20" O.C. (1 1/2" EMBEDMENT)

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



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MODEL 950 HERITAGE (24 GA) 1000, 2000
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SHORT, LONG, FLUSH, AND OAK SUMMIT PANELS

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SHEET 2 OF 3

TABLE 1

| DOOR HEIGHT | STRUT SPACING (BASED ON RECOMMENDED SECTION CONFIGURATION) | | | | | | | | TOP |
|-------------|--|-----|-----|-----|-----|------|------|------|----------|
| | A | B | C | D | E | F | G | H | |
| 6' 6" | 5 1/2" | 16" | 34" | 52" | | | | | 70 1/2" |
| 7' | 5 1/2" | 16" | 37" | 58" | | | | | 76 1/2" |
| 7' 6" | 5 1/2" | 13" | 31" | 49" | 67" | | | | 82 1/2" |
| 8' | 5 1/2" | 16" | 34" | 52" | 70" | | | | 88 1/2" |
| 8' 6" | 5 1/2" | 16" | 37" | 58" | 76" | | | | 94 1/2" |
| 9' | 5 1/2" | 13" | 31" | 49" | 67" | 85" | | | 100 1/2" |
| 9' 6" | 5 1/2" | 16" | 34" | 52" | 70" | 88" | | | 106 1/2" |
| 10' | 5 1/2" | 16" | 37" | 58" | 76" | 94" | | | 112 1/2" |
| 10' 6" | 5 1/2" | 16" | 37" | 58" | 79" | 100" | | | 118 1/2" |
| 11' | 5 1/2" | 16" | 34" | 52" | 70" | 88" | 106" | | 124 1/2" |
| 11' 6" | 5 1/2" | 16" | 37" | 58" | 76" | 94" | 112" | | 130 1/2" |
| 12' | 5 1/2" | 16" | 37" | 58" | 79" | 100" | 118" | | 136 1/2" |
| 12' 6" | 5 1/2" | 16" | 34" | 52" | 70" | 88" | 106" | 124" | 142 1/2" |
| 13' | 5 1/2" | 16" | 37" | 58" | 76" | 94" | 112" | 130" | 148 1/2" |
| 13' 6" | 5 1/2" | 16" | 37" | 58" | 79" | 100" | 118" | 136" | 154 1/2" |
| 14' | 5 1/2" | 16" | 37" | 58" | 79" | 100" | 121" | 142" | 160 1/2" |

TABLE 2

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

TABLE 4

| Section Width (ft) | Panel Type | Center Stile Location (Measured from Left Edge) | | |
|--------------------|------------|---|----------|----------|
| | | 1st (in) | 2st (in) | 3rd (in) |
| 8' 0" | Short | 24.812 | 48.000 | 71.188 |
| 8' 0" | Long | 24.000 | 48.000 | 72.000 |
| 8' 0" | Bead | 24.625 | 48.000 | 71.375 |
| 8' 2" | Short | 24.316 | 49.000 | 73.684 |
| 8' 2" | Long | 24.500 | 49.000 | 73.500 |
| 8' 2" | Bead | 25.125 | 49.000 | 72.875 |
| 8' 4" | Short | 24.580 | 50.000 | 75.420 |
| 8' 4" | Long | 25.000 | 50.000 | 75.000 |
| 8' 4" | Bead | 25.625 | 50.000 | 74.375 |
| 8' 6" | Short | 26.029 | 51.000 | 75.971 |
| 8' 6" | Long | 25.500 | 51.000 | 76.500 |
| 8' 6" | Bead | 26.125 | 51.000 | 75.875 |
| 8' 8" | Short | 26.659 | 52.000 | 77.341 |
| 8' 8" | Long | 26.000 | 52.000 | 78.000 |
| 8' 8" | Bead | 26.625 | 52.000 | 77.375 |
| 8' 10" | Short | 27.034 | 53.000 | 78.966 |
| 8' 10" | Long | 26.500 | 53.000 | 79.500 |
| 8' 10" | Bead | 27.125 | 53.000 | 78.875 |
| 9' 0" | Short | 27.596 | 54.000 | 80.404 |
| 9' 0" | Long | 27.000 | 54.000 | 81.000 |
| 9' 0" | Bead | 27.625 | 54.000 | 80.375 |

TABLE 3

| DOOR HEIGHT | TRACK ATTACHMENT | | | | | | | | | | | | | | SPLICE | |
|-------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|--------|------|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | | |
| 6' 6" | 3" | 14" | 27" | 38" | 46" | 56" | 64" | | | | | | | | | 70" |
| 7' | 3" | 14" | 27" | 38" | 46" | 56" | 68" | | | | | | | | | 76" |
| 7' 6" | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | | | | | | | | 82" |
| 8' | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | | | | | | | | 88" |
| 8' 6" | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | | | | | | | 94" |
| 9' | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | | | | | | | 100" |
| 9' 6" | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 98" | | | | | | 106" |
| 10' | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | | | | | | 112" |
| 10' 6" | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 110" | | | | | 118" |
| 11' | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 110" | | | | | 124" |
| 11' 6" | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 110" | 120" | | | | 130" |
| 12' | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 110" | 122" | | | | 136" |
| 12' 6" | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 109" | 122" | 132" | | | 142" |
| 13' | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 114" | 122" | 134" | | | 148" |
| 13' 6" | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 109" | 122" | 134" | 144" | | 154" |
| 14' | 3" | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 114" | 122" | 134" | 146" | | 160" |

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

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SHEET 3 OF 3