

LARGE MISSILE IMPACT RESISTANT

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330 & E1996, AND DASMA 108 & 115. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-10 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE):

WIND SPEED (MPH)	168	152	145	138	133
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

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 JAMB RECEIVES MAXIMUM DESIGN LOADS OF: +204.8 LBS/FT & -232.8 LBS/FT
3. DOORS AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 25 GA. MIN. (.019") ROLLED FORMED LIGHT COMMERCIAL QUALITY
5. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.
6. AMARR MANUFACTURES AND DISTRIBUTES GARAGE DOORS UNDER MANY BRAND LABELS. PLEASE SEE AMARR-MANUFACTURED PRIVATE LABEL CHART FOR REFERENCE OF EQUIVALENT PRODUCTS FOR WINDLOAD APPROVAL.
7. REFER TO TABLES ON THE PAGE 3 FOR ADDITIONAL DOOR WIDTHS AND THEIR DESIGN PRESSURES
8. PANEL STAMP DOES NOT EFFECT WINDLOAD CAPABILITIES.

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	UPDATED TO FBC 2010	11/30/11	RLR

MAX SIZE 16' WIDTH 14' HEIGHT (DOOR HEIGHT SUBJECT TO WEIGHT LIMITATIONS)

DESIGN LOADS +25.6 PSF -29.1 PSF

TEST LOADS +38.4 PSF -43.7 PSF

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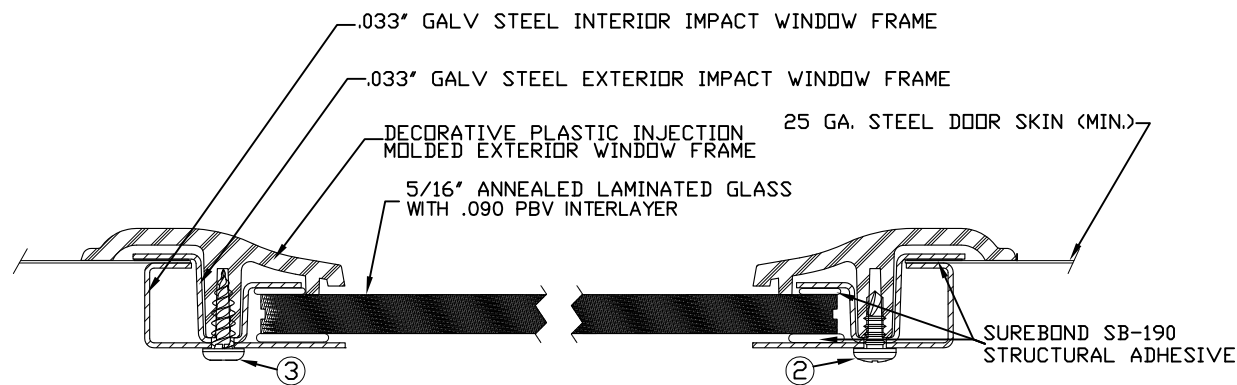
Amarr

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

MODEL #650 OAK SUMMIT SERIES 1000 & 2000
 MODEL #600 STRATFORD SERIES 1000 & 2000
 MODEL #950 HERITAGE SERIES 1000 & 2000

SIZE	DRAWN BY	BHG	DATE	11/13/09	DRAWING NUMBER
B	CHECKED BY	CBT	DATE	11/13/09	IRC-6016-130-15-1

ENGINEER: THOMAS L. SHILMERDINE P.E. LIC. No. 0048579 SHEET 1 OF 3



2. 3/16" X 1/2" SCREW - USED TO FASTEN THE STEEL EXTERIOR IMPACT WINDOW FRAME TO THE STEEL INTERIOR IMPACT WINDOW FRAME.
3. 11/64" X 1/2" SCREW - USED TO FASTEN DECORATIVE PLASTIC MOLDED WINDOW FRAME TO THE ASSEMBLY

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

WOOD JAMB ATTACHMENT TO STRUCTURE

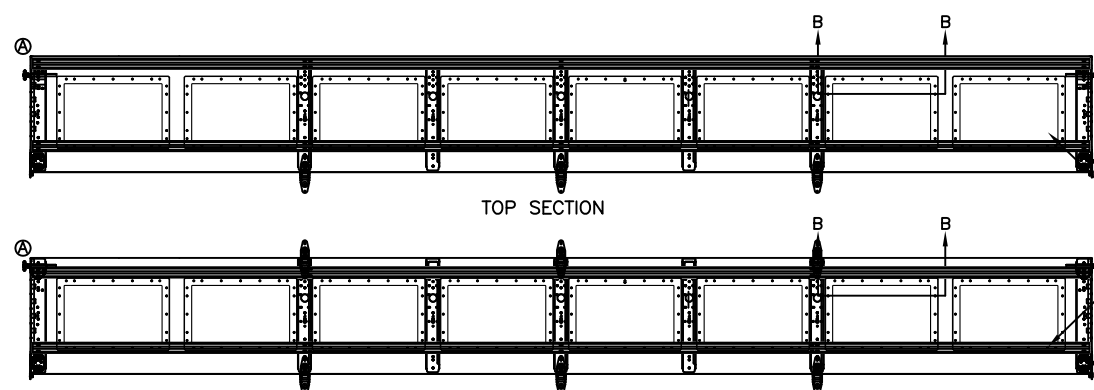
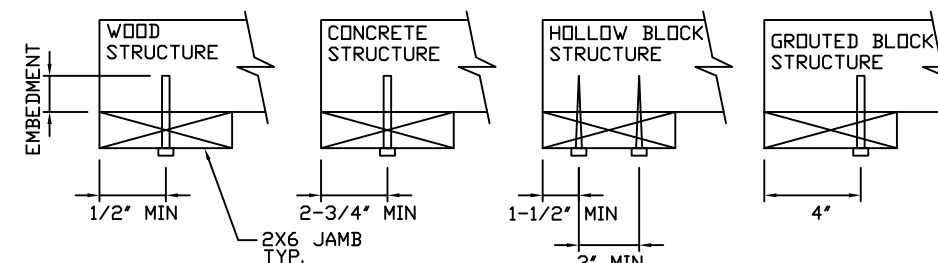
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
 5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 24" O.C. (1 1/2" EMBEDMENT)

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 20" 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 16" 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 16" O.C. (1 1/4" EMBEDMENT)

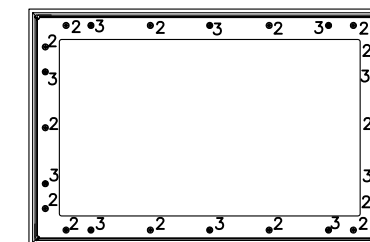
2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)
 HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 24" O.C. (1 1/4" EMBEDMENT) (OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
 *PREPARATION OF WOOD JAMBS BY OTHERS

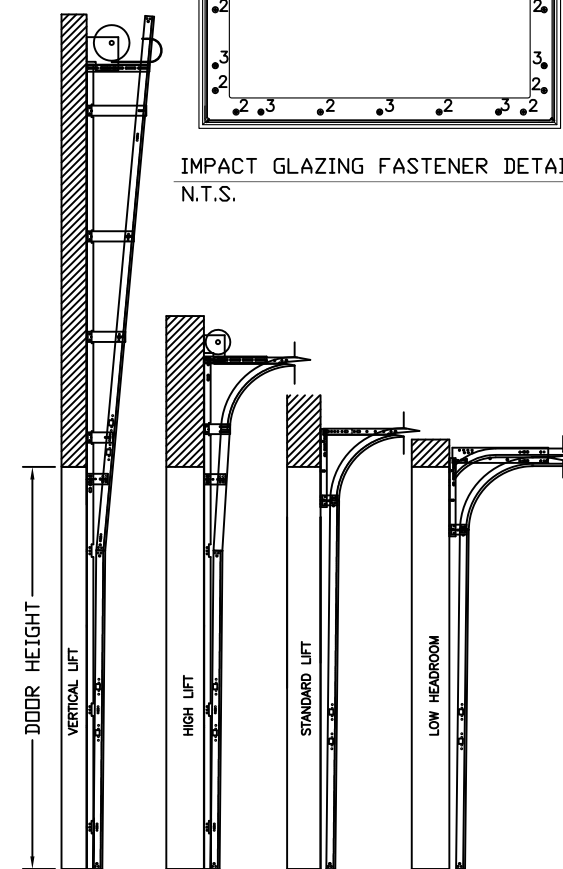


OPTIONAL SHORT PANEL GLAZED SECTION STRUT AND STILE LAYOUT

3" 20GA. STRUT LOCATED AT THE TOP AND BOTTOM OF GLAZED SECTION ATTACHED W/ (2) 1/4" X 3/4" HEX HEAD SCREWS AT END AND CENTER STILES



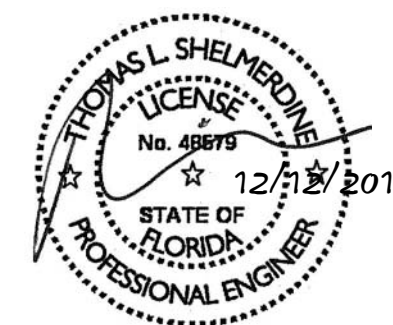
IMPACT GLAZING FASTENER DETAIL
N.T.S.



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY
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MAX SIZE
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14' HEIGHT
(DOOR HEIGHT SUBJECT TO WEIGHT LIMITATIONS)
 DESIGN LOADS
+25.6 PSF
-29.1 PSF
 TEST LOADS
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ENGINEER: THOMAS L. SHELMEARDINE P.E. LIC. No. 0048579 SHEET 2 OF 3

TABLE 1

Table with columns: DOOR HEIGHT, STRUT SPACING (BASED ON RECOMMENDED SECTION CONFIGURATION), TOP. Rows include door heights from 6' 6" to 14' 0" and strut spacings A through T.

TABLE 2

Table with columns: DOOR HEIGHT, SECTION HEIGHTS (#2 through #8). Rows include door heights from 14' 0" to 6' 6" and section heights.

TABLE 3

Table with columns: DOOR HEIGHT, TRACK ATTACHMENT (A through H), SPLICE (S). Rows include door heights from 6' 6" to 14' 0" and track attachment dimensions.

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

TABLE 4

Table with columns: Section, Panel Type, Center Stile Locations (Measured from Left Edge) (1st through 5th). Rows include section and panel types from 10' 0" to 16' 0" and stile locations.

TABLE 5

Table with columns: Section, Panel Type, Max Design Loads Allowed (Positive, Negative). Rows include section and panel types from 10' 0" to 16' 0" and design loads.

Revision table with columns: REV, DESCRIPTION OF REVISIONS, DATE, BY. Includes a professional engineer seal for Thomas L. Shelmerdine, State of Florida, License No. 48679, dated 12/12/2011. Also includes Amarr logo and product information for Model #650, #600, and #950 series.