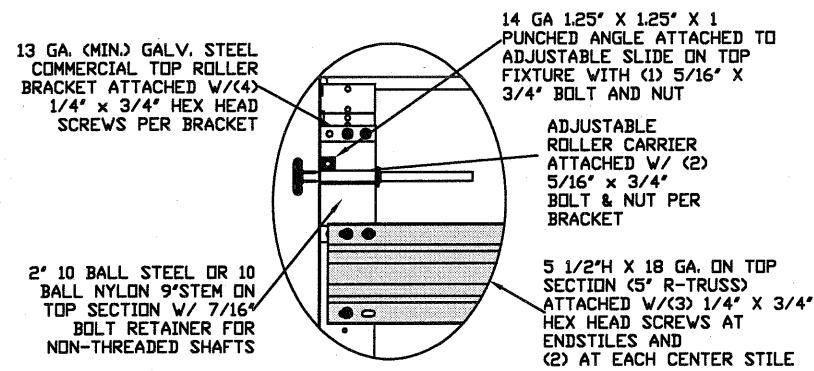
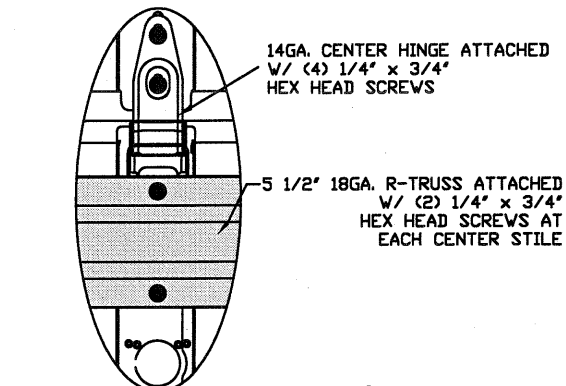
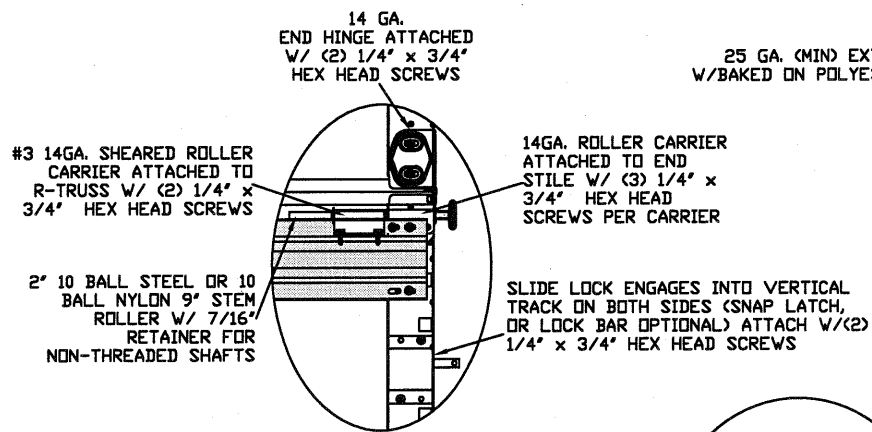




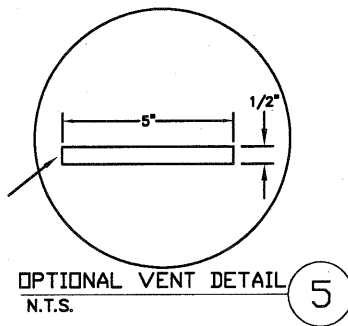
TYPICAL TOP FIXTURES
N.T.S.



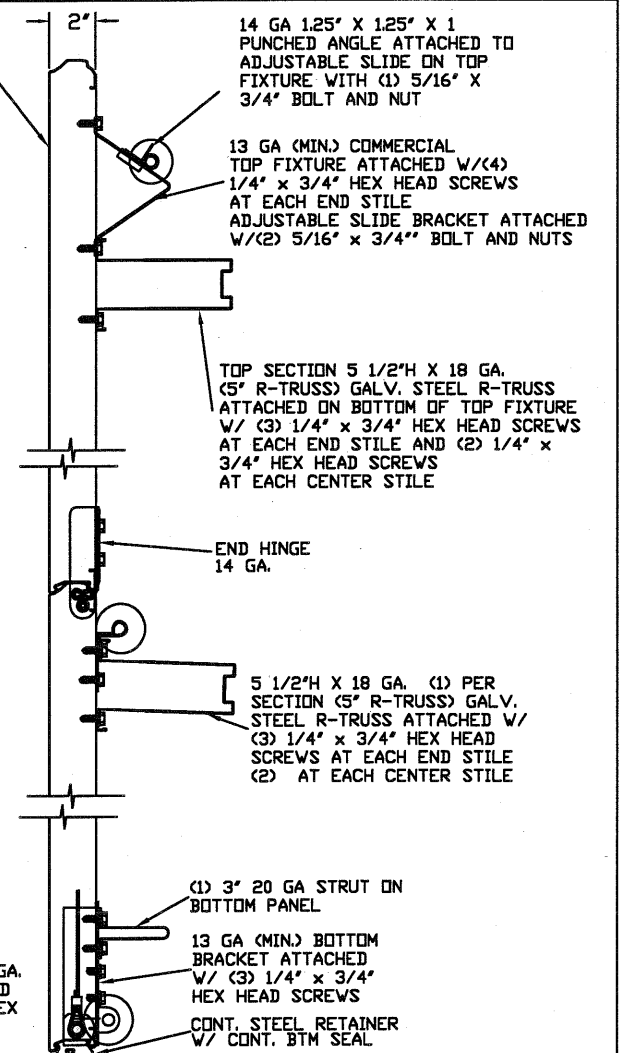
TYPICAL CENTER HINGE
N.T.S.



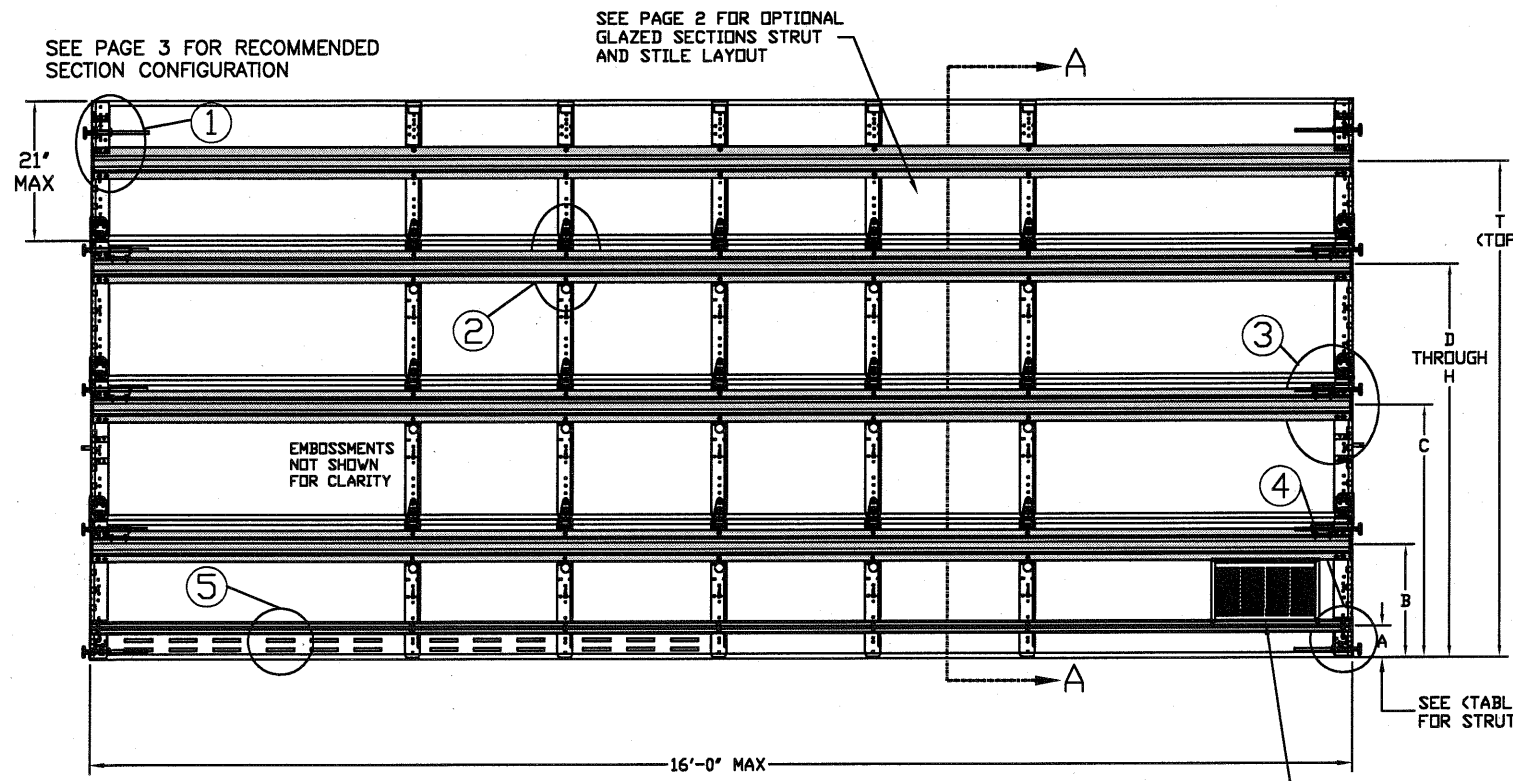
TYPICAL END HINGE
N.T.S.



OPTIONAL VENT DETAIL
N.T.S.



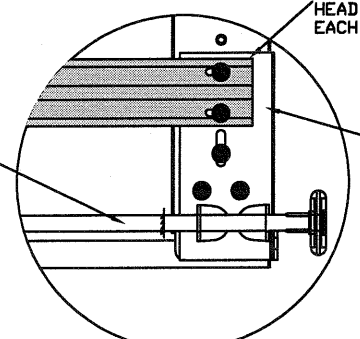
SECTION A-A (SIDE VIEW)
N.T.S.



INSIDE ELEVATION
N.T.S.

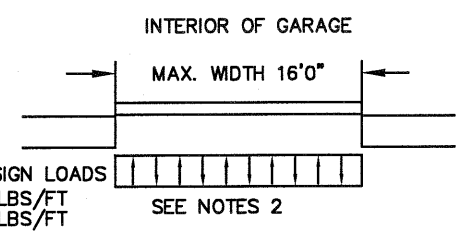
LARGE MISSILE
IMPACT RESISTANT

2\"/>



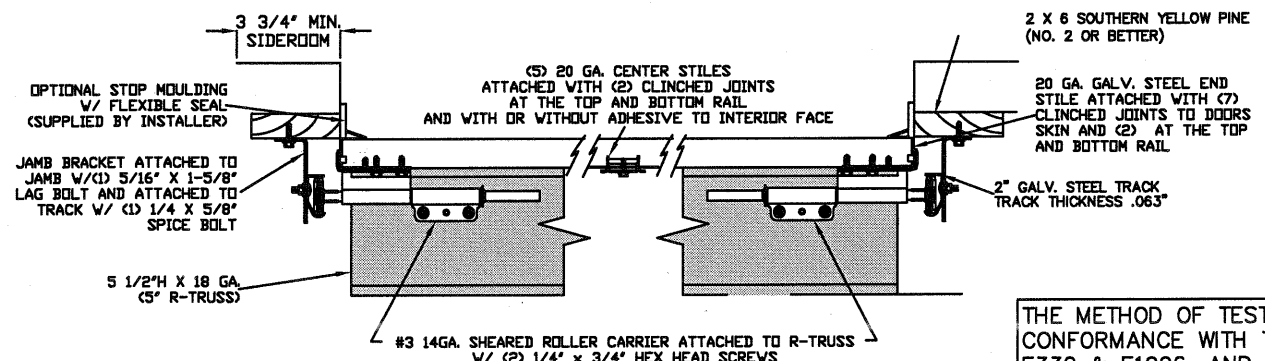
TYPICAL BOTTOM BRACKET
N.T.S.

BOTTOM BRACKET 13 GA. (MIN.) THICK ATTACHED W/ (3) 1/4\"/>



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 JAMB RECEIVES MAXIMUM DESIGN LOADS OF: +296 LBS/FT & -328 LBS/FT
3. DOORS AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASHA.
4. DOOR SECTIONS SHALL BE 25 GA. MIN. (.016\"/>



TRACK MOUNTING DETAIL
N.T.S.

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330 & E1996, AND DASHA 108 & 115. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-16 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE):

WIND SPEED (MPH)	199	181	172	164	157
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED GLAZING NOTE	12/19/12	RLR

MAX SIZE
WIDTH 16'
HEIGHT 14'

DESIGN LOADS
+37.0 PSF
-41.0 PSF

TEST LOADS
+55.5 PSF
-61.5 PSF

LARGE
MISSILE
IMPACT
RESISTANT

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

THOMAS L. SHELMERDINE
LICENSE
No. 48579
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
FL

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

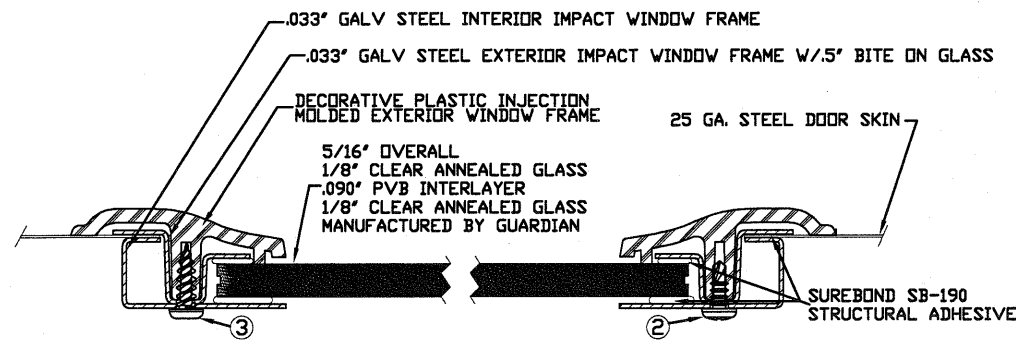
Amarr

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

SIZE B	DRAWN BY BHG	DATE 11/20/09	DRAWING NUMBER IRC-6016-155-26-1
	CHECKED BY DLJ	DATE 11/20/09	

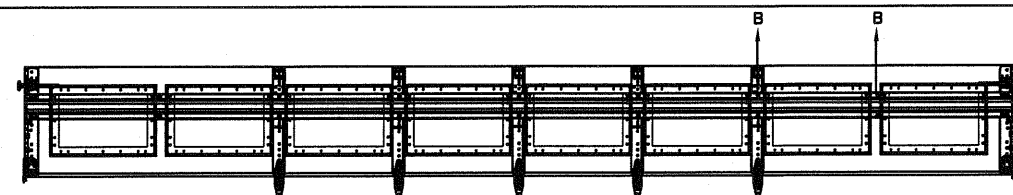
ENTREMATIC
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

SHEET 1 OF 3

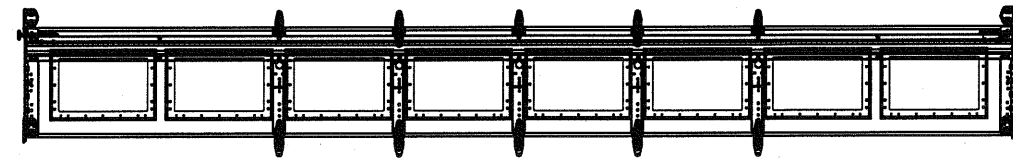


2. 3/16" X 1/2" SCREW - USED TO FASTEN THE STEEL EXTERIOR IMPACT WINDOW FRAME TO THE STEEL INTERIOR IMPACT WINDOW FRAME.
3. 11/64" X 1/2" SCREW - USED TO FASTEN DECORATIVE PLASTIC MOLDED WINDOW FRAME TO THE ASSEMBLY

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



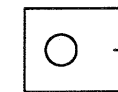
TOP SECTION



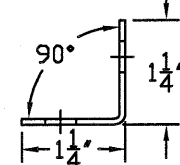
INTERMEDIATE SECTION

OPTIONAL SHORT PANEL GLAZED SECTION STRUT AND STILE LAYOUT

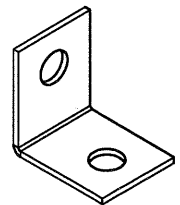
TOP FIXTURE ADDER PIECE



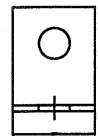
TOP VIEW



END VIEW



ISOMETRIC VIEW

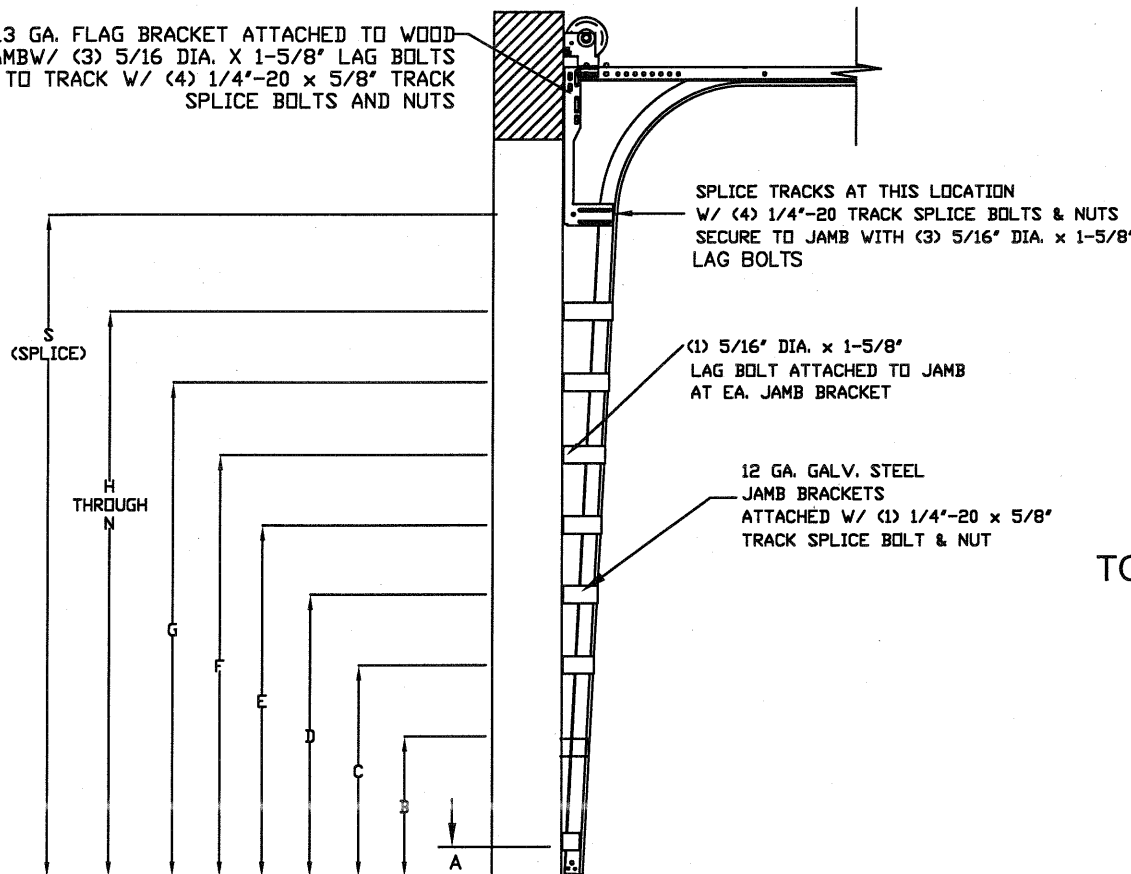


SIDE VIEW

NOTES:

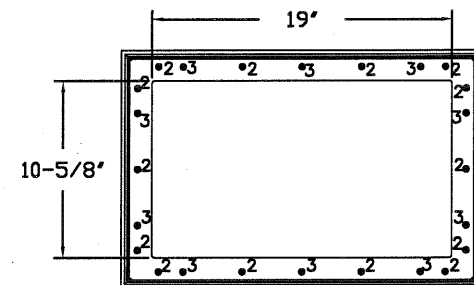
1. ZINC COATING
2. MATERIAL YIELD STRENGTH: 35-49 KSI.
3. MATERIAL HARDNESS: 50-60 ROCKWELL B.
4. 1.25" X 1.25" X 14 GA PUNCHED ANGLE MAY BE USED

13 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



SEE (TABLE 1) FOR JAMB BRACKET SPACING

STANDARD TRACK CONFIGURATION FOR 6'6" UP TO 14' TALL DOORS
N.T.S.



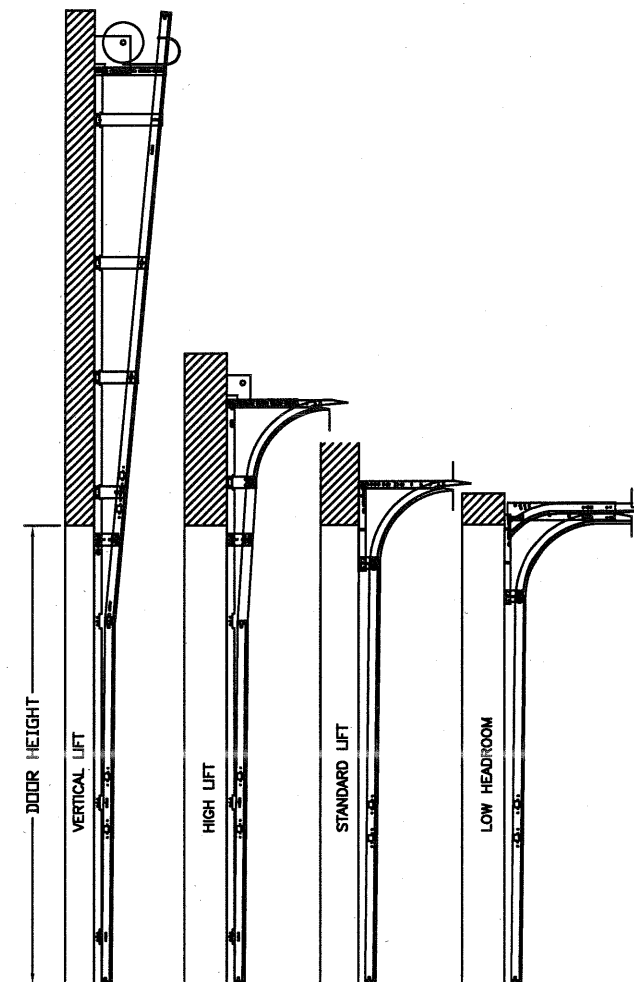
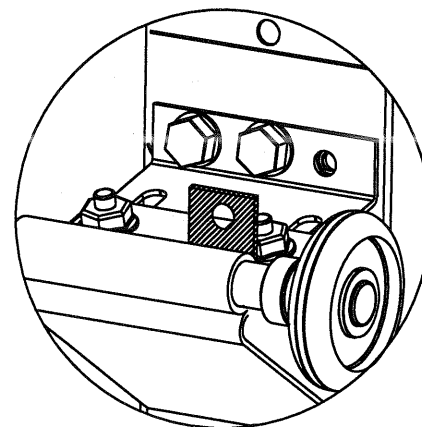
IMPACT GLAZING FASTENER DETAIL
N.T.S.

SPLICE TRACKS AT THIS LOCATION W/ (4) 1/4"-20 TRACK SPLICE BOLTS & NUTS SECURE TO JAMB WITH (3) 5/16" DIA. X 1-5/8" LAG BOLTS

(1) 5/16" DIA. X 1-5/8" LAG BOLT ATTACHED TO JAMB AT EA. JAMB BRACKET

12 GA. GALV. STEEL JAMB BRACKETS ATTACHED W/ (1) 1/4"-20 X 5/8" TRACK SPLICE BOLT & NUT

TOP FIXTURE REINFORCEMENT ILLUSTRATION



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED GLAZING NOTE	12/19/12	RLR

MAX SIZE WIDTH 16' HEIGHT 14' DESIGN LOADS +37.0 PSF -41.0 PSF TEST LOADS +55.5 PSF -61.5 PSF LARGE MISSILE IMPACT RESISTANT	Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412) FL	THOMAS L. SHELMERDINE LICENSE No. 48579 STATE OF FLORIDA PROFESSIONAL ENGINEER	dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410
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MODEL #650 AMARR OAK SUMMIT SERIES 1000 & 2000 MODEL #600 AMARR STRATFORD SERIES 1000 & 2000 MODEL #950 AMARR HERITAGE SERIES 1000 & 2000			
SIZE	DRAWN BY	BHG	DATE 11/20/09
B	CHECKED BY	DLJ	DATE 11/20/09
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IRC-6016-155-26-1 SHEET 2 OF 3

TABLE 1

DOOR HEIGHT	TRACK ATTACHMENT								SPLICE S
	A	B	C	D	E	F	G	H	
6' 6"	3.5"	21"	39"	57"					70"
7'	3.5"	21"	42"	63"					76"
7' 6"	3.5"	18"	36"	54"	72"				82"
8'	3.5"	21"	39"	57"	75"				88"
8' 6"	3.5"	21"	42"	63"	81"				94"
9'	3.5"	18"	36"	54"	72"	90"			100"
9' 6"	3.5"	21"	39"	57"	75"	93"			106"
10'	3.5"	21"	42"	63"	81"	99"			112"
10' 6"	3.5"	21"	42"	63"	84"	105"			118"
11'	3.5"	21"	39"	57"	75"	93"	111"		124"
11' 6"	3.5"	21"	42"	63"	81"	99"	117"		130"
12'	3.5"	21"	42"	63"	84"	105"	123"		136"
12' 6"	3.5"	21"	39"	57"	75"	93"	111"	129"	142"
13'	3.5"	21"	42"	63"	81"	99"	117"	135"	148"
13' 6"	3.5"	21"	42"	63"	84"	105"	123"	141"	154"
14'	3.5"	21"	42"	63"	84"	105"	126"	147"	160"

ALL TRACK ATTACHMENT SPACING +/-1" WITH SYP NO. 2 OR BETTER ONLY

TABLE 3

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

TABLE 2

Section Width (ft)	Panel Type	Center Stile Locations (Measured from Left Edge)					Max Design Loads Allowed	
		1st (in)	2st (in)	3rd (in)	4th (in)	5th (in)	Positive (PSF)	Negative (PSF)
10' 0"	Short	48.41	71.59				37.6	41.6
10' 0"	Long	30.00	60.00	90.00			44.9	49.7
10' 0"	Oak Summit	30.63	60.00	89.38			44.9	49.7
12' 0"	Short	48.81	72.00	95.19			37.4	41.4
12' 0"	Long	49.63	72.00	94.38			37.4	41.4
12' 0"	Oak Summit	48.31	72.00	95.69			37.4	41.4
12' 2"	Short	49.64	73.00	96.36			36.9	40.8
12' 2"	Long	50.08	73.00	95.92			36.9	40.8
12' 2"	Oak Summit	49.06	73.00	98.94			36.9	40.8
12' 4"	Short	50.64	74.00	97.36			36.4	40.3
12' 4"	Long	51.08	74.00	96.92			36.4	40.3
12' 4"	Oak Summit	49.81	74.00	98.19			36.4	40.3
12' 6"	Short	50.67	75.00	99.33			35.9	39.8
12' 6"	Long	51.17	75.00	98.83			35.9	39.8
12' 6"	Oak Summit	50.56	75.00	99.44			35.9	39.8
12' 8"	Short	51.67	76.00	100.33			35.4	39.2
12' 8"	Long	52.10	76.00	99.90			35.4	39.2
12' 8"	Oak Summit	51.31	76.00	100.69			35.4	39.2
12' 10"	Short	52.25	77.00	101.75			34.9	38.7
12' 10"	Long	53.10	77.00	100.90			34.9	38.7
12' 10"	Oak Summit	52.06	77.00	101.94			34.9	38.7
13' 0"	Short	53.00	78.00	103.00			34.5	38.2
13' 0"	Long	54.10	78.00	101.90			34.5	38.2
13' 0"	Oak Summit	52.81	78.00	103.19			34.5	38.2
13' 2"	Short	54.00	79.00	104.00			34.1	37.7
13' 2"	Long	55.10	79.00	102.90			34.1	37.7
13' 2"	Oak Summit	53.56	79.00	104.44			34.1	37.7
13' 4"	Short	54.40	80.00	105.60			33.6	37.3
13' 4"	Long	54.90	80.00	105.10			33.6	37.3
13' 4"	Oak Summit	54.31	80.00	105.69			33.6	37.3
13' 6"	Short	55.40	81.00	106.60			33.2	36.8
13' 6"	Long	55.90	81.00	106.10			33.2	36.8
13' 6"	Oak Summit	55.06	81.00	106.94			33.2	36.8
13' 8"	Short	56.40	82.00	107.60			32.8	36.4
13' 8"	Long	56.63	82.00	107.38			32.8	36.4
13' 8"	Oak Summit	55.81	82.00	108.19			32.8	36.4
13' 10"	Short	57.16	83.00	108.71			32.4	35.9
13' 10"	Long	57.17	83.00	108.83			32.4	35.9
13' 10"	Oak Summit	56.56	83.00	109.44			32.4	35.9
14' 0"	Short	57.76	84.00	110.11			32.0	35.5
14' 0"	Long	58.63	84.00	109.38			32.0	35.5
14' 0"	Oak Summit	57.31	84.00	110.69			32.0	35.5
14' 2"	Short	58.85	85.00	111.41			31.6	35.1
14' 2"	Long	59.17	85.00	110.83			31.6	35.1
14' 2"	Oak Summit	58.08	85.00	111.94			31.6	35.1
14' 4"	Short	59.16	86.00	112.71			31.3	34.7
14' 4"	Long	60.17	86.00	111.83			31.3	34.7
14' 4"	Oak Summit	58.81	86.00	113.19			31.3	34.7
14' 6"	Short	59.86	87.00	114.01			30.9	34.3
14' 6"	Long	61.17	87.00	112.83			30.9	34.3
14' 6"	Oak Summit	59.56	87.00	114.44			30.9	34.3
14' 8"	Short	60.56	88.00	115.31			30.6	33.9
14' 8"	Long	64.81	86.41	88.00	109.59	131.19	40.3	44.7
14' 8"	Oak Summit	60.31	88.00	115.69			30.6	33.9
14' 10"	Short	61.26	89.00	116.61			30.2	33.5
14' 10"	Long	45.60	67.30	89.00	110.70	132.40	39.9	44.2
14' 10"	Oak Summit	61.06	89.00	116.94			30.2	33.5
15' 0"	Short	61.94	75.97	90.00	103.97	117.94	35.4	39.2
15' 0"	Long	46.60	68.30	90.00	111.70	133.40	39.4	43.7
15' 0"	Oak Summit	33.63	61.81	90.00	118.19	146.38	39.4	43.7
15' 2"	Short	62.66	76.83	91.00	105.11	119.21	35.0	38.8
15' 2"	Long	47.60	69.30	91.00	112.70	134.40	38.8	43.0
15' 2"	Oak Summit	34.13	62.56	91.00	119.44	147.88	39.0	43.2
15' 4"	Short	53.60	79.20	104.80	130.40		34.0	37.6
15' 4"	Long	47.25	69.63	92.00	114.38	136.75	38.6	42.7
15' 4"	Oak Summit	34.63	63.31	92.00	120.69	149.38	38.6	42.7
15' 6"	Short	46.62	69.81	93.00	116.19	139.38	38.1	42.3
15' 6"	Long	47.60	70.30	93.00	115.70	138.40	38.1	42.3
15' 6"	Oak Summit	47.42	70.21	93.00	115.79	138.58	38.1	42.3
15' 8"	Short	47.62	70.81	94.00	117.19	140.38	37.7	41.8
15' 8"	Long	48.60	71.30	94.00	116.70	139.40	37.7	41.8
15' 8"	Oak Summit	48.02	71.01	94.00	116.99	139.98	37.7	41.8
15' 10"	Short	48.62	71.81	95.00	118.19	141.38	37.3	41.4
15' 10"	Long	49.17	72.08	95.00	117.92	140.83	37.3	41.4
15' 10"	Oak Summit	48.62	71.81	95.00	118.19	141.38	37.3	41.4
16' 0"	Short	49.62	72.81	96.00	119.19	142.38	37	41
16' 0"	Long	50.60	73.30	96.00	118.70	141.40	36.7	40.7
16' 0"	Oak Summit	48.42	72.21	96.00	119.79	143.58	37	41

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 16" 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 14" 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 16" 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

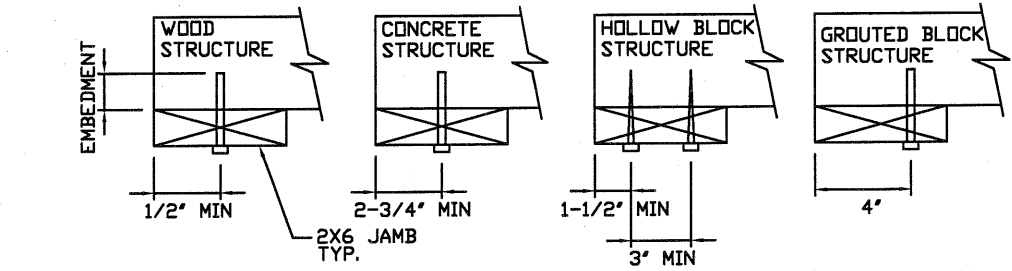


TABLE 4

DOOR HEIGHT	STRUT SPACING (BASED ON RECOMMENDED SECTION CONFIGURATION)								TOP T
	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"

* ADDITIONAL STRUTS MAY BE ADDED TO DOOR WHEN GLAZED FOR
COUNTERBALANCE PURPOSES

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED GLAZING NOTE	12/19/12	RLR

MAX. SIZE
WIDTH 16"
HEIGHT 14"

DESIGN LOADS
+37.0 PSF
-41.0 PSF
TEST LOADS
+55.5 PSF
-61.5 PSF
LARGE
MISSILE
IMPACT
RESISTANT

FL

MODEL #850 AMARR OAK SUMMIT SERIES 1000 & 2000
MODEL #600 AMARR STRATFORD SERIES 1000 & 2000
MODEL #950 AMARR HERITAGE SERIES 1000 & 2000

SIZE	DRAWN BY	BHG	DATE	11/20/09	DRAWING NUMBER
B	CHECKED BY	DLJ	DATE	11/20/09	IRC-6016-155-26-1

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

SHEET 3 OF 3

dba Structural Solutions of North Carolina, Inc.
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