

12 GA. GALV. COMMERCIAL TOP ROLLER BRACKET ATTACHED W/(3) 1/4" X 3/4" HEX HEAD SCREWS

3" X 20 GA. STRUT ATTACHED W/(2) 1/4" X 3/4" HEX HEAD SCREWS
ADJUSTABLE SLIDE BRACKET ATTACHED W/(2) 5/16" X 3/4" CARRIAGE BOLTS AND NUTS

2" 10-BALL STEEL 5"(MIN) STEM ROLLER W/ 7/16" RETAINER FOR NON-THREADED SHAFTS

TYPICAL TOP FIXTURES
N.T.S.

1

3" X 20 GA. STRUT ATTACHED W/(2) 1/4" X 3/4" HEX HEAD SCREWS

14GA. DURASAFE CENTER HINGE ATTACHED W/(4) 1/4" X 3/4" HEX HEAD SCREWS

TYPICAL DURASAFE CENTER HINGE
N.T.S.

2

3" X 20 GA. STRUT ATTACHED W/(2) 1/4" X 3/4" HEX HEAD SCREWS

3" X 20 GA. STRUT ATTACHED W/(2) 1/4" X 3/4" HEX HEAD SCREWS

TYPICAL BOTTOM BRACKET
N.T.S.

5

13 GA. BOTTOM BRACKET ATTACHED W/(4) 1/4" X 3/4" HEX HEAD SCREWS

2" 10-BALL STEEL 5"(MIN) STEM ROLLER W/ 7/16" RETAINER FOR NON-THREADED SHAFTS

3" X 20GA. STRUT ATTACHED W/(2) 1/4" X 3/4" HEX HEAD SCREWS

3" X 20GA. STRUT ATTACHED W/(3) 1/4" X 3/4" HEX HEAD SCREWS

TYPICAL DURASAFE END HINGE
N.T.S.

4

14GA. DURASAFE END HINGE ATTACHED W/(2) 1/4" X 3/4" HEX HEAD SCREWS

2" 10-BALL STEEL 5"(MIN) STEM ROLLER W/ 7/16" RETAINER FOR NON-THREADED SHAFTS

14GA. DURASAFE ROLLER CARRIER ATTACHED W/(3) 1/4" X 3/4" HEX HEAD SCREWS

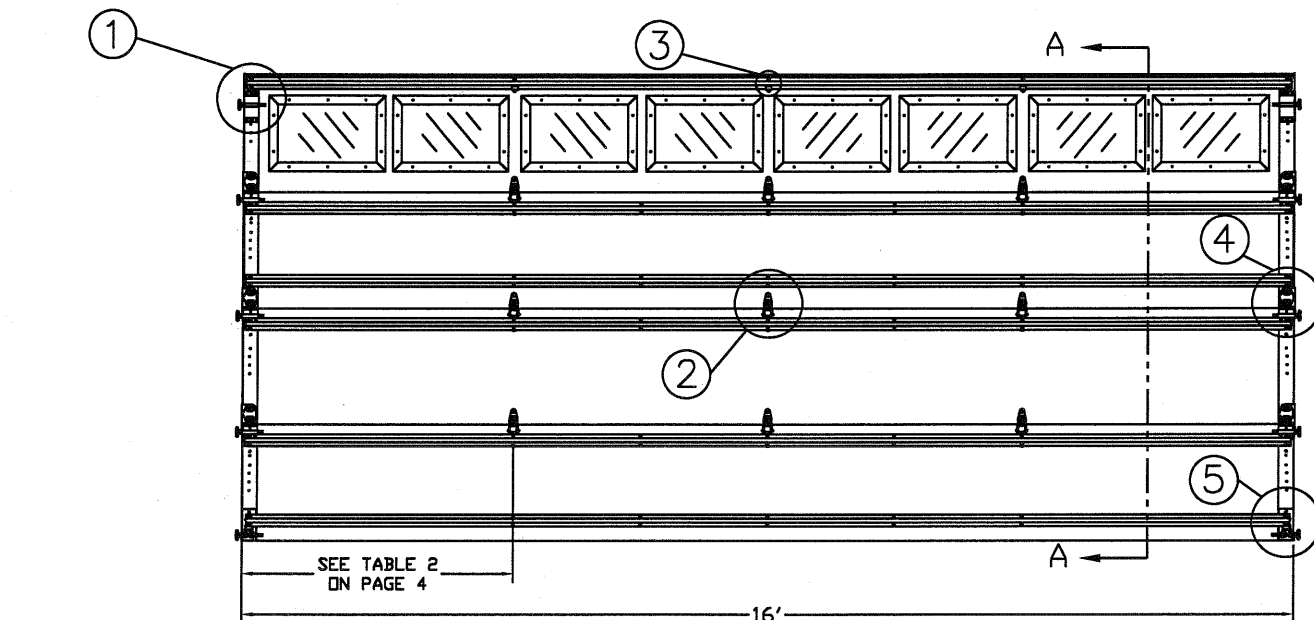
3" X 20GA. STRUT

(2) 1/4" X 3/4" HEX HEAD SCREWS

STRUT CLIP

TYPICAL TOP STRUT ATTACHMENT
N.T.S.

3



INSIDE ELEVATION
N.T.S.

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

(1) 2-5/8" X 3-1/2" 18GA STEEL BACKER PLATE GLUED TO INSIDE EDGE AT TOP AND BOTTOM OF EACH STILE LOCATION

STOP MOULDING W/ FLEXIBLE SEAL (SUPPLIED BY INSTALLER)

2 X 6 SYP OR SPF (NO. 2 OR BETTER)

20 GA. GALV. STEEL END STILE

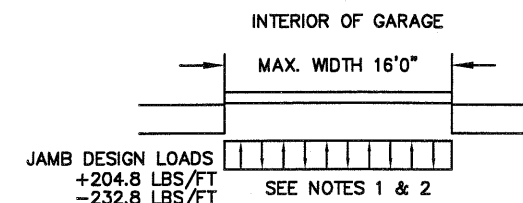
7/16" DIA. BOLT RETAINER (1) PER ROLLER

2" GALV. STEEL TRACK TRACK THICKNESS .063"

TRACK MOUNTING DETAIL
N.T.S.

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: +204.8 LBS/FT & -232.8 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. (.0216) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.



REV	DESCRIPTION OF REVISIONS	DATE	BY

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

DESIGN LOADS
+25.6 PSF
-29.1 PSF

TEST LOADS
(1.5 X DESIGN LOADS)
+38.4 PSF
-43.6 PSF

Thomas L. Shelmerdine, PE (FL PE #00048579)
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

Amarr

MODEL #1200 AMARR HERITAGE 3000
MODEL #1200 AMARR OAK SUMMIT 3000
SHORT, LONG, FLUSH & OAK SUMMIT PANELS

SIZE	DRAWN BY	RLR	DATE	07/22/14	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	07/22/14	IRC-1216-130-15

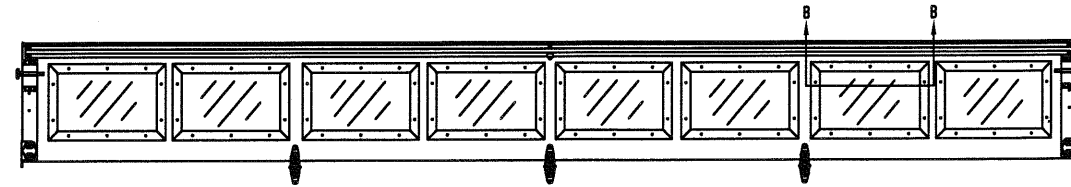
ENTREMATIC
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

SHEET 1 OF 4

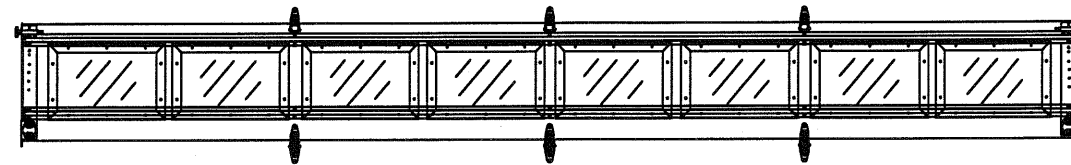
THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330 AND DASMA 108. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-16 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE):

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

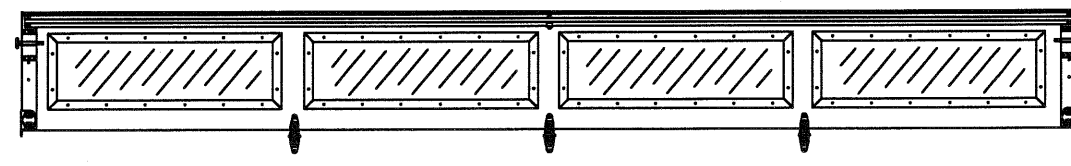
OPTIONAL SHORT AND LONG PANEL GLAZING LAYOUTS



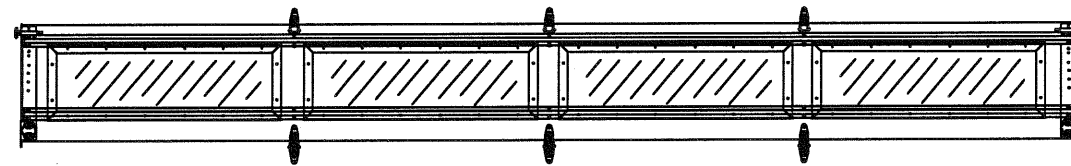
TOP SECTION



INTERMEDIATE SECTION



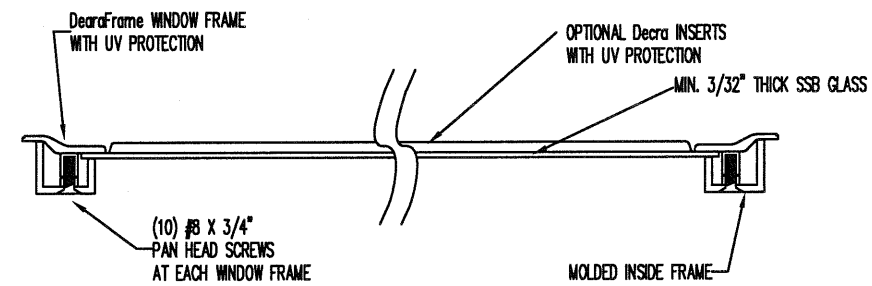
TOP SECTION



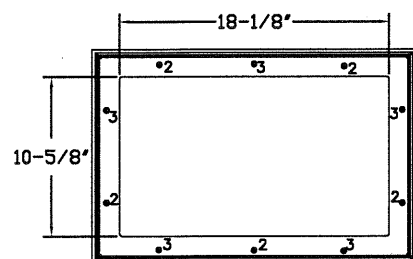
INTERMEDIATE SECTION

GLAZING OPTION CROSS SECTION

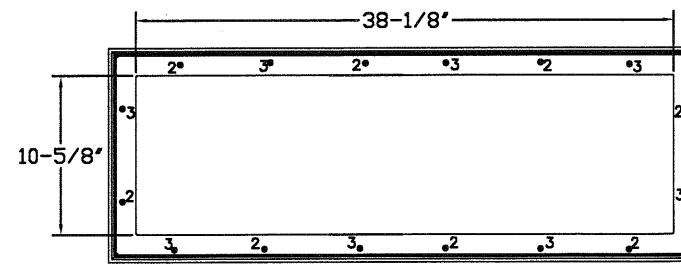
GLAZING NOT AVAILABLE IN WIND-BORNE DEBRIS REGION



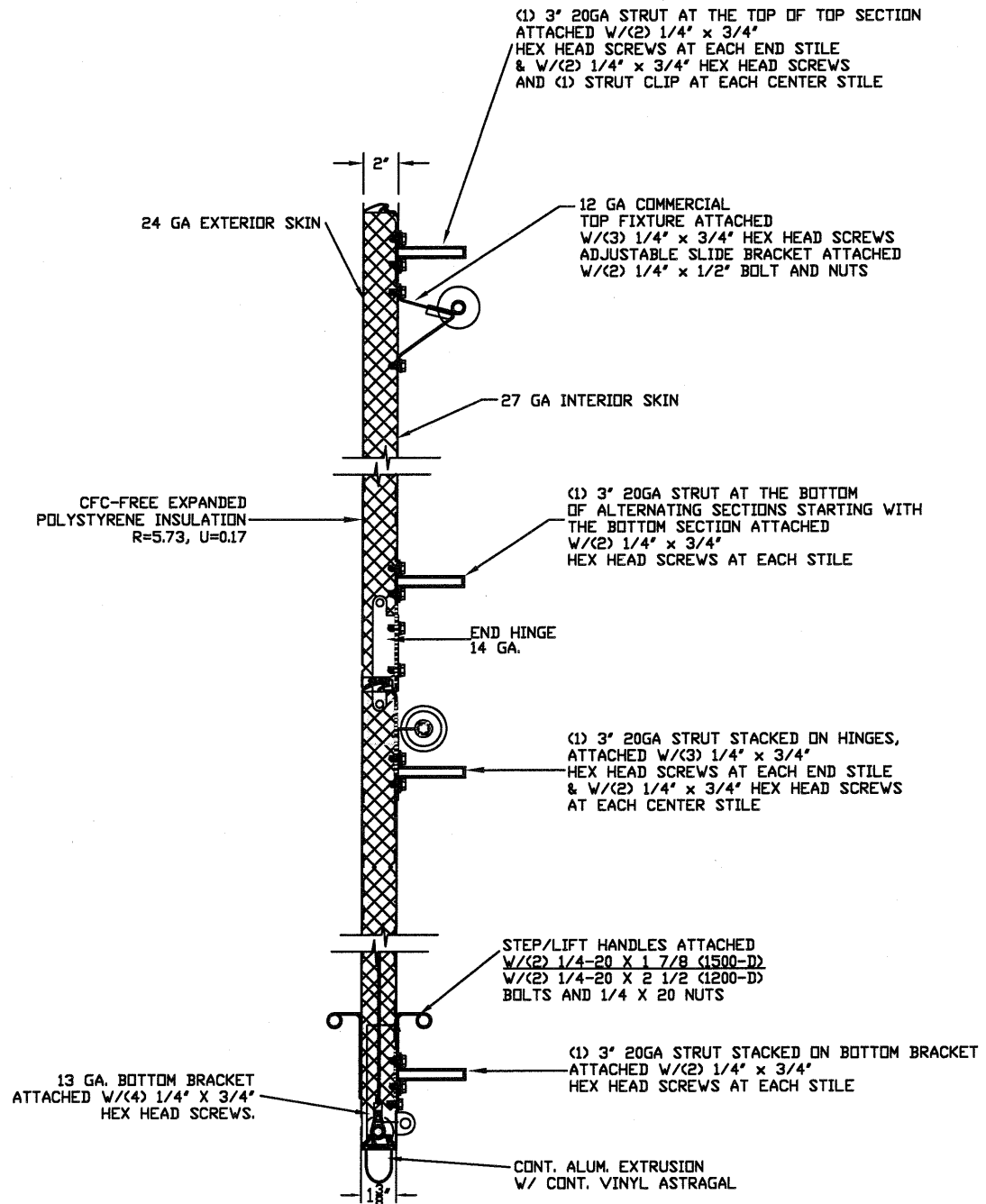
SECTION B-B



SHORT PANEL GLAZING FASTENER DETAIL
N.T.S.



LONG PANEL GLAZING FASTENER DETAIL
N.T.S.



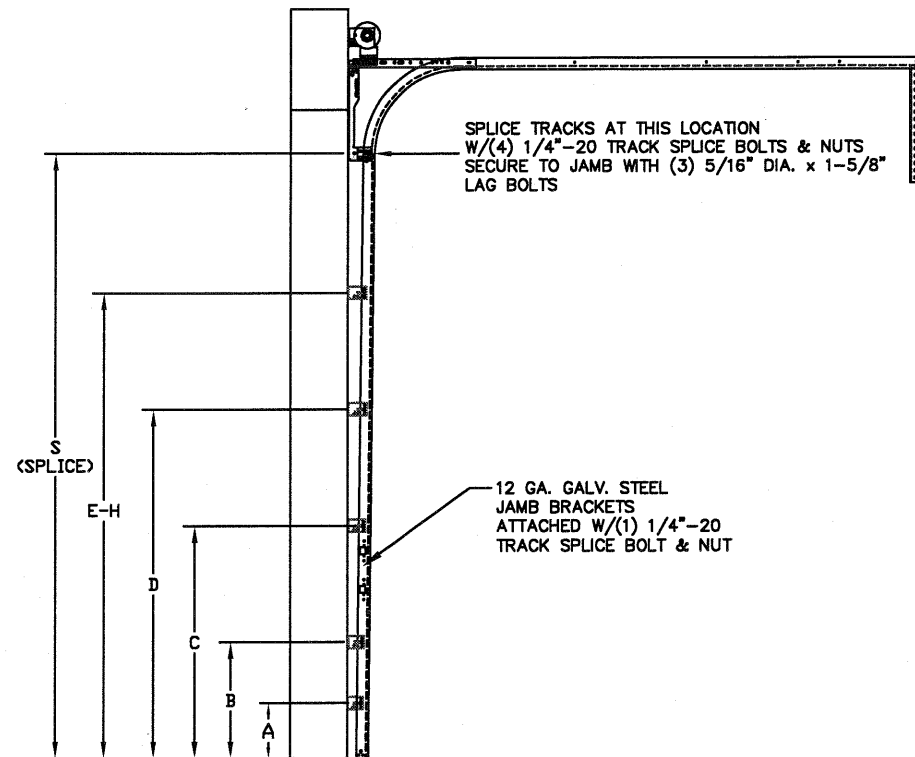
SECTION A-A (SIDE VIEW)
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 16' WIDTH 14' HEIGHT (DOOR HEIGHT SUBJECT TO WEIGHT LIMITATIONS) DESIGN LOADS +25.6 PSF -29.1 PSF TEST LOADS (1.5 x DESIGN LOADS) +38.4 PSF -43.6 PSF	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 #1200 AMARR HERITAGE 3000 MODEL #1200 AMARR OAK SUMMIT 3000 SHORT, LONG, FLUSH & OAK SUMMIT PANELS			
SIZE B	DRAWN BY	RLR	DATE 07/22/14
	CHECKED BY	RLR	DATE 07/22/14
			DRAWING NUMBER IRC-1216-130-15

ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105	SHEET 2 OF 4
---	---------------------



TRACK CONFIGURATION FOR 6'6" UP TO 14' TALL DOORS (SEE TABLE 1)
N.T.S.

TABLE 1

DOOR HEIGHT	TRACK ATTACHMENT								SPlice
	A	B	C	D	E	F	G	H	
6' 6"	3.5"	21"	42"	63"					70"
7'	3.5"	21"	42"	63"					76"
7' 6"	3.5"	21"	42"	63"					82"
8'	3.5"	21"	42"	63"					88"
8' 6"	3.5"	21"	42"	63"	84"				94"
9'	3.5"	21"	42"	63"	84"				100"
9' 6"	3.5"	21"	42"	63"	84"				106"
10'	3.5"	21"	42"	63"	84"	105"			112"
10' 6"	3.5"	21"	42"	63"	84"	105"			118"
11'	3.5"	21"	42"	63"	84"	105"			124"
11' 6"	3.5"	21"	42"	63"	84"	105"			130"
12'	3.5"	21"	42"	63"	84"	105"	126"		136"
12' 6"	3.5"	21"	42"	63"	84"	105"	126"		142"
13'	3.5"	21"	42"	63"	84"	105"	126"		148"
13' 6"	3.5"	21"	42"	63"	84"	105"	126"	147"	154"
14'	3.5"	21"	42"	63"	84"	105"	126"	147"	160"

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

WOOD JAMB ATTACHMENT TO STRUCTURE

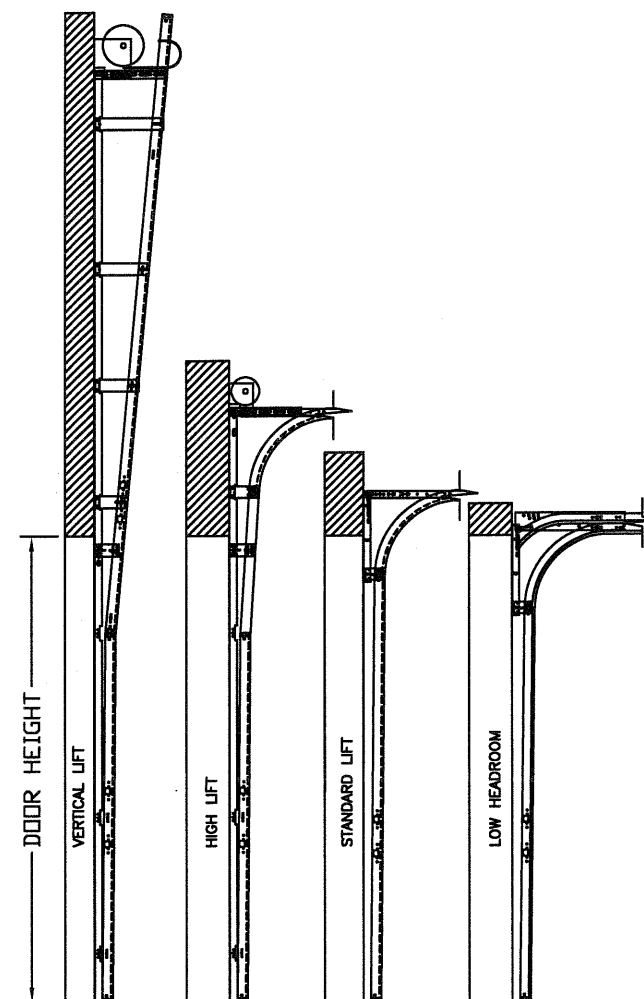
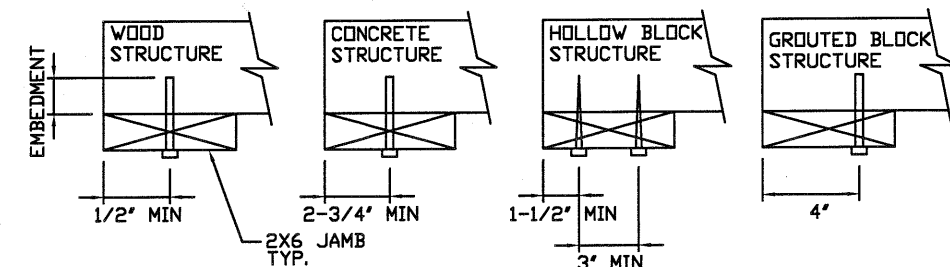
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 24" O.C. (1 1/2" EMBEDMENT)

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



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY

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

DESIGN LOADS
+25.6 PSF
-29.1 PSF

TEST LOADS
(1.5 x DESIGN LOADS)
+38.4 PSF
-43.6 PSF

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

MODEL #1200 AMARR HERITAGE 3000
MODEL #1200 AMARR OAK SUMMIT 3000
SHORT, LONG, FLUSH & OAK SUMMIT PANELS

SIZE	DRAWN BY	RLR	DATE	07/22/14	DRAWING NUMBER IRC-1216-130-15
B	CHECKED BY	RLR	DATE	07/22/14	

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

SHEET 3 OF 4

TABLE 2

Section	Panel Type	Center Stile Locations (Measured from Left Edge)				Max Design Loads Allowed	
		1st (in)	2st (in)	3rd (in)	4th (in)	Positive (PSF)	Negative (PSF)
10' 0	Short	48.41	71.59			34.2	38.8
10' 0	Long	60.00				20.4	23.2
10' 0	Oak Summit	60.00				20.4	23.2
12' 0	Short	48.81	95.19			25.7	29.2
12' 0	Long	49.63	94.38			25.9	29.5
12' 0	Oak Summit	48.31	95.69			25.6	29.0
12' 2	Short	49.64	96.36			25.4	28.8
12' 2	Long	50.08	95.92			25.5	29.0
12' 2	Oak Summit	49.06	96.94			25.2	28.7
12' 4	Short	50.64	97.36			25.1	28.5
12' 4	Long	51.08	96.92			25.2	28.7
12' 4	Oak Summit	49.81	98.19			24.9	28.3
12' 6	Short	50.67	99.33			24.6	28.0
12' 6	Long	51.17	98.83			24.7	28.1
12' 6	Oak Summit	50.56	99.44			24.6	28.0
12' 8	Short	51.67	100.33			24.4	27.7
12' 8	Long	52.10	99.90			24.5	27.8
12' 8	Oak Summit	51.31	100.69			24.3	27.6
12' 10	Short	52.25	101.75			24.0	27.3
12' 10	Long	53.10	100.90			24.2	27.5
12' 10	Oak Summit	52.06	101.94			24.0	27.3
13' 0	Short	53.00	103.00			23.7	27.0
13' 0	Long	54.10	101.90			24.0	27.3
13' 0	Oak Summit	52.81	103.19			23.7	26.9
13' 2	Short	54.00	104.00			23.5	26.7
13' 2	Long	55.10	102.90			23.8	27.0
13' 2	Oak Summit	53.56	104.44			23.4	26.6
13' 4	Short	54.40	105.60			23.2	26.3
13' 4	Long	54.90	105.10			23.3	26.4
13' 4	Oak Summit	54.31	105.69			23.1	26.3
13' 6	Short	55.40	106.60			22.9	26.1
13' 6	Long	55.90	106.10			23.0	26.2
13' 6	Oak Summit	55.06	106.94			22.9	26.0
13' 8	Short	56.40	107.60			22.7	25.8
13' 8	Long	56.63	107.38			22.8	25.9
13' 8	Oak Summit	55.81	108.19			22.6	25.7
13' 10	Short	57.16	83.00	108.71		29.5	33.5
13' 10	Long	57.17	108.83			22.5	25.5
13' 10	Oak Summit	56.56	109.44			22.3	25.4

Section	Panel Type	Center Stile Locations (Measured from Left Edge)				Max Design Loads Allowed	
		1st (in)	2st (in)	3rd (in)	4th (in)	Positive (PSF)	Negative (PSF)
14' 0	Short	57.76	84.00	110.11		29.1	33.1
14' 0	Long	58.63	84.00	109.38		29.1	33.1
14' 0	Oak Summit	57.31	110.69			22.1	25.1
14' 2	Short	58.85	85.00	111.41		28.8	32.7
14' 2	Long	59.17	85.00	110.83		28.8	32.7
14' 2	Oak Summit	58.06	111.94			21.8	24.8
14' 4	Short	59.16	86.00	112.71		28.4	32.3
14' 4	Long	60.17	86.00	111.83		28.4	32.3
14' 4	Oak Summit	58.81	113.19			21.6	24.6
14' 6	Short	59.86	87.00	114.01		28.1	31.9
14' 6	Long	61.17	87.00	112.83		28.1	31.9
14' 6	Oak Summit	59.56	114.44			21.4	24.3
14' 8	Short	60.56	88.00	115.31		27.8	31.6
14' 8	Long	44.81	88.00	131.19		27.8	31.6
14' 8	Oak Summit	60.31	115.69			21.1	24.0
14' 10	Short	61.26	89.00	116.61		27.5	31.2
14' 10	Long	45.60	89.00	132.40		27.5	31.2
14' 10	Oak Summit	61.06	116.94			20.9	23.8
15' 0	Short	61.94	90.00	117.94		27.2	30.9
15' 0	Long	46.60	90.00	133.40		27.2	30.9
15' 0	Oak Summit	61.81	118.19			20.7	23.5
15' 2	Short	62.66	91.00	119.21		26.9	30.5
15' 2	Long	47.60	91.00	134.40		26.9	30.5
15' 2	Oak Summit	62.56	119.44			20.5	23.3
15' 4	Short	53.60	79.20	104.80	130.40	26.6	30.2
15' 4	Long	47.25	92.00	136.75		26.6	30.2
15' 4	Oak Summit	63.31	120.69			20.3	23.0
15' 6	Short	46.62	93.00	139.38		26.3	29.9
15' 6	Long	47.60	93.00	138.40		26.3	29.9
15' 6	Oak Summit	47.42	93.00	138.58		26.3	29.9
15' 8	Short	47.62	94.00	140.38		26.0	29.6
15' 8	Long	48.60	94.00	139.40		26.0	29.6
15' 8	Oak Summit	48.02	94.00	139.98		26.0	29.6
15' 10	Short	48.62	95.00	141.38		25.7	29.3
15' 10	Long	49.17	95.00	140.83		25.7	29.3
15' 10	Oak Summit	48.62	95.00	141.38		25.7	29.3
16' 0	Short	49.62	96.00	142.38		25.6	29.1
16' 0	Long	50.60	96.00	141.40		25.6	29.1
16' 0	Oak Summit	48.42	96.00	143.58		25.6	29.1

TABLE 3

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"				

REV	DESCRIPTION OF REVISIONS	DATE	BY

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

DESIGN LOADS
+25.6 PSF
-29.1 PSF

TEST LOADS
(1.5 x DESIGN LOADS)
+38.4 PSF
-43.6 PSF

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 #1200 AMARR HERITAGE 3000
MODEL #1200 AMARR OAK SUMMIT 3000
SHORT, LONG, FLUSH & OAK SUMMIT PANELS

SIZE	DRAWN BY	RLR	DATE	07/22/14	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	07/22/14	IRC-1216-130-15

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

SHEET 4 OF 4