

2" X 20 GA STRUT AT THE TOP OF TOP SECTION ATTACHED W/ (2) 1/4" X 1" HEX HEAD SCREWS AT EACH END STILE AND CENTER STILE LOCATIONS

3-1/4" X 20 GA CONTINUOUS BACKER PLATE BEHIND BACK SKIN AT TOP AND BOTTOM OF EACH SECTION

2" X 20 GA STRUT STACKED ON THE HINGES OF EACH INTERMEDIATE SECTION ATTACHED W/ (2) 1/4" X 1" HEX HEAD SCREWS AT EACH END STILE, AND CENTER STILE

14GA. (MIN.) CENTER HINGE ATTACHED W/ A TOTAL OF (5) 1/4" X 1" HEX HEAD SCREWS

3-1/4" X 20 GA CONTINUOUS BACKER PLATE BEHIND BACK SKIN AT TOP AND BOTTOM OF EACH SECTION

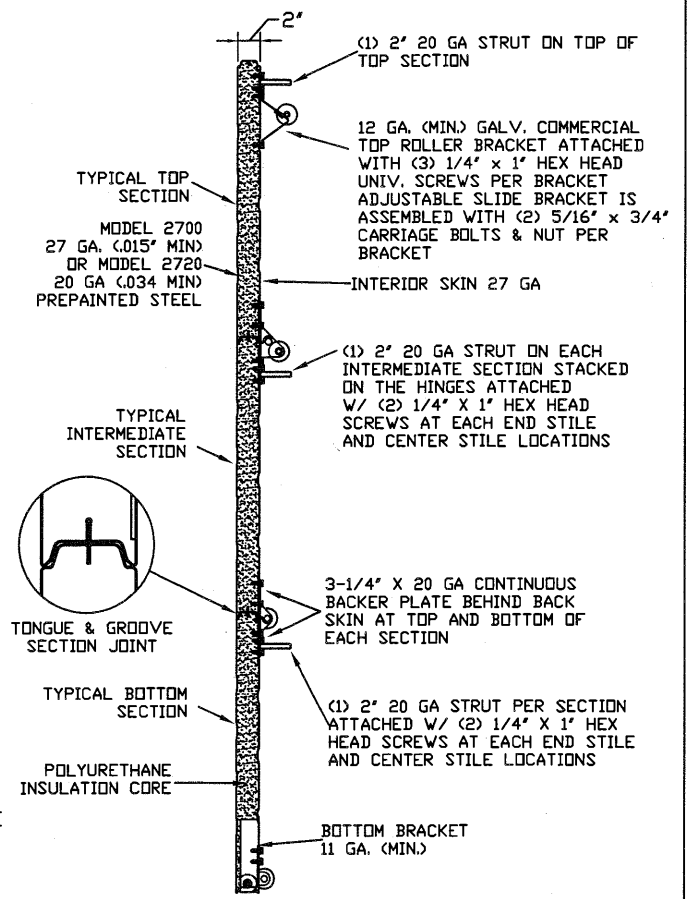
12 GA. (MIN.) GALV. COMMERCIAL TOP ROLLER BRACKET ATTACHED W/ (3) 1/4" X 1" HEX HEAD SCREWS

ADJUSTABLE SLIDE BRACKET ATTACHED W/ (2) 5/16" X 3/4" CARRIAGE BOLTS AND NUT

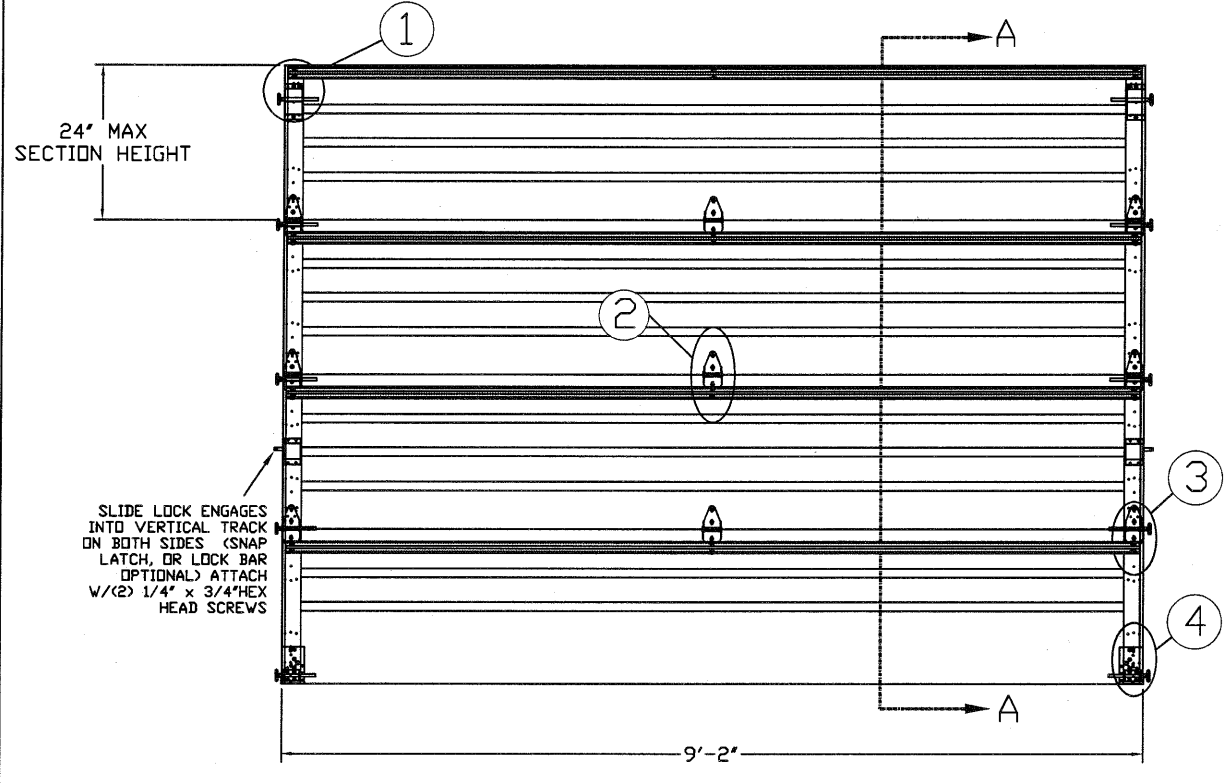
2"-10 BALL STEEL 7" STEM ROLLERS (MIN) W/ 7/16" RETAINERS FOR NON-THREADED SHAFTS

TYPICAL TOP FIXTURES
N.T.S. 1

TYPICAL CENTER HINGE
N.T.S. 2



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



INSIDE ELEVATION
N.T.S.

2"-10 BALL STEEL 7" STEM ROLLERS (MIN) W/ 7/16" RETAINERS FOR NON-THREADED SHAFTS

14 GA. (MIN.) END HINGE ROLLER CARRIER ATTACHED W/ (5) 1/4" X 1" HEX HEAD SCREWS

2" X 20 GA STRUT ON EACH INTERMEDIATE SECTION ATTACHED W/ (2) 1/4" X 1" HEX HEAD SCREWS AT EACH END STILE, AND CENTER STILE LOCATIONS

3-1/4" X 20 GA CONTINUOUS BACKER PLATE BEHIND BACK SKIN AT TOP AND BOTTOM OF EACH SECTION

TYPICAL END HINGE
N.T.S. 3

19 GA. GALV. STEEL END STILE ATTACHED TO DOORS SKIN WITH (2) #8 X 1/2" SCREWS PER STILE

JAMB SEAL OPTIONAL

5/16" X 1 5/8" LAG SCREW (1) PER JAMB BRACKET

(1) 1/4"-20 X 5/8" TRACK SPLICE BOLT AND NUT PER JAMB BRACKET

INTERMEDIATE HINGES 14GA (MIN.)

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

2" GALV. STEEL TRACK THICKNESS .051" (MIN.)

TRACK MOUNTING DETAIL
N.T.S.

EDGE OF DOOR 1" OVERLAP ON EACH SIDE

3-1/4" X 20 GA CONTINUOUS BACKER PLATE BEHIND BACK SKIN AT TOP AND BOTTOM OF EACH SECTION

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

2"-10 BALL STEEL 7" STEM ROLLERS (MIN) W/ 7/16" RETAINERS FOR NON-THREADED SHAFTS

TYPICAL BOTTOM BRACKET
N.T.S. 4

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURES DESCRIBED IN DASMA 108. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-98/02/05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN END ZONE, ROOF SLOPE 10' OR LESS, I=1.0):

WIND SPEED (MPH)	151	137	130	124	119
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 9'2" x 24"

DESIGN LOADS +32.6 PSF -38.3 PSF

TEST LOADS +48.9 PSF -57.5 PSF

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STATE OF TEXAS
THOMAS L. SHELMERDINE
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Amarr

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MODEL 2720 AMARR 2042

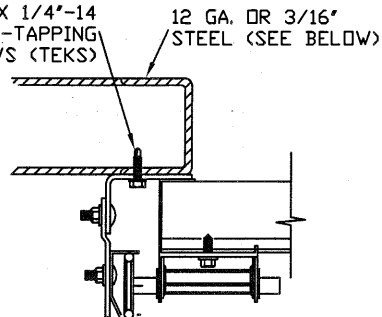
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B	CHECKED BY	RLR	DATE	02/18/16	IBC-2709-150-11

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

SHEET 1 OF 4

TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS

ITW BUILDDEX 1/4"-14 X 3/4" SELF-TAPPING SCREWS (TEKS)

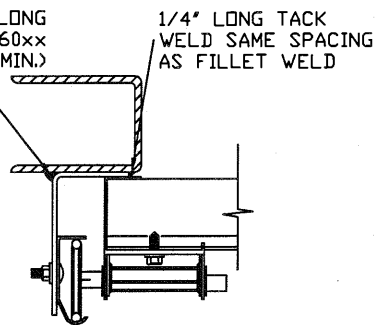


CLIP STYLE REVERSE ANGLE MOUNT SHOWN BRACKET, CONTINUOUS AND TAPERED ANGLE MOUNT AVAILABLE

12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6' FROM ENDS AND 18' 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

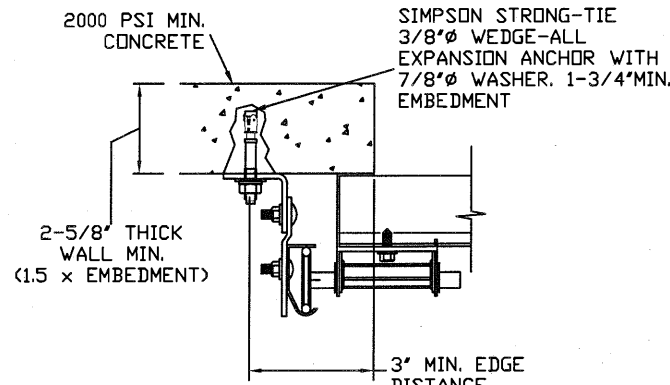
1/8" NOM X 1" LONG FILLET WELD (E60xx ELECTRODES MIN.)



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

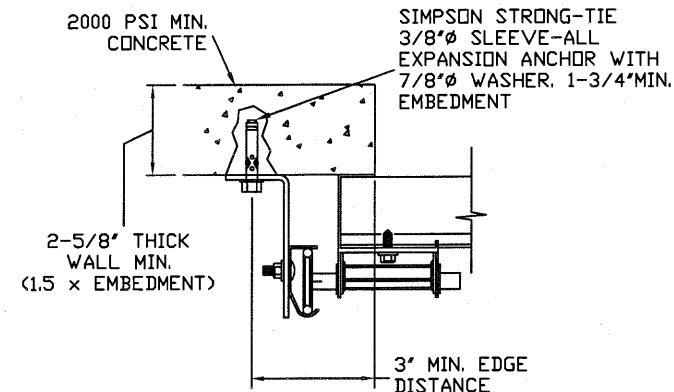
STEEL FRAMING 12GA OR BETTER
1590 LBS./IN. ALLOWABLE LOAD - 6' FROM ENDS AND 24' O.C.
REFER TO NOTES: 1, 2, 5, 6, 7, 8 AND 9

2000 PSI MIN. CONCRETE



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 24' 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 24' O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

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: +149.4 LBS/FT & -175.5 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 27 GA. MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 24'0" HIGH HAVE (1) 2" 20GA STRUT ON EACH SECTION
6. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

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 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 24" 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 24" 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 24" O.C. (1 1/4" EMBEDMENT)

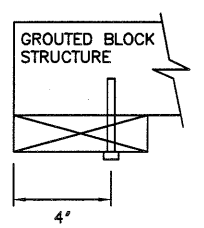
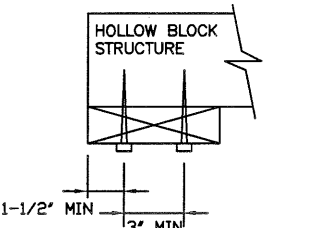
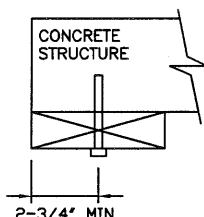
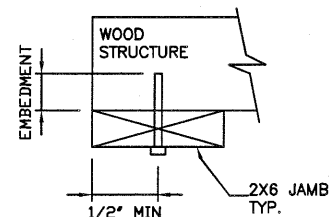
2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)

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.

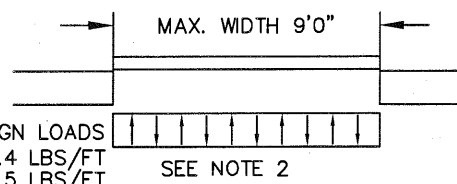
*PREPARATION OF WOOD JAMBS BY OTHERS



NOTES:

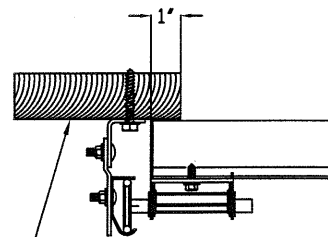
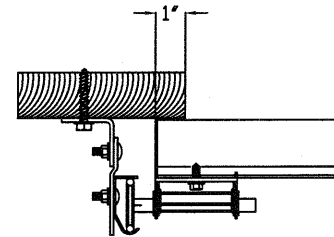
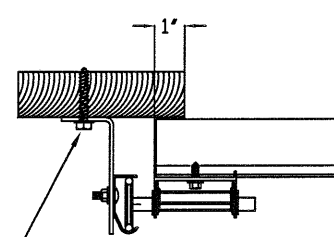
1. ANCHORS TO BE EVENLY SPACED BETWEEN THE HEADER AND FLOOR.
2. FIRST (BOTTOM) ANCHOR STARTING AT NO MORE THAN HALF OF THE MAXIMUM ON-CENTER DISTANCE. HIGHEST ANCHOR INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING.
3. MIN. EDGE DISTANCE OF 3" REQUIRED.
4. USE WASHERS PROVIDED BY THE ANCHOR MANUFACTURER.
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.

INTERIOR OF GARAGE



TRACK CONNECTION TO WOOD JAMB OPTIONS

FOR LAG SCREWS & BRACKET SPACING SEE PAGE 4 FOR TRACK CONFIGURATION DETAIL



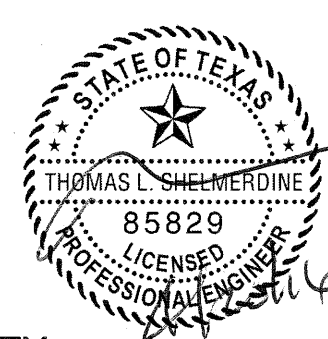
5/16" x 1 5/8" LAG SCREW (1) PER JAMB BRACKET (1-1/2" EMBEDMENT MINIMUM) (TYP.)

2x6 WOOD JAMB SYP OR SPF (NO.2) OR BETTER (TYP.)

REV	DESCRIPTION OF REVISIONS	DATE	BY
A			

MAX SIZE
9'2" x 24'
DESIGN LOADS
+32.6 PSF
-38.3 PSF
TEST LOADS
+48.9 PSF
-57.5 PSF

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



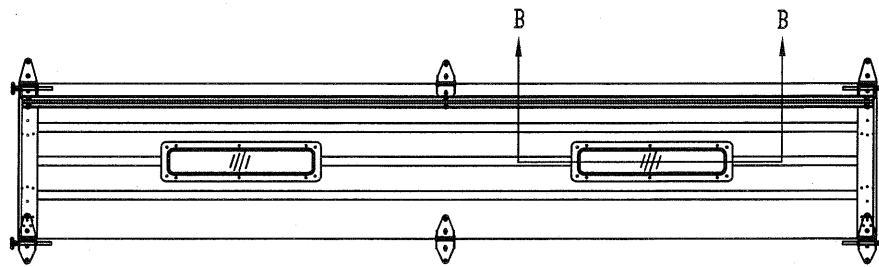
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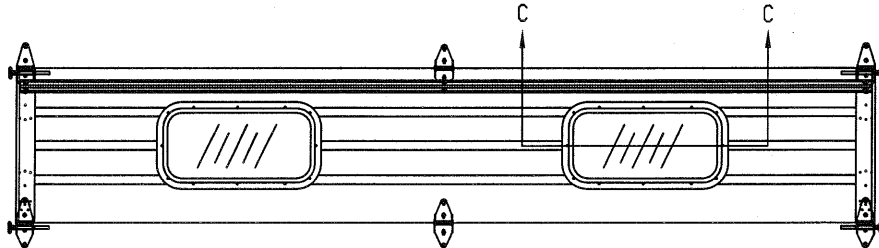
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ENTREMATIAC 165 CARRIAGE COURT WINSTON-SALEM, NC. 27105					SHEET 2 OF 4

INTERMEDIATE SECTION



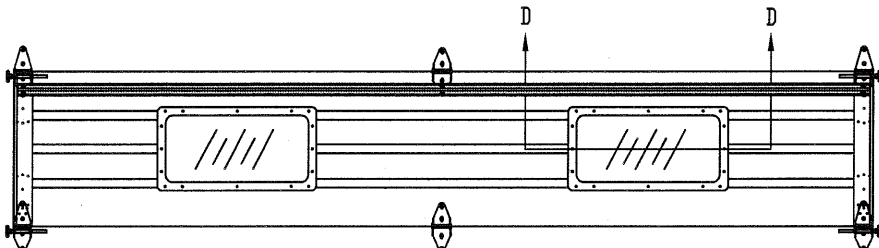
OPTIONAL GLAZED SECTION W/ 24' X 6' WINDOWS
N.T.S. (TOP SECTION SIMILAR)

INTERMEDIATE SECTION

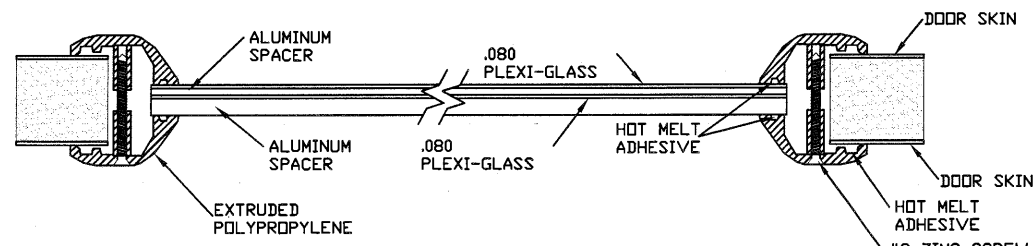


OPTIONAL GLAZED SECTION W/ 26' X 13' WINDOWS
N.T.S. (TOP SECTION SIMILAR)

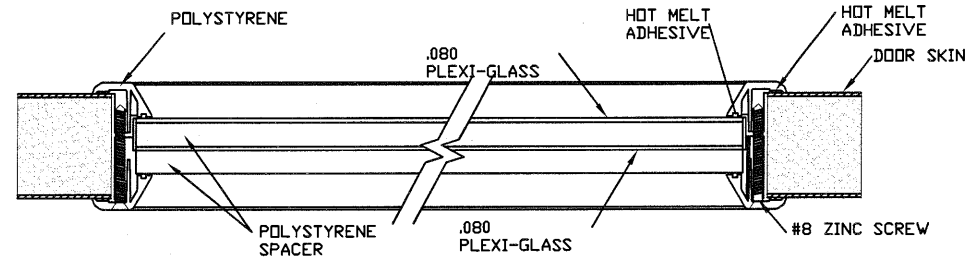
INTERMEDIATE SECTION



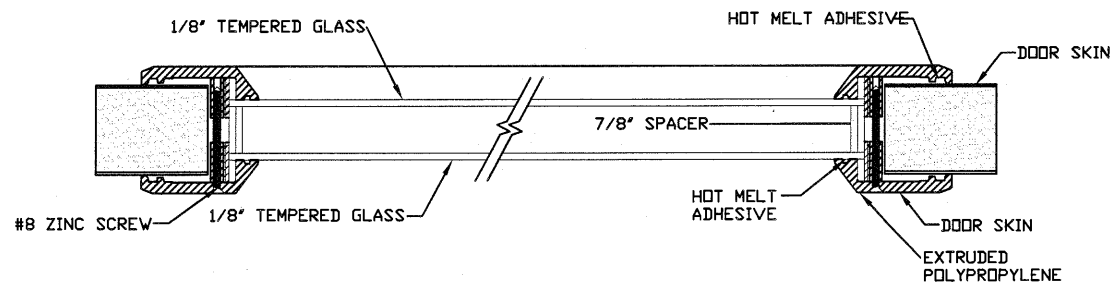
OPTIONAL GLAZED SECTION W/ 24' X 12' WINDOWS
N.T.S. (TOP SECTION SIMILAR)



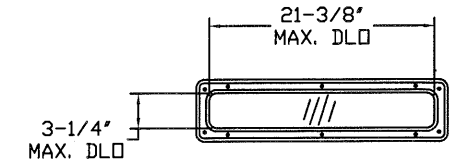
SECTION B-B 24' X 6' WINDOW DETAIL W/ .080 PLEXI-GLASS
N.T.S.



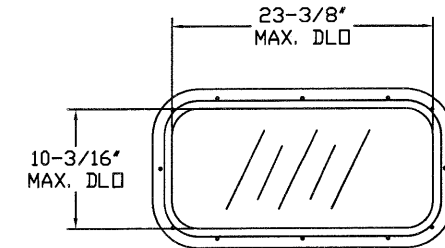
SECTION C-C 26' X 13' WINDOW DETAIL W/ INSULATED PLEXI-GLASS
N.T.S.



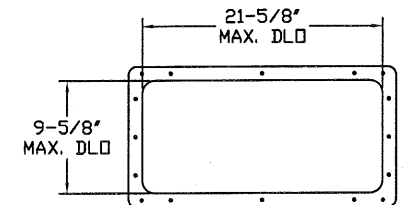
SECTION D-D 24' X 12' WINDOW DETAIL W/ 1-1/8" INSULATED GLASS
N.T.S.



24' X 6' DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.



26' X 13' DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.



24' X 12' DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.

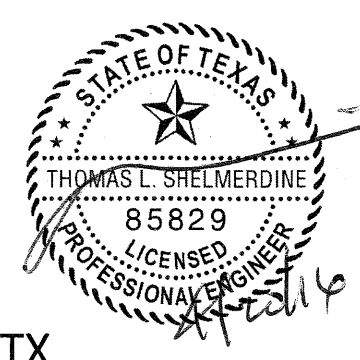
REV	DESCRIPTION OF REVISIONS	DATE	BY
A			

MAX SIZE
9'2 x 24'

DESIGN LOADS
+32.6 PSF
-38.3 PSF

TEST LOADS
+48.9 PSF
-57.5 PSF

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



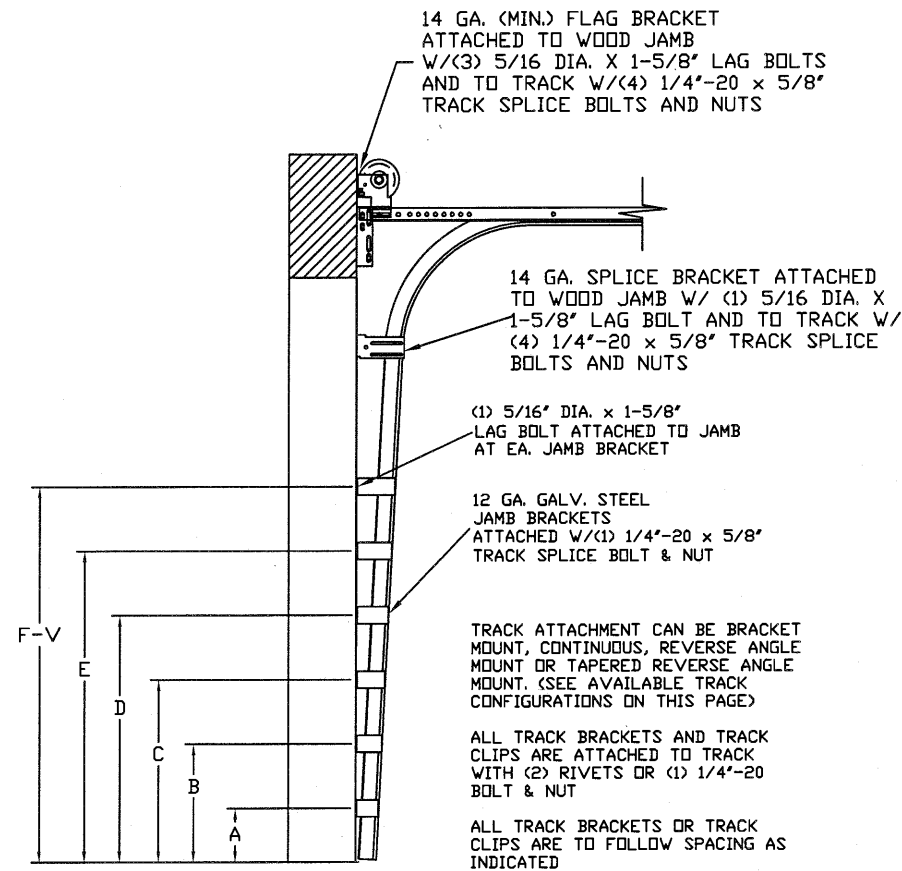
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MODEL 2700 AMARR 2742 MODEL 2720 AMARR 2042			
SIZE	DRAWN BY	DATE	DRAWING NUMBER
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	CHECKED BY	DATE	
	RLR	02/18/16	
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			SHEET 3 OF 4

TABLE 1

Section Width (ft)	Center Stile Locations 1st (in)	Max Design Loads Allowed	
		Positive (PSF)	Negative (PSF)
6' 0"	36.000	49.1	57.7
7' 0"	42.000	42.0	49.5
7' 2"	43.000	41.1	48.3
7' 4"	44.000	40.1	47.2
7' 6"	45.000	39.2	46.2
7' 8"	46.000	38.4	45.2
7' 10"	47.000	37.6	44.2
8' 0"	48.000	36.8	43.3
8' 2"	49.000	36.0	42.4
8' 4"	50.000	35.3	41.5
8' 6"	51.000	34.6	40.7
8' 8"	52.000	33.9	39.9
8' 10"	53.000	33.3	39.2
9' 0"	54.000	32.7	38.5
9' 2"	55.000	32.6	36.3

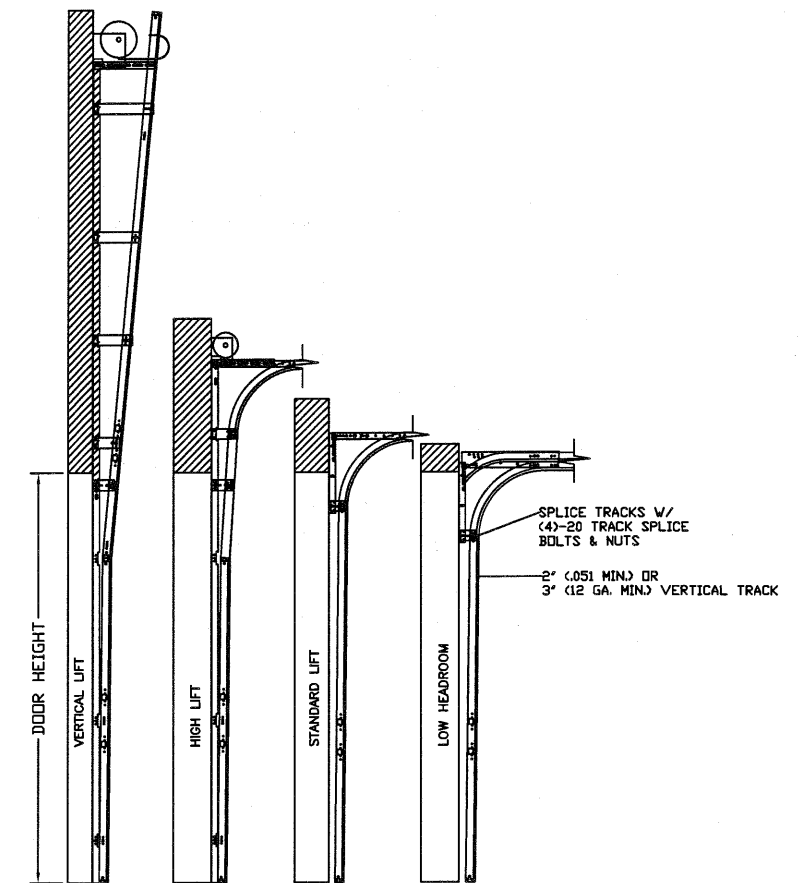


TRACK CONFIGURATION FOR UP TO 24' TALL DOORS
SEE TABLE 2

TABLE 2

DOOR HEIGHT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	SPLICE S
7'	10"	22"	34"	46"	58"	70"																	76"
8'	10"	22"	34"	46"	58"	70"																	88"
9'	10"	22"	34"	46"	58"	70"	82"																100"
10'	10"	22"	34"	46"	58"	70"	82"	94"															112"
11'	10"	22"	34"	46"	58"	70"	82"	94"	106"														124"
12'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"													136"
13'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"												148"
14'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"											160"
15'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"										172"
16'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"									184"
17'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"								196"
18'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"							208"
19'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"						220"
20'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"					232"
21'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"				244"
22'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"			256"
23'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"		268"
24'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"	262"	280"

ALL TRACK ATTACHMENTS +/- 2" ALLOWED USING SYP OR SPF NO.2 OR BETTER ONLY



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY
A			

MAX SIZE
9'2" x 24'
DESIGN LOADS
+32.6 PSF
-38.3 PSF
TEST LOADS
+48.9 PSF
-57.5 PSF

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