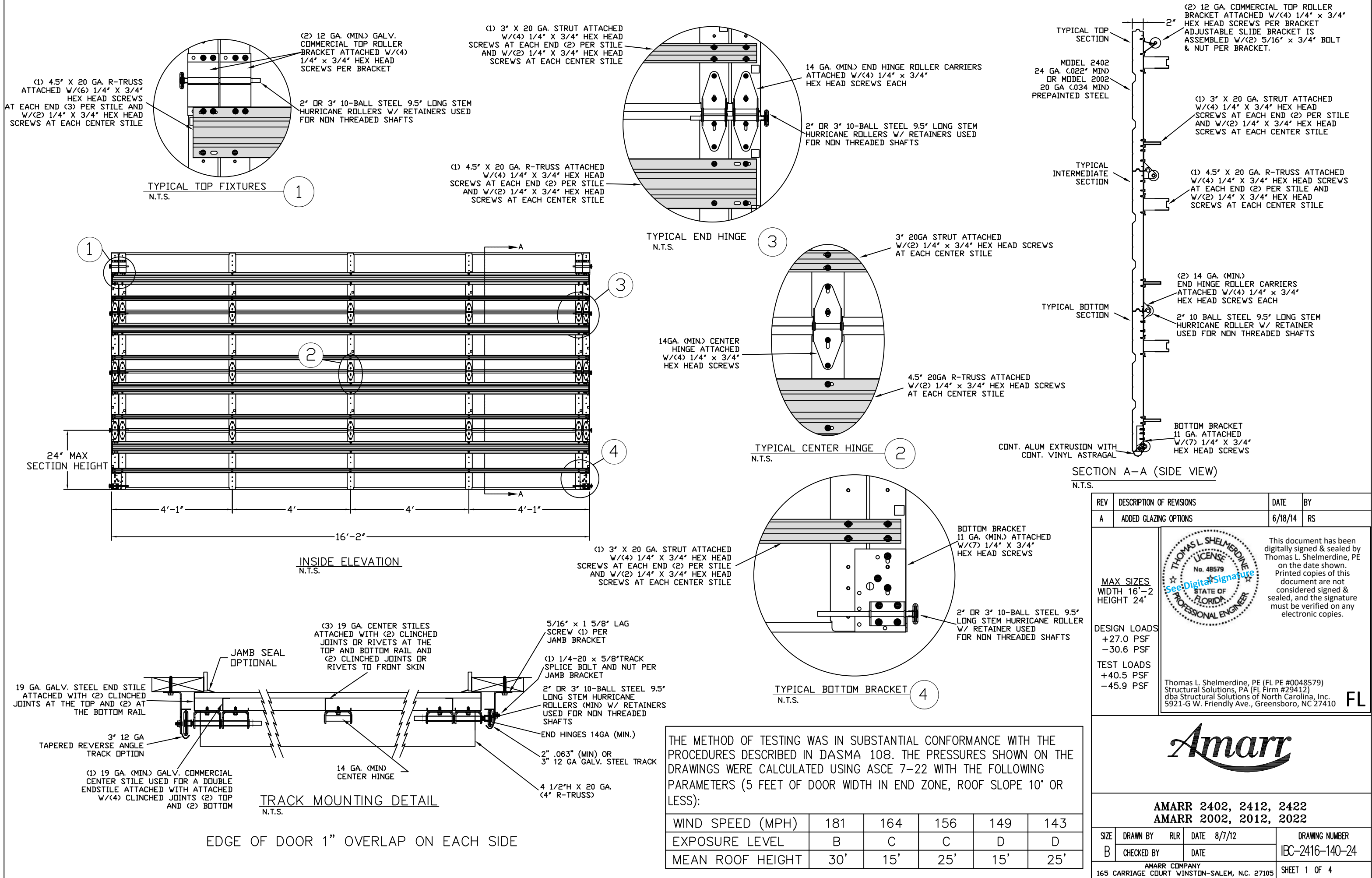
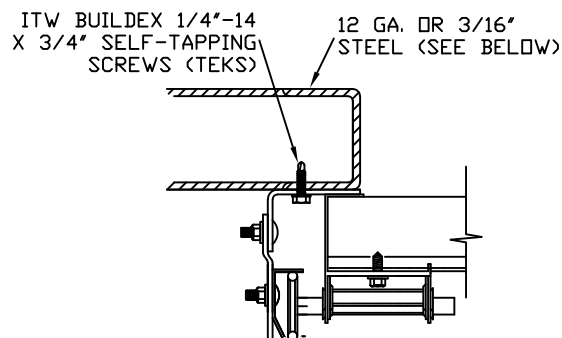




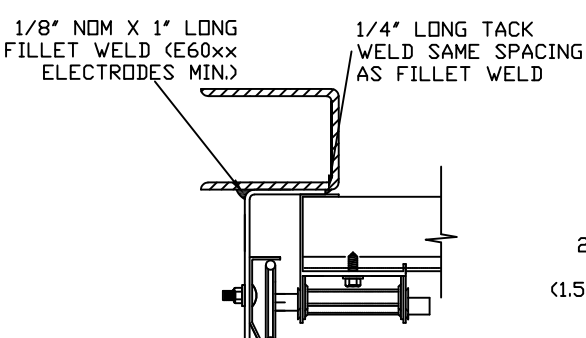
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



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

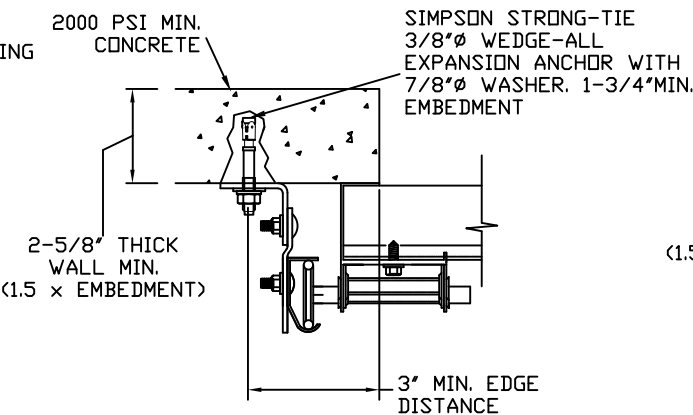
12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6"
FROM ENDS AND 12" O.C.
REFER TO NOTES: 1, 2 AND 5

3/16" STEEL FRAMING
569 LBS./SCREW ALLOWABLE LOAD - 6"
FROM ENDS AND 24" O.C.
REFER TO NOTES: 1, 2 AND 5



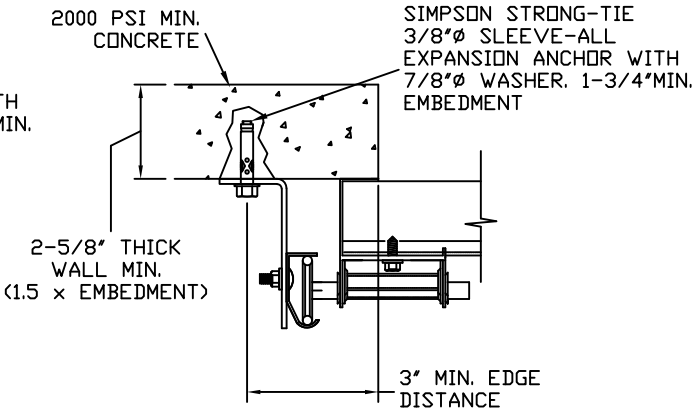
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND
TAPERED ANGLE MOUNT AVAILABLE

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



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 18" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5



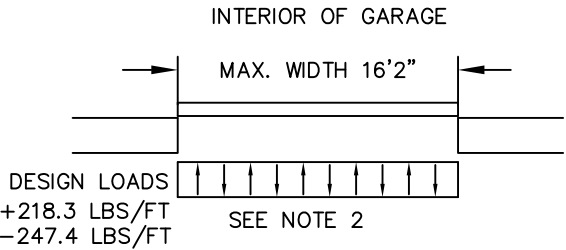
CONTINUOUS ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED ANGLE
MOUNT AVAILABLE

2000 PSI CONCRETE OR GREATER
336 LBS./EXPANSION ANCHOR ALLOWABLE
LOAD - 6" FROM ENDS AND 18" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

SPECIFICATIONS AND NOTES

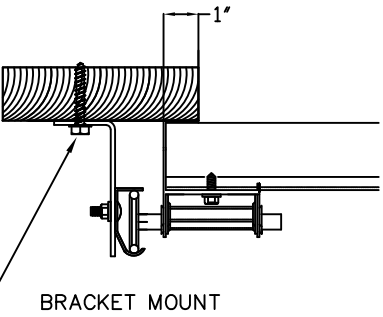
NOTES:

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. EGDE 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.

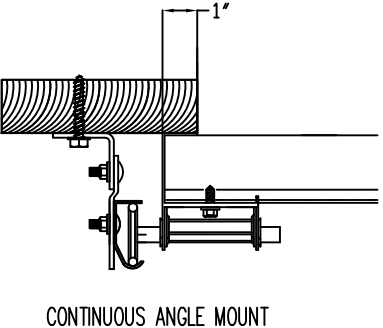


TRACK CONNECTION TO WOOD JAMB OPTIONS

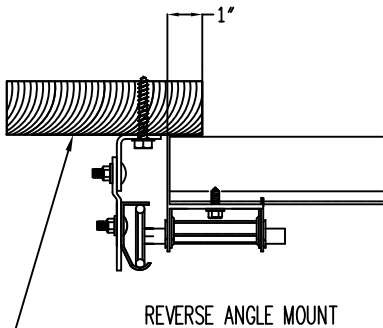
FOR LAG SCREWS & BRACKET SPACING SEE TABLE 2 ON PAGE 4



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



CONTINUOUS ANGLE MOUNT



REVERSE ANGLE MOUNT

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

WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)

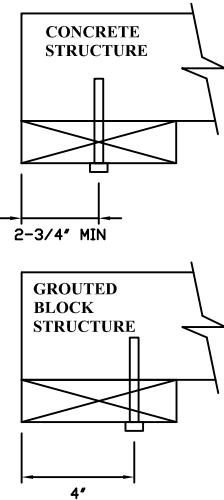
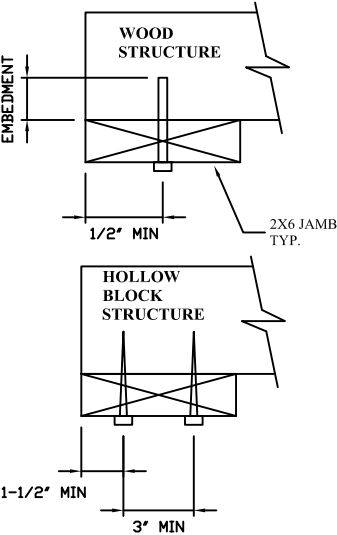
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 22" O.C. (1 1/2" EMBEDMENT)

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 22" O.C. (1 1/4" EMBEDMENT)
(OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

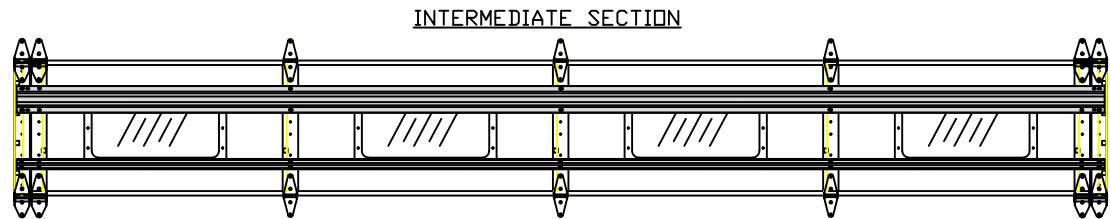
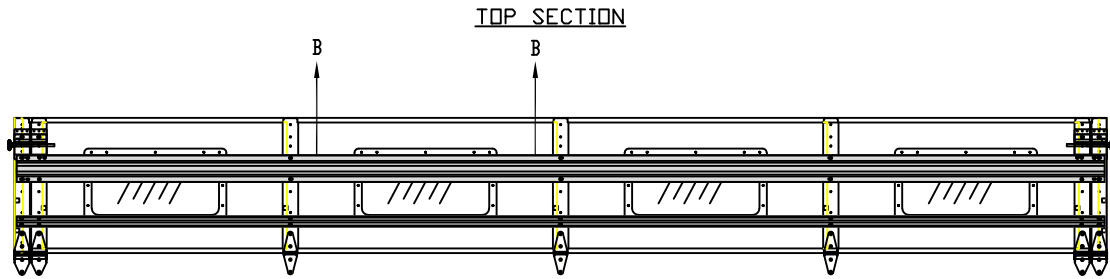
*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
*PREPARATION OF WOOD JAMBS BY OTHERS



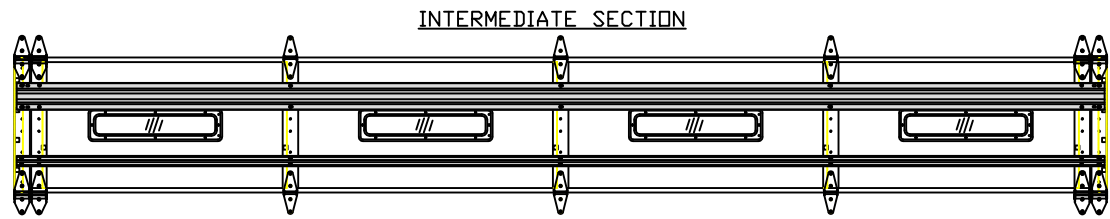
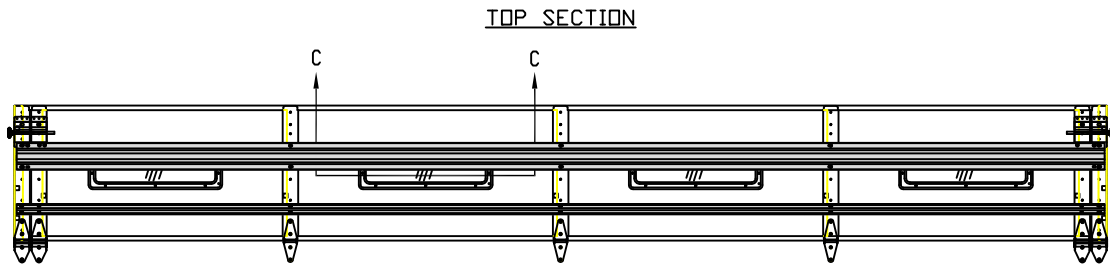
Amarr

AMARR 2402, 2412, 2422
AMARR 2002, 2012, 2022

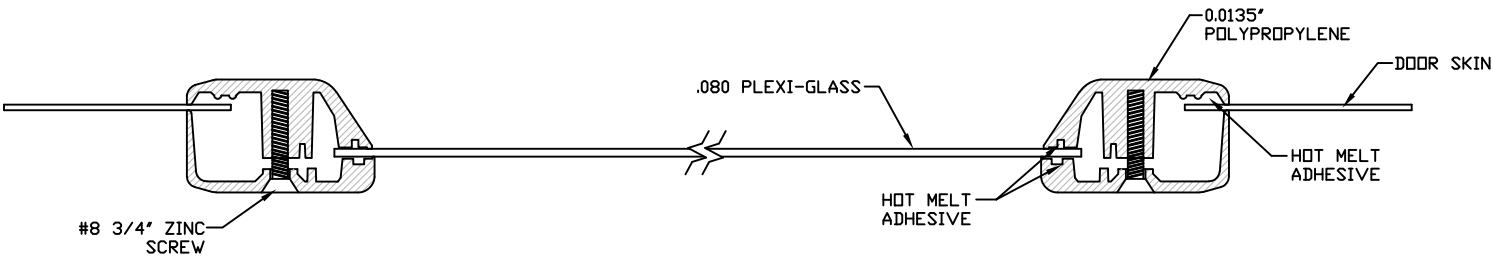
SIZE	DRAWN BY	RLR	DATE	8/7/12	DRAWING NUMBER
B	CHECKED BY		DATE		IBC-2416-140-24
AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105					SHEET 2 OF 4



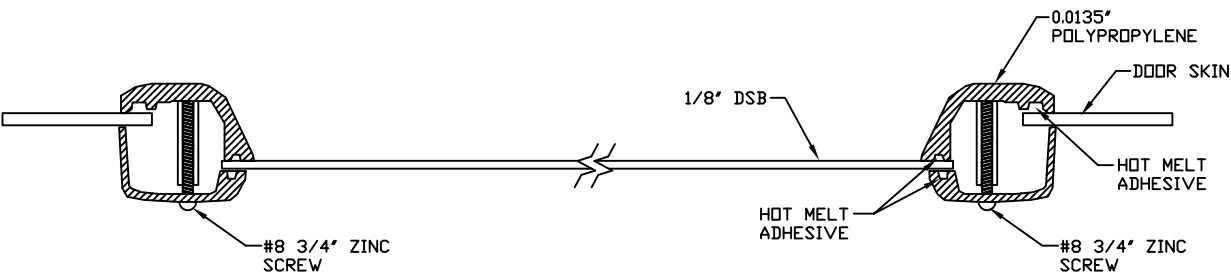
OPTIONAL GLAZED SECTION W/ 24' X 12' WINDOWS AND R-TRUSS LAYOUT
N.T.S.



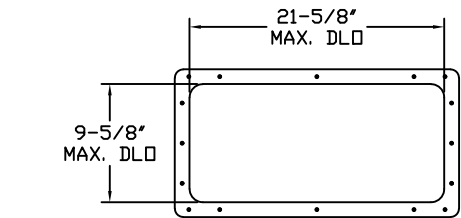
OPTIONAL GLAZED SECTION W/ 24' X 6' WINDOWS AND R-TRUSS LAYOUT
N.T.S.



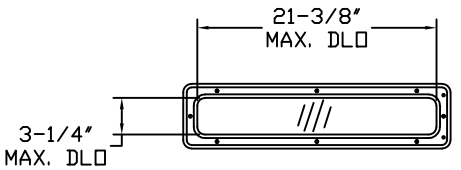
SECTION B-B 24' X 12' WINDOW DETAIL W/ .080 PLEXI-GLASS
N.T.S.



SECTION C-C 24' X 6' WINDOW DETAIL W/ 1/8" DSB GLASS
N.T.S. (ALSO AVAILABLE WITH .080 PLEXI-GLASS)



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



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

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED GLAZING OPTIONS	6/18/14	RS
MAX SIZES WIDTH 16'-2 HEIGHT 24' DESIGN LOADS +27.0 PSF -30.6 PSF TEST LOADS +40.5 PSF -45.9 PSF THOMAS L. SHELMERDINE LICENSE No. 48579 STATE OF FLORIDA PROFESSIONAL ENGINEER This document has been digitally signed & sealed by Thomas L. Shelmerdine, PE on the date shown. Printed copies of this document are not considered signed & sealed, and the signature must be verified on any electronic copies. Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412) dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410 FL			
Amarr AMARR 2402, 2412, 2422 AMARR 2002, 2012, 2022			
SIZE	DRAWN BY	RLR	DATE 8/7/12
B	CHECKED BY		DATE
AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IBC-2416-140-24 SHEET 3 OF 4

TABLE 1

Section Width (ft)		Center Stile Locations (Measured from Left)			Max Design Loads Allowed	
		1st (in)	2nd (in)	3rd (in)	Positive (PSF)	Negative (PSF)
9'	4"	36"	76"	-	34.2	38.8
9'	6"	37"	77"	-	33.8	38.3
9'	8"	38"	78"	-	33.4	37.8
9'	10"	39"	79"	-	32.9	37.3
10'	0"	40"	80"	-	32.5	36.9
10'	2"	41"	81"	-	32.1	36.4
10'	4"	42"	82"	-	31.7	36.0
10'	6"	43"	83"	-	31.3	35.5
10'	8"	44"	84"	-	31.0	35.1
10'	10"	45"	85"	-	30.6	34.7
11'	0"	46"	86"	-	30.3	34.3
11'	2"	47"	87"	-	29.9	33.9
11'	4"	48"	88"	-	29.6	33.5
11'	6"	49"	89"	-	29.2	33.1
11'	8"	50"	90"	-	28.9	32.8
11'	10"	51"	91"	-	28.6	32.4
12'	0"	48"	96"	-	27.1	30.7
13'	0"	36"	78"	120"	31.0	35.1
13'	2"	37"	79"	121"	31.0	35.1
13'	4"	38"	80"	122"	31.0	35.1
13'	6"	39"	81"	123"	31.0	35.1
13'	8"	40"	82"	124"	31.0	35.1
13'	10"	41"	83"	125"	31.0	35.1
14'	0"	42"	84"	126"	31.0	35.1
14'	2"	43"	85"	127"	30.6	34.7
14'	4"	44"	86"	128"	30.3	34.3
14'	6"	45"	87"	129"	29.9	33.9
14'	8"	46"	88"	130"	29.6	33.5
14'	10"	47"	89"	131"	29.2	33.1
15'	0"	48"	90"	132"	28.9	32.8
15'	2"	49"	91"	133"	28.6	32.4
15'	4"	50"	92"	134"	28.3	32.1
15'	6"	51"	93"	135"	28.0	31.7
15'	8"	52"	94"	136"	27.7	31.4
15'	10"	53"	95"	137"	27.4	31.0
16'	0"	48"	96"	144"	27.1	30.7
16'	2"	49"	97"	145"	27.0	30.6

*FOR WIDTHS 12'-2" TO 12'-10" CONTACT ENGINEERING FOR STILE PLACEMENT

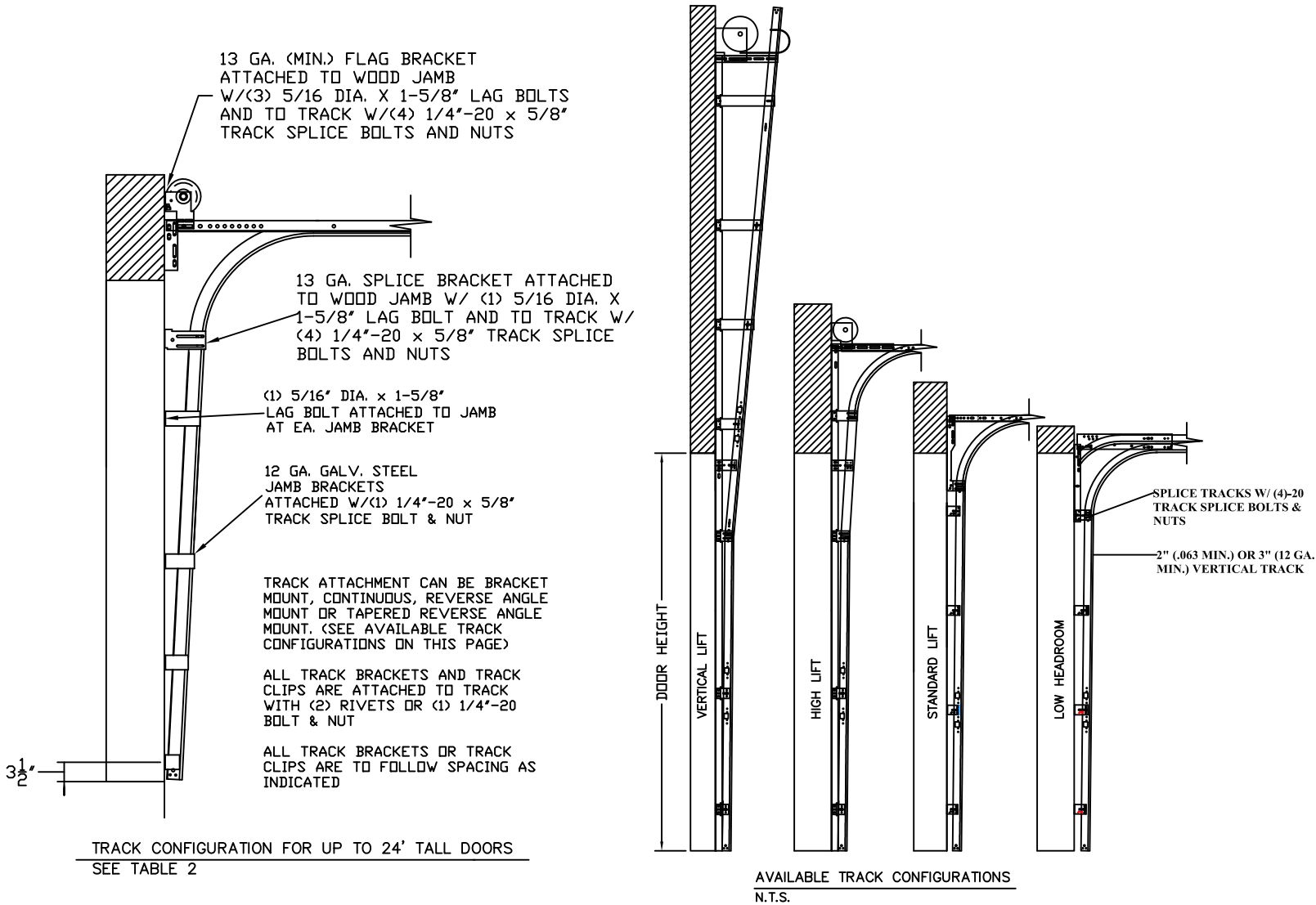


TABLE 2

DOOR HEIGHT		TRACK ATTACHMENT												TYPICAL SPLICE
		A	B	C	D	E	F	G	H	I	J	K	L	
7'	0"	3.5"	22"	44"										76"
7'	6"	3.5"	22"	44"	68"									82"
8'	0"	3.5"	22"	44"	75"									88"
8'	6"	3.5"	22"	44"	75"									94"
9'	0"	3.5"	22"	44"	75"									100"
9'	6"	3.5"	22"	44"	68"	92"								106"
10'	0"	3.5"	22"	44"	68"	92"								112"
11'	0"	3.5"	22"	44"	68"	92"	116"							124"
12'	0"	3.5"	22"	44"	68"	92"	116"							136"
13'	0"	3.5"	22"	44"	68"	92"	116"							148"
14'	0"	3.5"	22"	44"	68"	92"	116"	140"						160"
15'	0"	3.5"	22"	44"	68"	92"	116"	140"						172"
16'	0"	3.5"	22"	44"	68"	92"	116"	140"	154"					184"
17'	0"	3.5"	22"	44"	68"	92"	116"	140"	154"	178"				196"
18'	0"	3.5"	22"	44"	68"	92"	116"	140"	154"	178"				208"
19'	0"	3.5"	22"	44"	68"	92"	116"	140"	154"	178"	202"			220"
20'	0"	3.5"	22"	44"	68"	92"	116"	140"	154"	178"	202"			232"
21	0"	3.5"	22"	44"	68"	92"	116"	140"	154"	178"	202"	226"		244"
22	0"	3.5"	22"	44"	68"	92"	116"	140"	154"	178"	202"	226"		256"
23	0"	3.5"	22"	44"	68"	92"	116"	140"	154"	178"	202"	226"		268"
24	0"	3.5"	22"	44"	68"	92"	116"	140"	154"	178"	202"	226"	250"	280"

TABLE 3

SECTION	
TOP	4.5"
	3"
11TH	4.5"
	3"
10TH	4.5"
	3"
9TH	4.5"
	3"
8TH	4.5"
	3"
7TH	4.5"
	3"
6TH	4.5"
	3"
5TH	4.5"
	3"
4TH	4.5"
	3"
3RD	4.5"
	3"
2ND	4.5"
	3"
BTM	4.5"
	3"

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED GLAZING OPTIONS	6/18/14	RS

MAX. SIZES
WIDTH 16'-2"
HEIGHT 24'

DESIGN LOADS
+27.0 PSF
-30.6 PSF
TEST LOADS
+40.5 PSF
-45.9 PSF

THOMAS L. SHELMEYERDINE
LICENSE
No. 48579
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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Thomas L. Shelmerdine, PE (FL PE #0048579)
Structural Solutions, PA (FL Firm #29412)
dba Structural Solutions of North Carolina, Inc.
5921-G W. Friendly Ave., Greensboro, NC 27410

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AMARR 2002, 2012, 2022

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

SHEET 4 OF 4