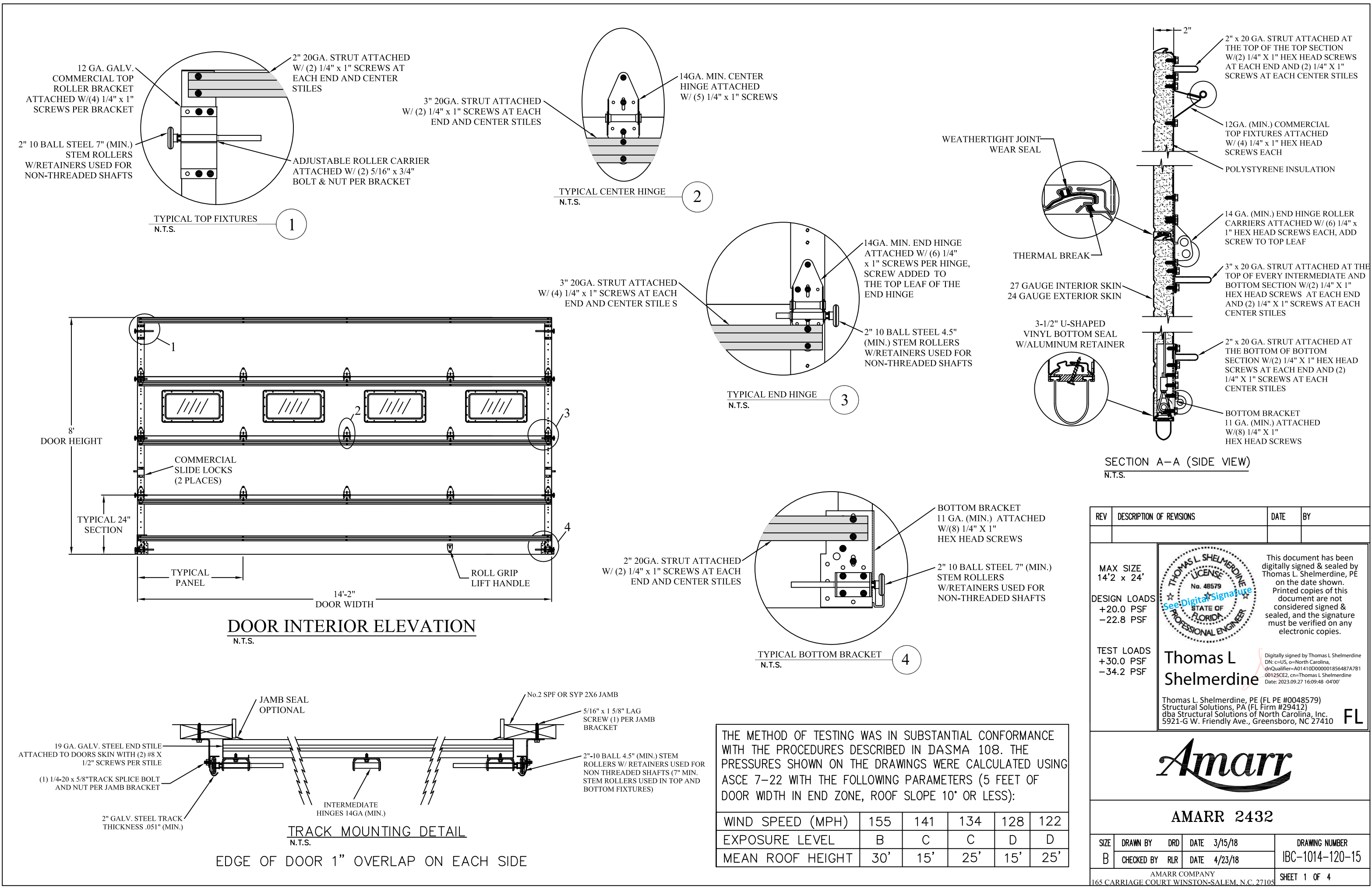




REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
14'2" x 24'

DESIGN LOADS
+20.0 PSF
-22.8 PSF

TEST LOADS
+30.0 PSF
-34.2 PSF

See Digital Signature

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

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

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Digitally signed by Thomas L. Shelmerdine
DN: c=US, o=North Carolina, dnQualifier=A01410D000001856487A7B100125CE2, cn=Thomas L. Shelmerdine
Date: 2023.09.27 16:09:48 -04'00'

Amarr

AMARR 2432

SIZE	DRAWN BY	DRD	DATE	3/15/18	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	4/23/18	IBC-1014-120-15

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

SHEET 1 OF 4

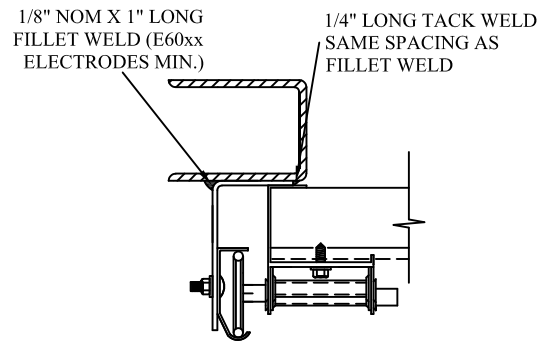
ITW BUILDDEX 1/4"-14 X 3/4"
SELF-TAPPING SCREWS
(TEKS)

12 GA. OR 3/16" STEEL
(SEE BELOW)

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

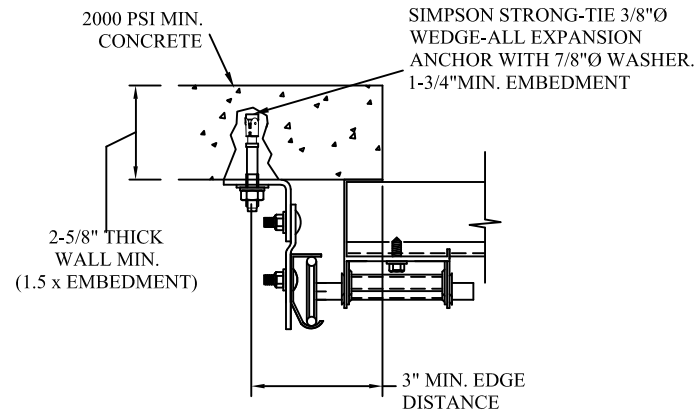
12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6" FROM ENDS
AND 18" O.C.
REFER TO NOTES: 1, 2 AND 5

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



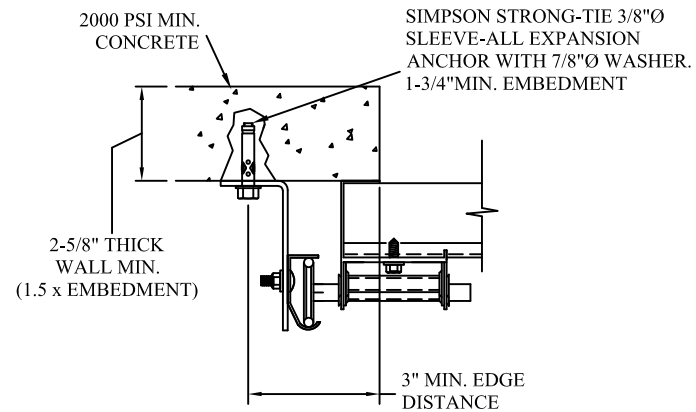
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED
ANGLE MOUNT AVAILABLE

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

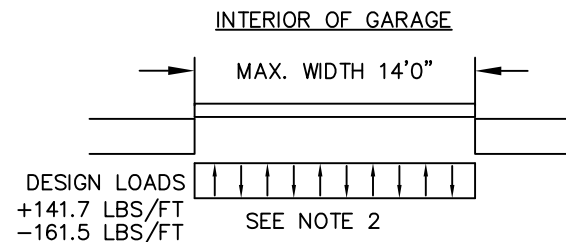


CONTINUOUS ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED ANGLE
MOUNT AVAILABLE

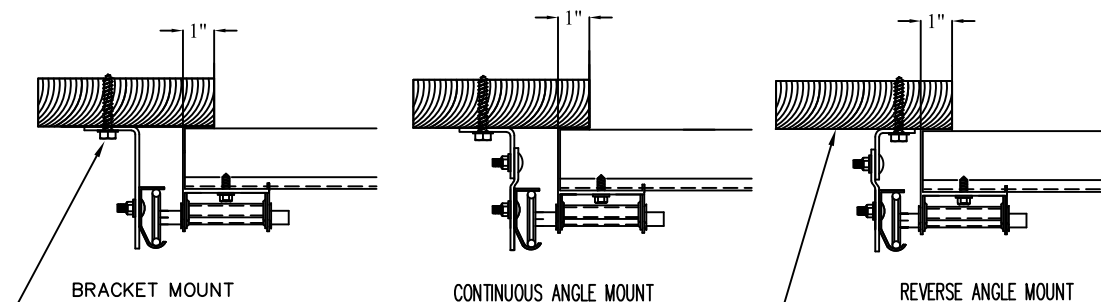
2000 PSI CONCRETE OR GREATER
336 LBS./EXPANSION ANCHOR ALLOWABLE LOAD - 6"
FROM ENDS AND 24" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

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:
+141.7 LBS/FT & -161.5 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 24 GA. (.021) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 24'0" HIGH USE (1) 2" 20GA STRUT AT THE BOTTOM OF THE BOTTOM SECTION, (1) 3" 20GA STRUT AT THE TOP OF EVERY INTERMEDIATE AND BOTTOM SECTION, AND (1) 2" 20GA STRUT AT THE TOP OF THE TOP 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.

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.



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.)

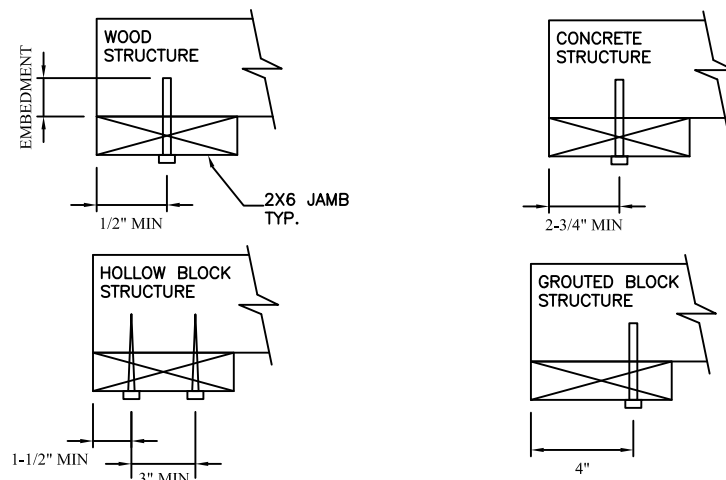
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS
THEN 24" O.C. (1 1/2" EMBEDMENT)

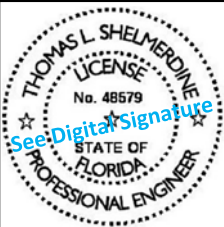
2 X 6 VERTICAL JAMB ATTACHMENT TO 2,000 PSI CONCRETE
HILTI KWIK BOLT 3/8" X 4" STARTING 6" FROM ENDS
THEN 24" O.C. (2 1/2" EMBEDMENT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS
THEN 24" O.C. (1 1/4" EMBEDMENT)
ITW/RAMSET REDHEAD (TRU-BOLT) 3/8" X 4" STARTING 6" FROM ENDS
THEN 24" O.C. (2 1/2" EMBEDMENT)

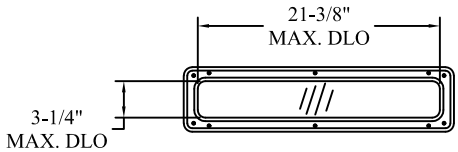
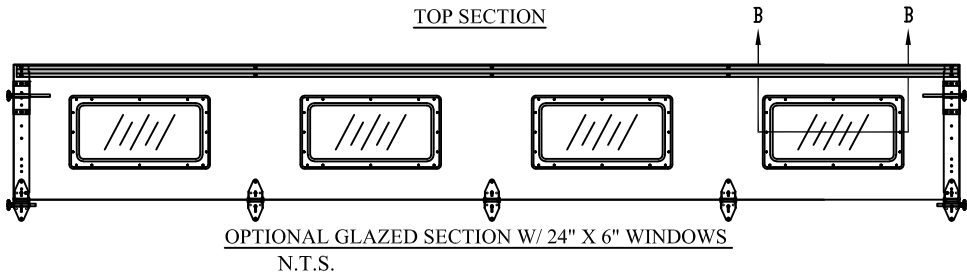
2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK
SIMPSON 1/4" X 3" TITEN SCREWS STARTING 6" FROM ENDS,
USE PAIRS OF FASTENERS (3" APART)
AT 24" O.C. (1 1/2" EMBEDMENT)
HILTI 1/4" X 2-3/4" KWIK-CON II+ SCREWS STARTING 6" FROM ENDS,
USE PAIRS OF FASTENERS (3" APART) AT 24" O.C. (1 1/4" EMBEDMENT)

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

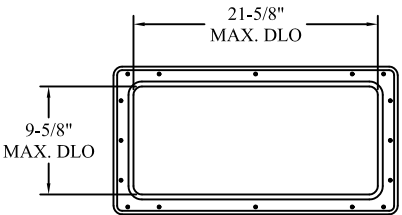
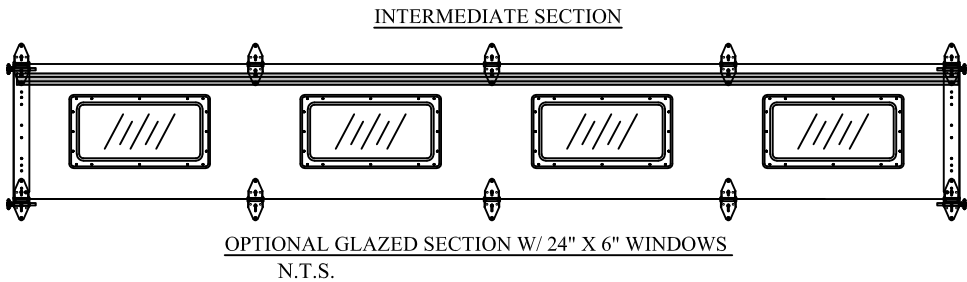
*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNT
*PREPARATION OF WOOD JAMBS BY OTHERS



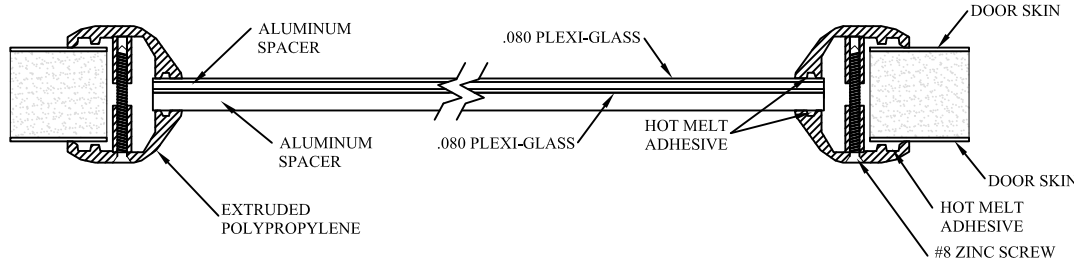
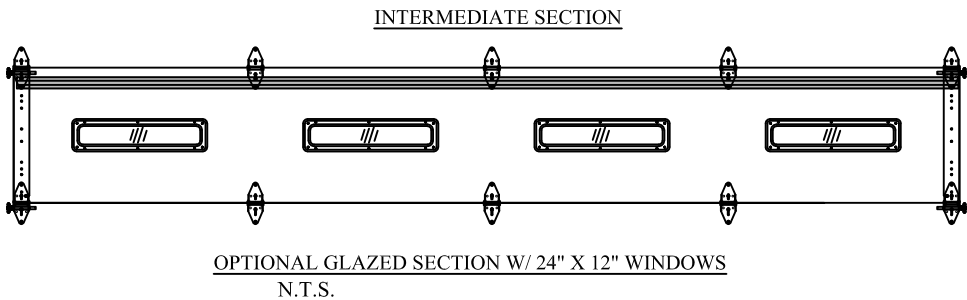
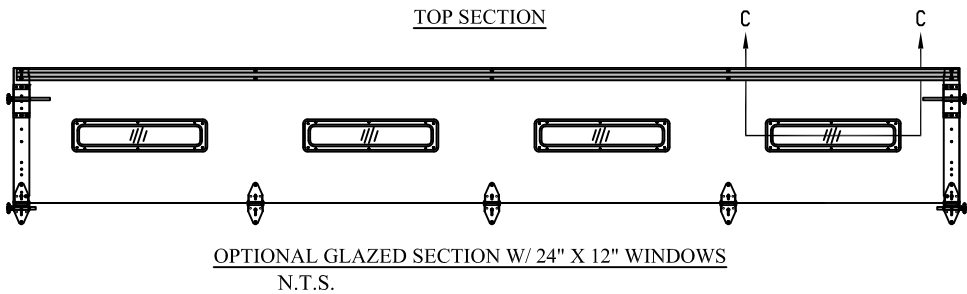
REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE, 14'2" x 24' DESIGN LOADS +20.0 PSF -22.8 PSF TEST LOADS +30.0 PSF -34.2 PSF		 This document has been digitally signed & sealed by Thomas L. Shelmerdine, PE on the date shown. Printed copies of this document are not considered signed & sealed, and the signature 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 2432			
SIZE	DRAWN BY	DRD	DATE 3/15/18
B	CHECKED BY	RLR	DATE 4/23/18
AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IBC-1014-120-15 SHEET 2 OF 4



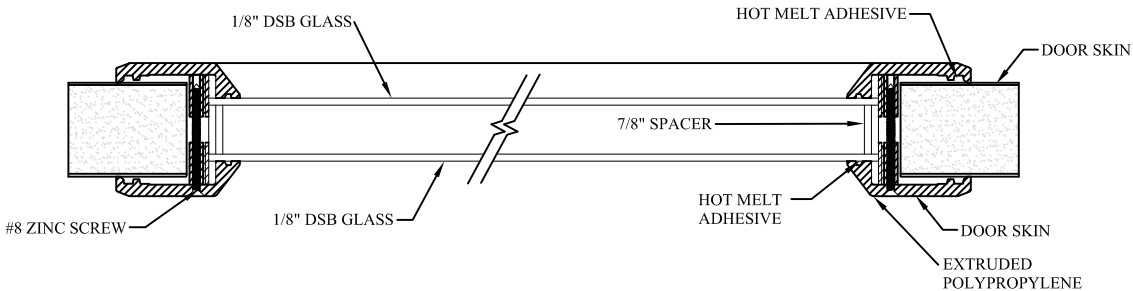
24" X 6" DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.



24" X 12" DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.



SECTION B-B 24" X 6" WINDOW DETAIL W/ .080 PLEXI-GLASS
N.T.S.



SECTION C-C 24" X 12" WINDOW DETAIL W/ 1-1/8" INSULATED GLASS
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY		
MAX SIZE 14'2 x 24' DESIGN LOADS +20.0 PSF -22.8 PSF TEST LOADS +30.0 PSF -34.2 PSF		THOMAS L. SHELMERDINE LICENSE No. 48579 See Digital Signature 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 2432					
SIZE	DRAWN BY	DRD	DATE	3/15/18	DRAWING NUMBER IBC-1014-120-15
B	CHECKED BY	RLR	DATE	4/23/18	
AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105					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)
6'	0"	36"	-	-	23.6	26.9
6'	2"	37"	-	-	22.9	26.1
6'	4"	38"	-	-	22.3	25.5
6'	6"	39"	-	-	21.7	24.8
6'	8"	40"	-	-	21.2	24.2
6'	10"	41"	-	-	20.7	23.6
7'	0"	42"	-	-	20.2	23.0
7'	2"	43"	-	-	19.7	22.5
7'	4"	44"	-	-	19.3	22.0
7'	6"	45"	-	-	18.8	21.5
7'	8"	46"	-	-	18.4	21.0
7'	10"	47"	-	-	18.0	20.6
8'	0"	48"	-	-	17.7	20.1
8'	2"	49"	-	-	17.3	19.7
8'	4"	50"	-	-	17.0	19.3
8'	6"	51"	-	-	16.6	19.0
8'	8"	52"	-	-	16.3	18.6
8'	10"	53"	-	-	16.0	18.2
9'	0"	54"	-	-	15.7	17.9
9'	2"	55"	-	-	15.4	17.6
9'	4"	36"	76"	-	22.2	25.3
9'	6"	37"	77"	-	21.9	25.0
9'	8"	38"	78"	-	21.6	24.7
9'	10"	39"	79"	-	21.4	24.4
10'	0"	40"	80"	-	21.1	24.1
10'	2"	41"	81"	-	20.8	23.8
10'	4"	42"	82"	-	20.6	23.5
10'	6"	43"	83"	-	20.3	23.2
10'	8"	44"	84"	-	20.1	22.9
10'	10"	45"	85"	-	19.9	22.6
11'	0"	46"	86"	-	19.6	22.4
11'	2"	47"	87"	-	19.4	22.1
11'	4"	48"	88"	-	19.2	21.9
11'	6"	49"	89"	-	19.0	21.6
11'	8"	50"	90"	-	18.7	21.4
11'	10"	51"	91"	-	18.5	21.1
12'	0"	48"	96"	-	17.6	20.0
12'	2"	49"	97"	-	17.4	19.8
12'	4"	50"	98"	-	17.2	19.6
12'	6"	51"	99"	-	17.0	19.4
12'	8"	52"	100"	-	16.9	19.2
12'	10"	53"	101"	-	16.7	19.0
13'	0"	36"	78"	120"	20.1	22.9
13'	2"	37"	79"	121"	20.1	22.9
13'	4"	38"	80"	122"	20.1	22.9
13'	6"	39"	81"	123"	20.1	22.9
13'	8"	40"	82"	124"	20.1	22.9
13'	10"	41"	83"	125"	20.1	22.9
14'	0"	42"	84"	126"	20.1	22.9
14'	2"	43"	85"	127"	20.0	22.8

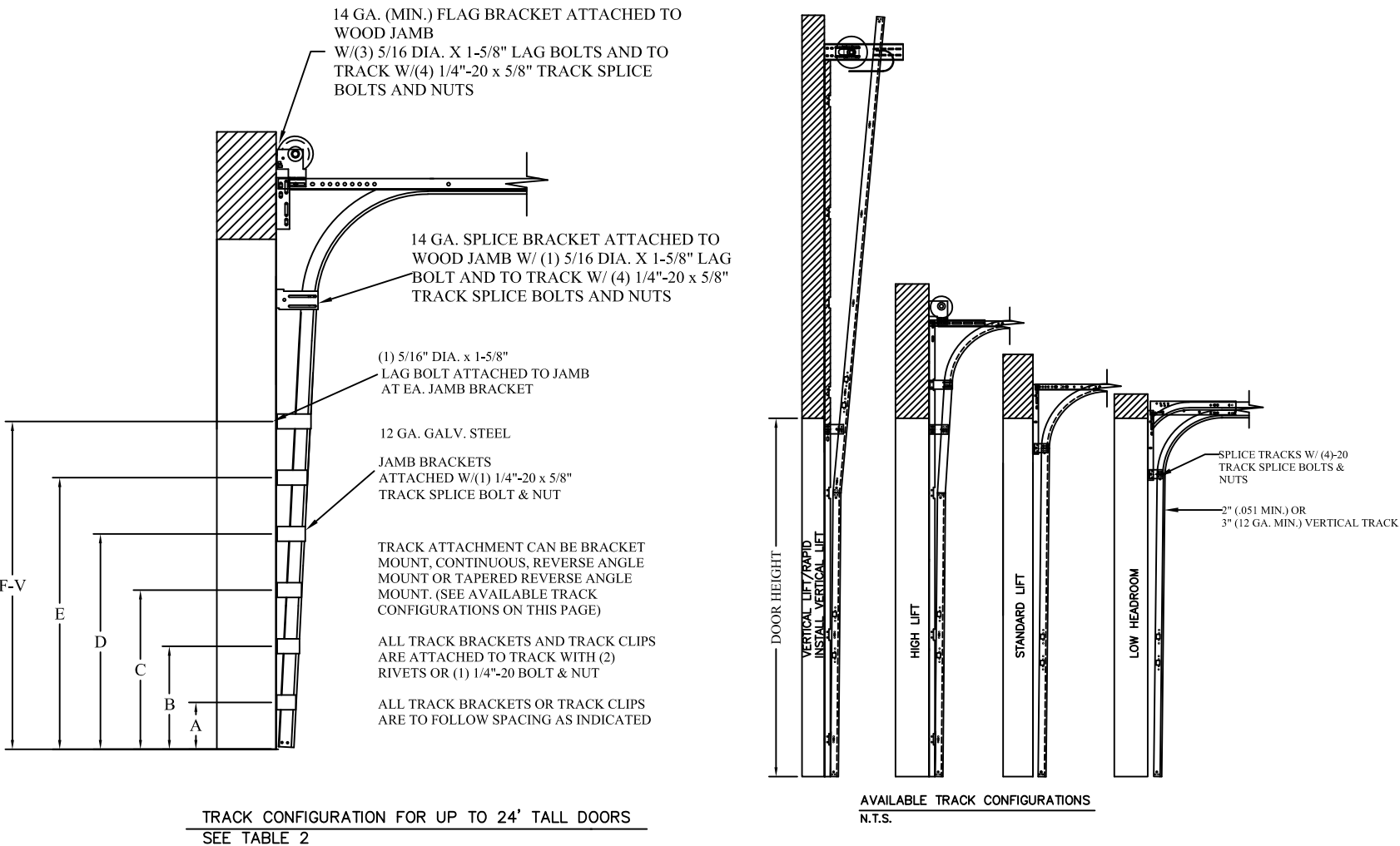


TABLE 2

DOOR HEIGHT		TRACK ATTACHMENT																				TYPICAL SPLICE	
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	
7'	0"	10"	22"	34"	46"																		76"
7'	6"	10"	22"	34"	46"	58"																	82"
8'	0"	10"	22"	34"	46"	58"																	88"
8'	6"	10"	22"	34"	46"	58"	70"																94"
9'	0"	10"	22"	34"	46"	58"	70"																100"
9'	6"	10"	22"	34"	46"	58"	70"	82"															106"
10'	0"	10"	22"	34"	46"	58"	70"	82"															112"
11'	0"	10"	22"	34"	46"	58"	70"	82"	94"														124"
12'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"													136"
13'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"												148"
14'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"											160"
15'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"										172"
16'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"									184"
17'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"								196"
18'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"							208"
19'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"						220"
20'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"					232"
21'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"				244"
22'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"			256"
23'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"		268"
24'	0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"	280"

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

TABLE 3

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

REVDESCRIPTION OF REVISIONSDATEBY

MAX SIZE
14'2 x 24'

DESIGN LOADS
+20.0 PSF
-22.8 PSF

TEST LOADS
+30.0 PSF
-34.2 PSF

THOMAS L. SHELMERDINE
LICENSE
No. 48579
See Digital Signature
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

FL

Amarr

AMARR 2432

SIZE
B

DRAWN BY
DRD

DATE
3/15/18

CHECKED BY
RLR

DATE
4/23/18

DRAWING NUMBER
IBC-1014-120-15

AMARR COMPANY
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27103

SHEET 4 OF 4