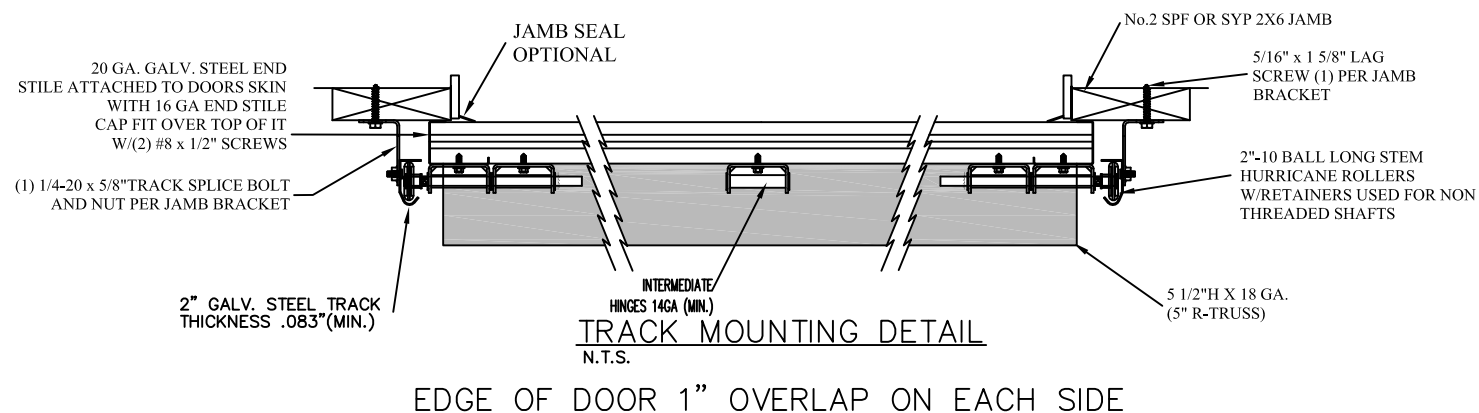
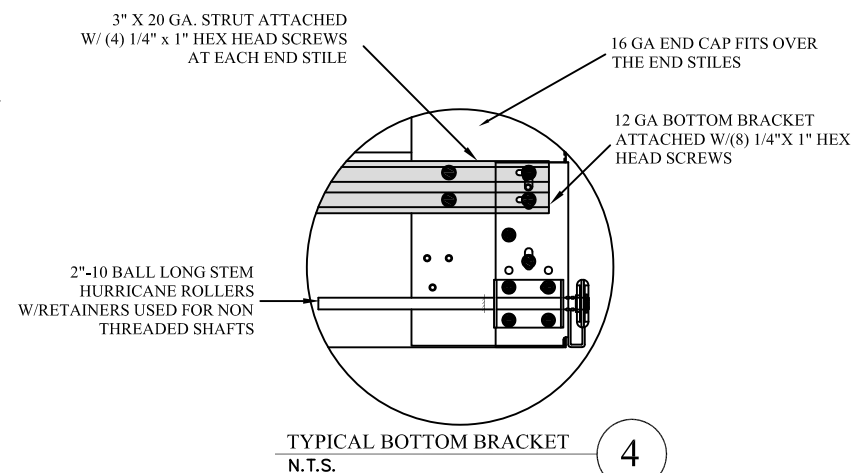
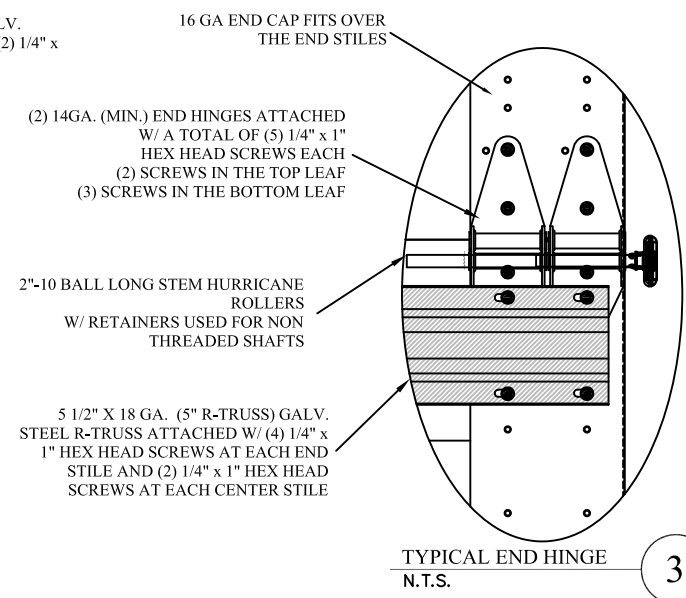
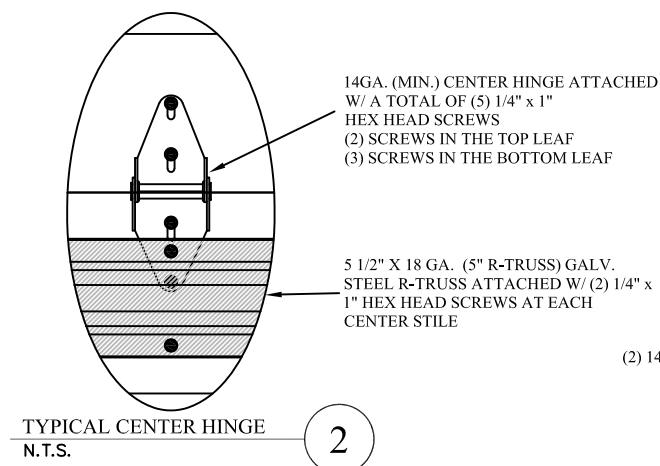


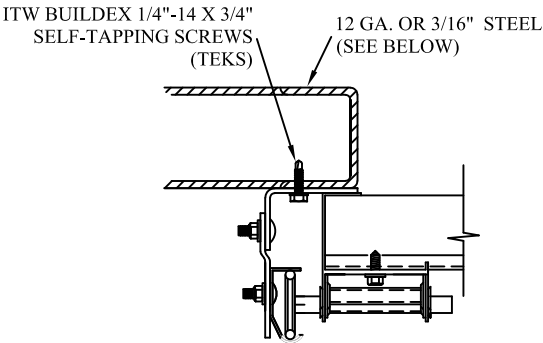


THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURES DESCRIBED IN ASTM E1886, E1996, F588 AND DASMA 108, 115 AND TAS 201, 202, 203. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-22 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN END ZONE, ROOF SLOPE 10' OR LESS):

WIND SPEED (MPH)	240	218	207	198	190
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE, 16'2 x 24' DESIGN LOADS +48.0 PSF -54.0 PSF TEST LOADS +72.0 PSF -81.0 PSF LARGE MISSILE IMPACT RESISTANCE	 Thomas L Shelmerdine 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 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. Digitally signed by Thomas L. Shelmerdine DN: c=US, o=Unaffiliated, dnQualifier=A01410D000001938E1ECCE A0007AC7B, cn=Thomas L Shelmerdine Date: 2025.04.09 15:31:39 -04'00' FL		
			
AMARR 2442 AMARR 2042			
SIZE	DRAWN BY	DRC	DATE
B	DRC	RLR	06/19/24
	CHICKED BY	RLR	DATE
			08/14/24
AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IBC-4216-185-26-I
SHEET 1 OF 4			

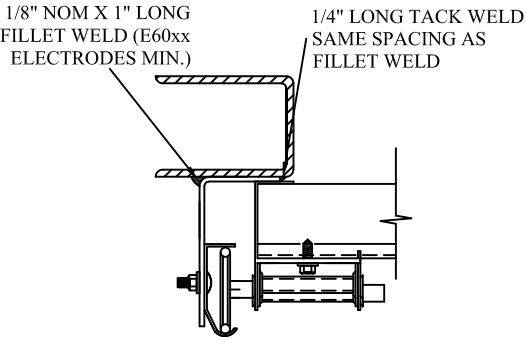
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



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

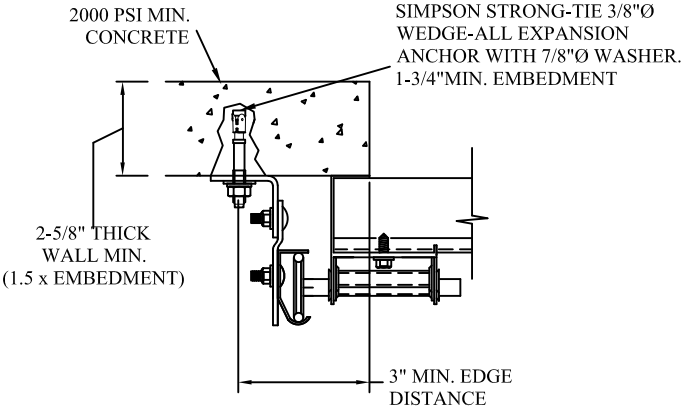
12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6" FROM ENDS
AND 6" O.C.
REFER TO NOTES: 1, 2 AND 5

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



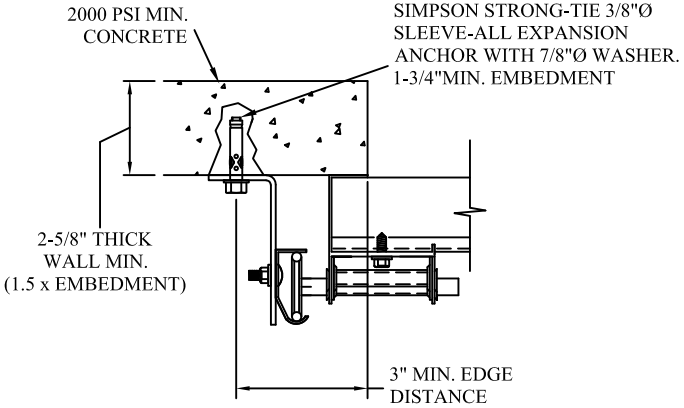
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED
ANGLE MOUNT AVAILABLE

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 10" 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 10" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

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 12" 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 10" O.C. (1 1/4" EMBEDMENT)
ITW/RAMSET REDHEAD (TRU-BOLT) 3/8" X 4" STARTING 6" FROM ENDS
THEN 22" O.C. (2 1/2" EMBEDMENT)

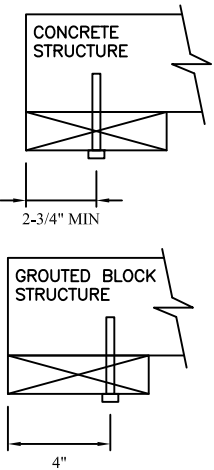
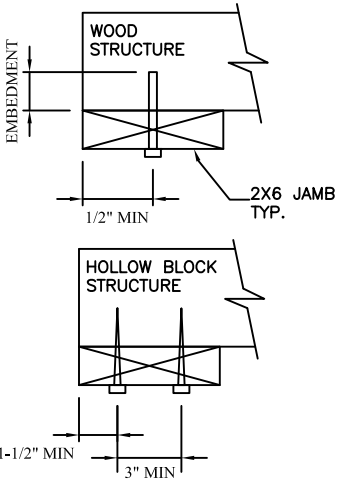
2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK

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 12" 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

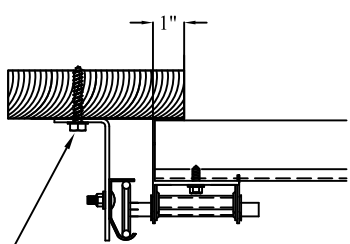


NOTES:

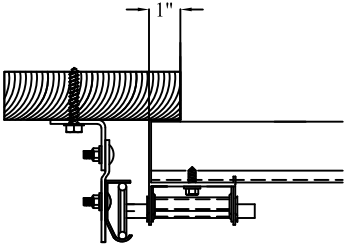
1. ANCHORS TO BE EVENLY SPACED BETWEEN THE HEADER AND FLOOR.
2. FIRST (BOTTOM) ANCHOR STARTING AT NO MORE THAN HALF OF THE MAXIMUM ON-CENTER DISTANCE. HIGHEST ANCHOR INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING.
3. MIN. EGDE DISTANCE OF 3" REQUIRED.
4. USE WASHERS PROVIDED BY THE ANCHOR MANUFACTURER.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

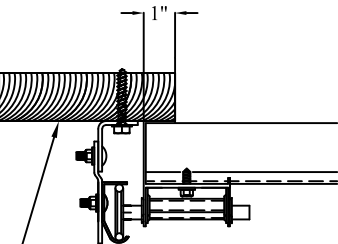
FOR LAG SCREWS & BRACKET SPACING SEE PAGE 4 FOR TRACK CONFIGURATION DETAIL



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



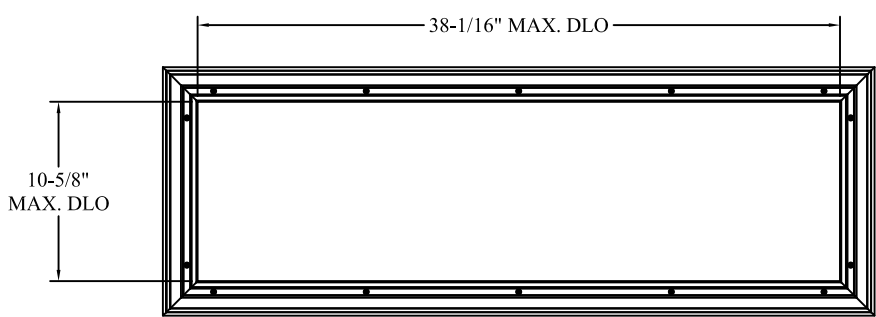
CONTINUOUS ANGLE MOUNT



REVERSE ANGLE MOUNT

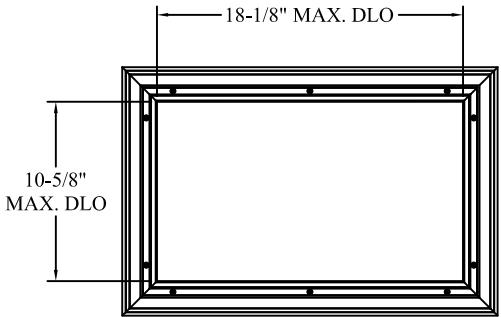
2x6 WOOD JAMB SYP OR SPF
(NO.2) OR BETTER (TYP.)

REV	DESCRIPTION OF REVISIONS	DATE	BY		
MAX SIZE 16'2 x 24' DESIGN LOADS +48.0 PSF -54.0 PSF TEST LOADS +72.0 PSF -81.0 PSF LARGE MISSILE IMPACT RESISTANCE		THOMAS L. SHELMERDINE LICENSE No. 48579 STATE OF FLORIDA PROFESSIONAL ENGINEER See Digital Signature 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 2442 AMARR 2042					
SIZE	DRAWN BY	DRC	DATE	06/19/24	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	08/14/24	IBC-4216-185-26-I
AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105					SHEET 2 OF 4

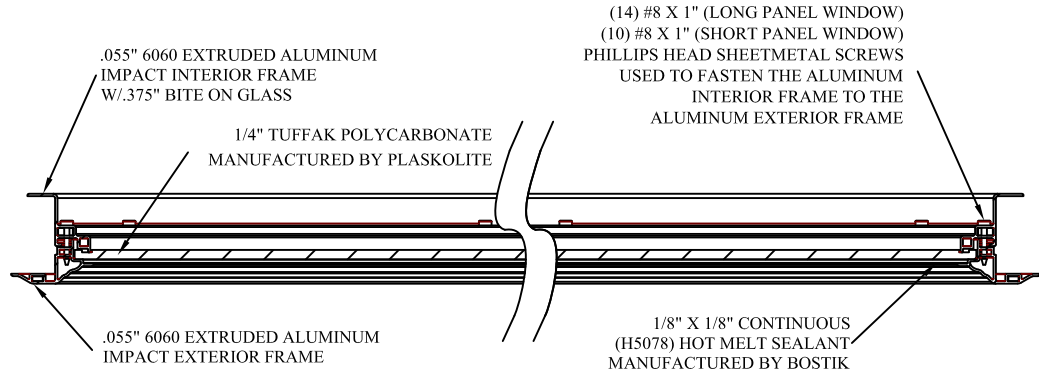


LONG PANEL IMPACT GLAZING FASTENER DETAIL
N.T.S.

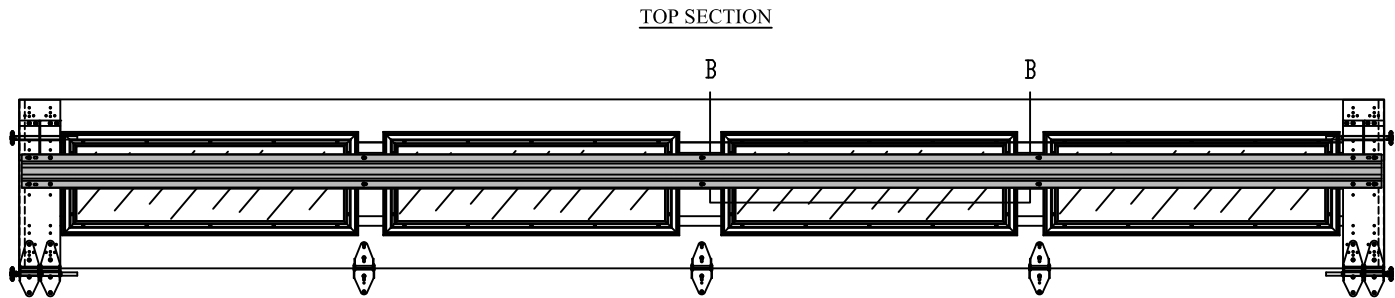
LONG PANEL GLAZING ONLY AVAILABLE IN CERTAIN DOOR WIDTHS



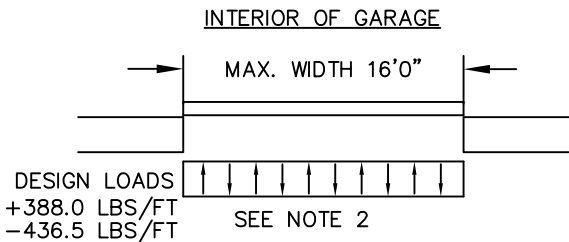
SHORT PANEL IMPACT GLAZING FASTENER DETAIL
N.T.S.



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

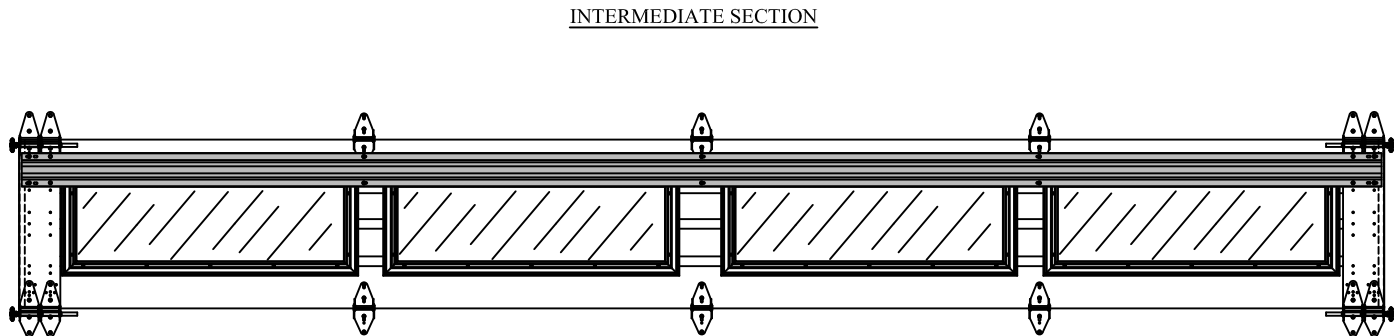


OPTIONAL GLAZED SECTION W/LONG PANEL IMPACT WINDOWS
N.T.S.



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: +388.0 LBS/FT & -436.5 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. (.022) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 24'0" HIGH USE (1) 5.5" 18GA R-TRUSS PER SECTION & (1) ADDITIONAL 3" 20GA STRUT ON THE BOTTOM SECTION.
6. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTRED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.



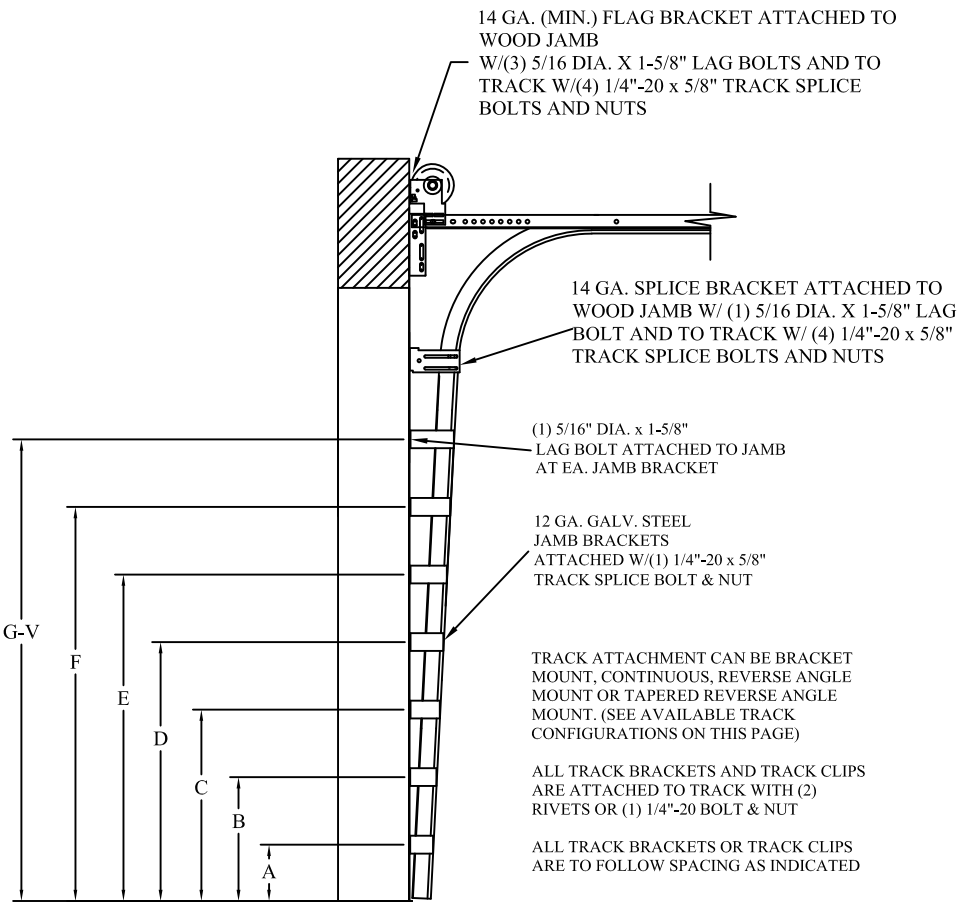
OPTIONAL GLAZED SECTION W/LONG PANEL IMPACT WINDOWS
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE 16'2 x 24' DESIGN LOADS +48.0 PSF -54.0 PSF TEST LOADS +72.0 PSF -81.0 PSF LARGE MISSILE IMPACT RESISTANCE		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 2442 AMARR 2042			
SIZE	DRAWN BY	DRC	DATE
B	CHECKED BY	RLR	DATE
			DRAWING NUMBER
			IBC-4216-185-26-I
AMARR COMPANY			SHEET 3 OF 4
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			

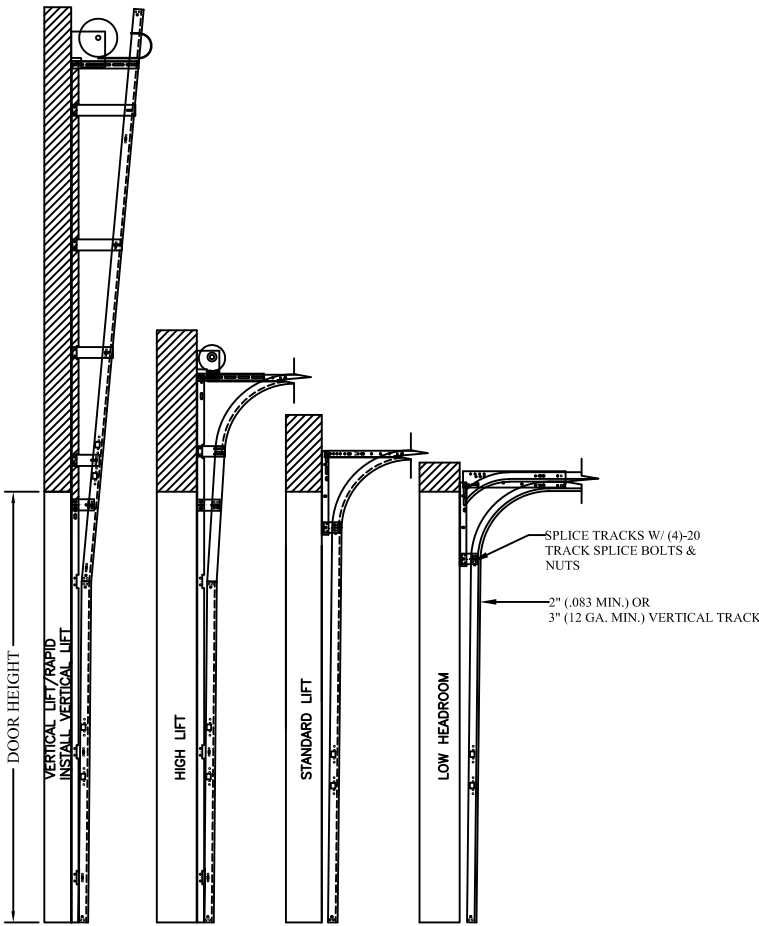
TABLE 1

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"	-	60.9	68.5
9'	6"	37"	77"	-	60.1	67.6
9'	8"	38"	78"	-	59.3	66.8
9'	10"	39"	79"	-	58.6	65.9
10'	0"	40"	80"	-	57.9	65.1
10'	2"	41"	81"	-	57.1	64.3
10'	4"	42"	82"	-	56.4	63.5
10'	6"	43"	83"	-	55.8	62.7
10'	8"	44"	84"	-	55.1	62.0
10'	10"	45"	85"	-	54.5	61.3
11'	0"	46"	86"	-	53.8	60.6
11'	2"	47"	87"	-	53.2	59.9
11'	4"	48"	88"	-	52.6	59.2
11'	6"	49"	89"	-	52.0	58.5
11'	8"	50"	90"	-	51.4	57.9
11'	10"	51"	91"	-	50.9	57.2
12'	0"	48"	96"	-	48.2	54.2
12'	2"	49"	97"	-	47.7	53.7
12'	4"	50"	98"	-	47.2	53.1
12'	6"	51"	99"	-	46.7	52.6
12'	8"	52"	100"	-	46.3	52.1
12'	10"	53"	101"	-	45.8	51.6
13'	0"	36"	78"	120"	55.1	62.0
13'	2"	37"	79"	121"	55.1	62.0
13'	4"	38"	80"	122"	55.1	62.0
13'	6"	39"	81"	123"	55.1	62.0
13'	8"	40"	82"	124"	55.1	62.0
13'	10"	41"	83"	125"	55.1	62.0
14'	0"	42"	84"	126"	55.1	62.0
14'	2"	43"	85"	127"	54.5	61.3
14'	4"	44"	86"	128"	53.8	60.6
14'	6"	45"	87"	129"	53.2	59.9
14'	8"	46"	88"	130"	52.6	59.2
14'	10"	47"	89"	131"	52.0	58.5
15'	0"	48"	90"	132"	51.4	57.9
15'	2"	49"	91"	133"	50.9	57.2
15'	4"	50"	92"	134"	50.3	56.6
15'	6"	51"	93"	135"	49.8	56.0
15'	8"	52"	94"	136"	49.2	55.4
15'	10"	53"	95"	137"	48.7	54.8
16'	0"	48"	96"	144"	48.2	54.2
16'	2"	49"	97"	145"	48.0	54.0

LONG PANEL GLAZING ONLY AVAILABLE IN SHADED SIZES



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



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

TABLE 3

SECTION	STRUT SIZE
12TH	5.5"
11TH	5.5"
10TH	5.5"
9TH	5.5"
8TH	5.5"
7TH	5.5"
6TH	5.5"
5TH	5.5"
4TH	5.5"
3RD	5.5"
2ND	5.5"
BOTTOM	5.5"
	3"

TABLE 2

DOOR HEIGHT		TRACK ATTACHMENT																			
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
7'	0"	3.5"	10"	22"	34"	46"	58"														
7'	6"	3.5"	10"	22"	34"	46"	58"	70"													
8'	0"	3.5"	10"	22"	34"	46"	58"	70"													
8'	6"	3.5"	10"	22"	34"	46"	58"	70"	82"												
9'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"												
9'	6"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"											
10'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"											
11'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"										
12'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"									
13'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"								
14'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"							
15'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"						
16'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"					
17'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"				
18'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"			
19'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"		
20'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	
21'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"
22'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"
23'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"
24'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"

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

REVDESCRIPTION OF REVISIONSDATEBY

MAX SIZE
16'2 x 24'

DESIGN LOADS
+48.0 PSF
-54.0 PSF

TEST LOADS
+72.0 PSF
-81.0 PSF

LARGE MISSILE IMPACT
RESISTANCE

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

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

FL

Amarr

AMARR 2442
AMARR 2042

SIZEDRAWN BYDRCDATE06/19/24DRAWING NUMBER

Bchecked byRLRDATE08/14/24IBC-4216-185-26-I

AMARR COMPANY
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105SHEET 4 OF 4