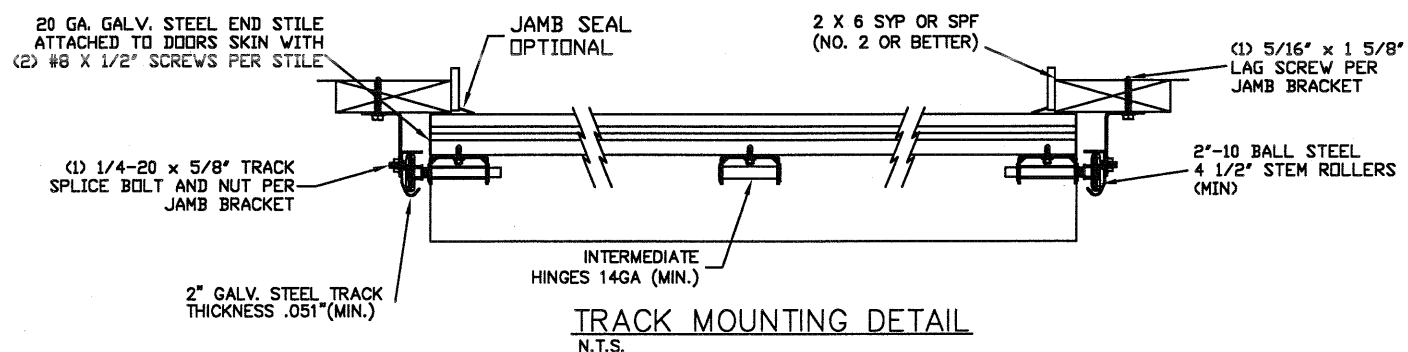
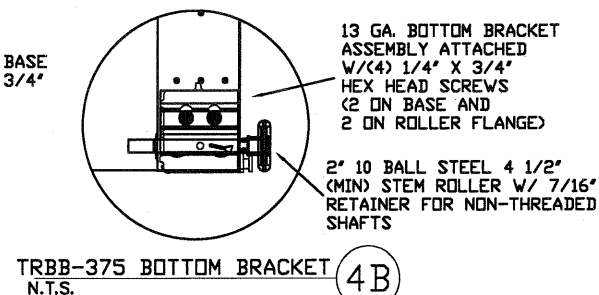
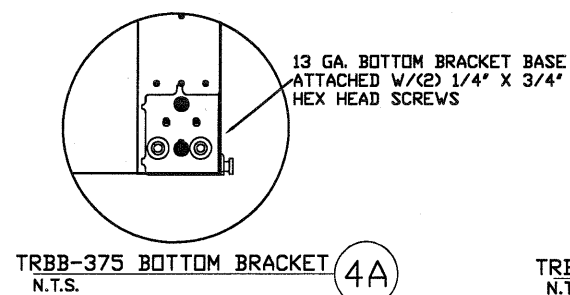
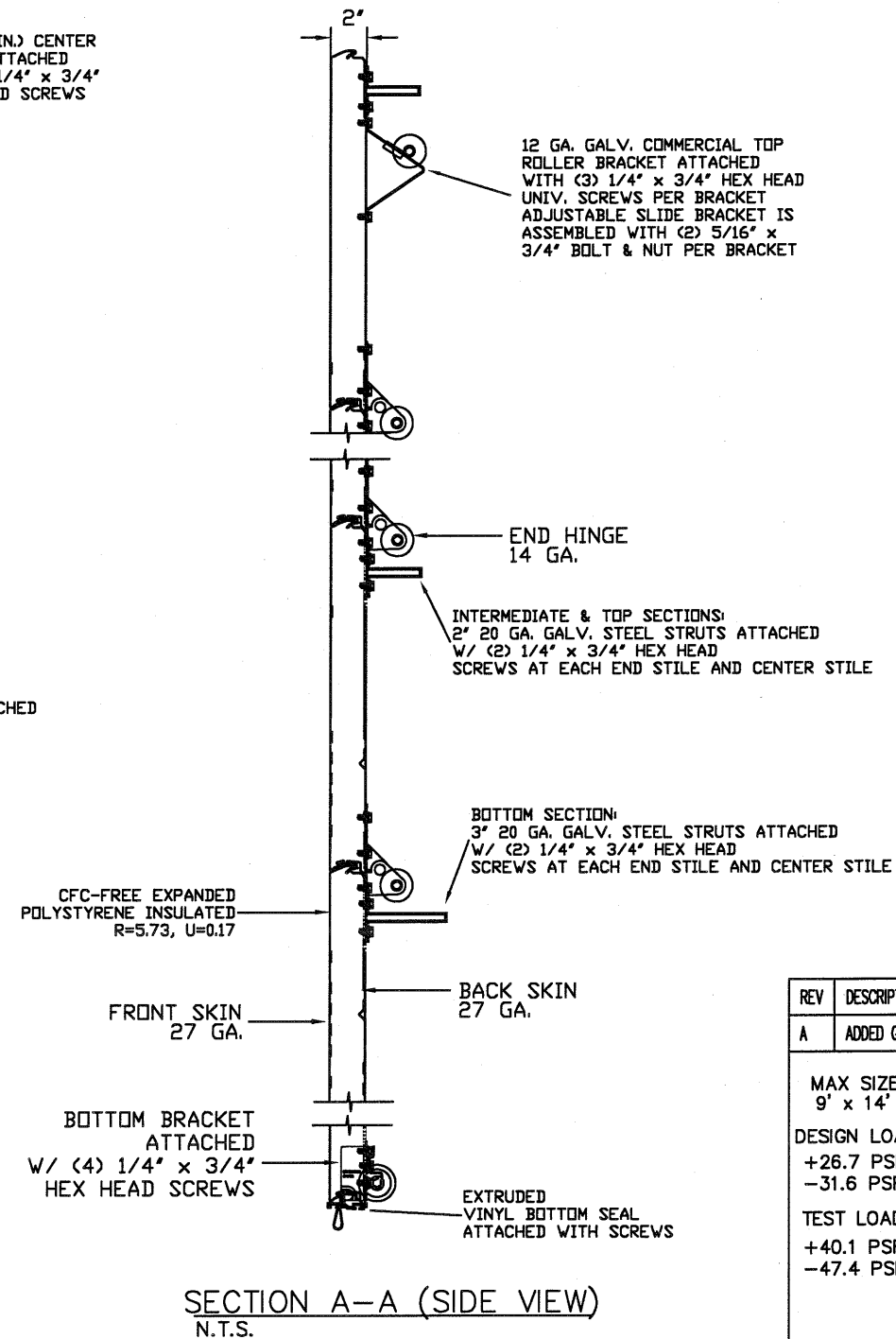
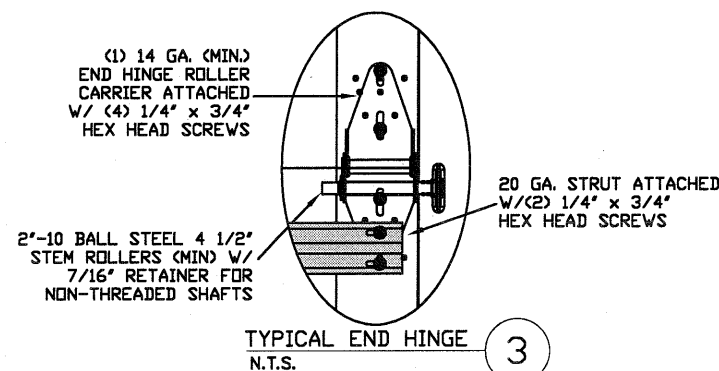
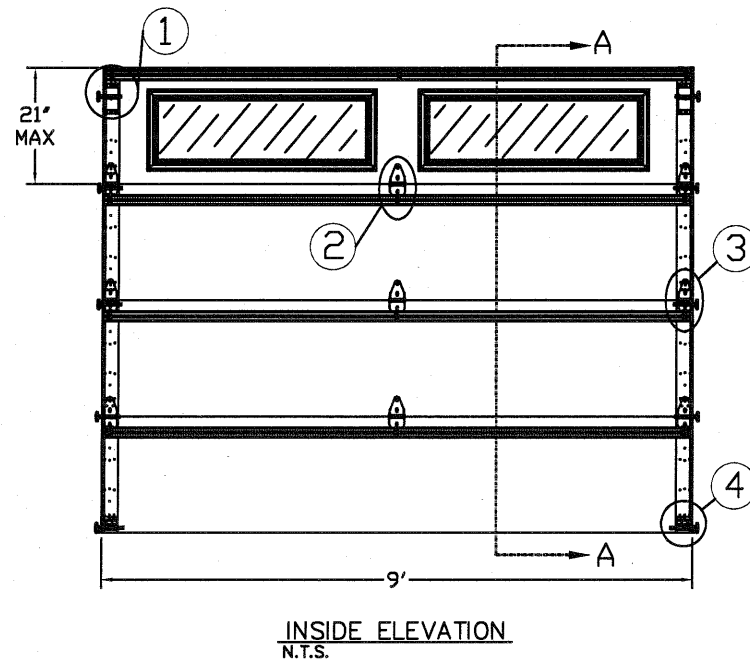
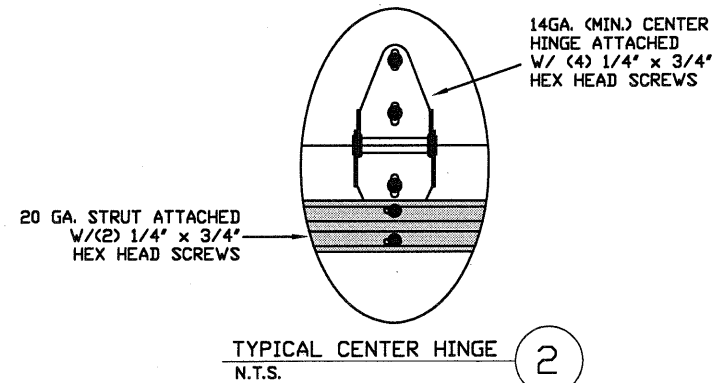
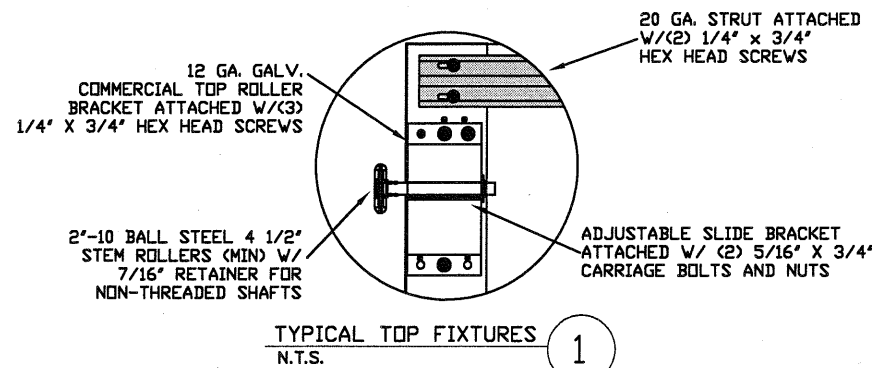


LARGE MISSILE IMPACT RESISTANCE



THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN DASMA 105 & 115, AND ASTM E330, E1886, E1996, & F588. 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'

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED GLAZING OPTIONS	10/21/13	RLR

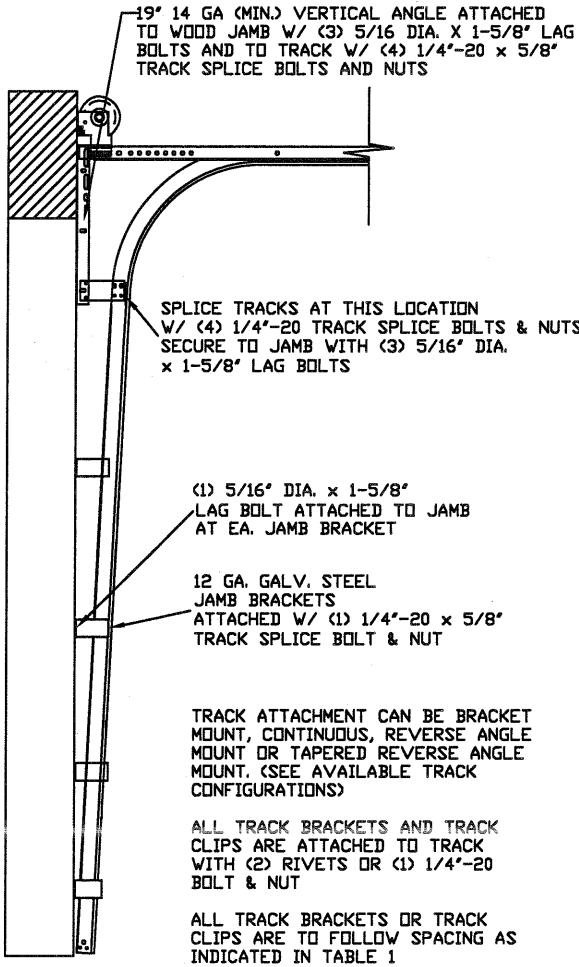
MAX SIZE 9' x 14'	THOMAS L. SHELDERDINE LICENSE No. 48579 STATE OF FLORIDA PROFESSIONAL ENGINEER FL	Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412) dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410
DESIGN LOADS +26.7 PSF -31.6 PSF		
TEST LOADS +40.1 PSF -47.4 PSF		
LARGE MISSILE IMPACT RESISTANCE		

MODEL #1600 AMARR LINCOLN 3000		MODEL #1650 AMARR HILLCREST 3000	
SIZE	DRAWN BY RLR	DATE 03/27/12	DRAWING NUMBER
B	CHECKED BY RLR	DATE 03/28/12	IRC-1609-130-15-1
ENTREMATICS 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			SHEET 1 OF 3

TABLE 1

HEIGHT	TRACK ATTACHMENT								SPLICE
	A	B	C	D	E	F	G	H	
6' 0"	3.5"	21"	42"						64"
6' 6"	3.5"	21"	42"	63"					70"
7' 0"	3.5"	21"	42"	63"					76"
7' 6"	3.5"	21"	42"	63"					82"
8' 0"	3.5"	21"	42"	63"	84"				88"
8' 6"	3.5"	21"	42"	63"	84"				94"
9' 0"	3.5"	21"	42"	63"	84"				100"
9' 6"	3.5"	21"	42"	63"	84"				106"
10' 0"	3.5"	21"	42"	63"	84"	105"			112"
10' 6"	3.5"	21"	42"	63"	84"	105"			118"
11' 0"	3.5"	21"	42"	63"	84"	105"			124"
11' 6"	3.5"	21"	42"	63"	84"	105"	126"		130"
12' 0"	3.5"	21"	42"	63"	84"	105"	126"		136"
12' 6"	3.5"	21"	42"	63"	84"	105"	126"		142"
13' 0"	3.5"	21"	42"	63"	84"	105"	126"		148"
13' 6"	3.5"	21"	42"	63"	84"	105"	126"	147"	154"
14' 0"	3.5"	21"	42"	63"	84"	105"	126"	147"	160"

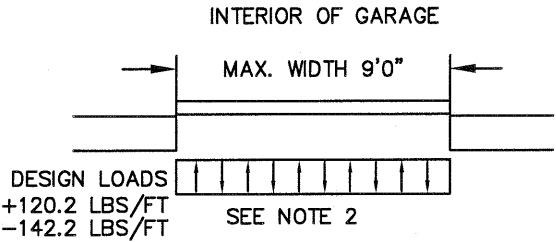
ALL TRACK ATTACHMENT SPACING +/- 2" ALLOWED WITH SYP OR SPF NO. 2 OR BETTER ONLY



TRACK CONFIGURATION FOR UP TO 14' TALL DOORS
N.T.S.

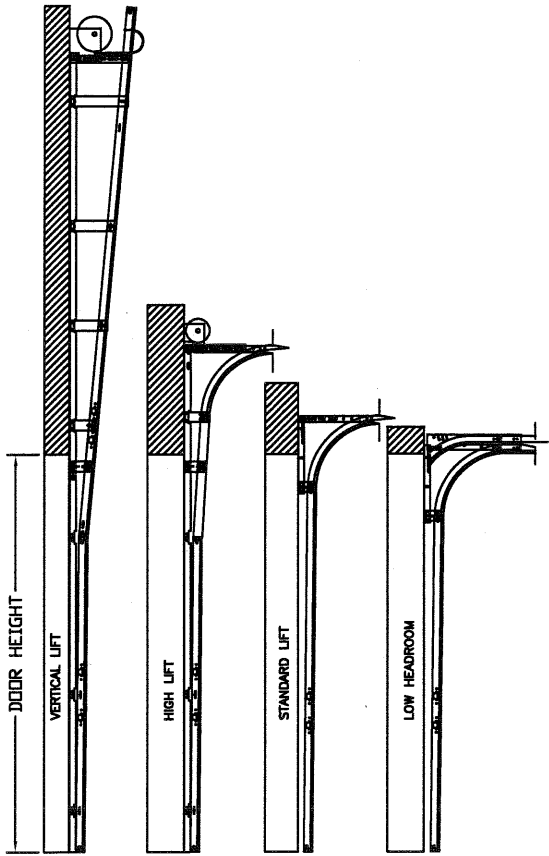
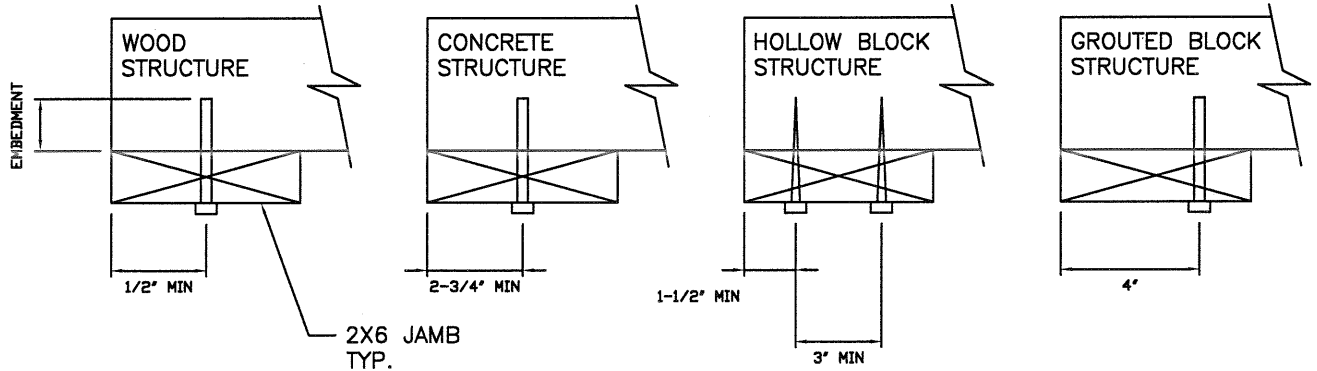
SPECIFICATIONS AND NOTES

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: +120.2 LBS/FT & -142.2 LBS/FT.
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 27GA MIN. INTERIOR AND 27GA 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.
6. PANEL STAMP DOES NOT AFFECT WINDLOAD CAPABILITIES.



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 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



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED GLAZING OPTIONS	10/21/13	RLR

MAX SIZE
9' x 14'

DESIGN LOADS
+26.7 PSF
-31.6 PSF

TEST LOADS
+40.1 PSF
-47.4 PSF

LARGE MISSILE
IMPACT
RESISTANCE

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 #1600 AMARR LINCOLN 3000
MODEL #1650 AMARR HILLCREST 3000

SIZE	DRAWN BY	RLR	DATE	03/27/12	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	03/28/12	IRC-1609-130-15-1

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

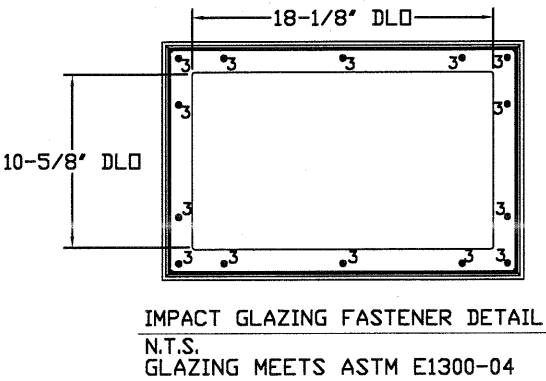
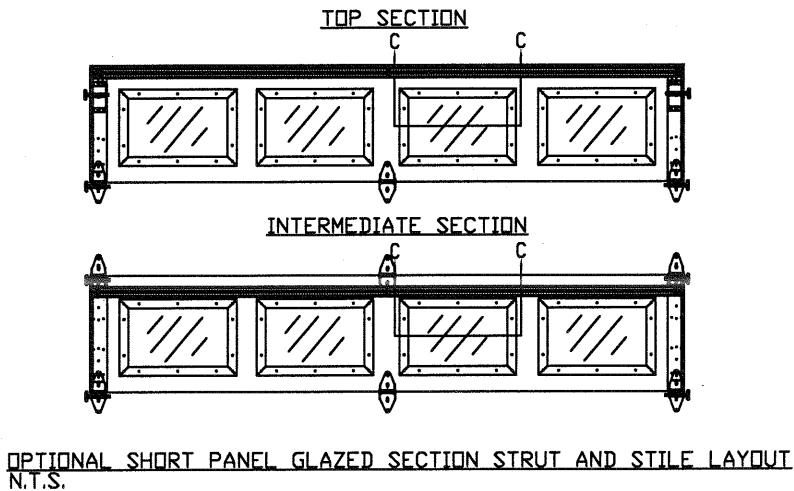
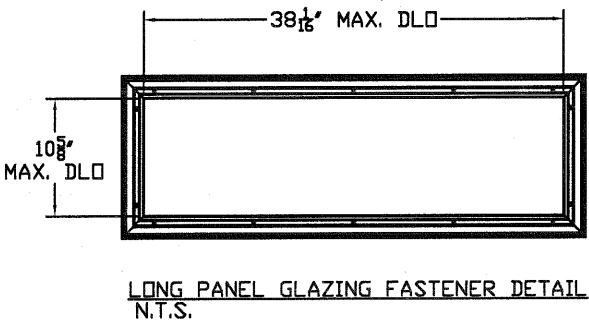
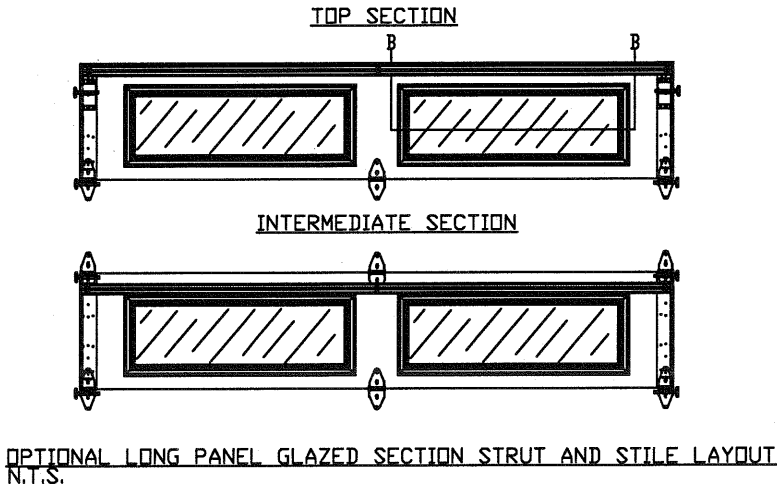
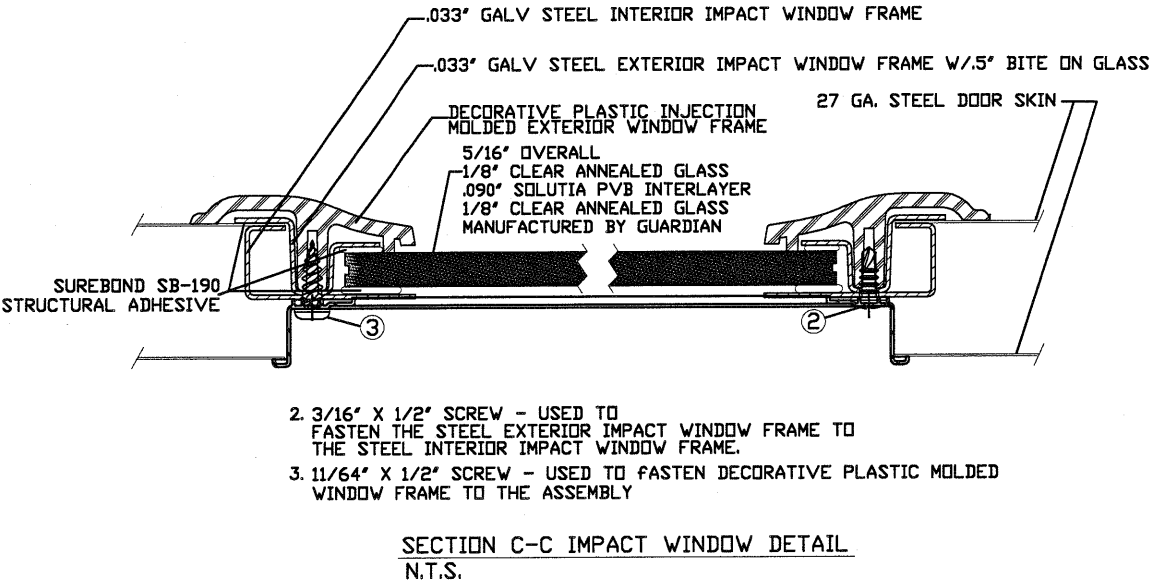
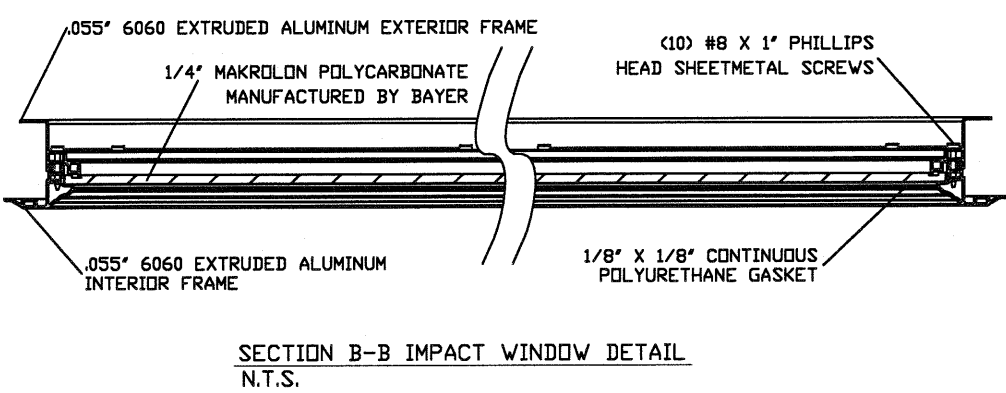
SHEET 2 OF 3

TABLE 2

DOOR HEIGHT	SECTION HEIGHTS							
	Btm	#2	#3	#4	#5	#6	#7	#8
6' 0"	18"	18"	18"	18"				
6' 6"	21"	18"	18"	21"				
7' 0"	21"	21"	21"	21"				
7' 6"	18"	18"	18"	18"	18"			
8' 0"	21"	18"	18"	18"	21"			
8' 6"	21"	21"	21"	18"	21"			
9' 0"	18"	18"	18"	18"	18"	18"		
9' 6"	21"	18"	18"	18"	18"	21"		
10' 0"	21"	21"	21"	18"	18"	21"		
10' 6"	21"	21"	21"	21"	21"	21"		
11' 0"	21"	18"	18"	18"	18"	18"	21"	
11' 6"	21"	21"	21"	18"	18"	18"	21"	
12' 0"	21"	21"	21"	21"	21"	18"	21"	
12' 6"	21"	18"	18"	18"	18"	18"	18"	21"
13' 0"	21"	21"	21"	18"	18"	18"	18"	21"
13' 6"	21"	21"	21"	21"	21"	18"	18"	21"
14' 0"	21"	21"	21"	21"	21"	21"	21"	21"

TABLE 3

Section Width (ft)	Panel Type	Center Stile Location (Measured from Left Edge)		Max Design Loads Allowed	
		1st (in)	2nd (in)	Positive (PSF)	Negative (PSF)
6' 0"	Short	24.406	47.594	40.0	47.4
7' 0"	Short	29.200	54.800	34.3	40.6
7' 2"	Short	30.200	55.800	33.5	39.6
7' 4"	Short	31.200	56.800	32.7	38.7
7' 6"	Short	32.200	57.800	32.0	37.9
7' 6"	Long	45.000		32.0	37.9
7' 8"	Short	32.200	60.000	31.3	37.0
7' 8"	Long	46.000		31.3	37.0
7' 10"	Short	33.000	61.000	30.6	36.3
7' 10"	Long	47.000		30.6	36.3
8' 0"	Short	48.000		30.0	35.5
8' 0"	Long	48.000		30.0	35.5
8' 2"	Short	49.000		29.4	34.8
8' 2"	Long	49.000		29.4	34.8
8' 4"	Short	50.000		28.8	34.1
8' 4"	Long	50.000		28.8	34.1
8' 6"	Short	51.000		28.2	33.4
8' 6"	Long	51.000		28.2	33.4
8' 8"	Short	52.000		27.7	32.8
8' 8"	Long	52.000		27.7	32.8
8' 10"	Short	53.000		27.2	32.1
8' 10"	Long	53.000		27.2	32.1
9' 0"	Short	54.000		26.7	31.6
9' 0"	Long	54.000		26.7	31.6



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DESIGN LOADS
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-31.6 PSF

TEST LOADS
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-47.4 PSF

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SHEET 3 OF 3