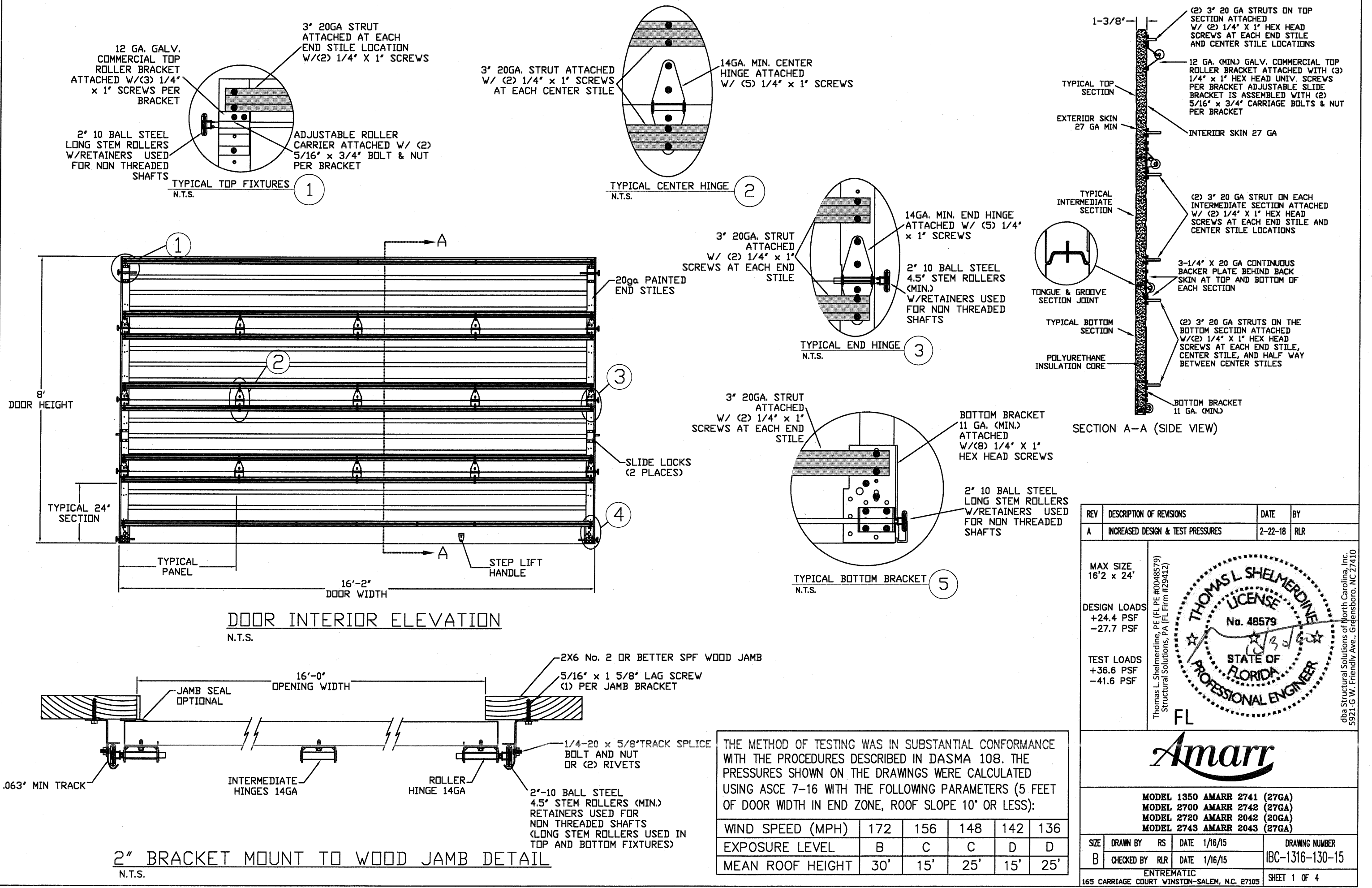
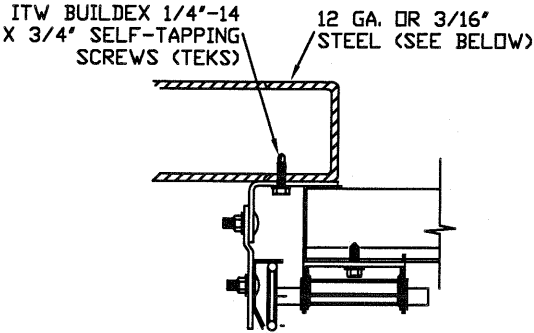




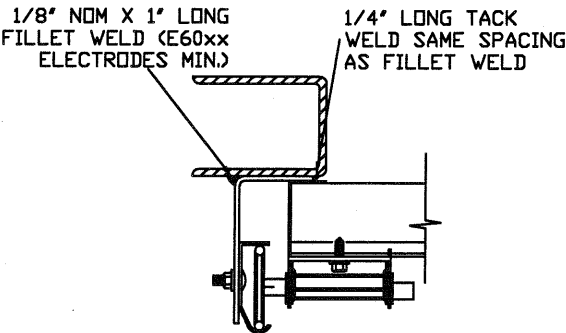
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



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



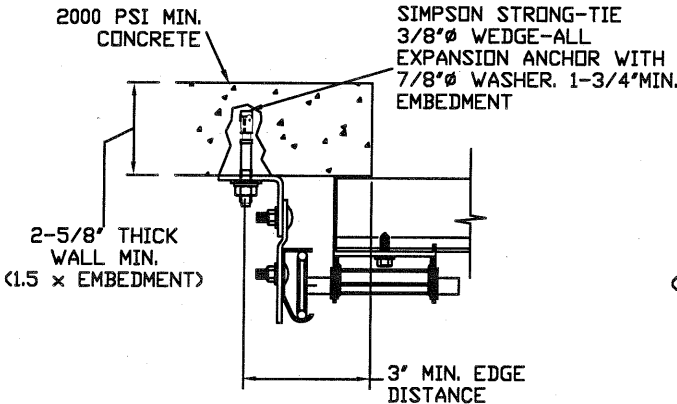
REVERSE ANGLE MOUNT SHOWN  
BRACKET, CONTINUOUS AND  
TAPERED ANGLE MOUNT AVAILABLE

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

NOTES:

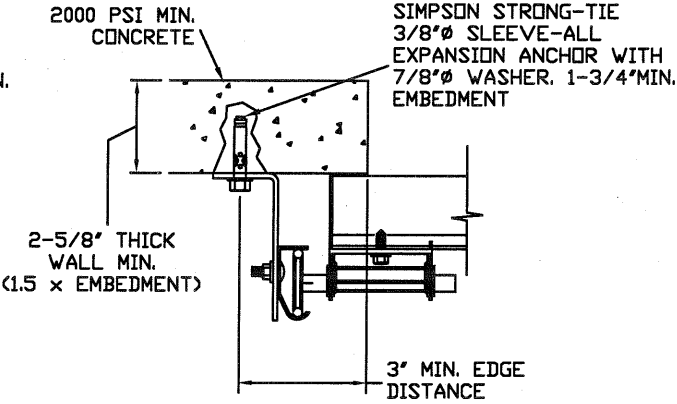
1. ANCHORS TO BE EVENLY SPACED BETWEEN THE HEADER AND FLOOR.
2. FIRST (BOTTOM) ANCHOR STARTING AT NO MORE THAN HALF OF THE MAXIMUM ON-CENTER DISTANCE. HIGHEST ANCHOR INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING.
3. MIN. EDGE DISTANCE OF 3" REQUIRED.
4. USE WASHERS PROVIDED BY THE ANCHOR MANUFACTURER.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

WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)



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

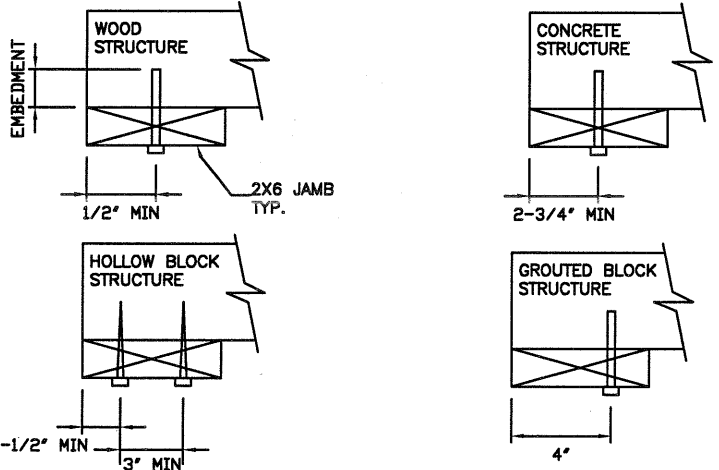
2000 PSI CONCRETE OR GREATER  
336 LBS./EXPANSION ANCHOR ALLOWABLE  
LOAD - 6' FROM ENDS AND 18" O.C.  
REFER TO NOTES: 1, 2, 3, 4 AND 5

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 22" 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)

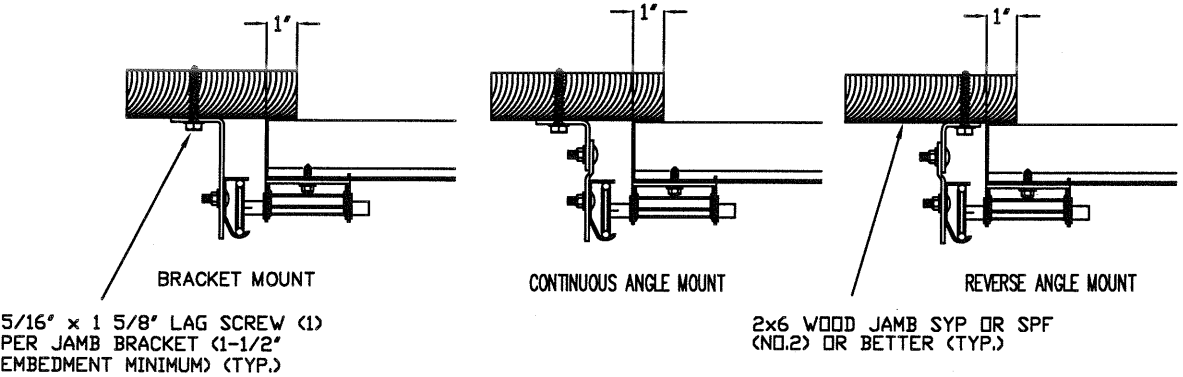
2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK  
SIMPSON 1/4" X 3" TITEN SCREWS STARTING 6" FROM ENDS,  
USE PAIRS OF FASTENERS (3" APART)  
AT 16" O.C. (1 1/2" EMBEDMENT)  
HILTI 1/4" X 2-3/4" KWIK-CON II+ SCREWS STARTING 6" FROM ENDS,  
USE PAIRS OF FASTENERS (3" APART) AT 16" O.C. (1 1/4" EMBEDMENT)  
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 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



TRACK CONNECTION TO WOOD JAMB OPTIONS

FOR LAG SCREWS & BRACKET SPACING SEE TRACK CONFIGURATION DETAIL



| REV | DESCRIPTION OF REVISIONS          | DATE    | BY  |
|-----|-----------------------------------|---------|-----|
| A   | INCREASED DESIGN & TEST PRESSURES | 2-22-18 | RLR |

MAX SIZE  
16'2 x 24'

DESIGN LOADS  
+24.4 PSF  
-27.7 PSF

TEST LOADS  
+36.6 PSF  
-41.6 PSF

Thomas L. Shelmerdine, PE (FL PE #0048579)  
Structural Solutions, PA (FL Firm #29412)

FL

Thomas L. Shelmerdine  
LICENSE  
No. 48579  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

dba Structural Solutions of North Carolina, Inc.  
5921-G W. Friendly Ave., Greensboro, NC 27410

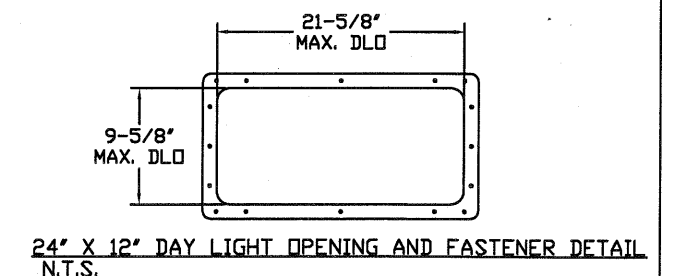
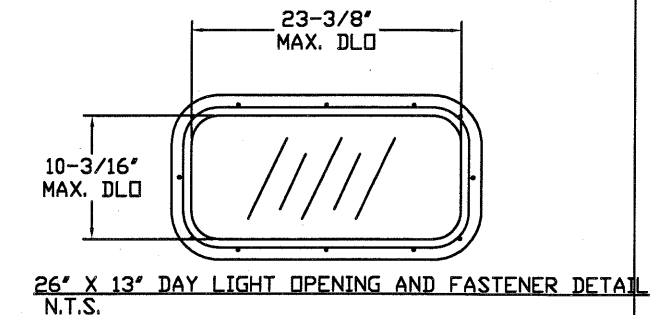
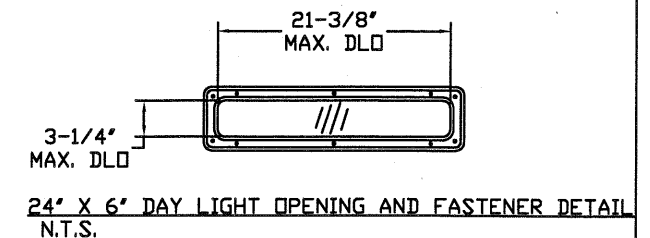
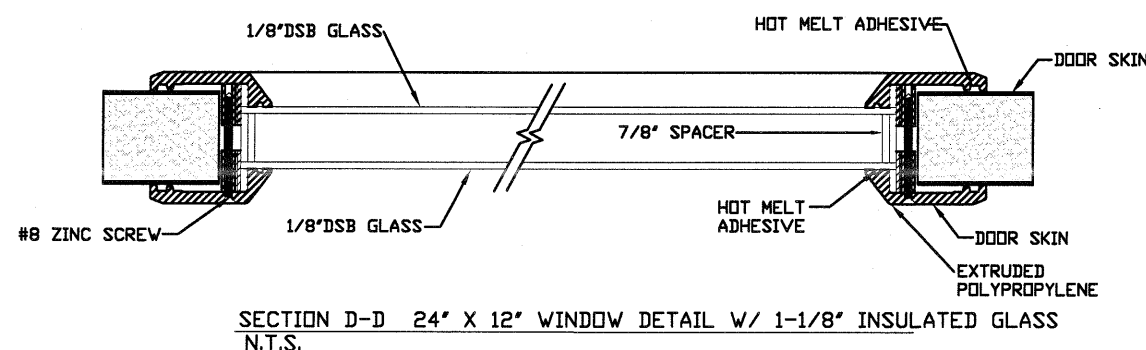
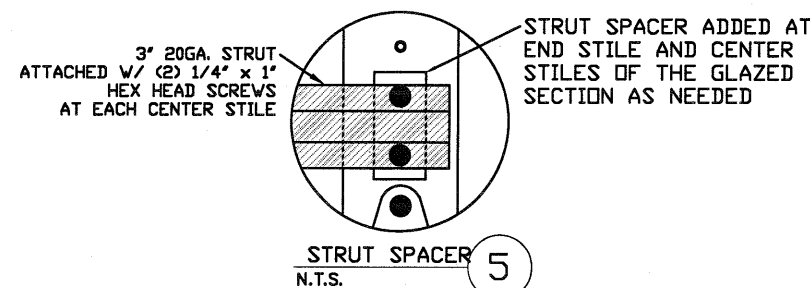
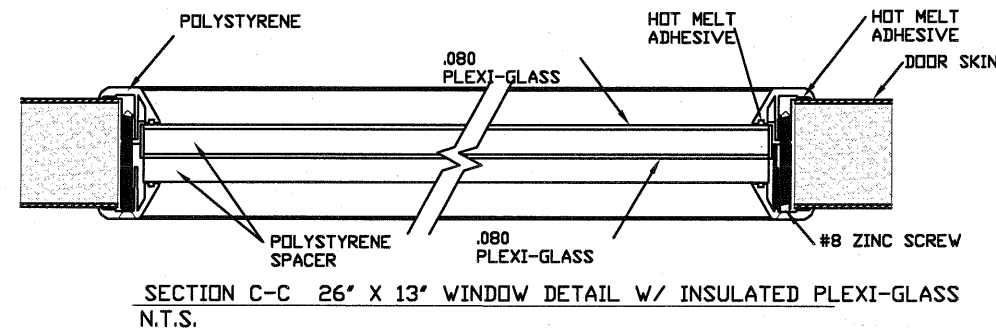
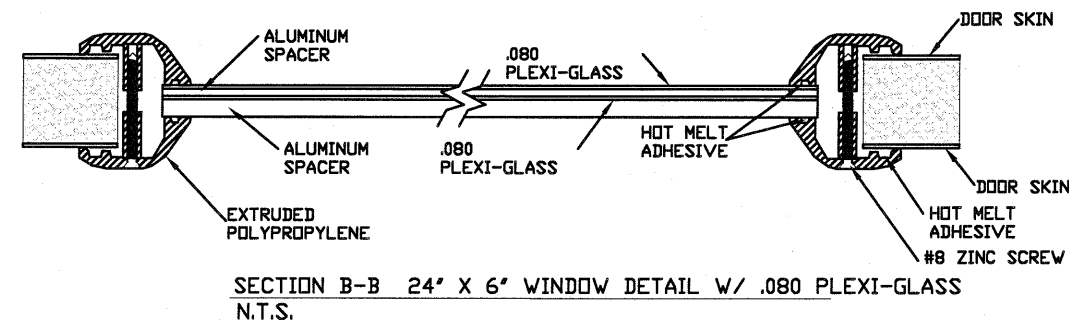
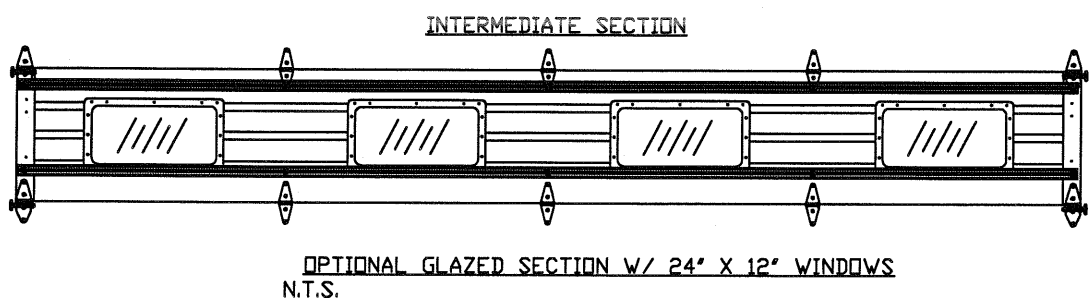
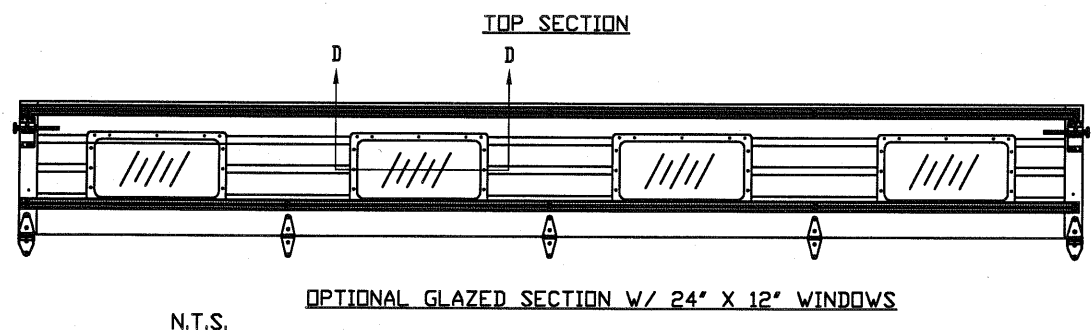
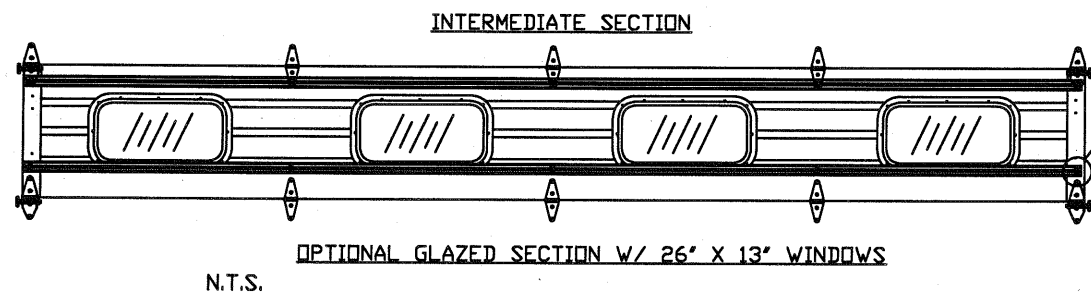
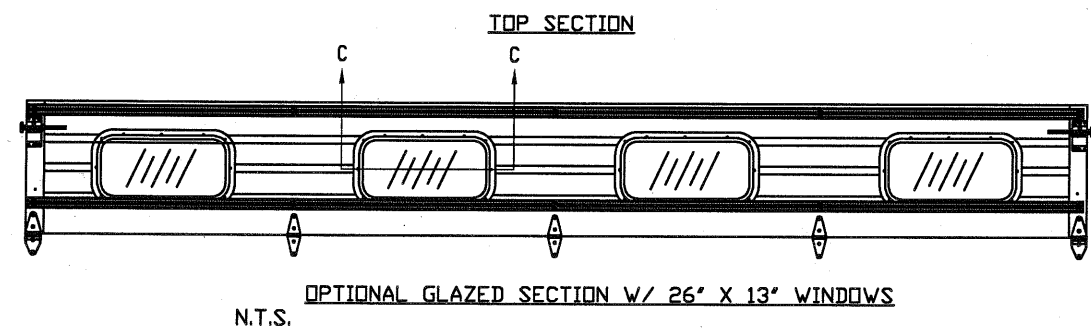
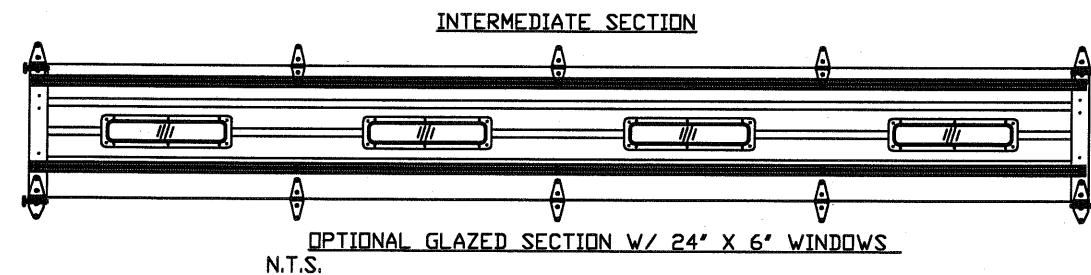
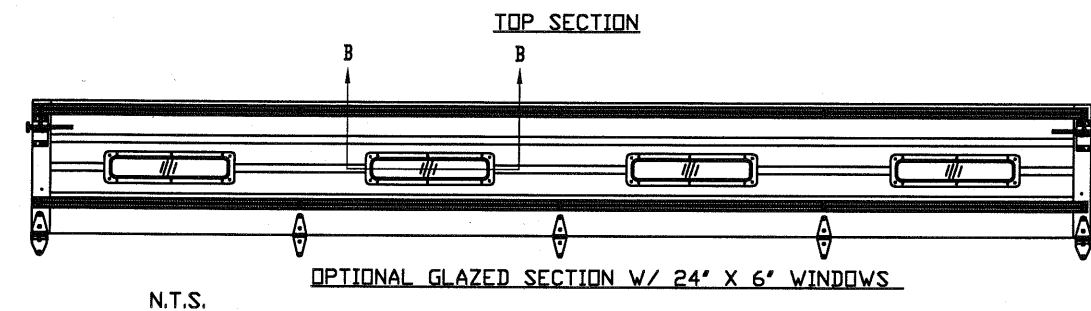
**Amarr**

MODEL 1350 AMARR 2741 (27GA)  
MODEL 2700 AMARR 2742 (27GA)  
MODEL 2720 AMARR 2042 (20GA)  
MODEL 2743 AMARR 2043 (27GA)

| SIZE | DRAWN BY   | RS  | DATE | 1/16/15 | DRAWING NUMBER  |
|------|------------|-----|------|---------|-----------------|
| B    | CHECKED BY | RLR | DATE | 1/16/15 | IBC-1316-130-15 |

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

SHEET 2 OF 4



| REV | DESCRIPTION OF REVISIONS          | DATE    | BY  |
|-----|-----------------------------------|---------|-----|
| A   | INCREASED DESIGN & TEST PRESSURES | 2-22-18 | RLR |

|                                        |                                                                                                                                                        |                                                                                                                                                              |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MAX SIZE<br>16'2" x 24'                | <div> <div> Thomas L. Shelmerdine, PE (FL PE #0048579)<br/> Structural Solutions, PA (FL Firm #299412) </div> <div> </div> </div> <div> FL<br/> </div> | <div> Thomas L. Shelmerdine, PE (FL PE #0048579)<br/> Structural Solutions of North Carolina, Inc.<br/> 5921-G.W. Friendly Ave., Greensboro, NC 27410 </div> |
| DESIGN LOADS<br>+24.4 PSF<br>-27.7 PSF |                                                                                                                                                        |                                                                                                                                                              |
| TEST LOADS<br>+36.6 PSF<br>-41.6 PSF   |                                                                                                                                                        |                                                                                                                                                              |

|                              |                              |
|------------------------------|------------------------------|
| MODEL 1350 AMARR 2741 (27GA) | MODEL 2700 AMARR 2742 (27GA) |
| MODEL 2720 AMARR 2042 (20GA) | MODEL 2743 AMARR 2043 (27GA) |

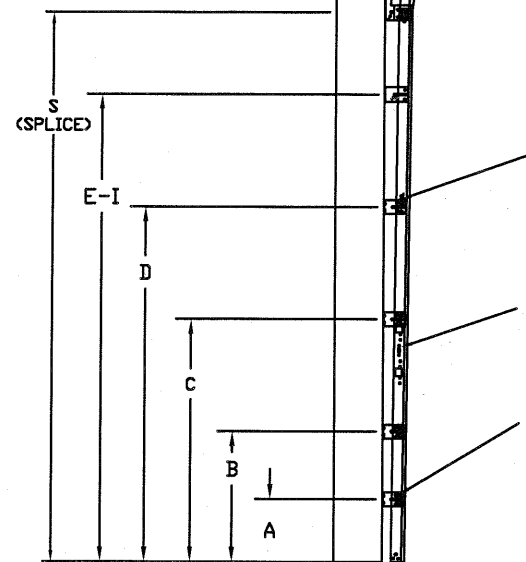
  

|      |            |     |      |         |                                   |
|------|------------|-----|------|---------|-----------------------------------|
| SIZE | DRAWN BY   | RS  | DATE | 1/16/15 | DRAWING NUMBER<br>IBC-1316-130-15 |
| B    | CHECKED BY | RLR | DATE | 1/16/15 |                                   |

|                                             |  |  |  |              |
|---------------------------------------------|--|--|--|--------------|
| ENTREMATIC                                  |  |  |  | SHEET 3 OF 4 |
| 165 CARRIAGE COURT WINSTON-SALEM, NC. 27105 |  |  |  |              |

14 GA. FLAG BRACKET ATTACHED TO WOOD JAMB W/ (3) 5/16 DIA. X 1-5/8" LAG BOLTS AND TO TRACK W/ (4) 1/4"-20 X 5/8" TRACK SPLICE BOLTS AND NUTS



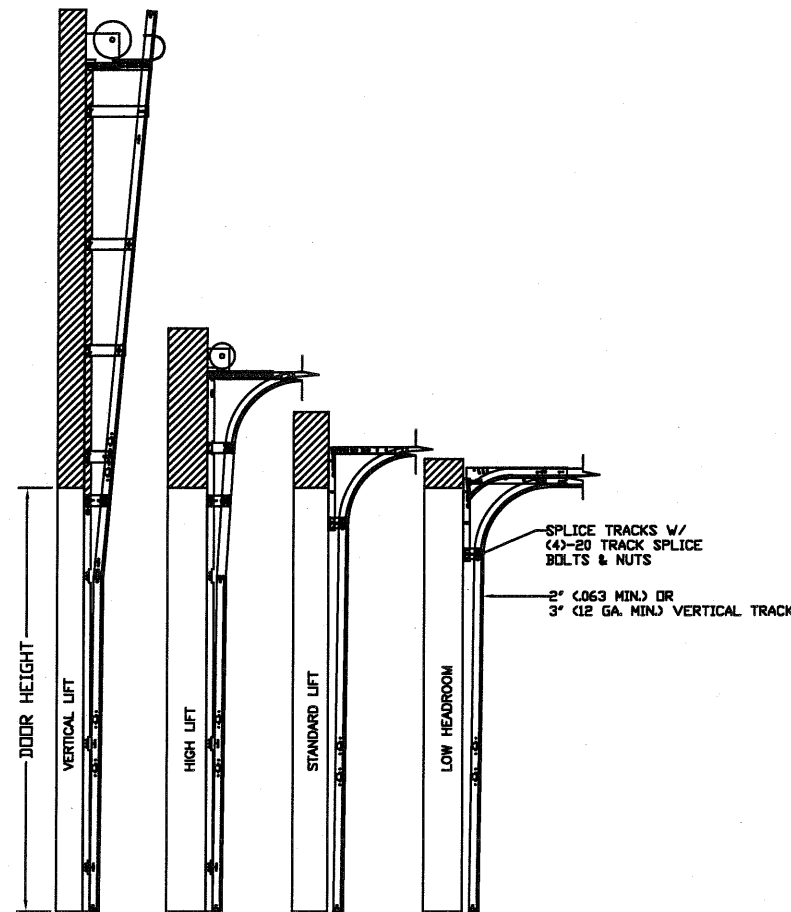
TRACK CONFIGURATION FOR UP TO 24' TALL DOORS  
N.T.S.

SEE TABLE 2 FOR TRACK ATTACHMENT SPACING

SPLICE TRACKS AT THIS LOCATION W/ (4) 1/4"-20 TRACK SPLICE BOLTS & NUTS SECURE TO JAMB WITH (3) 5/16" DIA. X 1-5/8" LAG BOLTS

(1) 5/16" DIA. X 1-5/8" LAG BOLT ATTACHED TO JAMB AT EA. JAMB BRACKET

12 GA. GALV. STEEL JAMB BRACKETS ATTACHED W/ (1) 1/4"-20 TRACK SPLICE BOLT & NUT OR (2) RIVETS



AVAILABLE TRACK CONFIGURATIONS  
N.T.S.

TABLE 2

| DOOR HEIGHT | TRACK ATTACHMENT |     |     |     |     |     |      |      |      |      |      |      |      | TYPICAL SPLICE |
|-------------|------------------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|----------------|
|             | A                | B   | C   | D   | E   | F   | G    | H    | I    | J    | K    | L    | M    |                |
| 7' 0"       | 10.0"            | 21" | 39" |     |     |     |      |      |      |      |      |      |      | 76"            |
| 7' 6"       | 10.0"            | 21" | 39" | 57" |     |     |      |      |      |      |      |      |      | 82"            |
| 8' 0"       | 10.0"            | 21" | 39" | 57" | 75" |     |      |      |      |      |      |      |      | 88"            |
| 8' 6"       | 10.0"            | 21" | 39" | 57" | 75" |     |      |      |      |      |      |      |      | 94"            |
| 9' 0"       | 10.0"            | 21" | 39" | 57" | 75" |     |      |      |      |      |      |      |      | 100"           |
| 9' 6"       | 10.0"            | 21" | 39" | 57" | 75" | 93" |      |      |      |      |      |      |      | 106"           |
| 10' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" |      |      |      |      |      |      |      | 112"           |
| 11' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" |      |      |      |      |      |      | 124"           |
| 12' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" |      |      |      |      |      |      | 136"           |
| 13' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" |      |      |      |      |      | 148"           |
| 14' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" |      |      |      |      |      | 160"           |
| 15' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" |      |      |      |      | 172"           |
| 16' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" |      |      |      |      | 184"           |
| 17' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" | 165" |      |      |      | 196"           |
| 18' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" | 165" |      |      |      | 208"           |
| 19' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" | 165" | 183" |      |      | 220"           |
| 20' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" | 165" | 183" |      |      | 232"           |
| 21' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" | 165" | 183" | 201" |      | 244"           |
| 22' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" | 165" | 183" | 201" |      | 256"           |
| 23' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" | 165" | 183" | 201" | 219" | 268"           |
| 24' 0"      | 10.0"            | 21" | 39" | 57" | 75" | 93" | 111" | 129" | 147" | 165" | 183" | 201" | 219" | 280"           |

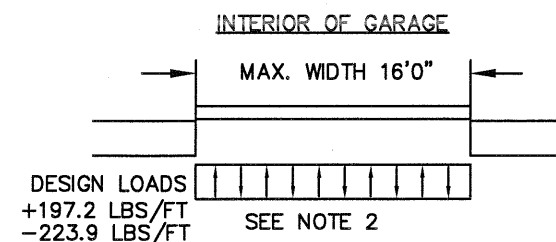
ALL TRACK ATTACHMENT SPACING +/-2' ALLOWED WITH SPF OR SYP NO. 2 OR BETTER ONLY  
AMARR MODEL 1350 ONLY AVAILABLE UP TO 14'

TABLE 1

| Section Width (ft) | Center Stile Locations (Measured from Left Edge) |          |          | Max Design Loads Allowed |                |
|--------------------|--------------------------------------------------|----------|----------|--------------------------|----------------|
|                    | 1st (in)                                         | 2nd (in) | 3rd (in) | Positive (PSF)           | Negative (PSF) |
| 12' 4"             | 50                                               | 98       | -        | 24.0                     | 27.2           |
| 12' 6"             | 51                                               | 99       | -        | 23.8                     | 27.0           |
| 12' 8"             | 52                                               | 100      | -        | 23.5                     | 26.7           |
| 12' 10"            | 53                                               | 101      | -        | 23.3                     | 26.4           |
| 13' 0"             | 36                                               | 78       | 120      | 28.0                     | 31.8           |
| 13' 2"             | 37                                               | 79       | 121      | 28.0                     | 31.8           |
| 13' 4"             | 38                                               | 80       | 122      | 28.0                     | 31.8           |
| 13' 6"             | 39                                               | 81       | 123      | 28.0                     | 31.8           |
| 13' 8"             | 40                                               | 82       | 124      | 28.0                     | 31.8           |
| 13' 10"            | 41                                               | 83       | 125      | 28.0                     | 31.8           |
| 14' 0"             | 42                                               | 84       | 126      | 28.0                     | 31.8           |
| 14' 2"             | 43                                               | 85       | 127      | 27.7                     | 31.4           |
| 14' 4"             | 44                                               | 86       | 128      | 27.3                     | 31.0           |
| 14' 6"             | 45                                               | 87       | 129      | 27.0                     | 30.7           |
| 14' 8"             | 46                                               | 88       | 130      | 26.7                     | 30.3           |
| 14' 10"            | 47                                               | 89       | 131      | 26.4                     | 30.0           |
| 15' 0"             | 48                                               | 90       | 132      | 26.1                     | 29.7           |
| 15' 2"             | 49                                               | 91       | 133      | 25.8                     | 29.3           |
| 15' 4"             | 50                                               | 92       | 134      | 25.5                     | 29.0           |
| 15' 6"             | 51                                               | 93       | 135      | 25.3                     | 28.7           |
| 15' 8"             | 52                                               | 94       | 136      | 25.0                     | 28.4           |
| 15' 10"            | 53                                               | 95       | 137      | 24.7                     | 28.1           |
| 16' 0"             | 48                                               | 96       | 144      | 24.5                     | 27.8           |
| 16' 2"             | 49                                               | 97       | 145      | 24.4                     | 27.7           |

SPECIFICATIONS AND NOTES

- 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.
- EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF: +197.2 LBS/FT & -223.9 LBS/FT
- DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
- DOOR SECTIONS SHALL BE 27 GA. (.015) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
- DOORS UP TO 24'0" HIGH HAVE (2) 3" 20GA STRUTS PER SECTION
- SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.



|     |                                   |         |     |
|-----|-----------------------------------|---------|-----|
| REV | DESCRIPTION OF REVISIONS          | DATE    | BY  |
| A   | INCREASED DESIGN & TEST PRESSURES | 2-22-18 | RLR |

MAX SIZE  
16'2 x 24'

DESIGN LOADS  
+24.4 PSF  
-27.7 PSF

TEST LOADS  
+36.6 PSF  
-41.6 PSF

Thomas L. Shelmerdine, PE (FL #0048579)  
Structural Solutions, PA (FL Firm #29412)

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dba Structural Solutions of North Carolina, Inc.  
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**Amarr**

MODEL 1350 AMARR 2741 (27GA)  
MODEL 2700 AMARR 2742 (27GA)  
MODEL 2720 AMARR 2042 (20GA)  
MODEL 2743 AMARR 2043 (27GA)

|      |            |     |      |         |                 |
|------|------------|-----|------|---------|-----------------|
| SIZE | DRAWN BY   | RS  | DATE | 1/16/15 | DRAWING NUMBER  |
| B    | CHECKED BY | RLR | DATE | 1/16/15 | IBC-1316-130-15 |

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

SHEET 4 OF 4