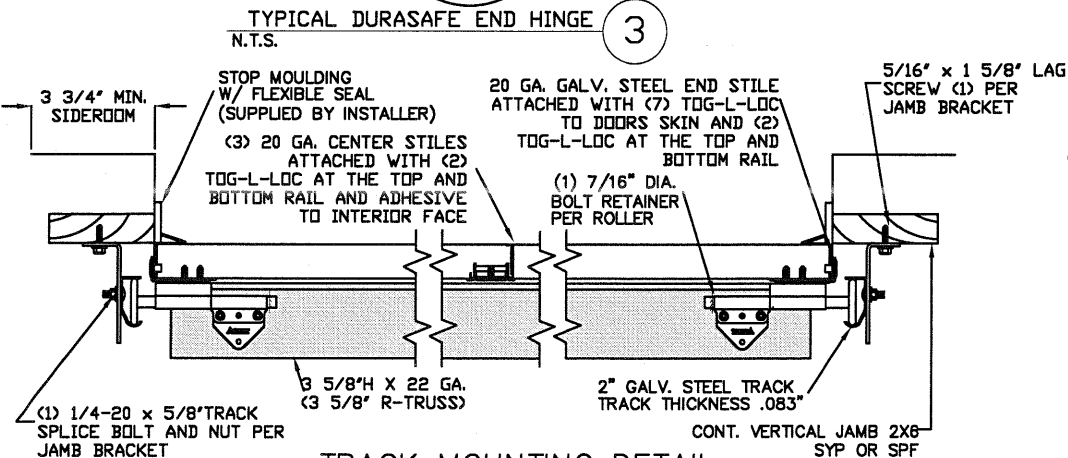
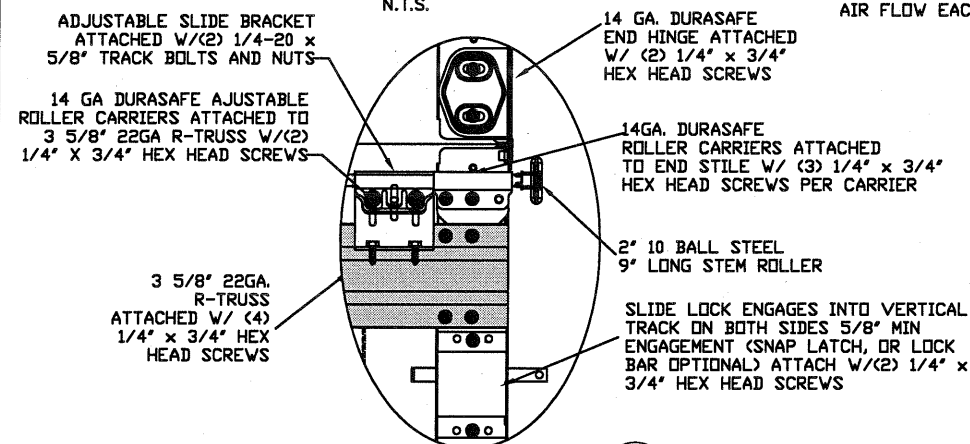
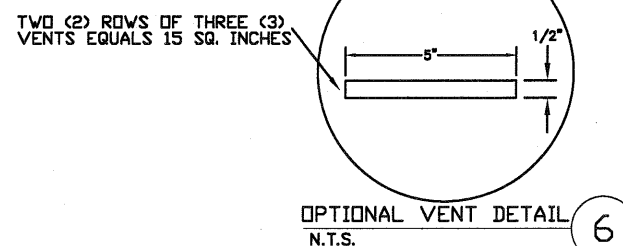
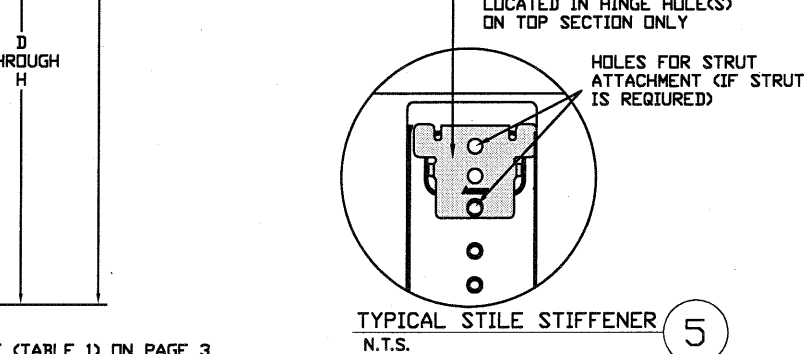
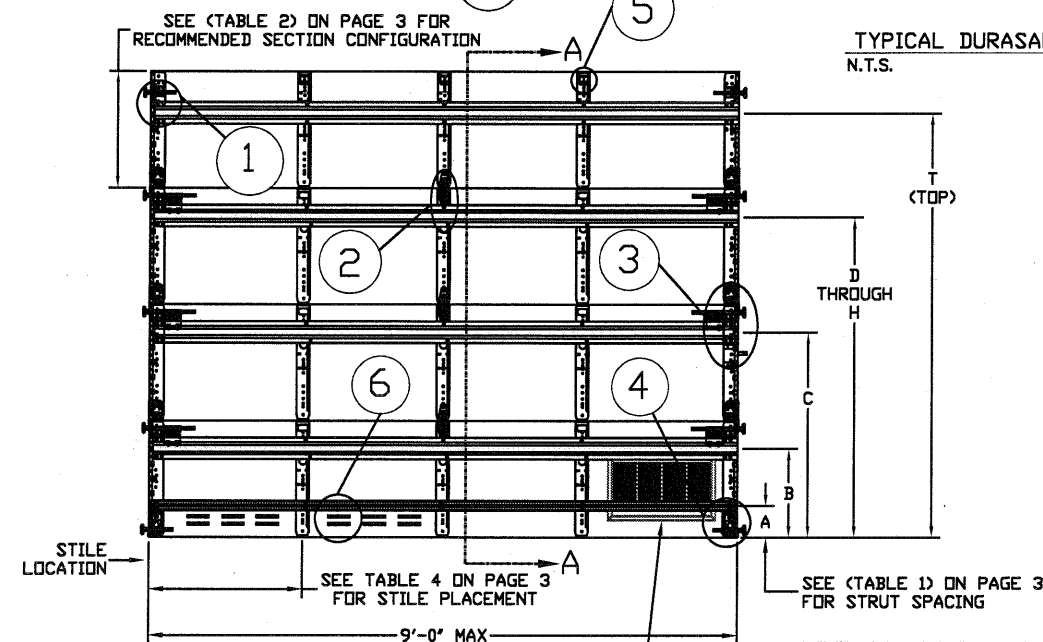
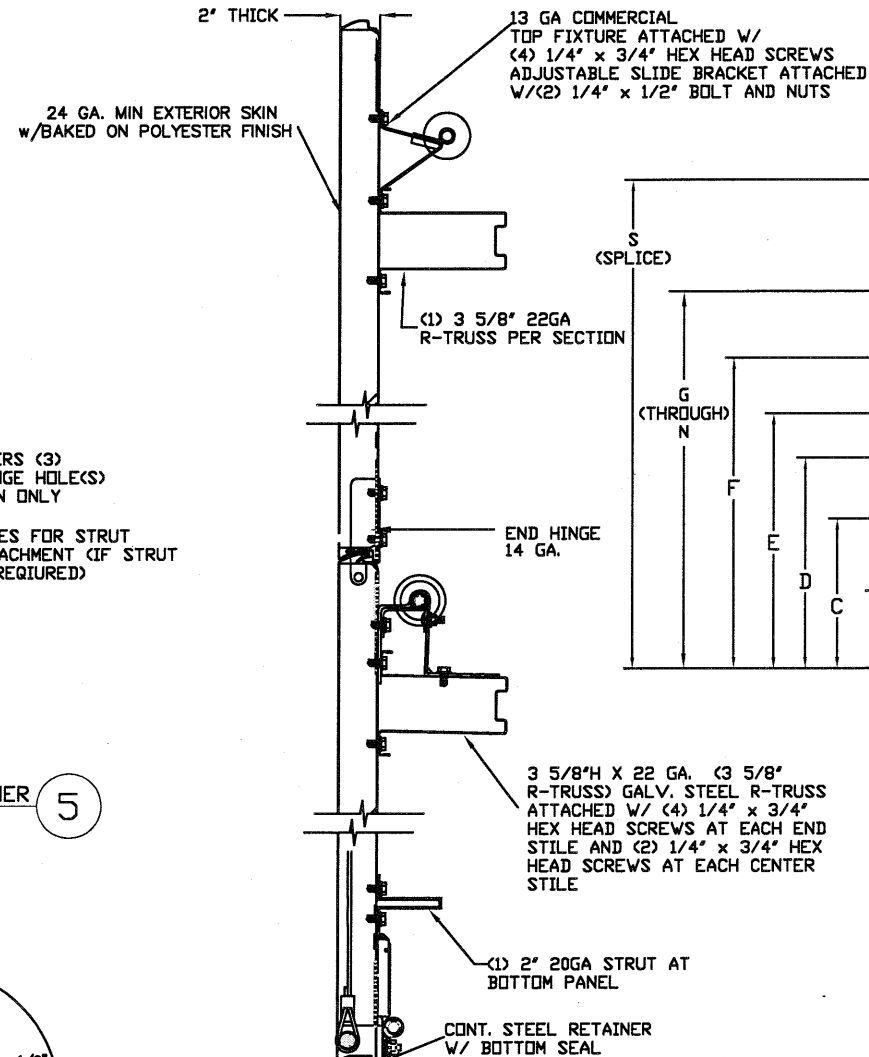


TYPICAL TOP FIXTURES  
N.T.S.



TYPICAL BOTTOM BRACKET  
N.T.S.



TRACK CONFIGURATION FOR 6'6" UP TO 14' TALL DOORS

## LARGE MISSILE IMPACT RESISTANT

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330, E1886, E1996, F588 AND ANSI/DASMA 108, 115. 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):

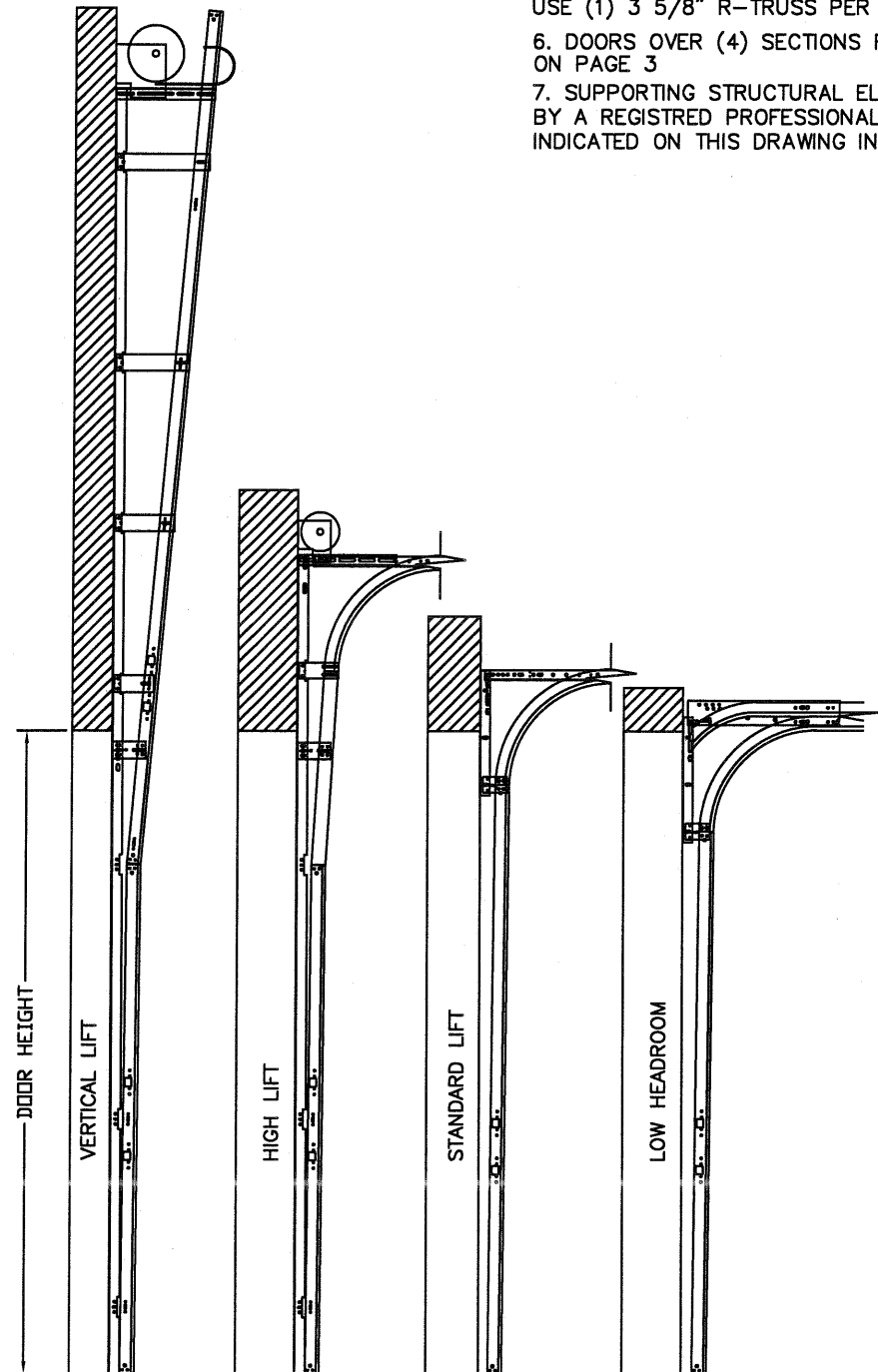
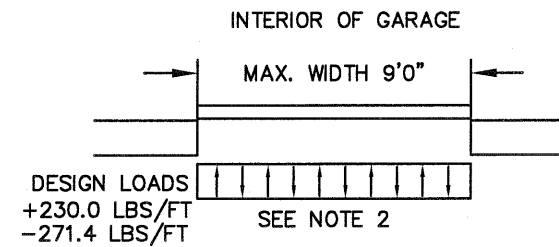
|                  |     |     |     |     |     |
|------------------|-----|-----|-----|-----|-----|
| WIND SPEED (MPH) | 232 | 210 | 200 | 191 | 183 |
| EXPOSURE LEVEL   | B   | C   | C   | D   | D   |
| MEAN ROOF HEIGHT | 30' | 15' | 25' | 15' | 25' |

| REV | DESCRIPTION OF REVISIONS | DATE | BY |
|-----|--------------------------|------|----|
|     |                          |      |    |
|     |                          |      |    |
|     |                          |      |    |

|                                        |                                                                                                                                                                                    |                                                                                                                                                                                                                                              |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MAX SIZE<br>9' x 14'                   | <div> <div>THOMAS L. SHELMEYER</div> <div>LICENSE</div> <div>No. 48579</div> <div>10/29/20</div> <div>STATE OF FLORIDA</div> <div>PROFESSIONAL ENGINEER</div> <div>FL</div> </div> | <div> <div>Thomas L. Shelmerdine, PE (FL PE #0048579)</div> <div>Structural Solutions, PA (FL Firm #29412)</div> <div>dba Structural Solutions of North Carolina, Inc.</div> <div>5921-G W. Friendly Ave., Greensboro, NC 27410</div> </div> |
| DESIGN LOADS<br>+51.1 PSF<br>-60.3 PSF |                                                                                                                                                                                    |                                                                                                                                                                                                                                              |
| LARGE MISSILE IMPACT RESISTANCE        |                                                                                                                                                                                    |                                                                                                                                                                                                                                              |

|                                               |            |     |                                              |
|-----------------------------------------------|------------|-----|----------------------------------------------|
| MODEL 950 AMARR HERITAGE (24 GA) 1000, 2000   |            |     |                                              |
| MODEL 655 AMARR OAK SUMMIT (24 GA) 1000, 2000 |            |     |                                              |
| SHORT, LONG, FLUSH, AND OAK SUMMIT PANELS     |            |     |                                              |
| SIZE                                          | DRAWN BY   | DLJ | DATE 03/12/03                                |
| B                                             | CHECKED BY | AAE | DATE 03/14/03                                |
| ENTREPRENEUR                                  |            |     | 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105 |
| DRAWING NUMBER                                |            |     | IRC-9509-180-21                              |
| SHEET 1 OF 3                                  |            |     |                                              |

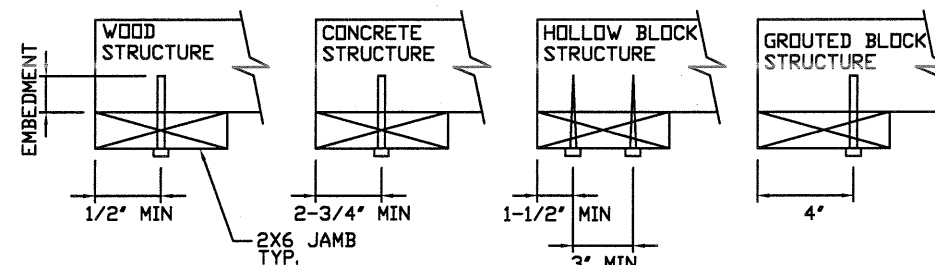
1. ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE VERTICAL TRACK, FROM THE TRACK THE LOAD IS TRANSFERRED TO THE VERTICAL JAMBS. THE HORIZONTAL JAMB OR HEADER RECEIVES NO PORTION OF THE LOAD TRANSFERRED FROM THE DOOR.
2. EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF:  
+230.0 LBS/FT & -271.4 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. (.0216) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UPTO 7'0" HIGH CONSIST OF (4) SECTIONS AS SHOWN. USE (1) 3 5/8" R-TRUSS PER SECTION
6. DOORS OVER (4) SECTIONS REFER TO TABLES 1 AND 2 ON PAGE 3
7. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.



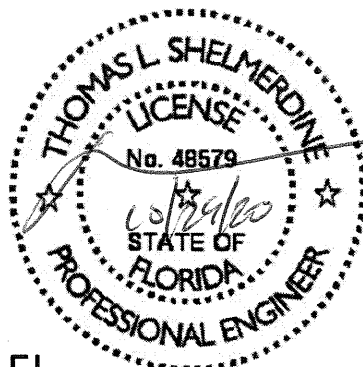
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE  
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 20" O.C. (1 1/2" EMBEDMENT)  
2 X 6 VERTICAL JAMB ATTACHMENT TO 2,000 PSI CONCRETE  
HILTI KWIK BOLT 3/8" X 4" STARTING 6" FROM ENDS THEN 24" O.C. (2 1/2" EMBEDMENT)  
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 18" O.C. (1 1/4" EMBEDMENT)  
ITW/RAMSEY 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 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 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



| REV | DESCRIPTION OF REVISIONS | DATE | BY |
|-----|--------------------------|------|----|
|     |                          |      |    |
|     |                          |      |    |
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|                                                                                                                             |                                                                                                           |                                                                                       |                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <p>MAX SIZE<br/>9' x 14'</p> <p>DESIGN LOADS<br/>+51.1 PSF<br/>-60.3 PSF</p> <p>LARGE MISSILE<br/>IMPACT<br/>RESISTANCE</p> | <p>Thomas L. Shelmerdine, PE (FL PE #0048579)<br/>Structural Solutions, PA (FL Firm #29412)</p> <p>FL</p> |  | <p>dba Structural Solutions of North Carolina, Inc.<br/>5921-G W. Friendly Ave., Greensboro, NC 27410</p> |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|

# Amarr

|                                                                                                                                                                         |            |     |      |                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|------|-----------------------------------|
| <p><b>MODEL 950 AMARR HERITAGE (24 GA) 1000, 2000</b><br/><b>MODEL 655 AMARR OAK SUMMIT (24 GA) 1000, 2000</b><br/><b>SHORT, LONG, FLUSH, AND OAK SUMMIT PANELS</b></p> |            |     |      |                                   |
| SIZE                                                                                                                                                                    | DRAWN BY   | DLJ | DATE | 03/12/03                          |
| B                                                                                                                                                                       | CHECKED BY | AAE | DATE | 03/14/03                          |
| ENTREMATRIC<br>165 CARRIAGE COURT WINSTON-SALEM, NC. 27105                                                                                                              |            |     |      | DRAWING NUMBER<br>IRC-9509-180-21 |
| SHEET 2 OF 3                                                                                                                                                            |            |     |      |                                   |

| DOOR<br>HEIGHT | STRUT SPACING (BASED ON RECOMMENDED<br>SECTION CONFIGURATION) |     |     |     |     |      |      |      | TOP      |
|----------------|---------------------------------------------------------------|-----|-----|-----|-----|------|------|------|----------|
|                | A                                                             | B   | C   | D   | E   | F    | G    | H    | T        |
| 6' 6"          | 5 1/2"                                                        | 16" | 34" | 52" |     |      |      |      | 70 1/2"  |
| 7'             | 5 1/2"                                                        | 16" | 37" | 58" |     |      |      |      | 76 1/2"  |
| 7' 6"          | 5 1/2"                                                        | 13" | 31" | 49" | 67" |      |      |      | 82 1/2"  |
| 8'             | 5 1/2"                                                        | 16" | 34" | 52" | 70" |      |      |      | 88 1/2"  |
| 8' 6"          | 5 1/2"                                                        | 16" | 37" | 58" | 76" |      |      |      | 94 1/2"  |
| 9'             | 5 1/2"                                                        | 13" | 31" | 49" | 67" | 85"  |      |      | 100 1/2" |
| 9' 6"          | 5 1/2"                                                        | 16" | 34" | 52" | 70" | 88"  |      |      | 106 1/2" |
| 10'            | 5 1/2"                                                        | 16" | 37" | 58" | 76" | 94"  |      |      | 112 1/2" |
| 10' 6"         | 5 1/2"                                                        | 16" | 37" | 58" | 79" | 100" |      |      | 118 1/2" |
| 11'            | 5 1/2"                                                        | 16" | 34" | 52" | 70" | 88"  | 106" |      | 124 1/2" |
| 11' 6"         | 5 1/2"                                                        | 16" | 37" | 58" | 76" | 94"  | 112" |      | 130 1/2" |
| 12'            | 5 1/2"                                                        | 16" | 37" | 58" | 79" | 100" | 118" |      | 136 1/2" |
| 12' 6"         | 5 1/2"                                                        | 16" | 34" | 52" | 70" | 88"  | 106" | 124" | 142 1/2" |
| 13'            | 5 1/2"                                                        | 16" | 37" | 58" | 76" | 94"  | 112" | 130" | 148 1/2" |
| 13' 6"         | 5 1/2"                                                        | 16" | 37" | 58" | 79" | 100" | 118" | 136" | 154 1/2" |
| 14'            | 5 1/2"                                                        | 16" | 37" | 58" | 79" | 100" | 121" | 142" | 160 1/2" |

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

| Section<br>Width<br>(ft) | Panel Type | Center Stile Location<br>(Measured from Left Edge) |             |             |
|--------------------------|------------|----------------------------------------------------|-------------|-------------|
|                          |            | 1st<br>(in)                                        | 2st<br>(in) | 3rd<br>(in) |
| 8' 0                     | Short      | 24.812                                             | 48.000      | 71.188      |
| 8' 0                     | Long       | 24.000                                             | 48.000      | 72.000      |
| 8' 0                     | Bead       | 24.625                                             | 48.000      | 71.375      |
| 8' 2                     | Short      | 24.316                                             | 49.000      | 73.684      |
| 8' 2                     | Long       | 24.500                                             | 49.000      | 73.500      |
| 8' 2                     | Bead       | 25.125                                             | 49.000      | 72.875      |
| 8' 4                     | Short      | 24.580                                             | 50.000      | 75.420      |
| 8' 4                     | Long       | 25.000                                             | 50.000      | 75.000      |
| 8' 4                     | Bead       | 25.625                                             | 50.000      | 74.375      |
| 8' 6                     | Short      | 26.029                                             | 51.000      | 75.971      |
| 8' 6                     | Long       | 25.500                                             | 51.000      | 76.500      |
| 8' 6                     | Bead       | 26.125                                             | 51.000      | 75.875      |
| 8' 8                     | Short      | 26.659                                             | 52.000      | 77.341      |
| 8' 8                     | Long       | 26.000                                             | 52.000      | 78.000      |
| 8' 8                     | Bead       | 26.625                                             | 52.000      | 77.375      |
| 8' 10                    | Short      | 27.034                                             | 53.000      | 78.966      |
| 8' 10                    | Long       | 26.500                                             | 53.000      | 79.500      |
| 8' 10                    | Bead       | 27.125                                             | 53.000      | 78.875      |
| 9' 0                     | Short      | 27.596                                             | 54.000      | 80.404      |
| 9' 0                     | Long       | 27.000                                             | 54.000      | 81.000      |
| 9' 0                     | Bead       | 27.625                                             | 54.000      | 80.375      |

| DOOR<br>HEIGHT | TRACK ATTACHMENT |     |     |     |     |     |     |     |     |      |      |      |      |      | SPLICE |
|----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|--------|
|                | A                | B   | C   | D   | E   | F   | G   | H   | I   | J    | K    | L    | M    | N    | S      |
| 6' 6"          | 3"               | 14" | 27" | 38" | 46" | 56" | 64" |     |     |      |      |      |      |      | 70"    |
| 7'             | 3"               | 14" | 27" | 38" | 46" | 56" | 68" |     |     |      |      |      |      |      | 76"    |
| 7' 6"          | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" |     |      |      |      |      |      | 82"    |
| 8'             | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" |     |      |      |      |      |      | 88"    |
| 8' 6"          | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" |      |      |      |      |      | 94"    |
| 9'             | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" |      |      |      |      |      | 100"   |
| 9' 6"          | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 98"  |      |      |      |      | 106"   |
| 10'            | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" |      |      |      |      | 112"   |
| 10' 6"         | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 110" |      |      |      | 118"   |
| 11'            | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 110" |      |      |      | 124"   |
| 11' 6"         | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 110" | 120" |      |      | 130"   |
| 12'            | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 110" | 122" |      |      | 136"   |
| 12' 6"         | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 109" | 122" | 132" |      | 142"   |
| 13'            | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 114" | 122" | 134" |      | 148"   |
| 13' 6"         | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 109" | 122" | 134" | 144" | 154"   |
| 14'            | 3"               | 14" | 27" | 38" | 46" | 56" | 68" | 78" | 88" | 100" | 114" | 122" | 134" | 146" | 160"   |

|     |                          |      |    |
|-----|--------------------------|------|----|
| REV | DESCRIPTION OF REVISIONS | DATE | BY |
|     |                          |      |    |
|     |                          |      |    |

|                                                                                                                             |                                                                                                           |  |                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------|
| <p>MAX SIZE<br/>9' x 14'</p> <p>DESIGN LOADS<br/>+51.1 PSF<br/>-60.3 PSF</p> <p>LARGE MISSILE<br/>IMPACT<br/>RESISTANCE</p> | <p>Thomas L. Shelmerdine, PE (FL PE #0048579)<br/>Structural Solutions, PA (FL Firm #29412)</p> <p>FL</p> |  | <p>dba Structural Solutions of North Carolina, Inc.<br/>5921-G W. Friendly Ave., Greensboro, NC 27410</p> |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------|

|                                                                                                                                                    |            |     |                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|-------------------------------------------|
| <p>MODEL 950 AMARR HERITAGE (24 GA) 1000, 2000<br/>MODEL 655 AMARR OAK SUMMIT (24 GA) 1000, 2000<br/>SHORT, LONG, FLUSH, AND OAK SUMMIT PANELS</p> |            |     |                                           |
| SIZE                                                                                                                                               | DRAWN BY   | DLJ | DATE 03/12/03                             |
| B                                                                                                                                                  | CHECKED BY | AAE | DATE 03/14/03                             |
|                                                                                                                                                    |            |     | <p>DRAWING NUMBER<br/>IRC-9509-180-21</p> |

ENTREMATIC

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

SHEET 3 OF 3