

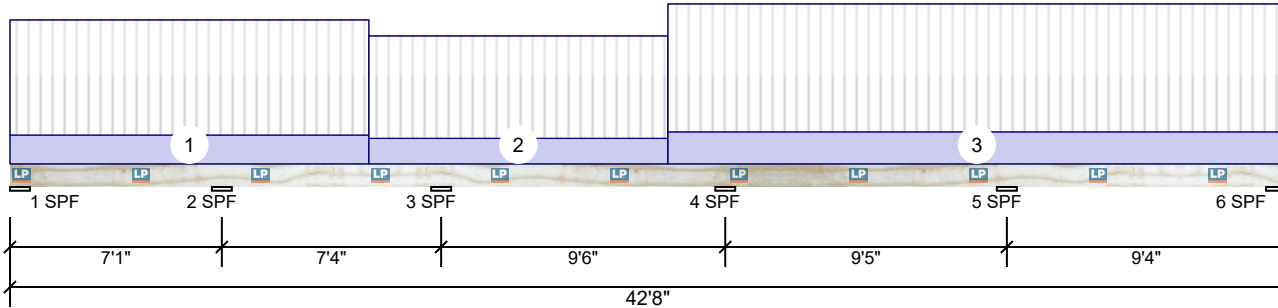


Client: SOUTH SCAN  
 Project:  
 Address: 110 MAPLE WOOD DR.  
 LOT 514  
 SANFORD N.C. 27332

Date: 7/31/2020  
 Input by: THORN COLLINS  
 Job Name: SOUTH SCAN (110 MAPLEWOOD)  
 Project #:

**DBM1 LP-LVL 2900Fb-2.0E 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Member Information**

|                     |               |                |              |
|---------------------|---------------|----------------|--------------|
| Type:               | Girder        | Application:   | Floor        |
| Plies:              | 2             | Design Method: | ASD          |
| Moisture Condition: | Dry           | Building Code: | IBC/IRC 2015 |
| Deflection LL:      | 480           | Load Sharing:  | No           |
| Deflection TL:      | 240           | Deck:          | Not Checked  |
| Importance:         | Normal        |                |              |
| Temperature:        | Temp <= 100°F |                |              |

**Reactions UNPATTERNED lb (Uplift)**

| Brg | Live | Dead | Snow | Wind | Const |
|-----|------|------|------|------|-------|
| 1   | 1140 | 315  | 0    | 0    | 0     |
| 2   | 2658 | 732  | 0    | 0    | 0     |
| 3   | 2750 | 767  | 0    | 0    | 0     |
| 4   | 3557 | 978  | 0    | 0    | 0     |
| 5   | 4077 | 1113 | 0    | 0    | 0     |
| 6   | 1604 | 438  | 0    | 0    | 0     |

**Bearings**

| Bearing | Length | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|--------------|-------|----------|-----------|
| 1 - SPF | 8.000" | 14%  | 313 / 1316   | 1629  | L_L_L    | D+L       |
| 2 - SPF | 8.000" | 32%  | 736 / 3078   | 3814  | LL_L_    | D+L       |
| 3 - SPF | 8.000" | 34%  | 765 / 3291   | 4055  | _LL_L    | D+L       |
| 4 - SPF | 8.000" | 42%  | 975 / 4031   | 5006  | L_LL_    | D+L       |
| 5 - SPF | 8.000" | 46%  | 1118 / 4356  | 5473  | _L_LL    | D+L       |
| 6 - SPF | 8.000" | 19%  | 436 / 1809   | 2245  | L_L_L    | D+L       |

**Analysis Results**

| Analysis     | Actual         | Location     | Allowed       | Capacity    | Comb. | Case  |
|--------------|----------------|--------------|---------------|-------------|-------|-------|
| Neg Moment   | -4772 ft-lb    | 33'4"        | 12416 ft-lb   | 0.384 (38%) | D+L   | _L_LL |
| Pos Moment   | 3685 ft-lb     | 38'3 1/8"    | 12416 ft-lb   | 0.297 (30%) | D+L   | L_L_L |
| Shear        | 2377 lb        | 34'1 1/4"    | 6151 lb       | 0.386 (39%) | D+L   | _L_LL |
| LL Defl inch | 0.100 (L/1048) | 37'10 5/16"  | 0.218 (L/480) | 0.460 (46%) | L     | L_L_L |
| TL Defl inch | 0.118 (L/884)  | 37'10 15/16" | 0.436 (L/240) | 0.270 (27%) | D+L   | L_L_L |

**Design Notes**

- 1 Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
- 2 Dead Load Deflection: Instant = 0.019", Long Term = 0.028"
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
- 5 Top loads must be supported equally by all plies.
- 6 Top braced at bearings.
- 7 Bottom braced at bearings.

| ID | Load Type     | Location         | Trib Width | Side | Dead 0.9 | Live 1  | Snow 1.15 | Wind 1.6 | Const. 1.25 | Comments  |
|----|---------------|------------------|------------|------|----------|---------|-----------|----------|-------------|---|
| 1  | Part. Uniform | 0-0-0 to 12-0-0  |            | Top  | 90 PLF   | 360 PLF | 0 PLF     | 0 PLF    | 0 PLF       | FLOOR LOAD AT 40 LIVE AND 10 DEAD WITH 9' TRIB  |
| 2  | Part. Uniform | 12-0-0 to 22-0-0 |            | Top  | 80 PLF   | 320 PLF | 0 PLF     | 0 PLF    | 0 PLF       | FLOOR LOAD AT 40 LIVE AND 10 DEAD WITH 8' TRIB  |
| 3  | Part. Uniform | 22-0-0 to 42-8-0 |            | Top  | 100 PLF  | 400 PLF | 0 PLF     | 0 PLF    | 0 PLF       | FLOOR LOAD AT 40 LIVE AND 10 DEAD WITH 10' TRIB |
|    | Self Weight   |                  |            |      | 9 PLF    |         |           |          |             |   |

**Notes**  
 This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.  
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This design is valid until 10/31/2021