Boise Cascade

# Triple 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP — Floor Beam\FB04

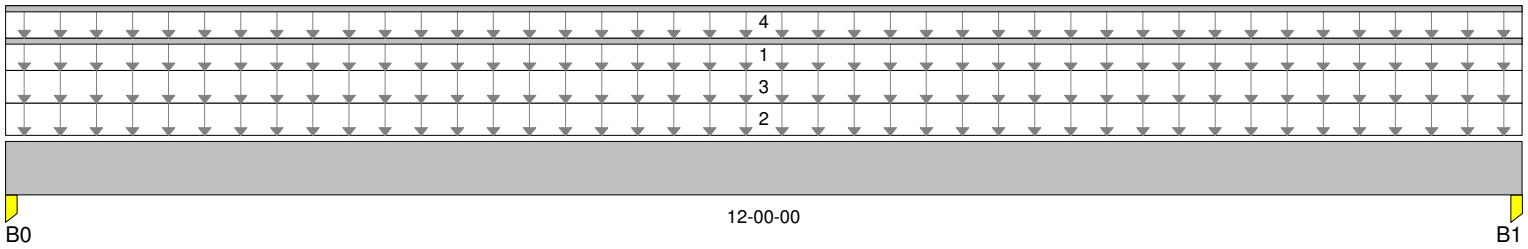
Dry | 1 span | No cantilevers | 0/12 slope

February 19, 2017 16:56:03

BC CALC® Design Report

Build 5684
Job Name: 127 BRAMBLEWOOD
Address:
City, State, Zip: ,
Customer: ROB TWOMBLY
Code reports: ESR-1040

File Name: BC CALC Project
Description: GAR CEILING LVL
Specifier:
Designer:
Company:
Misc:




Total Horizontal Product Length = 12-00-00

## Reaction Summary (Down / Uplift) ( lbs )

| Bearing | Live | Dead | Snow | Wind | Roof Live |
|---|---|---|---|---|---|
| B0, 3-1/2" | 1,080 / 0 | 1,917 / 0 | | | |
| B1, 3-1/2" | 1,080 / 0 | 1,917 / 0 | | | |

## Load Summary

| Tag | Description | Load Type | Ref. | Start | End | Live 100% | Dead 90% | Snow 115% | Wind 160% | Roof Live 125% | Trib. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | WALL LOAD | Unf. Lin. (lb/ft) | L | 00-00-00 | 12-00-00 | 0 | 100 | | | | n/a |
| 2 | GAR CEILING | Unf. Area (lb/ft^2) | L | 00-00-00 | 12-00-00 | 0 | 15 | | | | 03-00-00 |
| 3 | GAR ROOF | Unf. Area (lb/ft^2) | L | 00-00-00 | 12-00-00 | 60 | 20 | | | | 03-00-00 |
| 4 | G/E ROOF | Unf. Lin. (lb/ft) | L | 00-00-00 | 12-00-00 | 0 | 100 | | | | n/a |

## Controls Summary

| | Value | % Allowable | Duration | Case | Location |
|---|---|---|---|---|---|
| Pos. Moment | 8,316 ft-lbs | 39.7% | 100% | 1 | 06-00-00 |
| End Shear | 2,456 lbs | 25.9% | 100% | 1 | 01-01-00 |
| Total Load Defl. | L/521 (0.266") | 46.1% | n/a | 1 | 06-00-00 |
| Live Load Defl. | L/999 (0.096") | n/a | n/a | 2 | 06-00-00 |
| Max Defl. | 0.266" | 26.6% | n/a | 1 | 06-00-00 |
| Span / Depth | 14.6 | n/a | n/a | 0 | 00-00-00 |

## Bearing Supports

| | | Dim. (L x W) | Value | % Allow Support | % Allow Member | Material |
|---|---|---|---|---|---|---|
| B0 | Post | 3-1/2" x 3-1/2" | 2,997 lbs | n/a | 32.6% | Unspecified |
| B1 | Post | 3-1/2" x 3-1/2" | 2,997 lbs | n/a | 32.6% | Unspecified |

## Cautions

Member is not fully supported at post B0. A connector is required at this bearing.

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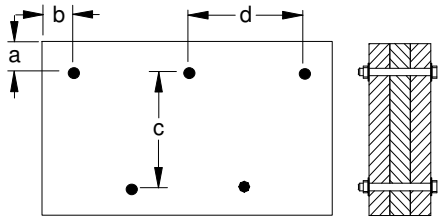
## Connection Diagram




a minimum = 2" c = 5-1/2"
b minimum = 2-1/2" d = 24"

Bolts are assumed to be Grade A307 or Grade 2 or higher.
Member has no side loads.
Connectors are: 1/2 in. Staggered Through Bolt

## Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.