

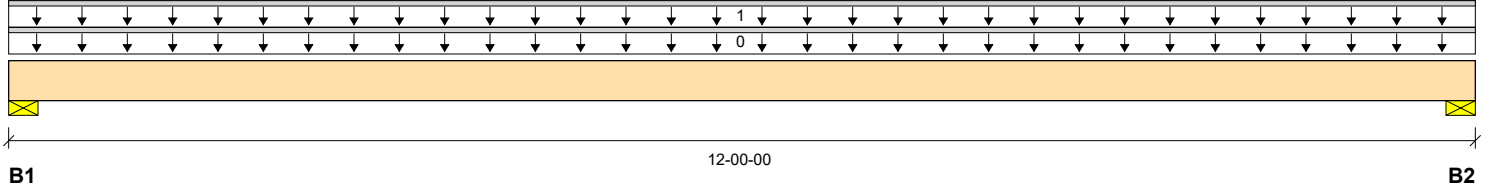


BC CALC® Member Report
Build 8410
Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

FB01 (Drop Beam)
Dry | 1 span | No cant.

April 29, 2022 21:31:19

File name:
Description:
Specifier:
Designer: Garret Freeman
Company: Independent Consultant



Total Horizontal Product Length = 12-00-00

Reaction Summary (Down / Uplift) (lbs)

| Bearing | Live | Dead | Snow | Wind | Roof Live |
|------------|----------|----------|------|------|-----------|
| B1, 3-1/2" | 3000 / 0 | 1272 / 0 | | | |
| B2, 3-1/2" | 3000 / 0 | 1272 / 0 | | | |

Load Summary

| Tag | Description | Load Type | Ref. | Start | End | Loc. | 100% | 90% | 115% | 160% | Roof Live 125% | Tributary |
|-----|-------------|-------------------|------|----------|----------|------|------|-----|------|------|----------------|-----------|
| 0 | Self-Weight | Unf. Lin. (lb/ft) | L | 00-00-00 | 12-00-00 | Top | | 12 | | | | 00-00-00 |
| 1 | | Unf. Lin. (lb/ft) | L | 00-00-00 | 12-00-00 | Top | 500 | 200 | | | | n/a |

Controls Summary

| | Value | % Allowable | Duration | Case | Location |
|-----------------------|----------------|-------------|----------|------|----------|
| Pos. Moment | 11856 ft-lbs | 145.6% | 100% | 1 | 06-00-00 |
| End Shear | 3360 lbs | 42.5% | 100% | 1 | 01-03-06 |
| Total Load Deflection | L/385 (0.36") | 62.4% | n/a | 1 | 06-00-00 |
| Live Load Deflection | L/548 (0.253") | 65.7% | n/a | 2 | 06-00-00 |
| Max Defl. | 0.36" | 36.0% | n/a | 1 | 06-00-00 |
| Span / Depth | 11.7 | | | | |

Bearing Supports

| | Dim. (LxW) | Value | % Allow Support | % Allow Member | Material |
|----|----------------------------|----------|-----------------|----------------|-------------|
| B1 | Wall/Plate 3-1/2" x 3-1/2" | 4272 lbs | n/a | 46.5% | Unspecified |
| B2 | Wall/Plate 3-1/2" x 3-1/2" | 4272 lbs | n/a | 46.5% | Unspecified |

Cautions

Member has insufficient Positive Moment resistance to carry loads.

Notes

- Design meets Code minimum (L/240) Total load deflection criteria.
- Design meets Code minimum (L/360) Live load deflection criteria.
- Design meets arbitrary (1") Maximum Total load deflection criteria.
- Design based on Dry Service Condition.
- BC CALC® analysis is based on IBC 2009.
- Calculations assume member is braced at ends. See engineering report for the unbraced length.



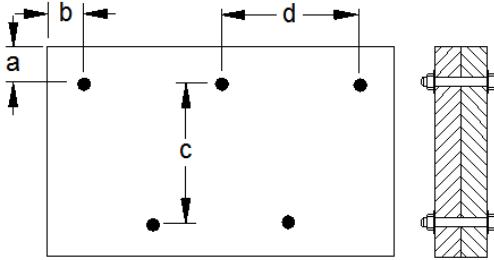
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Connection Diagram: Full Length of Member



a minimum = 2" c = 7-7/8"
b minimum = 2-1/2" d = 24"

Calculated Side Load = 0.0 lb/ft
Bolts are assumed to be Grade A307 or Grade 2 or higher.
Connectors are: 1/2 in. Staggered Through Bolt

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is 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.

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