

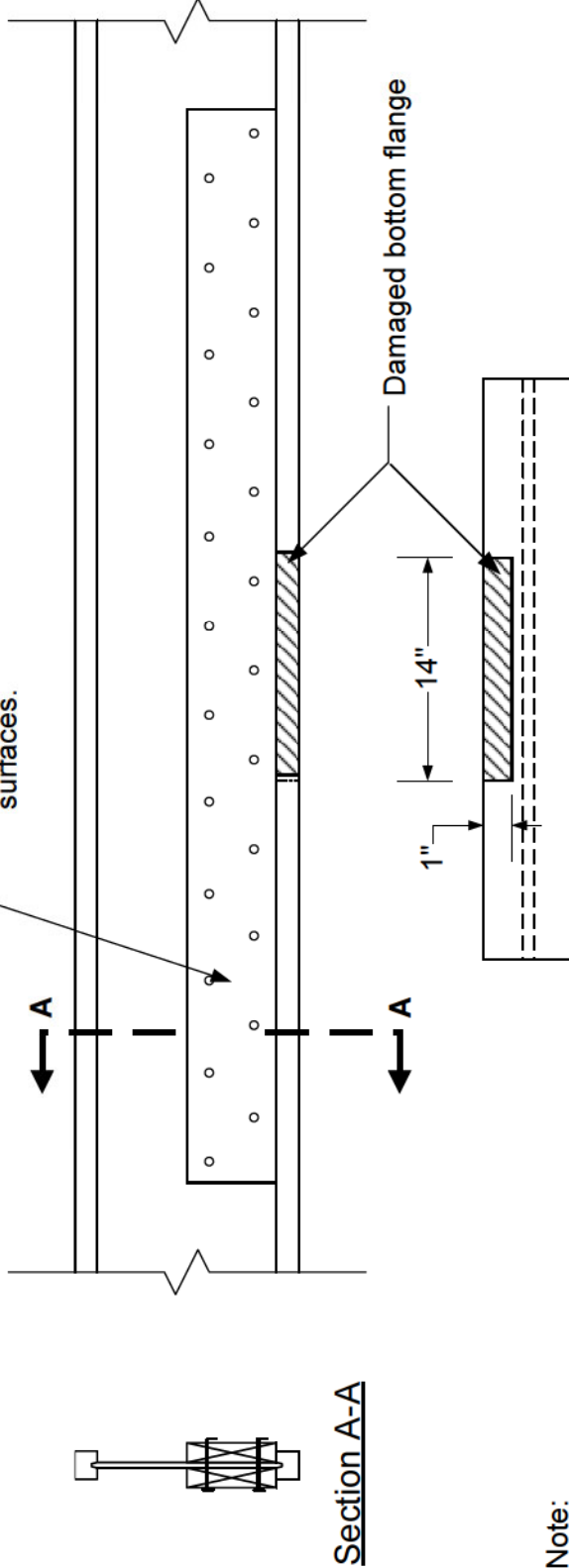


Boise Cascade
 Engineered Wood Products
Eastern Region Office
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 Suwanee, Georgia 30024-2410
 770-614-4010 1-800-524-7209 toll free



Description: Joist 12(i14815)
 Loading: See attached BC Calc® Design Report
 Address: 202 Paper Birch Way
 City, St: Fuquay-Varina, NC
 Retailer: 84 Lumber
 Date: 2/24/25

2x6 SPF #2 or better 6'-0" long, centered @ damaged area, both sides of joist web. Install flush to top of bottom flange. Attach with 2 rows 10d nails or #8 x 2 1/4" wood screws @ 3" o.c., staggered. Use structural adhesive at all contact surfaces.



Section A-A

- Note:
- 8d nail = 0.113" x 2 1/2" min
 - 10d nail = 0.128" x 3" min
 - 16d nail = 0.135" x 3 1/2" min

Not to Scale

Bottom View

This certification is for repair of a Boise Cascade individual building component only and not for the component design or the building system as a whole. The component design attached to this report was provided by others. The building designer of record is responsible for determining that the dimensions and loads for each component match those required by the plans and by the actual end use of the component. Verification of framing methods, bracing design, support conditions, connections, etc. is the responsibility of the building designer of record.

Build 8931

Job name:

File name: 132 Woodgrove

Address:

Description: BASE 2\Floor Joists\12(i14815)

City, State, Zip:

Specifier: 07/07/2023

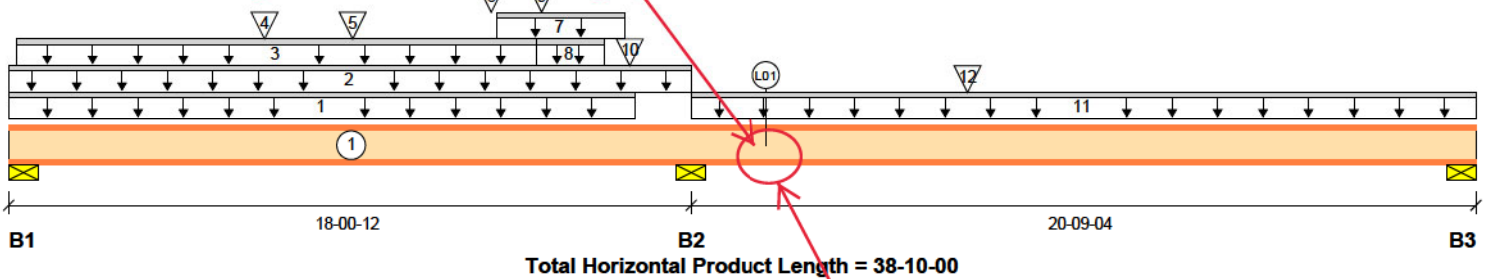
Customer: DR Horton Express

Designer:

Code reports: ESR-1336

Company: 84 Lumber EWP

14"w x 1"d damage to side of bottom flange



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	691 / 91	263 / 0			
B2, 3-1/2"	1603 / 0	908 / 0			
B3, 2-1/2"	543 / 73	151 / 0			

Load Summary

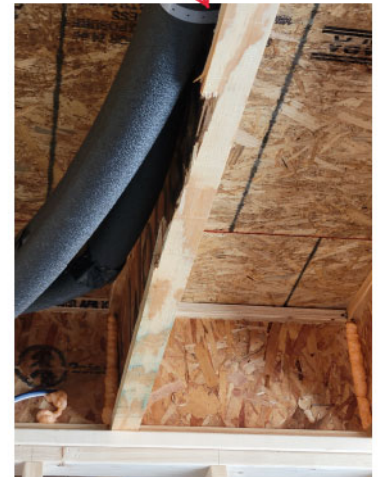
Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	16-07-00	Top	35	12				n/a
2	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	18-00-12	Top	30	10				n/a
3	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-02-08	13-11-08	Top	22					n/a
4	40(i9242)	Conc. Pt. (lbs)	L	06-09-04	06-09-04	Top		83				n/a
5	41(i9243)	Conc. Pt. (lbs)	L	09-01-04	09-01-04	Top		84				n/a
6	18(i9219)	Conc. Pt. (lbs)	L	12-09-04	12-09-04	Top		84				n/a
7	28(i9229)	Unf. Lin. (lb/ft)	L	12-11-00	16-03-08	Top		40				n/a
8	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	13-11-08	15-09-00	Top	9					n/a
9	29(i9230)	Conc. Pt. (lbs)	L	14-01-04	14-01-04	Top		40				n/a
10	27(i9228)	Conc. Pt. (lbs)	L	16-05-04	16-05-04	Top		43				n/a
11	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	18-00-12	38-10-00	Top	60	20				n/a
12	16(i9217)	Conc. Pt. (lbs)	L	25-04-12	25-04-12	Top		65				n/a

Hole Summary

Description	Center	Elevation	Ref.	Height	Width	Shape	Orientation
H01	09-00-12	7"	L	10"		Circular	Horizontal

Controls Summary

Value	% Allowable	Duration	Case	Location
Pos. Moment	3963 ft-lbs	82.3%	100%	2 08-00-11
Neg. Moment	-4785 ft-lbs	99.4%	100%	1 18-00-12
End Reaction	954 lbs	70.7%	100%	2 00-00-00
Int. Reaction	2510 lbs	96.6%	100%	1 18-00-12
End Shear	936 lbs	48.6%	100%	2 00-02-08
Cont. Shear	1412 lbs	73.4%	100%	1 17-11-00
Hole #1 Shear	247 lbs	43.7%	100%	4 09-00-12
Total Load Deflection	L/551 (0.39")	65.3%	n/a	2 08-09-00
Live Load Deflection	L/805 (0.267")	59.6%	n/a	7 08-07-12
Total Neg. Defl.	L/999 (-0.077")	n/a	n/a	2 23-08-12
Max Defl.	0.39"	62.4%	n/a	2 08-09-00





Single 14" BCI® 6000s-1.8

PASSED

BASE 2\Floor Joists\12(i14815) (Joist)

Dry | 2 spans | No cant. | 24" OCS | Repetitive | Glued & nailed

February 18, 2025 14:43:34

BC CALC® Member Report

Build 8931

Job name:

File name: 132 Woodgrove

Address:

Description: BASE 2\Floor Joists\12(i14815)

City, State, Zip:

Specifier: 07/07/2023

Customer:

DR Horton Express

Designer:

Code reports:

ESR-1336

Company:

84 Lumber EWP

Controls Summary

Value	% Allowable	Duration	Case	Location
Span / Depth	17.7			
Hole Location	Valid			

Location Analysis Summary (Load Case)

Tag	Description	Location	Pos. Mom. (ft-lbs)	Neg. Mom. (ft-lbs)	Shear (lbs)	Total Defl. (in)	Live Defl. (in)
L01	damage	20-00-12	0(NA)	-2759(1)	934(1)	-0.077(3)	-0.077(8)

Bearing Supports

Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1 Wall/Plate 2-1/2" x 2-5/16"	954 lbs	38.8%	70.7%	Unspecified
B2 Wall/Plate 3-1/2" x 2-5/16"	2510 lbs	73.0%	96.6%	Unspecified
B3 Wall/Plate 2-1/2" x 2-5/16"	694 lbs	28.2%	51.4%	Unspecified

Notes

- Design meets User specified (L/360) Total load deflection criteria.
- Design meets User specified (L/480) Live load deflection criteria.
- Design meets arbitrary (0.625") Maximum Total load deflection criteria.
- Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
- Design based on Dry Service Condition.
- BC CALC® analysis is based on IBC 2018.
- Calculations assume member is fully braced.

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.