

**2nd LEVEL\Dropped Beams\BM2-2(i586)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:29:05

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Dropped Beams\BM2-2(i586)

City, State, Zip: NC

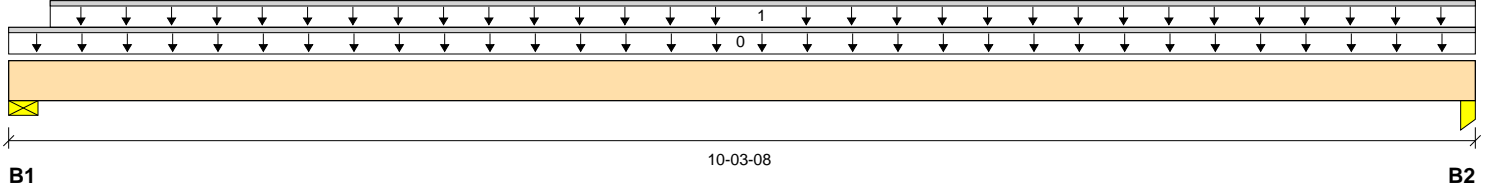
Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land



Total Horizontal Product Length = 10-03-08

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

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		620 / 0			573 / 0
B2, 5-1/2"		677 / 0			627 / 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	10-03-08	Top		9				00-00-00
1	User Load	Unf. Lin. (lb/ft)	L	00-03-08	10-03-08	Top		120			120	n/a

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2,913 ft-lbs	28.2%	125%	1	05-00-12
End Shear	997 lbs	13.0%	125%	1	01-00-12
Total Load Deflection	L/999 (0.106")	n/a	n/a	1	05-00-12
Live Load Deflection	L/999 (0.051")	n/a	n/a	2	05-00-12
Max Defl.	0.106"	n/a	n/a	1	05-00-12
Span / Depth	12.5				

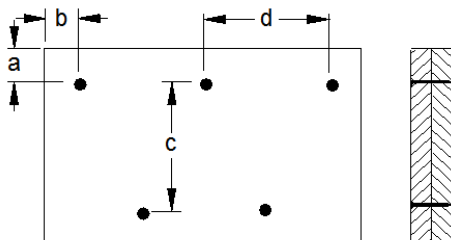
**Bearing Supports**

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1,193 lbs	13.4%	13.0%	Unspecified
B2	Column 5-1/2" x 3-1/2"	1,304 lbs	9.3%	9.0%	Unspecified

**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 meets arbitrary (0.75") Maximum live load deflection criteria.
- Calculations assume unbraced length of Top: 10-00-00, Bottom: 10-00-00.
- BC CALC® analysis is based on IBC 2012.
- Design based on Dry Service Condition.
- Member has no side loads.

**Connection Diagram: Full Length of Member**



**2nd LEVEL\Dropped Beams\BM2-2(i586)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:29:05

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Dropped Beams\BM2-2(i586)

City, State, Zip: NC

Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land

---

**Connection Diagram: Full Length of Member**

---

a minimum = 2"      c = 5-1/4"  
b minimum = 3"      d = 24"

Member has no side loads.

Connectors are: 16d Sinker Nails

**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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**2nd LEVEL\Dropped Beams\BM2-2(i586)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:29:09

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Dropped Beams\BM2-2(i586)

City, State, Zip: NC

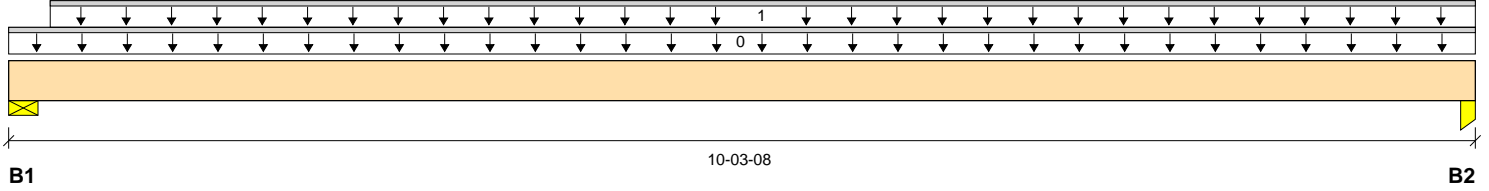
Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land



Total Horizontal Product Length = 10-03-08

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

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		620 / 0			573 / 0
B2, 5-1/2"		677 / 0			627 / 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	10-03-08	Top		9				00-00-00
1	User Load	Unf. Lin. (lb/ft)	L	00-03-08	10-03-08	Top		120			120	n/a

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2,913 ft-lbs	28.2%	125%	1	05-00-12
End Shear	997 lbs	13.0%	125%	1	01-00-12
Total Load Deflection	L/999 (0.106")	n/a	n/a	1	05-00-12
Live Load Deflection	L/999 (0.051")	n/a	n/a	2	05-00-12
Max Defl.	0.106"	n/a	n/a	1	05-00-12
Span / Depth	12.5				

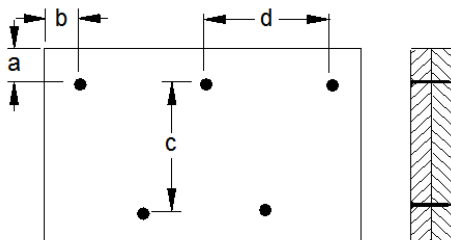
**Bearing Supports**

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1,193 lbs	13.4%	13.0%	Unspecified
B2	Column 5-1/2" x 3-1/2"	1,304 lbs	9.3%	9.0%	Unspecified

**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 meets arbitrary (0.75") Maximum live load deflection criteria.
- Calculations assume unbraced length of Top: 10-00-00, Bottom: 10-00-00.
- BC CALC® analysis is based on IBC 2012.
- Design based on Dry Service Condition.
- Member has no side loads.

**Connection Diagram: Full Length of Member**



**2nd LEVEL\Dropped Beams\BM2-2(i586)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:29:09

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Dropped Beams\BM2-2(i586)

City, State, Zip: NC

Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land

---

**Connection Diagram: Full Length of Member**

---

a minimum = 2"      c = 5-1/4"  
b minimum = 3"      d = 24"

Member has no side loads.

Connectors are: 16d Sinker Nails

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**2nd LEVEL\Dropped Beams\BM3-2(i231)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:29:26

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Dropped Beams\BM3-2(i231)

City, State, Zip: NC

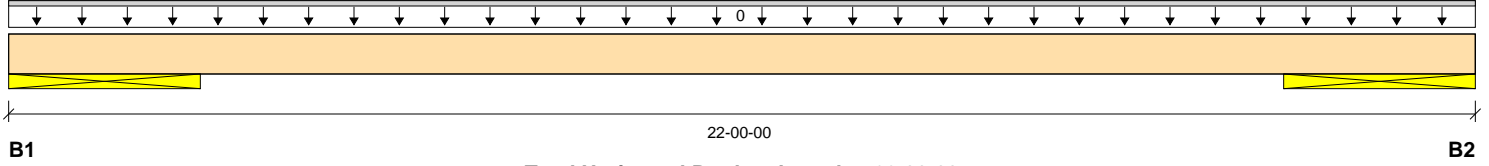
Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land



Total Horizontal Product Length = 22-00-00

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

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 34-1/2"		132 / 0			
B2, 34-1/2"		132 / 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	22-00-00	Top		12				00-00-00

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	403 ft-lbs	6.5%	90%	0	11-00-00
End Shear	86 lbs	1.2%	90%	0	03-10-06
Total Load Deflection	L/999 (0.02")	n/a	n/a	0	11-00-00
Max Defl.	0.02"	n/a	n/a	0	11-00-00
Span / Depth	16.5				

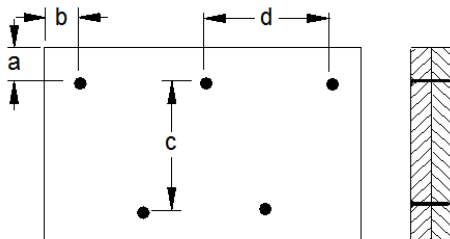
**Bearing Supports**

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 34-1/2" x 3-1/2"	132 lbs	0.2%	0.1%	Unspecified
B2	Wall/Plate 34-1/2" x 3-1/2"	132 lbs	0.2%	0.1%	Unspecified

**Notes**

- Design meets Code minimum (L/240) Total load deflection criteria.
- Design meets arbitrary (1") Maximum Total load deflection criteria.
- Design meets arbitrary (0.75") Maximum live load deflection criteria.
- Calculations assume unbraced length of Top: 16-03-00, Bottom: 16-03-00.
- BC CALC® analysis is based on IBC 2012.
- Design based on Dry Service Condition.
- Member has no side loads.

**Connection Diagram: Full Length of Member**



a minimum = 2"      c = 7-7/8"  
 b minimum = 3"      d = 24"

**2nd LEVEL\Dropped Beams\BM3-2(i231)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:29:26

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Dropped Beams\BM3-2(i231)

City, State, Zip: NC

Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land

---

**Connection Diagram: Full Length of Member**

---

Member has no side loads.

Connectors are: 16d Sinker Nails

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**2nd LEVEL\Dropped Beams\BM4-2(i493)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:33:55

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Dropped Beams\BM4-2(i493)

City, State, Zip: NC

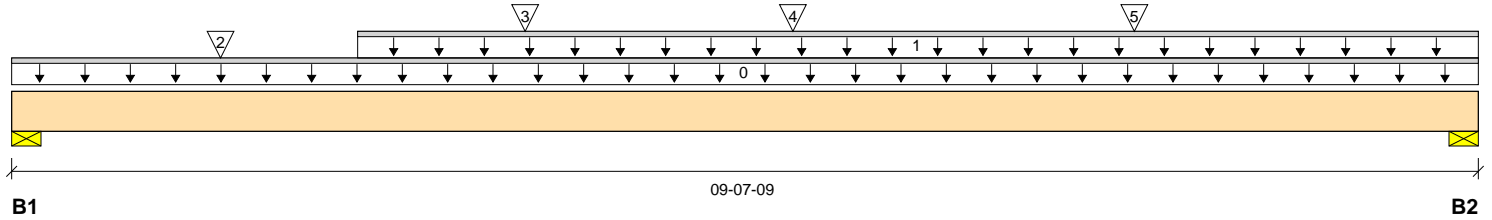
Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land



Total Horizontal Product Length = 09-07-09

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

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	2,068 / 0	575 / 0			
B2, 3-1/2"	2,409 / 0	660 / 0			

**Load Summary**

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	09-07-09	Top		12				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	02-03-04	09-07-09	Top	378	94				n/a
2	-	Conc. Pt. (lbs)	L	01-04-07	01-04-07	Top	951	238				n/a
3	J14(i495)	Conc. Pt. (lbs)	L	03-04-07	03-04-07	Top	282	71				n/a
4	-	Conc. Pt. (lbs)	L	05-01-09	05-01-09	Top	306	76				n/a
5	J15(i479)	Conc. Pt. (lbs)	L	07-04-07	07-04-07	Top	158	39				n/a

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	6,179 ft-lbs	29.1%	100%	1	05-00-05
End Shear	2,627 lbs	33.3%	100%	1	01-03-06
Total Load Deflection	L/999 (0.095")	n/a	n/a	1	04-09-13
Live Load Deflection	L/999 (0.074")	n/a	n/a	2	04-09-13
Max Defl.	0.095"	n/a	n/a	1	04-09-13
Span / Depth	9.3				

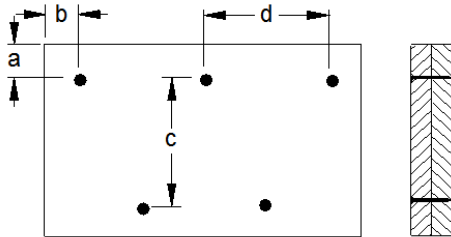
**Bearing Supports**

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	2,643 lbs	29.8%	28.8%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	3,069 lbs	34.6%	33.4%	Unspecified

**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 meets arbitrary (0.75") Maximum live load deflection criteria.  
 Calculations assume unbraced length of Top: 00-03-04, Bottom: 00-03-04.  
 BC CALC® analysis is based on IBC 2012.  
 Design based on Dry Service Condition.  
 Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.  
 Member has no side loads.

**Connection Diagram: Full Length of Member**



a minimum = 2"      c = 7-7/8"  
 b minimum = 3"      d = 24"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Member has no side loads.

Connectors are: 16d Sinker Nails

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**2nd LEVEL\Flush Beams\BM5-2(i517)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:34:02

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Flush Beams\BM5-2(i517)

City, State, Zip: NC

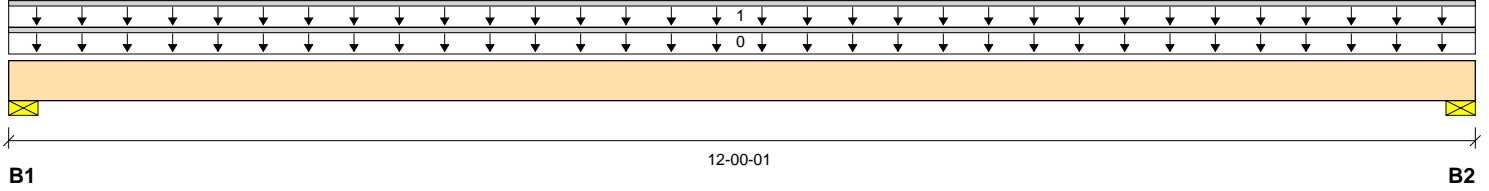
Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land



Total Horizontal Product Length = 12-00-01

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

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	2,032 / 0	593 / 0			
B2, 3-1/2"	2,013 / 0	588 / 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	12-00-01	Top		14				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-00-00	12-00-01	Top	337	84				n/a

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	7,215 ft-lbs	24.8%	100%	1	06-03-00
End Shear	2,256 lbs	24.2%	100%	1	10-06-09
Total Load Deflection	L/999 (0.109")	n/a	n/a	1	06-00-00
Live Load Deflection	L/999 (0.085")	n/a	n/a	2	06-00-00
Max Defl.	0.109"	n/a	n/a	1	06-00-00
Span / Depth	9.9				

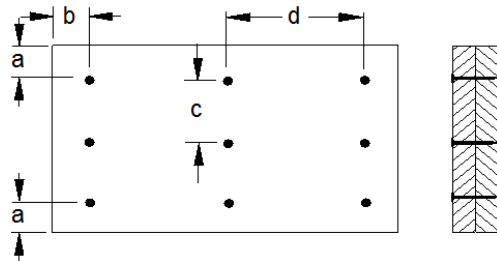
**Bearing Supports**

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	2,625 lbs	50.4%	28.6%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	2,601 lbs	50.0%	28.3%	Unspecified

**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 meets arbitrary (0.75") Maximum live load deflection criteria.
- Calculations assume member is fully braced.
- BC CALC® analysis is based on IBC 2012.
- Design based on Dry Service Condition.
- Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

**Connection Diagram: Full Length of Member**



a minimum = 2"      c = 5"  
 b minimum = 3"      d = 24"

Calculated Side Load = 421.1 lb/ft

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 16d Common Nails

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**2nd LEVEL\Flush Beams\BM6(i476)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:33:42

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Flush Beams\BM6(i476)

City, State, Zip: NC

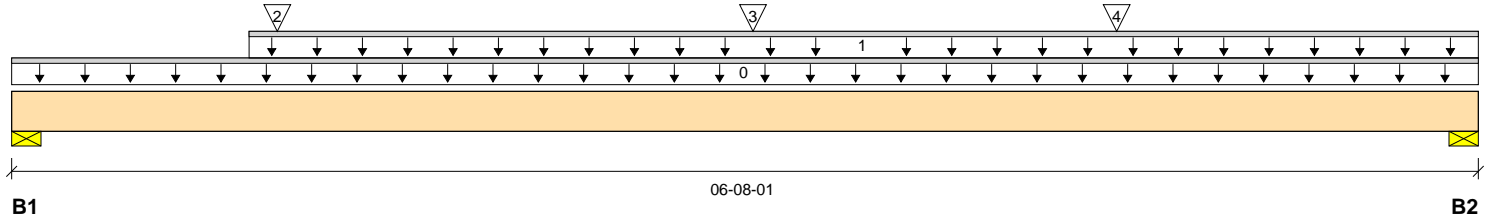
Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land



Total Horizontal Product Length = 06-08-01

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

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	1,218 / 0	344 / 0			
B2, 3-1/2"	541 / 0	162 / 0			

**Load Summary**

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	06-08-01	Top		7				00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	01-00-15	06-08-01	Top	17	4				n/a
2	-	Conc. Pt. (lbs)	L	01-02-08	01-02-08	Top	1,180	314				n/a
3	J14(i495)	Conc. Pt. (lbs)	L	03-04-07	03-04-07	Top	279	70				n/a
4	J14(i490)	Conc. Pt. (lbs)	L	05-00-05	05-00-05	Top	207	52				n/a

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1,580 ft-lbs	10.9%	100%	1	03-03-00
End Shear	1,231 lbs	26.4%	100%	1	01-05-08
Total Load Deflection	L/999 (0.014")	n/a	n/a	1	03-02-05
Live Load Deflection	L/999 (0.011")	n/a	n/a	2	03-02-05
Max Defl.	0.014"	n/a	n/a	1	03-02-05
Span / Depth	5.3				

**Bearing Supports**

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 1-3/4"	1,562 lbs	60.0%	34.0%	Unspecified
B2	Wall/Plate 3-1/2" x 1-3/4"	703 lbs	27.0%	15.3%	Unspecified

**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 meets arbitrary (0.75") Maximum live load deflection criteria.  
 Calculations assume member is fully braced.  
 BC CALC® analysis is based on IBC 2012.  
 Design based on Dry Service Condition.

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Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Flush Beams\BM7(i429)

City, State, Zip: NC

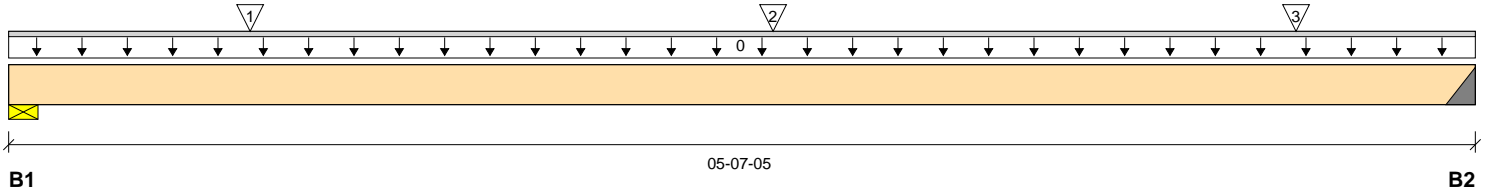
Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land



Total Horizontal Product Length = 05-07-05

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

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	974 / 0	264 / 0			
B2, 2"	892 / 0	243 / 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	05-07-05	Top		7				00-00-00
1	J1(i446)	Conc. Pt. (lbs)	L	00-11-01	00-11-01	Top	683	171				n/a
2	J1(i447)	Conc. Pt. (lbs)	L	02-11-01	02-11-01	Top	689	172				n/a
3	J1(i494)	Conc. Pt. (lbs)	L	04-11-01	04-11-01	Top	488	122				n/a

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1,682 ft-lbs	11.6%	100%	1	02-11-01
End Shear	896 lbs	19.2%	100%	1	01-04-08
Total Load Deflection	L/999 (0.01")	n/a	n/a	1	02-09-15
Live Load Deflection	L/999 (0.008")	n/a	n/a	2	02-09-15
Max Defl.	0.01"	n/a	n/a	1	02-09-15
Span / Depth	4.6				

**Bearing Supports**

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 2-1/2" x 1-3/4"	1,237 lbs	66.5%	37.7%	Unspecified
B2	Hanger 2" x 1-3/4"	1,134 lbs	97.4%	43.2%	IUS 1.81/14

**Cautions**

Header for the hanger IUS1.81/14 at B2 is a Single 1-3/4" x 14" VERSA-STRAND® RIM.  
 Hanger IUS1.81/14 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

**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 meets arbitrary (0.75") Maximum live load deflection criteria.  
 Calculations assume member is fully braced.  
 Hanger Manufacturer: Simpson Strong-Tie, Inc.  
 BC CALC® analysis is based on IBC 2012.  
 Design based on Dry Service Condition.

**Disclosure**

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**2nd LEVEL\Flush Beams\BM8(i469)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:33:47

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Flush Beams\BM8(i469)

City, State, Zip: NC

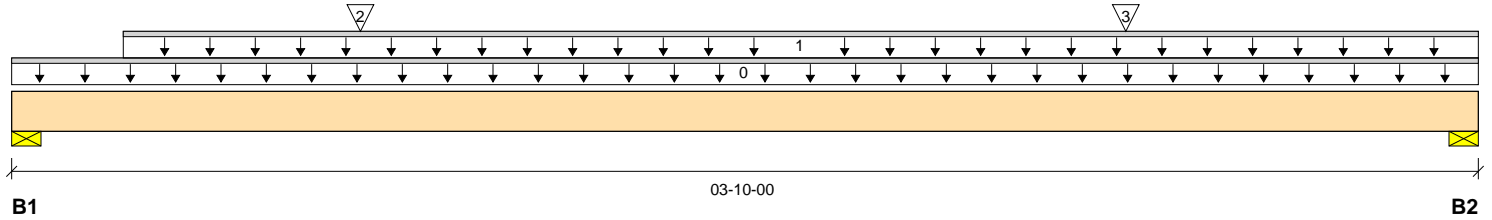
Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land



Total Horizontal Product Length = 03-10-00

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

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	647 / 0	175 / 0			
B2, 2-1/2"	520 / 0	143 / 0			

**Load Summary**

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-10-00	Top		7				00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-03-08	03-10-00	Top		1				n/a
2	J7(i516)	Conc. Pt. (lbs)	L	00-10-15	00-10-15	Top	657	164				n/a
3	J4(i423)	Conc. Pt. (lbs)	L	02-10-15	02-10-15	Top	496	124				n/a

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	555 ft-lbs	3.8%	100%	1	00-10-15
End Shear	420 lbs	9.0%	100%	1	01-05-08
Total Load Deflection	L/999 (0.002")	n/a	n/a	1	01-11-02
Live Load Deflection	L/999 (0.001")	n/a	n/a	2	01-11-02
Max Defl.	0.002"	n/a	n/a	1	01-11-02
Span / Depth	3.0				

**Bearing Supports**

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 1-3/4"	822 lbs	31.6%	17.9%	Unspecified
B2	Wall/Plate 2-1/2" x 1-3/4"	664 lbs	35.7%	20.2%	Unspecified

**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 meets arbitrary (0.75") Maximum live load deflection criteria.  
 Calculations assume member is fully braced.  
 BC CALC® analysis is based on IBC 2012.  
 Design based on Dry Service Condition.

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**2nd LEVEL\Flush Beams\BM9-4(i594)**

BC CALC® Member Report

Dry | 1 span | No cant.

October 1, 2019 15:32:46

Build 7118

Job name:

File name: CL3187 wCP GOL.mmdl

Address:

Description: 2nd LEVEL\Flush Beams\BM9-4(i594)

City, State, Zip: NC

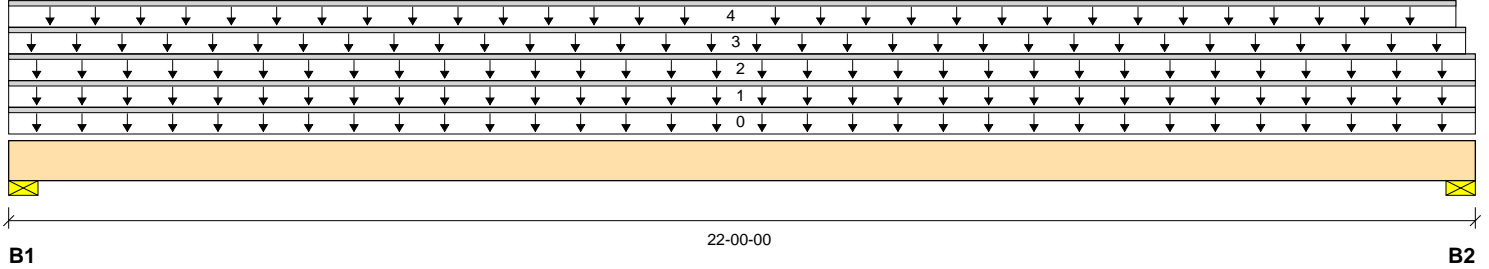
Specifier:

Customer: Caviness Land Development

Designer:

Code reports: ESR-1040

Company: Cav Land



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

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	307 / 0	5,274 / 0			3,960 / 0
B2, 3-1/2"	302 / 0	5,272 / 0			3,960 / 0

**Load Summary**

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live				Roof Live	Tributary
							100%	90%	115%	160%		
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	22-00-00	Top		32				00-00-00
1	Trusses	Unf. Lin. (lb/ft)	L	00-00-00	22-00-00	Top		360			360	n\A
2	Wall	Unf. Lin. (lb/ft)	L	00-00-00	22-00-00	Top		80				n\A
3	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	21-10-04	Top	16					n\A
4	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	21-08-08	Top	12					n\A

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	48,691 ft-lbs	52.1%	125%	2	11-00-00
End Shear	7,870 lbs	29.6%	125%	2	01-07-08
Total Load Deflection	L/304 (0.851")	79.0%	n\A	2	11-00-00
Live Load Deflection	L/708 (0.365")	50.8%	n\A	5	11-00-00
Max Defl.	0.851"	85.1%	n\A	2	11-00-00
Span / Depth	16.2				

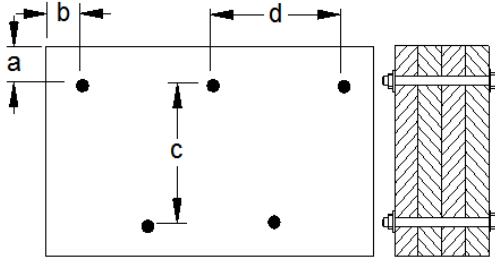
**Bearing Supports**

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 7"	9,234 lbs	88.7%	50.3%	Unspecified
B2	Wall/Plate 3-1/2" x 7"	9,232 lbs	88.7%	50.2%	Unspecified

**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 meets arbitrary (0.75") Maximum live load deflection criteria.
- Calculations assume member is fully braced.
- BC CALC® analysis is based on IBC 2012.
- Design based on Dry Service Condition.
- Beams 7 inches wide will be assumed to be either top-loaded only, or equally loaded from each side.
- Bolts are assumed to be Grade A307 or Grade 2 or higher.
- Member has no side loads.

**Connection Diagram: Full Length of Member**



a minimum = 2"      c = 12"  
 b minimum = 2-1/2"      d = 24"

Beams 7 inches wide will be assumed to be either top-loaded only, or equally loaded from each side.  
 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

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