



Client: GREENPARK

Date: 5/15/2023

Page 1 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES
OSHAWA ON

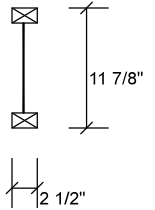
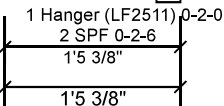
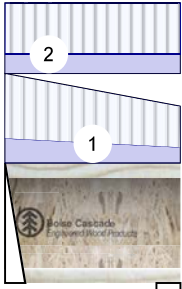
Job Name: CAROL 12-1 STD

Project #:

F1 AJS 140 11.875" - PASSED

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 94 | 35 | 0 | 0 |
| 2 | Vertical | 90 | 34 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|------------|--------|------|------------|----------|-------|----------|------------|
| 1 - Hanger | 2.000" | Vert | 12% | 44 / 141 | 185 | L | 1.25D+1.5L |
| 2 - SPF | 2.375" | Vert | 11% | 42 / 135 | 177 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|--------------------------|----------|----------|---------------|------------|------------|---------|
| Moment | 46 ft-lb | 8 3/8" | 5305 ft-lb | 0.009 (1%) | 1.25D+1.5L | L |
| Unbraced | 46 ft-lb | 8 3/8" | 5305 ft-lb | 0.009 (1%) | 1.25D+1.5L | L |
| Shear | 156 lb | 1 1/4" | 2350 lb | 0.067 (7%) | 1.25D+1.5L | L |
| Perm Defl in. (L/107972) | 0.000 | 8 3/8" | 0.040 (L/360) | 0.003 (0%) | D | Uniform |
| LL Defl inch (L/40490) | 0.000 | 8 3/8" | 0.040 (L/360) | 0.009 (1%) | L | L |
| TL Defl inch (L/29447) | 0.000 | 8 3/8" | 0.060 (L/240) | 0.008 (1%) | D+L | L |



JULY 24, 2023

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fill all hanger nailing holes.
- Left Header: SPF, Thickness: 2 1/2"
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-----------|----------------|------------------|------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 1-5-6 | 1-11-13 to 1-3-2 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-0-0 to 1-5-6 | 1-6-12 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
- Ljoist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Ljoist flanges must not be cut or drilled
- Refer to latest copy of the Ljoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
- Damaged Ljoists must not be used
- Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
- Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12787

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

Page 2 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES
OSHAWA ON

Job Name: CAROL 12-1 STD

Project #:

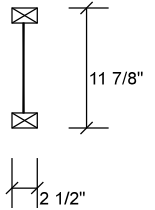
F1-A AJS 140 11.875" - PASSED

OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor



2 Hanger (LF2511) 0-2-0
1'3 3/16"
1'3 3/16"



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 43 | 16 | 0 | 0 |
| 2 | Vertical | 41 | 15 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|------------|--------|------|------------|---------|-------|----------|------------|
| 1 - SPF | 2.375" | Vert | 5% | 20 / 65 | 85 | L | 1.25D+1.5L |
| 2 - Hanger | 2.000" | Vert | 5% | 19 / 62 | 81 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|--------------------------|----------|----------|---------------|------------|------------|---------|
| Moment | 17 ft-lb | 7 3/4" | 5305 ft-lb | 0.003 (0%) | 1.25D+1.5L | L |
| Unbraced | 17 ft-lb | 7 3/4" | 5305 ft-lb | 0.003 (0%) | 1.25D+1.5L | L |
| Shear | 67 lb | 1 5/8" | 2350 lb | 0.029 (3%) | 1.25D+1.5L | L |
| Perm Defl in. (L/246418) | 0.000 | 7 13/16" | 0.034 (L/360) | 0.001 (0%) | D | Uniform |
| LL Defl inch (L/92407) | 0.000 | 7 13/16" | 0.034 (L/360) | 0.004 (0%) | L | L |
| TL Defl inch (L/67205) | 0.000 | 7 13/16" | 0.051 (L/240) | 0.004 (0%) | D+L | L |



JULY 24, 2023

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fill all hanger nailing holes.
- Right Header: SPF, Thickness: 2 1/2"
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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USED IN THE DESIGN OF THIS COMPONENT.

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-----------|----------------|------------|------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 1-3-3 | 1-8-1 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
- Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Joist flanges must not be cut or drilled
- Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
- Damaged Joists must not be used
- Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
- Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

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Client: GREENPARK

Date: 5/15/2023

Page 3 of 29

Project:

Input by: W C

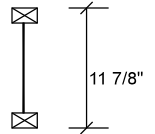
Address: ZADORRA ESTATES
OSHAWA ON

Job Name: CAROL 12-1 STD

Project #:

F1-B AJS 140 11.875" - PASSEDOF PERMIT PLANS
Nov 16 2023

Level: Ground Floor

**Member Information**

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 49 | 18 | 0 | 0 |
| 2 | Vertical | 41 | 15 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|------------|--------|------|------|--------------|-------|----------|------------|
| 1 - SPF | 2.375" | Vert | 6% | 23 / 73 | 96 | L | 1.25D+1.5L |
| 2 - Hanger | 2.000" | Vert | 5% | 19 / 62 | 81 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|---------------------|----------|---------------|------------|------------|---------|
| Moment | 17 ft-lb | 7 3/4" | 5305 ft-lb | 0.003 (0%) | 1.25D+1.5L | L |
| Unbraced | 17 ft-lb | 7 3/4" | 5305 ft-lb | 0.003 (0%) | 1.25D+1.5L | L |
| Shear | 71 lb | 1 5/8" | 2350 lb | 0.030 (3%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.000 (L/245617) | 7 3/4" | 0.034 (L/360) | 0.001 (0%) | D | Uniform |
| LL Defl inch | 0.000 (L/92106) | 7 3/4" | 0.034 (L/360) | 0.004 (0%) | L | L |
| TL Defl inch | 0.000 (L/66986) | 7 3/4" | 0.051 (L/240) | 0.004 (0%) | D+L | L |



JULY 24, 2023

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fill all hanger nailing holes.
- Right Header: SPF, Thickness: 2 1/2"
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-----------|----------------|------------|------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 1-3-3 | 1-8-1 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-0-0 to 0-2-6 | 0-8-11 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |

Notes

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Lumber

- Dry service conditions, unless noted otherwise
- Ljoist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Ljoist flanges must not be cut or drilled
- Refer to latest copy of the Ljoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
- Damaged Ljoists must not be used
- Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
- Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

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Client: GREENPARK

Date: 5/15/2023

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Project:

Input by: W C

Address: ZADORRA ESTATES
OSHAWA ON

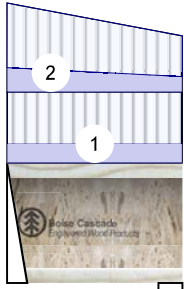
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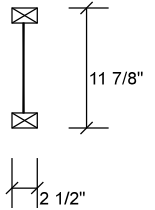
F1-C AJS 140 11.875" - PASSED

OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor



1 Hanger (LF2511) 0-2-0
2 SPF 0-2-6
1'5 3/8"
1'5 3/8"



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 93 | 35 | 0 | 0 |
| 2 | Vertical | 89 | 33 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|------------|--------|------|------------|----------|-------|----------|------------|
| 1 - Hanger | 2.000" | Vert | 11% | 44 / 140 | 184 | L | 1.25D+1.5L |
| 2 - SPF | 2.375" | Vert | 10% | 42 / 134 | 176 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|-----------------------------|----------|----------|---------------|------------|------------|---------|
| Moment | 45 ft-lb | 8 3/8" | 5305 ft-lb | 0.009 (1%) | 1.25D+1.5L | L |
| Unbraced | 45 ft-lb | 8 3/8" | 5305 ft-lb | 0.009 (1%) | 1.25D+1.5L | L |
| Shear | 155 lb | 1 1/4" | 2350 lb | 0.066 (7%) | 1.25D+1.5L | L |
| Perm Defl in. (L/108882) | 0.000 | 8 3/8" | 0.040 (L/360) | 0.003 (0%) | D | Uniform |
| LL Defl inch (L/40831) | 0.000 | 8 3/8" | 0.040 (L/360) | 0.009 (1%) | L | L |
| TL Defl inch (L/29695) | 0.000 | 8 3/8" | 0.060 (L/240) | 0.008 (1%) | D+L | L |



JULY 24, 2023

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: SPF, Thickness: 2 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 6 If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-----------|----------------|------------------|------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 1-5-6 | 1-6-12 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-0-0 to 1-5-6 | 1-11-8 to 1-2-13 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

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OSHAWA ON

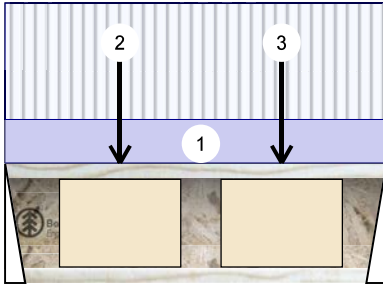
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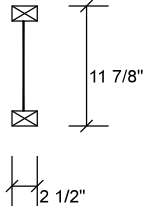
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OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor



1 Hanger (LF2511) 0-2-0
2 Hanger (LF2511) 0-2-0
3'1 3/4"
3'1 3/4"



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 420 | 158 | 0 | 0 |
| 2 | Vertical | 435 | 164 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|------------|--------|------|------------|-----------|-------|----------|------------|
| 1 - Hanger | 2.000" | Vert | 51% | 197 / 630 | 827 | L | 1.25D+1.5L |
| 2 - Hanger | 2.000" | Vert | 53% | 204 / 653 | 857 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|----------------------------|----------------|-----------|---------------|-------------|------------|---------|
| Moment | 672 ft-lb | 1'1 3/16" | 5305 ft-lb | 0.127 (13%) | 1.25D+1.5L | L |
| Unbraced | 672 ft-lb | 1'1 3/16" | 5305 ft-lb | 0.127 (13%) | 1.25D+1.5L | L |
| Shear | 851 lb | 3' 1/2" | 2350 lb | 0.362 (36%) | 1.25D+1.5L | L |
| Perm Defl in. (L/13938) | 0.003 | 1'5 3/4" | 0.098 (L/360) | 0.026 (3%) | D | Uniform |
| LL Defl inch | 0.007 (L/5239) | 1'5 3/4" | 0.098 (L/360) | 0.069 (7%) | L | L |
| TL Defl inch | 0.009 (L/3808) | 1'5 3/4" | 0.147 (L/240) | 0.063 (6%) | D+L | L |

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fill all hanger nailing holes.
- Left Header: SPF, Thickness: 2 1/2"
- Right Header: SPF, Thickness: 2 1/2"
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-----------|-----------------|------------|----------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 3-1-12 | 0-9-4 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Point | 0-11-6 | | Far Face | 145 lb | 386 lb | 0 lb | 0 lb | J4 |
| 3 | Point | 2-3-6 | | Far Face | 140 lb | 372 lb | 0 lb | 0 lb | J4 |

Notes

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Lumber

- Dry service conditions, unless noted otherwise
- Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Joist flanges must not be cut or drilled
- Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
- Damaged Joists must not be used
- Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
- Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12787

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 6 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES
OSHAWA ON

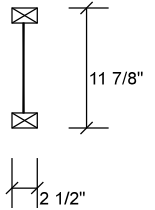
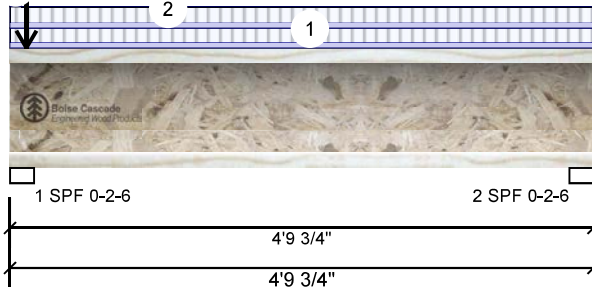
Job Name: CAROL 12-1 STD

Project #:

F3 AJS 140 11.875" - PASSED

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor

11
6

Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 171 | 361 | 25 | 0 |
| 2 | Vertical | 124 | 47 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------------|-----------|-------|----------|------------------|
| 1 - SPF | 2.375" | Vert | 48% | 451 / 208 | 659 | L | 1.25D+1.5S +L |
| 2 - SPF | 2.375" | Vert | 16% | 59 / 186 | 245 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|--------------------|------------|---------------|-------------|------------|---------|
| Moment | 264 ft-lb | 2'4 3/4" | 4934 ft-lb | 0.054 (5%) | 1.25D+1.5L | L |
| Unbraced | 264 ft-lb | 2'4 3/4" | 4934 ft-lb | 0.054 (5%) | 1.25D+1.5L | L |
| Shear | 269 lb | 1 5/8" | 2186 lb | 0.123 (12%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.001 (L/39826) | 2'4 9/16" | 0.151 (L/360) | 0.009 (1%) | D | Uniform |
| LL Defl inch | 0.004 (L/15460) | 2'4 7/8" | 0.151 (L/360) | 0.023 (2%) | L+0.5S | L |
| TL Defl inch | 0.005 (L/11137) | 2'4 13/16" | 0.227 (L/240) | 0.022 (2%) | D+L+0.5S | L |



JULY 24, 2023

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTES: EWP-FLOORS. THE NOTE
PAGE IS AN INTEGRAL PART OF THIS DRAWING
AS IT CONTAINS SPECIFICATIONS AND CRITERIA
USED IN THE DESIGN OF THIS COMPONENT.

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|---------------|-----------------|------------|------|--------|--------|-------|-------|------------------|
| 1 | Tie-In | 0-0-0 to 4-9-12 | 0-7-7 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-0-0 to 4-9-12 | 0-8-0 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 3 | Part. Uniform | 0-0-0 to 0-1-2 | | Top | 20 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 4 | Tapered Start | 0-0-0 | | Top | 2 PLF | 5 PLF | 0 PLF | 0 PLF | |
| | End | 0-1-2 | | | 2 PLF | 5 PLF | 0 PLF | 0 PLF | |

Continued on page 2...

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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CCMC: 12787

Kott Inc.

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613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

Page 7 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

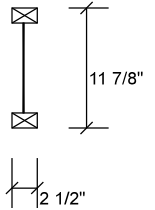
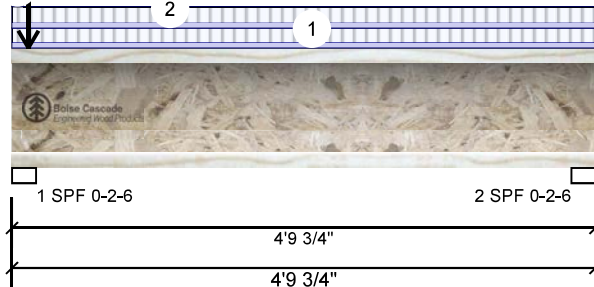
Project #:

F3 AJS 140 11.875" - PASSED

OF PERMIT PLANS

Nov 16 2023

Level: Ground Floor

11
7
6

...Continued from page 1

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|----------------|----------------|------------|------|--------|--------|-------|-------|-----------------------|
| 5 | Part. Uniform | 0-0-0 to 0-1-2 | | Top | 1 PLF | 0 PLF | 0 PLF | 0 PLF | Rim Board Self Weight |
| 6 | Part. Uniform | 0-0-0 to 0-1-2 | | Top | 40 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 7 | Part. Uniform | 0-0-0 to 0-4-6 | | Top | 40 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 8 | Tapered Start | 0-0-0 | | Top | 4 PLF | 10 PLF | 0 PLF | 0 PLF | |
| | End | 0-4-6 | | | 4 PLF | 10 PLF | 0 PLF | 0 PLF | |
| 9 | Part. Uniform | 0-0-0 to 0-4-6 | | Top | 2 PLF | 0 PLF | 0 PLF | 0 PLF | Rim Board Self Weight |
| 10 | Part. Uniform | 0-0-0 to 0-4-6 | | Top | 80 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 11 | Point | 0-1-10 | | Top | 263 lb | 43 lb | 25 lb | 0 lb | B4 |
| | Bearing Length | 0-1-8 | | | | | | | |



JULY 24, 2023

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Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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www.bc.com
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Kott Inc.

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613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

Page 8 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES
OSHAWA ON

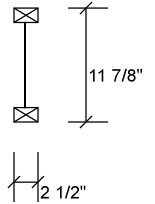
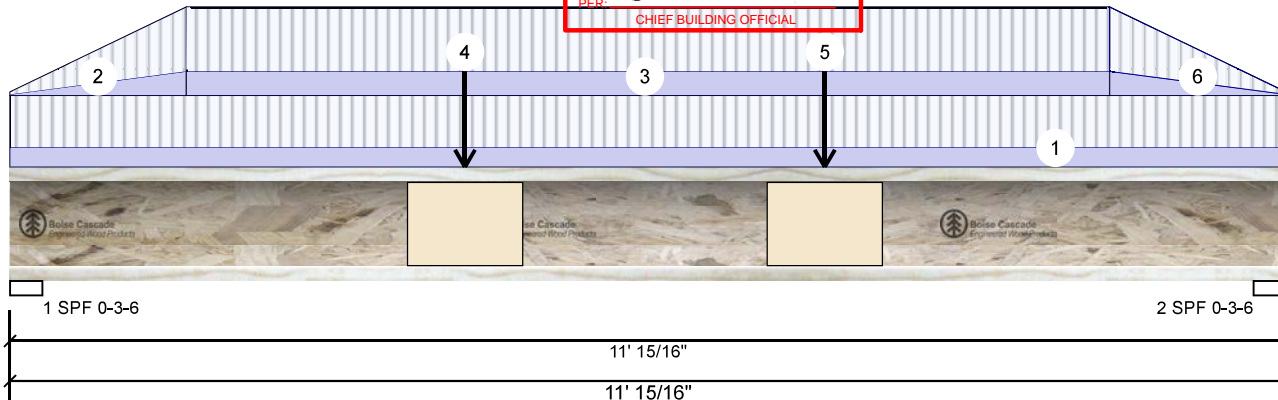
Job Name: CAROL 12-1 STD

Project #:

F4 AJS 140 11.875" - PASSED

OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor

PER:
CHIEF BUILDING OFFICIAL

Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 390 | 146 | 0 | 0 |
| 2 | Vertical | 390 | 146 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------------|-----------|-------|----------|------------|
| 1 - SPF | 3.375" | Vert | 41% | 183 / 585 | 768 | L | 1.25D+1.5L |
| 2 - SPF | 3.375" | Vert | 41% | 182 / 585 | 767 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------|----------|---------------|-------------|------------|---------|
| Moment | 2286 ft-lb | 5'6 5/8" | 5305 ft-lb | 0.431 (43%) | 1.25D+1.5L | L |
| Unbraced | 2286 ft-lb | 5'6 5/8" | 5305 ft-lb | 0.431 (43%) | 1.25D+1.5L | L |
| Shear | 756 lb | 2 5/8" | 2350 lb | 0.322 (32%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.035 (L/3667) | 5'6 1/2" | 0.355 (L/360) | 0.098 (10%) | D | Uniform |
| LL Defl inch | 0.093 (L/1374) | 5'6 1/2" | 0.355 (L/360) | 0.262 (26%) | L | |
| TL Defl inch | 0.128 (L/1000) | 5'6 1/2" | 0.532 (L/240) | 0.240 (24%) | D+L | L |



JULY 24, 2023

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- Bottom flange must be laterally braced at a maximum of 4' 1/16" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-----------|------------------|----------------|-----------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 11-0-15 | 0-7-12 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-0-0 to 1-6-6 | 0-0-6 to 0-9-9 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 3 | Tie-In | 1-6-6 to 9-6-9 | 0-9-9 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 4 | Point | 3-11-7 | | Near Face | 35 lb | 93 lb | 0 lb | 0 lb | F1 |
| 5 | Point | 7-0-14 | | Near Face | 35 lb | 94 lb | 0 lb | 0 lb | F1 |
| 6 | Tie-In | 9-6-9 to 11-0-15 | 0-9-9 to 0-0-6 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
- Joist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

- Joist flanges must not be cut or drilled
- Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
- Damaged Joists must not be used
- Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
- Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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CCMC: 12787

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613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 9 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

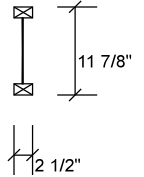
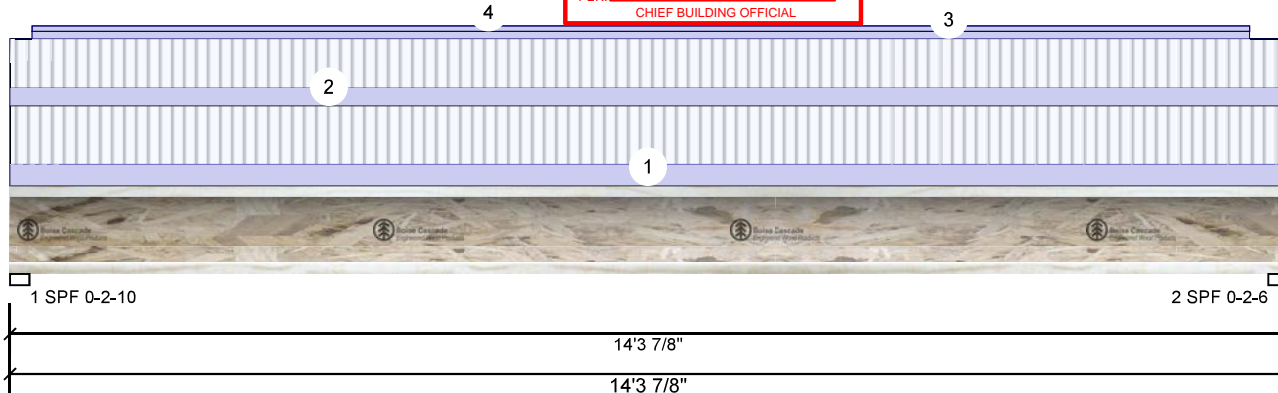
Project #:

F5 AJS 140 11.875" - PASSED

TRUE COPY
OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor

PER: *C. Matijevic*
CHIEF BUILDING OFFICIAL



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 418 | 205 | 0 | 0 |
| 2 | Vertical | 417 | 204 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------------|-----------|-------|----------|------------|
| 1 - SPF | 2.625" | Vert | 51% | 257 / 627 | 884 | L | 1.25D+1.5L |
| 2 - SPF | 2.375" | Vert | 52% | 255 / 625 | 880 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------|-----------|---------------|-------------|------------|---------|
| Moment | 3042 ft-lb | 7'2 1/16" | 5305 ft-lb | 0.573 (57%) | 1.25D+1.5L | L |
| Unbraced | 3042 ft-lb | 7'2 1/16" | 5305 ft-lb | 0.573 (57%) | 1.25D+1.5L | L |
| Shear | 866 lb | 1 7/8" | 2350 lb | 0.369 (37%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.091 (L/1845) | 7'2 1/16" | 0.468 (L/360) | 0.195 (20%) | D | Uniform |
| LL Defl inch | 0.184 (L/913) | 7'2 1/16" | 0.468 (L/360) | 0.394 (39%) | L | |
| TL Defl inch | 0.276 (L/611) | 7'2 1/16" | 0.702 (L/240) | 0.393 (39%) | D+L | L |



JULY 24, 2023

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at bearings.

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USED IN THE DESIGN OF THIS COMPONENT.

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|---------------|-------------------|------------|------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 14-3-14 | 0-9-8 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-0-0 to 14-3-14 | 0-8-0 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 3 | Part. Uniform | 0-3-0 to 13-10-15 | | Top | 4 PLF | 0 PLF | 0 PLF | 0 PLF | |
| 4 | Part. Uniform | 0-3-0 to 13-10-15 | | Top | 3 PLF | 0 PLF | 0 PLF | 0 PLF | |

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 10 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F6 AJS 140 11.875" - PASSED

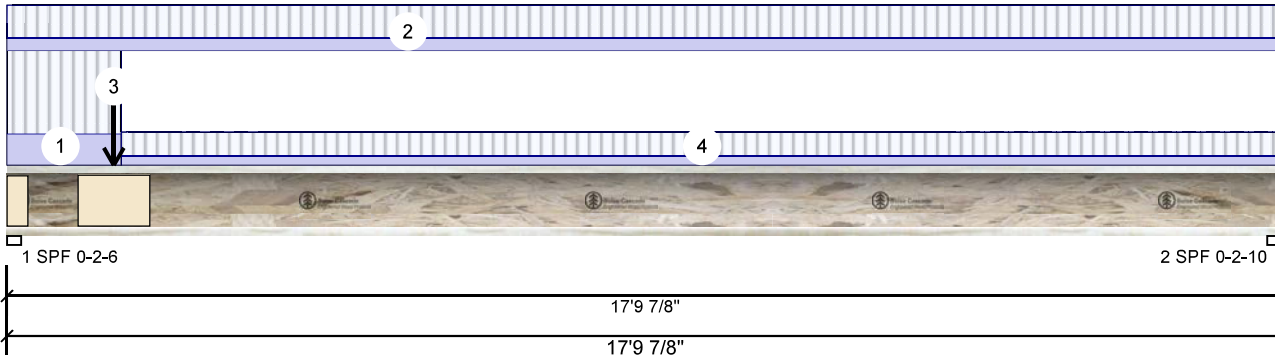
OF PERMIT PLANS

Nov 16 2023

PER:

CHIEF BUILDING OFFICIAL

Level: Ground Floor



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 885 | 332 | 0 | 0 |
| 2 | Vertical | 447 | 168 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------|--------------|-------|----------|------------|
| 1 - SPF | 2.375" | Vert | 76% | 416 / 1326 | 1742 | L | 1.25D+1.5L |
| 2 - SPF | 2.625" | Vert | 51% | 210 / 671 | 881 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------|------------|---------------|-------------|------------|---------|
| Moment | 4144 ft-lb | 8'1 1/4" | 5305 ft-lb | 0.781 (78%) | 1.25D+1.5L | L |
| Unbraced | 4144 ft-lb | 8'1 1/4" | 5305 ft-lb | 0.781 (78%) | 1.25D+1.5L | L |
| Shear | 1717 lb | 1 5/8" | 2350 lb | 0.731 (73%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.155 (L/1356) | 8'7 13/16" | 0.584 (L/360) | 0.266 (27%) | D | Uniform |
| LL Defl inch | 0.413 (L/509) | 8'7 13/16" | 0.584 (L/360) | 0.707 (71%) | L | |
| TL Defl inch | 0.569 (L/370) | 8'7 13/16" | 0.877 (L/240) | 0.649 (65%) | D+L | L |



JULY 24, 2023

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 16'4" o.c.
- 5 Web stiffeners required at Bearing 1.

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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-----------|------------------|------------|----------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 1-7-3 | 1-8-2 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-0-0 to 17-9-14 | 0-8-0 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 3 | Point | 1-5-15 | | Far Face | 164 lb | 435 lb | 0 lb | 0 lb | F2 |
| 4 | Tie-In | 1-7-3 to 17-9-14 | 0-5-13 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12787

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

Page 11 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

CORPORATION OF THE CITY OF OSHAWA

TRUE COPY

F6-A AJS 140 11.875" - PASSED

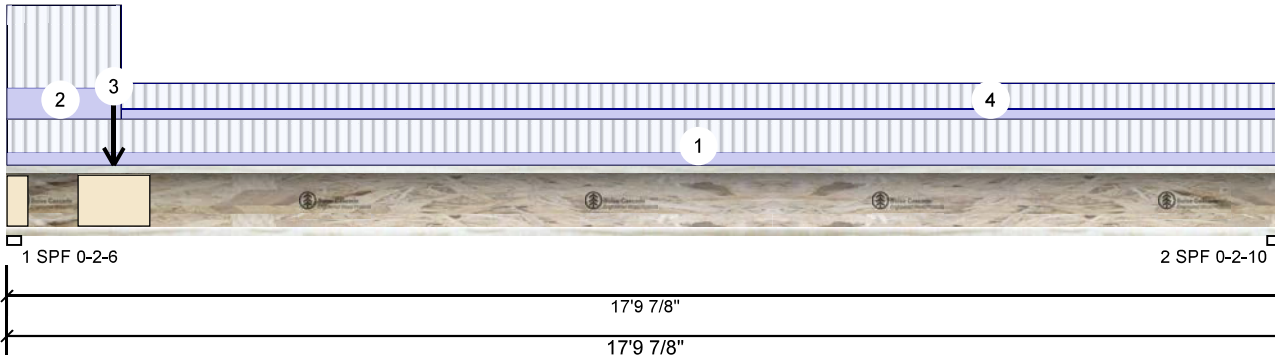
OF PERMIT PLANS

Nov 16 2023

Level: Ground Floor

PER:

CHIEF BUILDING OFFICIAL



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 888 | 334 | 0 | 0 |
| 2 | Vertical | 467 | 175 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------------|------------|-------|----------|------------|
| 1 - SPF | 2.375" | Vert | 77% | 417 / 1333 | 1750 | L | 1.25D+1.5L |
| 2 - SPF | 2.625" | Vert | 53% | 219 / 700 | 919 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------|-----------|---------------|-------------|------------|---------|
| Moment | 4291 ft-lb | 8'2 1/16" | 5305 ft-lb | 0.809 (81%) | 1.25D+1.5L | L |
| Unbraced | 4291 ft-lb | 8'2 1/16" | 5305 ft-lb | 0.809 (81%) | 1.25D+1.5L | L |
| Shear | 1725 lb | 1 5/8" | 2350 lb | 0.734 (73%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.161 (L/1311) | 8'8 1/16" | 0.584 (L/360) | 0.275 (27%) | D | Uniform |
| LL Defl inch | 0.428 (L/492) | 8'8 1/16" | 0.584 (L/360) | 0.732 (73%) | L | |
| TL Defl inch | 0.588 (L/358) | 8'8 1/16" | 0.877 (L/240) | 0.671 (67%) | D+L | L |

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 16'4" o.c.
- 5 Web stiffeners required at Bearing 1.



JULY 24, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-----------|------------------|------------|-----------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 17-9-14 | 0-8-3 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-0-0 to 1-7-3 | 1-8-2 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 3 | Point | 1-5-15 | | Near Face | 158 lb | 420 lb | 0 lb | 0 lb | F2 |
| 4 | Tie-In | 1-7-3 to 17-9-14 | 0-6-5 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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CCMC: 12787

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 12 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

CORPORATION OF THE CITY OF OSHAWA

TRUE COPY

F6-B AJS 140 11.875" - PASSED

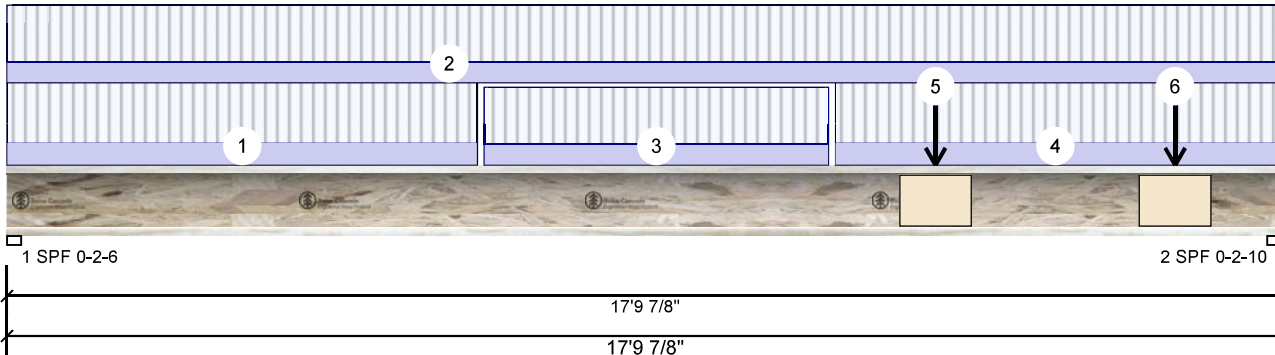
OF PERMIT PLANS

Nov 16 2023

Level: Ground Floor

PER:

CHIEF BUILDING OFFICIAL



11 7/8"

2 1/2"

Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 497 | 186 | 0 | 0 |
| 2 | Vertical | 552 | 206 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------------|-----------|-------|----------|------------|
| 1 - SPF | 2.375" | Vert | 58% | 233 / 746 | 979 | L | 1.25D+1.5L |
| 2 - SPF | 2.625" | Vert | 63% | 258 / 828 | 1086 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------|-------------|---------------|-------------|------------|---------|
| Moment | 4316 ft-lb | 9'1 15/16" | 5305 ft-lb | 0.814 (81%) | 1.25D+1.5L | L |
| Unbraced | 4316 ft-lb | 9'1 15/16" | 5305 ft-lb | 0.814 (81%) | 1.25D+1.5L | L |
| Shear | 1069 lb | 17'8" | 2350 lb | 0.455 (45%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.159 (L/1323) | 8'11 11/16" | 0.584 (L/360) | 0.272 (27%) | D | Uniform |
| LL Defl inch | 0.425 (L/495) | 8'11 3/4" | 0.584 (L/360) | 0.727 (73%) | L | |
| TL Defl inch | 0.584 (L/360) | 8'11 3/4" | 0.877 (L/240) | 0.666 (67%) | D+L | L |



JULY 24, 2023

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- Bottom flange must be laterally braced at a maximum of 12'11 5/8" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-----------|--------------------|------------|----------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 6-6-14 | 0-8-8 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-0-0 to 17-9-14 | 0-8-0 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 3 | Tie-In | 6-8-0 to 11-5-12 | 0-8-0 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 4 | Tie-In | 11-6-14 to 17-9-14 | 0-8-8 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 5 | Point | 12-11-10 | | Far Face | 15 lb | 41 lb | 0 lb | 0 lb | F1 |
| 6 | Point | 16-3-13 | | Far Face | 15 lb | 41 lb | 0 lb | 0 lb | F1 |

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
- Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Joist flanges must not be cut or drilled
- Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
- Damaged Joists must not be used
- Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
- Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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(800) 232-0788
www.bc.com
CCMC: 12787

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

Page 13 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

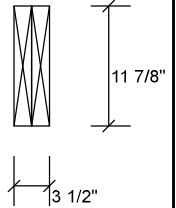
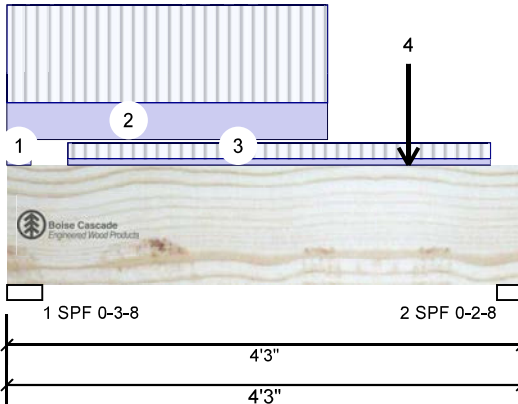
OSHAWA ON

Project #:

F7-B Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply

Level: Ground Floor

TRUE COPY
Nov 16 2023
PER: *C. Maitre*
CHIEF BUILDING OFFICIAL



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 751 | 308 | 0 | 0 |
| 2 | Vertical | 635 | 263 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------------|------------|-------|----------|------------|
| 1 - SPF | 3.500" | Vert | 20% | 384 / 1126 | 1511 | L | 1.25D+1.5L |
| 2 - SPF | 2.500" | Vert | 24% | 328 / 952 | 1280 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|-----------------|------------|---------------|-------------|------------|---------|
| Moment | 1323 ft-lb | 2'1 15/16" | 35392 ft-lb | 0.037 (4%) | 1.25D+1.5L | L |
| Unbraced | 1323 ft-lb | 2'1 15/16" | 35392 ft-lb | 0.037 (4%) | 1.25D+1.5L | L |
| Shear | 1777 lb | 3' 5/8" | 13217 lb | 0.134 (13%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.001 (L/59116) | 2'2 1/8" | 0.129 (L/360) | 0.006 (1%) | D | Uniform |
| LL Defl inch | 0.002 (L/24166) | 2'2 1/8" | 0.129 (L/360) | 0.015 (1%) | L | L |
| TL Defl inch | 0.003 (L/17154) | 2'2 1/8" | 0.194 (L/240) | 0.014 (1%) | D+L | L |



JULY 24, 2023

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top must be continuously laterally braced.
- Bottom must have sheathing attached or be continuously braced.
- Lateral slenderness ratio based on full section width.

READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTES: EWP-FLOORS. THE NOTE
PAGE IS AN INTEGRAL PART OF THIS DRAWING
AS IT CONTAINS SPECIFICATIONS AND CRITERIA
USED IN THE DESIGN OF THIS COMPONENT.

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|---------------|------------------|------------|-----------|---------|---------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 0-2-6 | 1-5-5 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Part. Uniform | 0-0-0 to 2-7-12 | | Near Face | 114 PLF | 304 PLF | 0 PLF | 0 PLF | |
| 3 | Part. Uniform | 0-6-0 to 3-11-14 | | Top | 19 PLF | 50 PLF | 0 PLF | 0 PLF | |
| 4 | Point | 3-3-12 | | Near Face | 148 lb | 396 lb | 0 lb | 0 lb | J3 |
| | Self Weight | | | | 12 PLF | | | | |

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
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(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 14 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

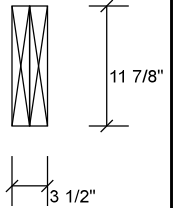
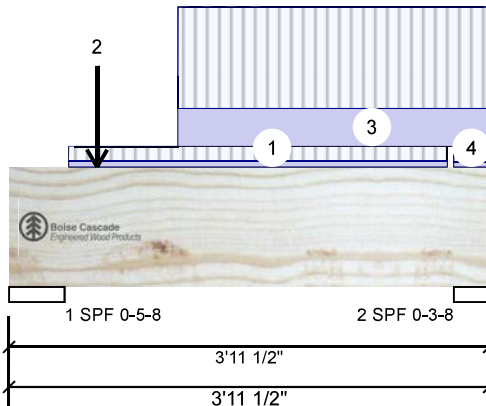
Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F8-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED

Level: Ground Floor



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 696 | 285 | 0 | 0 |
| 2 | Vertical | 717 | 291 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------|--------------|-------|----------|------------|
| 1 - SPF | 5.500" | Vert | 12% | 357 / 1044 | 1401 | L | 1.25D+1.5L |
| 2 - SPF | 3.500" | Vert | 19% | 364 / 1076 | 1439 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|--------------------|-----------|---------------|-------------|------------|---------|
| Moment | 1038 ft-lb | 2' 1 1/8" | 35392 ft-lb | 0.029 (3%) | 1.25D+1.5L | L |
| Unbraced | 1038 ft-lb | 2' 1 1/8" | 35392 ft-lb | 0.029 (3%) | 1.25D+1.5L | L |
| Shear | 1920 lb | 1' 5 3/8" | 13217 lb | 0.145 (15%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.000 (L/85855) | 2' 7/8" | 0.111 (L/360) | 0.004 (0%) | D | Uniform |
| LL Defl inch | 0.001 (L/34910) | 2' 7/8" | 0.111 (L/360) | 0.010 (1%) | L | L |
| TL Defl inch | 0.002 (L/24818) | 2' 7/8" | 0.167 (L/240) | 0.010 (1%) | D+L | L |



JULY 24, 2023

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top must be continuously laterally braced.
- Bottom must have sheathing attached or be continuously braced.
- Lateral slenderness ratio based on full section width.

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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|---------------|------------------|------------|-----------|---------|---------|-------|-------|----------|
| 1 | Part. Uniform | 0-5-15 to 3-7-6 | | Top | 19 PLF | 50 PLF | 0 PLF | 0 PLF | |
| 2 | Point | 0-8-11 | | Near Face | 142 lb | 379 lb | 0 lb | 0 lb | J4 |
| 3 | Part. Uniform | 1-4-11 to 3-11-8 | | Near Face | 126 PLF | 337 PLF | 0 PLF | 0 PLF | |
| 4 | Tie-In | 3-8-0 to 3-11-8 | 1-1-5 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| | Self Weight | | | | 12 PLF | | | | |

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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CCMC: 12472

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 15 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

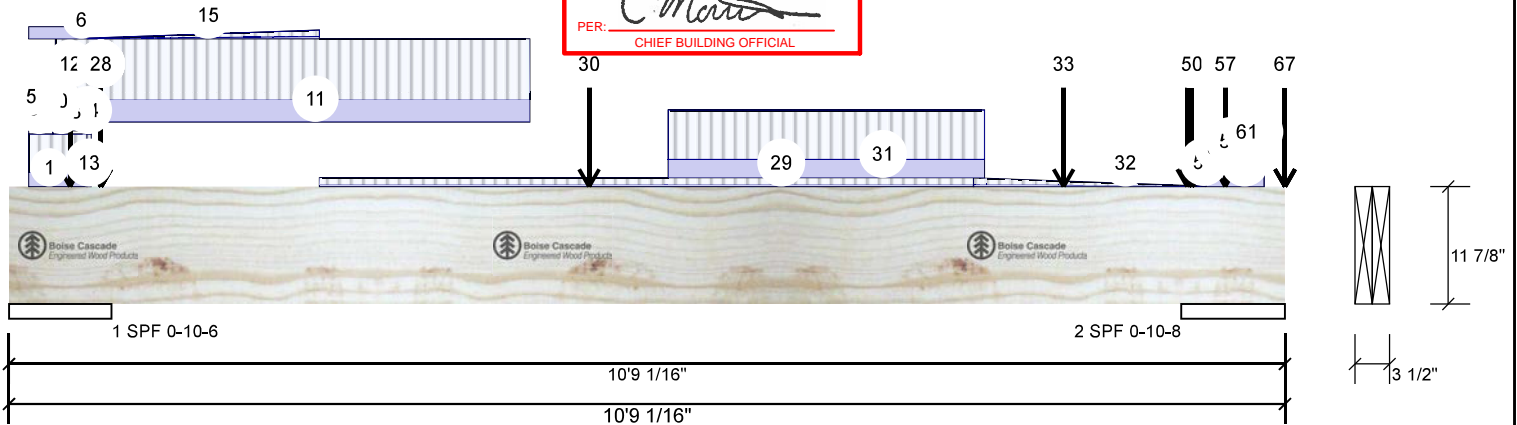
Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F9-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED

Level: Ground Floor



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 3469 | 1853 | 155 | 0 |
| 2 | Vertical | 3180 | 1778 | 173 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|---------|------|------------|-------------|-------|----------|------------------|
| 1 - SPF | 10.375" | Vert | 34% | 2317 / 5359 | 7676 | L | 1.25D+1.5L +S |
| 2 - SPF | 10.500" | Vert | 32% | 2222 / 4944 | 7166 | L | 1.25D+1.5L +S |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------|-------------|---------------|-------------|------------|---------|
| Moment | 8180 ft-lb | 4'10 11/16" | 35392 ft-lb | 0.231 (23%) | 1.25D+1.5L | L |
| Unbraced | 8180 ft-lb | 4'10 11/16" | 35392 ft-lb | 0.231 (23%) | 1.25D+1.5L | L |
| Shear | 3906 lb | 8'10 11/16" | 13217 lb | 0.296 (30%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.025 (L/4469) | 5'4 1/16" | 0.305 (L/360) | 0.081 (8%) | D | Uniform |
| LL Defl inch | 0.061 (L/1811) | 5'4" | 0.305 (L/360) | 0.199 (20%) | L+0.5S | L |
| TL Defl inch | 0.085 (L/1289) | 5'4" | 0.457 (L/240) | 0.186 (19%) | D+L+0.5S | L |

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 3 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be continuously laterally braced.
- 8 Bottom must have sheathing attached or be continuously braced.
- 9 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

CORPORATION OF THE CITY OF OSHAWA

Project #:

OSHAWA ON

TRUE COPY

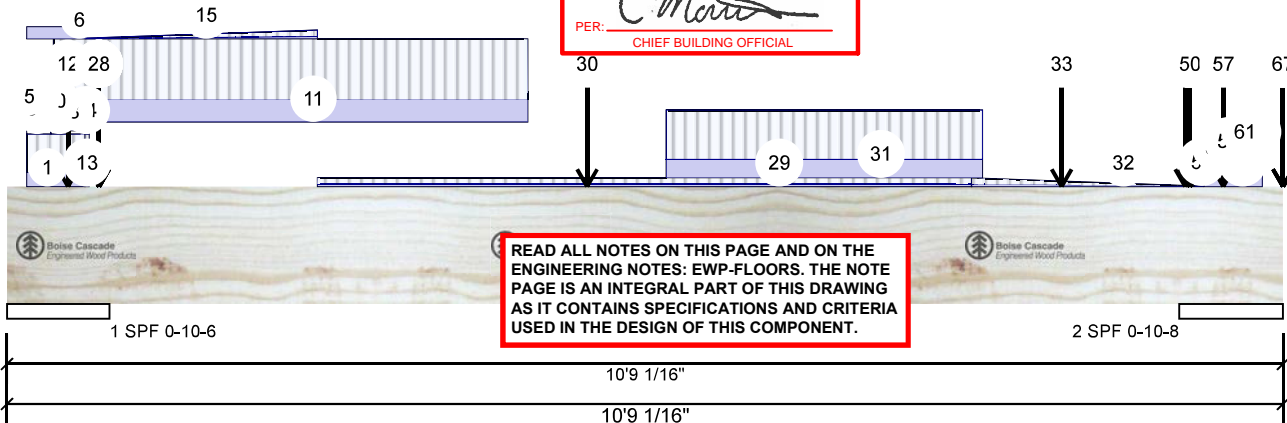
F9-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED Level: Ground Floor

PER: *C. M...*

CHIEF BUILDING OFFICIAL



JULY 24, 2023



| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|----------------|------------------|-----------------|----------|---------|---------|--------|-------|-----------------------|
| 1 | Part. Uniform | 0-2-0 to 0-7-14 | | Top | 94 PLF | 252 PLF | 0 PLF | 0 PLF | J8 |
| 2 | Part. Uniform | 0-2-0 to 0-4-7 | | Top | 0 PLF | 0 PLF | 43 PLF | 0 PLF | |
| 3 | Part. Uniform | 0-2-0 to 0-4-7 | | Top | 80 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 4 | Tapered Start | 0-2-0 | | Top | 0 PLF | 1 PLF | 0 PLF | 0 PLF | |
| | End | 0-4-7 | | | 0 PLF | 1 PLF | 0 PLF | 0 PLF | |
| 5 | Part. Uniform | 0-2-0 to 0-4-7 | | Top | 4 PLF | 0 PLF | 0 PLF | 0 PLF | Rim Board Self Weight |
| 6 | Part. Uniform | 0-2-0 to 0-7-14 | | Top | 80 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 7 | Part. Uniform | 0-4-7 to 0-7-6 | | Top | 0 PLF | 0 PLF | 22 PLF | 0 PLF | |
| 8 | Part. Uniform | 0-4-7 to 0-7-6 | | Top | 40 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 10 | Part. Uniform | 0-4-7 to 0-7-6 | | Top | 2 PLF | 0 PLF | 0 PLF | 0 PLF | Rim Board Self Weight |
| 11 | Part. Uniform | 0-4-11 to 4-4-11 | | Far Face | 149 PLF | 398 PLF | 0 PLF | 0 PLF | |
| 12 | Point | 0-6-3 | | Top | 502 lb | 729 lb | 78 lb | 0 lb | B3 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 13 | Part. Uniform | 0-7-14 to 0-8-5 | | Top | 94 PLF | 252 PLF | 0 PLF | 0 PLF | J8 |
| 14 | Part. Uniform | 0-7-14 to 0-8-5 | | Top | 80 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 15 | Tie-In | 0-7-15 to 2-7-6 | 0-0-14 to 1-0-9 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 16 | Point | 0-9-5 | | Top | 386 lb | 561 lb | 60 lb | 0 lb | B3 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 17 | Point | 0-9-5 | | Top | 5 lb | 14 lb | 0 lb | 0 lb | J8 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 18 | Point | 0-9-5 | | Top | 0 lb | 0 lb | 2 lb | 0 lb | |
| | Bearing Length | 0-5-8 | | | | | | | |
| 19 | Point | 0-9-5 | | Top | 3 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 22 | Point | 0-9-5 | | Top | 6 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 23 | Point | 0-9-5 | | Top | 4 lb | 12 lb | 0 lb | 0 lb | J8 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 24 | Point | 0-9-5 | | Top | 0 lb | 0 lb | 1 lb | 0 lb | |

Continued on page 3...

Notes

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Lumber

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chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

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CCMC: 12472

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

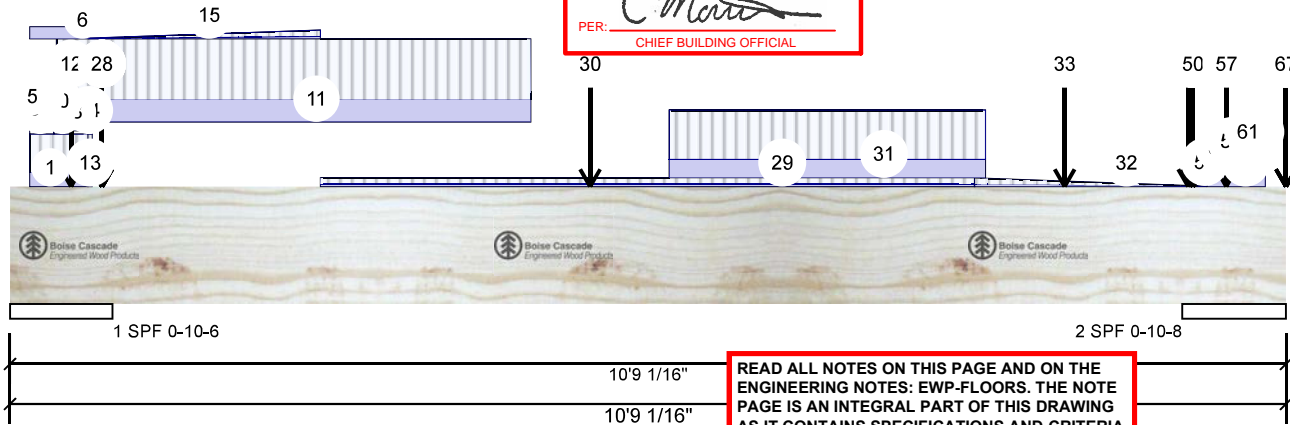
Project #:

Page 17 of 29

F9-A Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply

Level: Ground Floor



READ ALL NOTES ON THIS PAGE AND ON THE
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PAGE IS AN INTEGRAL PART OF THIS DRAWING
AS IT CONTAINS SPECIFICATIONS AND CRITERIA
USED IN THE DESIGN OF THIS COMPONENT.

...Continued from page 2

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|----------------|------------------|-----------------|----------|---------|---------|-------|-------|------------------|
| | Bearing Length | 0-5-8 | | | | | | | |
| 25 | Point | 0-9-5 | | Top | 3 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 28 | Point | 0-9-5 | | Top | 5 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 29 | Tie-In | 2-7-6 to 8-1-9 | 1-0-9 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 30 | Point | 4-10-11 | | Far Face | 142 lb | 379 lb | 0 lb | 0 lb | J4 |
| 31 | Part. Uniform | 5-6-11 to 8-2-11 | | Far Face | 122 PLF | 325 PLF | 0 PLF | 0 PLF | |
| 32 | Tie-In | 8-1-9 to 10-1-0 | 1-0-9 to 0-0-14 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 33 | Point | 8-10-11 | | Far Face | 164 lb | 438 lb | 0 lb | 0 lb | J5 |
| 34 | Point | 9-11-3 | | Far Face | 141 lb | 377 lb | 0 lb | 0 lb | J5 |
| 35 | Point | 9-11-11 | | Top | 1 lb | 2 lb | 0 lb | 0 lb | J3 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 36 | Point | 9-11-11 | | Top | 1 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 37 | Point | 9-11-11 | | Top | 6 lb | 15 lb | 0 lb | 0 lb | J3 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 38 | Point | 9-11-11 | | Top | 0 lb | 0 lb | 1 lb | 0 lb | |
| | Bearing Length | 0-5-8 | | | | | | | |
| 39 | Point | 9-11-11 | | Top | 3 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 42 | Point | 9-11-11 | | Top | 10 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 43 | Point | 9-11-11 | | Top | 336 lb | 471 lb | 57 lb | 0 lb | B3 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 44 | Point | 9-11-11 | | Top | 8 lb | 20 lb | 0 lb | 0 lb | J3 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 45 | Point | 9-11-11 | | Top | 0 lb | 0 lb | 4 lb | 0 lb | |
| | Bearing Length | 0-5-8 | | | | | | | |
| 46 | Point | 9-11-11 | | Top | 7 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |



Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

Project:

Input by: W C

Address:

ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

CORPORATION OF THE CITY OF OSHAWA

TRUE COPY

F9-A Versa-Lam LVL 2.1E 3100 SP

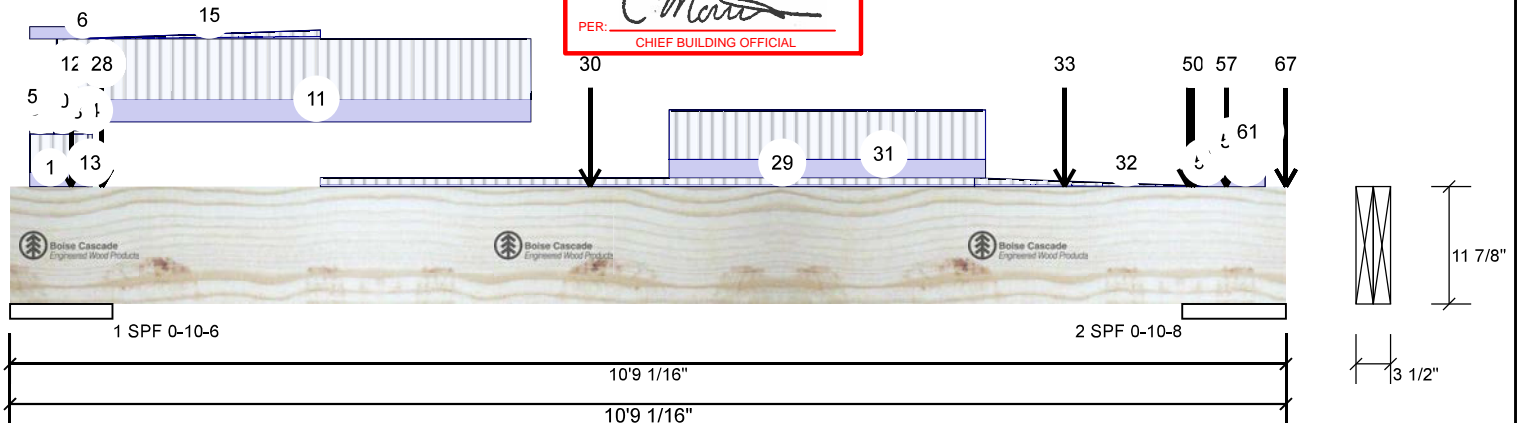
1.750" X 11.875" 2-Ply PASSED

Level: Ground Floor

Nov 16 2023

PER: *C. Matijevic*

CHIEF BUILDING OFFICIAL



...Continued from page 3

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|----------------|-------------------|------------|------|--------|--------|--------|-------|-----------------------|
| | Bearing Length | 0-5-8 | | | | | | | |
| 50 | Point | 9-11-11 | | Top | 14 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 51 | Part. Uniform | 10-0-11 to 10-1-1 | | Top | 80 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 52 | Part. Uniform | 10-1-1 to 10-7-0 | | Top | 80 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 53 | Part. Uniform | 10-1-9 to 10-5-0 | | Top | 0 PLF | 0 PLF | 22 PLF | 0 PLF | |
| 54 | Part. Uniform | 10-1-9 to 10-5-0 | | Top | 40 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 56 | Part. Uniform | 10-1-9 to 10-5-0 | | Top | 2 PLF | 0 PLF | 0 PLF | 0 PLF | Rim Board Self Weight |
| 57 | Point | 10-3-1 | | Top | 498 lb | 698 lb | 85 lb | 0 lb | B3 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 58 | Part. Uniform | 10-5-0 to 10-7-0 | | Top | 0 PLF | 0 PLF | 43 PLF | 0 PLF | |
| 59 | Part. Uniform | 10-5-0 to 10-7-0 | | Top | 80 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 60 | Tapered Start | 10-5-0 | | Top | 0 PLF | 1 PLF | 0 PLF | 0 PLF | |
| | End | 10-7-0 | | | 0 PLF | 1 PLF | 0 PLF | 0 PLF | |
| 61 | Part. Uniform | 10-5-0 to 10-7-0 | | Top | 4 PLF | 0 PLF | 0 PLF | 0 PLF | Rim Board Self Weight |
| 62 | Point | 10-9-1 | | Top | 2 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 64 | Point | 10-9-1 | | Top | 1 lb | 2 lb | 0 lb | 0 lb | |
| | Bearing Length | 0-5-8 | | | | | | | |
| 66 | Point | 10-9-1 | | Top | 23 lb | 21 lb | 13 lb | 0 lb | J3 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 67 | Point | 10-9-1 | | Top | 5 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| | Self Weight | | | | 12 PLF | | | | |

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Notes

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Lumber

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chemicals

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3. Damaged Beams must not be used
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Manufacturer Info

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This design is valid until 4/17/2026

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3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 7/21/2023

Page 1 of 2

Project:

Input by: W C

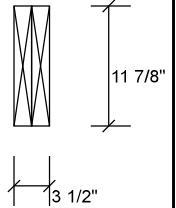
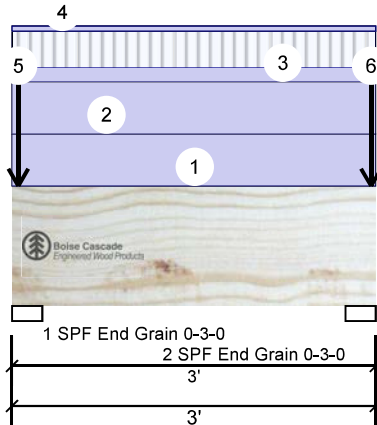
Address: ZADORRA ESTATES

Job Name: CAROL 12-1 DC

OSHAWA ON

Project #:

FH5 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply - PASSED Level: Ground Floor



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 121 | 494 | 341 | 0 |
| 2 | Vertical | 72 | 448 | 257 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. | React D/L | lb | Total | Ld. Case | Ld. Comb. |
|-------------------|--------|------|------|-----------|------|-------|----------|---------------|
| 1 - SPF End Grain | 3.000" | Vert | 12% | 618 / 633 | 1250 | L | | 1.25D+1.5S +L |
| 2 - SPF End Grain | 3.000" | Vert | 10% | 560 / 458 | 1018 | L | | 1.25D+1.5S +L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|--------------------------|-----------|----------|---------------|------------|------------|---------|
| Moment | 151 ft-lb | 1'6" | 23359 ft-lb | 0.006 (1%) | 1.25D+1.5L | L |
| Unbraced | 151 ft-lb | 1'6" | 23359 ft-lb | 0.006 (1%) | 1.25D+1.5L | L |
| Shear | 170 lb | 1'2 7/8" | 8723 lb | 0.019 (2%) | 1.25D+1.5L | L |
| Perm Defl in. (L/232359) | 0.000 | 1'6" | 0.088 (L/360) | 0.002 (0%) | D | Uniform |
| LL Defl inch (L/886563) | 0.000 | 1'6" | 0.088 (L/360) | 0.000 (0%) | L+0.5S | L |
| TL Defl inch (L/184106) | 0.000 | 1'6" | 0.131 (L/240) | 0.001 (0%) | D+L+0.5S | L |

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 7 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|---------------|----------------|------------|-----------|--------|--------|-------|-------|------------------|
| 1 | Part. Uniform | 0-0-0 to 3-0-0 | | Top | 40 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 2 | Part. Uniform | 0-0-0 to 3-0-0 | | Near Face | 40 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 3 | Tapered Start | 0-0-0 | | Near Face | 11 PLF | 28 PLF | 0 PLF | 0 PLF | |
| | End | 3-0-0 | | | 11 PLF | 28 PLF | 0 PLF | 0 PLF | |

Continued on page 2...

Notes

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Lumber

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 7/21/2023

Page 2 of 2

Project:

Input by: W C

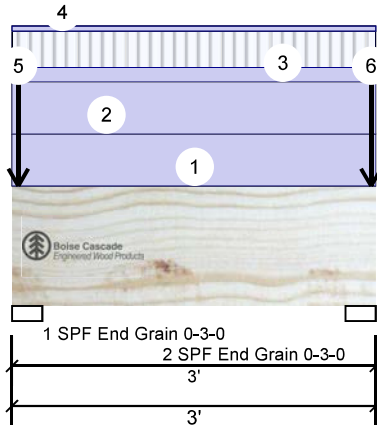
Address: ZADORRA ESTATES

Job Name: CAROL 12-1 DC

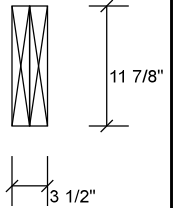
OSHAWA ON

Project #:

FH5 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply - PASSED Level: Ground Floor



PER: *C. Matijevic*
CHIEF BUILDING OFFICIAL



...Continued from page 1

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|----------------|----------------|------------|-----------|--------|-------|--------|-------|--------------------------------|
| 4 | Part. Uniform | 0-0-0 to 3-0-0 | | Near Face | 4 PLF | 0 PLF | 0 PLF | 0 PLF | Rim Board Self Weight |
| 5 | Point | 0-0-10 | | Top | 334 lb | 79 lb | 341 lb | 0 lb | Header Column Header Column F1 |
| | Bearing Length | 0-3-8 | | | | | | | |
| 6 | Point | 2-11-9 | | Top | 288 lb | 30 lb | 257 lb | 0 lb | Header Column Header Column |
| | Bearing Length | 0-3-8 | | | | | | | |
| | Self Weight | | | | 12 PLF | | | | |



JULY 24, 2023

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Client: GREENPARK

Date: 5/15/2023

Page 19 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES
OSHAWA ON

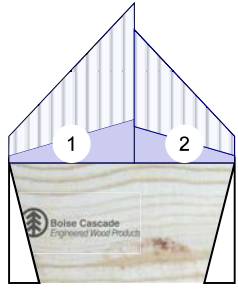
Job Name: CAROL 12-1 STD

Project #:

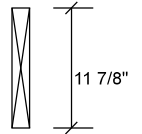
F11 Versa-Lam LVL 2.1E 3100 SP

1.750' X 11.875' PASSED

Level: Second Floor



Hanger (SUR/L1.81/9 (Min)) 0-3-0
1'10 5/16"
1'10 5/16"



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 1 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 13 | 10 | 0 | 0 |
| 2 | Vertical | 13 | 10 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|------------|--------|------|------------|---------|-------|----------|------------|
| 1 - Hanger | 3.000" | Vert | 1% | 13 / 19 | 32 | L | 1.25D+1.5L |
| 2 - Hanger | 3.000" | Vert | 1% | 13 / 19 | 32 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------------|----------|---------------|------------|------------|---------|
| Moment | 12 ft-lb | 11 3/16" | 17696 ft-lb | 0.001 (0%) | 1.25D+1.5L | L |
| Unbraced | 12 ft-lb | 11 3/16" | 17696 ft-lb | 0.001 (0%) | 1.25D+1.5L | L |
| Shear | 8 lb | 1'2 7/8" | 6608 lb | 0.001 (0%) | 0.9D+1.5L | L |
| Perm Defl in. | 0.000 (L/3944243) | 11 3/16" | 0.050 (L/360) | 0.000 (0%) | D | Uniform |
| LL Defl inch | 0.000 (L/2791607) | 11 3/16" | 0.050 (L/360) | 0.000 (0%) | L | L |
| TL Defl inch | 0.000 (L/1634653) | 11 3/16" | 0.074 (L/240) | 0.000 (0%) | D+L | L |

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Right Header: DF, Thickness: 3 1/2"
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top must be continuously laterally braced.
- 7 Bottom must have sheathing attached or be continuously braced.



JULY 24, 2023

READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTES: EWP-FLOORS. THE NOTE
PAGE IS AN INTEGRAL PART OF THIS DRAWING
AS IT CONTAINS SPECIFICATIONS AND CRITERIA
USED IN THE DESIGN OF THIS COMPONENT.

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-------------|-----------------|----------------|------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 1-0-6 | 0-1-4 to 0-7-7 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 1-0-6 to 1-10-5 | 0-6-3 to 0-1-4 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| | Self Weight | | | | 6 PLF | | | | |

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

Project:

Input by: W C

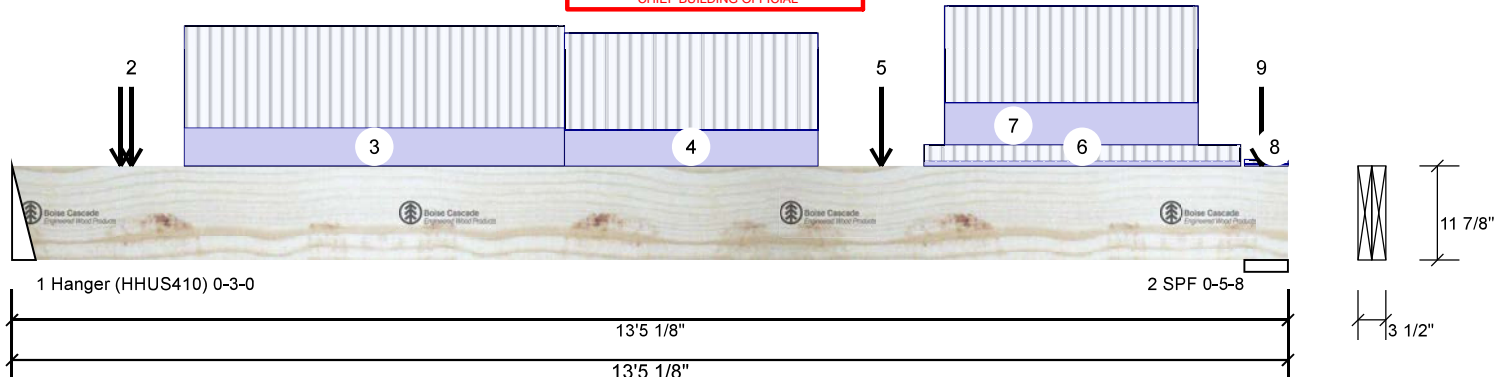
Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

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F12 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply - PASSED Level: Second Floor


Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 1912 | 806 | 0 | 0 |
| 2 | Vertical | 2016 | 876 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|------------|--------|------|------------|-------------|-------|----------|------------|
| 1 - Hanger | 3.000" | Vert | 34% | 1007 / 2869 | 3876 | L | 1.25D+1.5L |
| 2 - SPF | 5.500" | Vert | 35% | 1096 / 3024 | 4120 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------|-----------|---------------|-------------|------------|---------|
| Moment | 12902 ft-lb | 6'7 1/2" | 35392 ft-lb | 0.365 (36%) | 1.25D+1.5L | L |
| Unbraced | 12902 ft-lb | 6'7 1/2" | 35392 ft-lb | 0.365 (36%) | 1.25D+1.5L | L |
| Shear | 4138 lb | 1'2 7/8" | 13217 lb | 0.313 (31%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.079 (L/1958) | 6'7 9/16" | 0.428 (L/360) | 0.184 (18%) | D | Uniform |
| LL Defl inch | 0.187 (L/825) | 6'7 3/8" | 0.428 (L/360) | 0.436 (44%) | L | L |
| TL Defl inch | 0.265 (L/580) | 6'7 7/16" | 0.642 (L/240) | 0.413 (41%) | D+L | L |

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be continuously laterally braced.
- 8 Bottom must have sheathing attached or be continuously braced.
- 9 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|---------------|------------------|------------|-----------|---------|---------|-------|-------|----------|
| 1 | Point | 1-1-12 | | Near Face | 154 lb | 411 lb | 0 lb | 0 lb | J3 |
| 2 | Point | 1-3-1 | | Far Face | 10 lb | 13 lb | 0 lb | 0 lb | F11 |
| 3 | Part. Uniform | 1-9-12 to 5-9-12 | | Near Face | 117 PLF | 313 PLF | 0 PLF | 0 PLF | |
| 4 | Part. Uniform | 5-9-12 to 8-5-12 | | Near Face | 111 PLF | 297 PLF | 0 PLF | 0 PLF | |

Continued on page 2...

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

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Project:

Input by: W C

Address: ZADORRA ESTATES

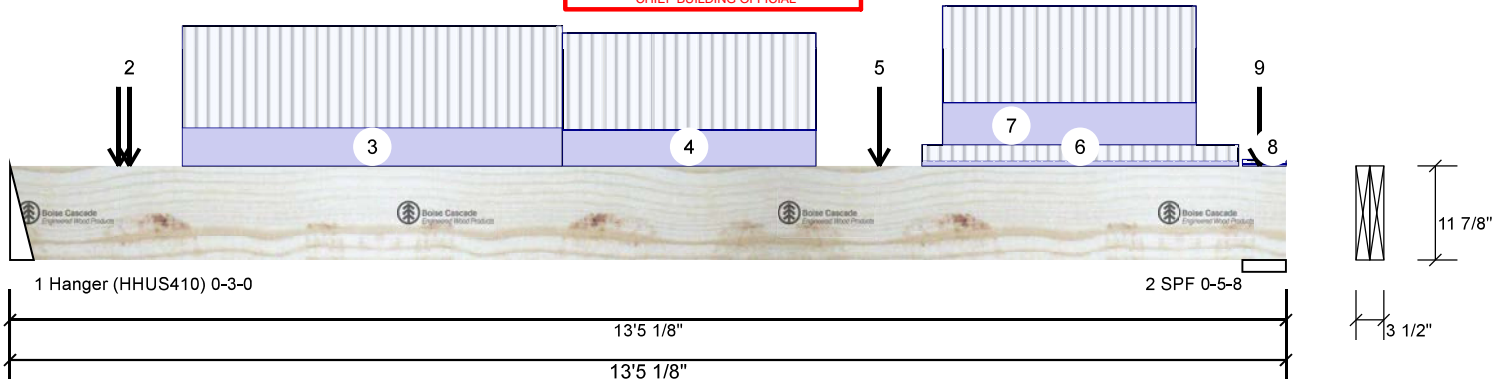
Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F12 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply - PASSED Level: Second Floor

TRUE COPY
 NOV 16 2023
 PER: *C. Maitre*
 CHIEF BUILDING OFFICIAL



...Continued from page 1

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|---------------|--------------------|------------|-----------|---------|---------|-------|-------|----------|
| 5 | Point | 9-1-12 | | Near Face | 156 lb | 395 lb | 0 lb | 0 lb | J3 |
| 6 | Part. Uniform | 9-7-2 to 12-11-2 | | Top | 15 PLF | 50 PLF | 0 PLF | 0 PLF | |
| 7 | Part. Uniform | 9-9-12 to 12-5-12 | | Near Face | 129 PLF | 297 PLF | 0 PLF | 0 PLF | |
| 8 | Tie-In | 12-11-10 to 13-5-2 | 0-4-7 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 9 | Point | 13-1-12 | | Near Face | 43 lb | 100 lb | 0 lb | 0 lb | J3 |
| | Self Weight | | | | 12 PLF | | | | |



JULY 24, 2023

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Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
 1111 W. Jefferson St.
 Boise, ID 83702
 (800) 232-0788
 www.bc.com
 CCMC: 12472

Kott Inc.
 3228 Moodie Dr, Ottawa, Ontario
 613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

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Project:

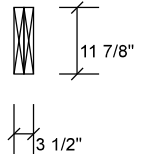
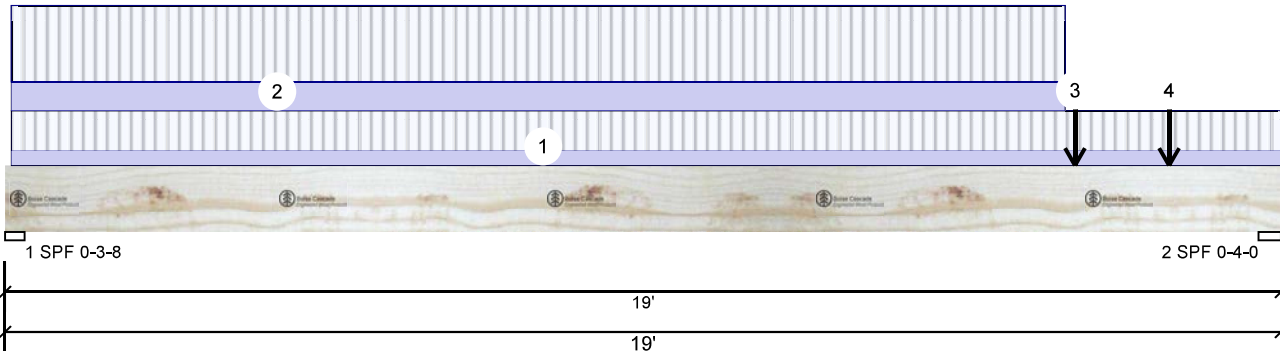
Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F13 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply - PASSED Level: Second Floor


Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 653 | 371 | 0 | 0 |
| 2 | Vertical | 1932 | 917 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------------|-------------|-------|----------|------------|
| 1 - SPF | 3.500" | Vert | 19% | 463 / 979 | 1442 | L | 1.25D+1.5L |
| 2 - SPF | 4.000" | Vert | 47% | 1147 / 2898 | 4045 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------|-------------|---------------|-------------|------------|---------|
| Moment | 11075 ft-lb | 15'8 13/16" | 35392 ft-lb | 0.313 (31%) | 1.25D+1.5L | L |
| Unbraced | 11075 ft-lb | 15'8 13/16" | 35392 ft-lb | 0.313 (31%) | 1.25D+1.5L | L |
| Shear | 4005 lb | 17'8 1/8" | 13217 lb | 0.303 (30%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.147 (L/1505) | 10'2" | 0.617 (L/360) | 0.239 (24%) | D | Uniform |
| LL Defl inch | 0.288 (L/770) | 10'3 13/16" | 0.617 (L/360) | 0.467 (47%) | L | L |
| TL Defl inch | 0.436 (L/510) | 10'3 1/4" | 0.925 (L/240) | 0.471 (47%) | D+L | L |

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at a maximum of 15'11 3/16" o.c.
- 7 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-------------|-----------------|------------|-----------|--------|---------|-------|-------|----------|
| 1 | Tie-In | 0-1-2 to 19-0-0 | 0-4-1 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 0-1-2 to 15-9-7 | 0-7-12 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 3 | Point | 15-11-3 | | Near Face | 806 lb | 1912 lb | 0 lb | 0 lb | F12 |
| 4 | Point | 17-4-0 | | Near Face | 10 lb | 13 lb | 0 lb | 0 lb | F11 |
| | Self Weight | | | | 12 PLF | | | | |

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

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Project:

Input by: W C

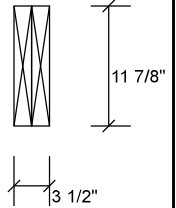
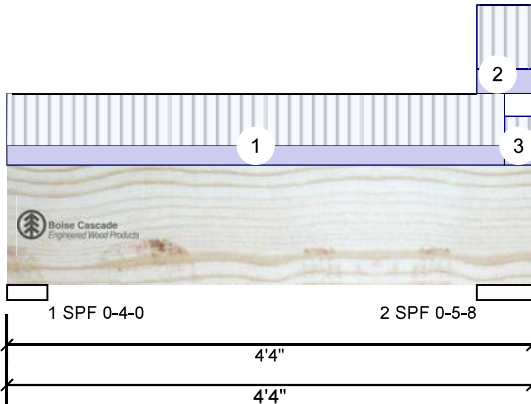
Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F7 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED Level: Second Floor



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 22 | 33 | 0 | 0 |
| 2 | Vertical | 28 | 37 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------|--------------|-------|----------|------------|
| 1 - SPF | 4.000" | Vert | 1% | 41 / 33 | 74 | L | 1.25D+1.5L |
| 2 - SPF | 5.500" | Vert | 1% | 46 / 43 | 89 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|---------------------|----------|---------------|------------|------------|---------|
| Moment | 59 ft-lb | 2'1 1/4" | 32915 ft-lb | 0.002 (0%) | 1.25D+1.5L | L |
| Unbraced | 59 ft-lb | 2'1 1/4" | 32915 ft-lb | 0.002 (0%) | 1.25D+1.5L | L |
| Shear | 34 lb | 1'3 7/8" | 8591 lb | 0.004 (0%) | 1.4D | Uniform |
| Perm Defl in. | 0.000 (L/634058) | 2'1 1/4" | 0.122 (L/360) | 0.001 (0%) | D | Uniform |
| LL Defl inch | 0.000 (L/956795) | 2'1 1/4" | 0.122 (L/360) | 0.000 (0%) | L | L |
| TL Defl inch | 0.000 (L/381345) | 2'1 1/4" | 0.183 (L/240) | 0.001 (0%) | D+L | L |

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at bearings.
- 7 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-------------|-----------------|------------|------|--------|--------|-------|-------|----------|
| 1 | Tie-In | 0-0-0 to 4-1-4 | 0-3-2 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Tie-In | 3-10-8 to 4-4-0 | 0-3-14 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 3 | Tie-In | 4-1-4 to 4-4-0 | 0-2-2 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| | Self Weight | | | | 12 PLF | | | | |

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 24 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

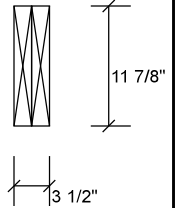
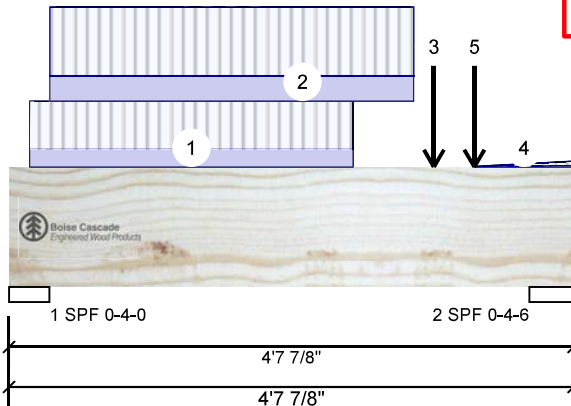
Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F7-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED

Level: Second Floor



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 1376 | 543 | 0 | 0 |
| 2 | Vertical | 1281 | 508 | 0 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. | React D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------|--------------|-------|----------|------------|
| 1 - SPF | 4.000" | Vert | 32% | 679 / 2064 | 2743 | L | 1.25D+1.5L |
| 2 - SPF | 4.375" | Vert | 27% | 634 / 1922 | 2557 | L | 1.25D+1.5L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|--------------------|------------|---------------|-------------|------------|---------|
| Moment | 2773 ft-lb | 2'3 9/16" | 35392 ft-lb | 0.078 (8%) | 1.25D+1.5L | L |
| Unbraced | 2773 ft-lb | 2'3 9/16" | 35392 ft-lb | 0.078 (8%) | 1.25D+1.5L | L |
| Shear | 3769 lb | 3'3 5/8" | 13217 lb | 0.285 (29%) | 1.25D+1.5L | L |
| Perm Defl in. | 0.002 (L/28011) | 2'3 13/16" | 0.136 (L/360) | 0.013 (1%) | D | Uniform |
| LL Defl inch | 0.004 (L/10984) | 2'3 13/16" | 0.136 (L/360) | 0.033 (3%) | L | L |
| TL Defl inch | 0.006 (L/7890) | 2'3 13/16" | 0.204 (L/240) | 0.030 (3%) | D+L | L |

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 7 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|---------------|------------------|-----------------|-----------|---------|---------|-------|-------|----------|
| 1 | Part. Uniform | 0-2-1 to 2-10-1 | | Far Face | 105 PLF | 279 PLF | 0 PLF | 0 PLF | |
| 2 | Part. Uniform | 0-4-1 to 3-4-1 | | Near Face | 149 PLF | 399 PLF | 0 PLF | 0 PLF | |
| 3 | Point | 3-6-1 | | Far Face | 137 lb | 366 lb | 0 lb | 0 lb | J3 |
| 4 | Tie-In | 3-10-1 to 4-7-14 | 0-0-14 to 0-7-9 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |

Continued on page 2...

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

Page 25 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

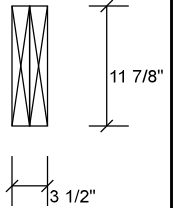
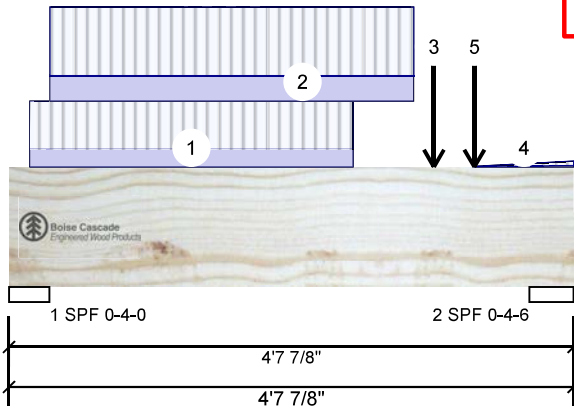
Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F7-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED

Level: Second Floor



...Continued from page 1

| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|-------------|----------|------------|-----------|--------|--------|------|------|----------|
| 5 | Point | 3-10-1 | | Near Face | 127 lb | 339 lb | 0 lb | 0 lb | J8 |
| | Self Weight | | | | 12 PLF | | | | |



JULY 24, 2023

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Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 26 of 29

Project:

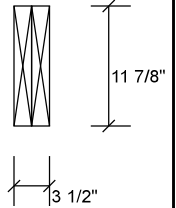
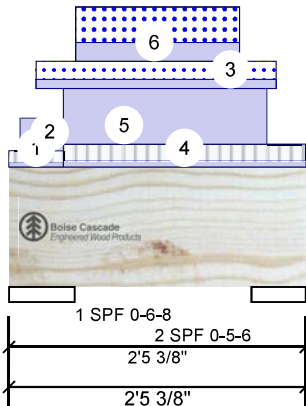
Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F8 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED Level: Second Floor


Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 27 | 141 | 64 | 0 |
| 2 | Vertical | 28 | 122 | 57 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------------|-----------|-------|----------|--------------|
| 1 - SPF | 6.500" | Vert | 2% | 176 / 104 | 280 | L | 1.25D+1.5L+S |
| 2 - SPF | 5.375" | Vert | 3% | 153 / 99 | 251 | L | 1.25D+1.5L+S |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|------------------|-----------|---------------|------------|---------------|---------|
| Moment | 98 ft-lb | 1'3 3/16" | 31145 ft-lb | 0.003 (0%) | 1.25D+1.5S +L | L |
| Unbraced | 98 ft-lb | 1'3 3/16" | 31145 ft-lb | 0.003 (0%) | 1.25D+1.5S +L | L |
| Shear | 68 lb | 1'6 3/8" | 11631 lb | 0.006 (1%) | 1.25D+1.5S +L | L |
| Perm Defl in. | 0.000 (L/615494) | 1'3 3/16" | 0.053 (L/360) | 0.001 (0%) | D | Uniform |
| LL Defl inch | 0.000 (L/985102) | 1'3 3/16" | 0.053 (L/360) | 0.000 (0%) | S+0.5L | L |
| TL Defl inch | 0.000 (L/378811) | 1'3 3/16" | 0.079 (L/240) | 0.001 (0%) | D+S+0.5L | L |

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at bearings.
- 7 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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www.bc.com
CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 27 of 29

Project:

Input by: W C

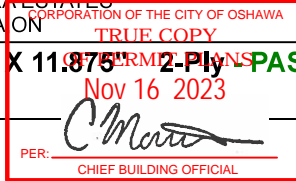
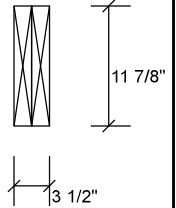
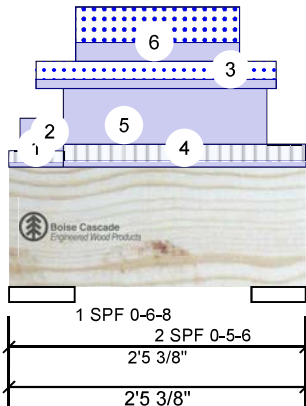
Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F8 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED Level: Second Floor



| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|---------------|-------------------|------------|------|--------|--------|--------|-------|------------------|
| 1 | Tie-In | 0-0-0 to 0-5-6 | 0-5-1 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Part. Uniform | 0-1-2 to 0-5-6 | | Top | 47 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 3 | Part. Uniform | 0-2-11 to 2-2-7 | | Top | 13 PLF | 0 PLF | 26 PLF | 0 PLF | |
| 4 | Tie-In | 0-5-6 to 2-5-6 | 0-7-2 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 5 | Part. Uniform | 0-5-6 to 2-1-8 | | Top | 80 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 6 | Part. Uniform | 0-6-10 to 1-10-13 | | Top | 27 PLF | 0 PLF | 51 PLF | 0 PLF | |
| | Self Weight | | | | 12 PLF | | | | |



JULY 24, 2023

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Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/15/2023

Page 28 of 29

Project:

Input by: W C

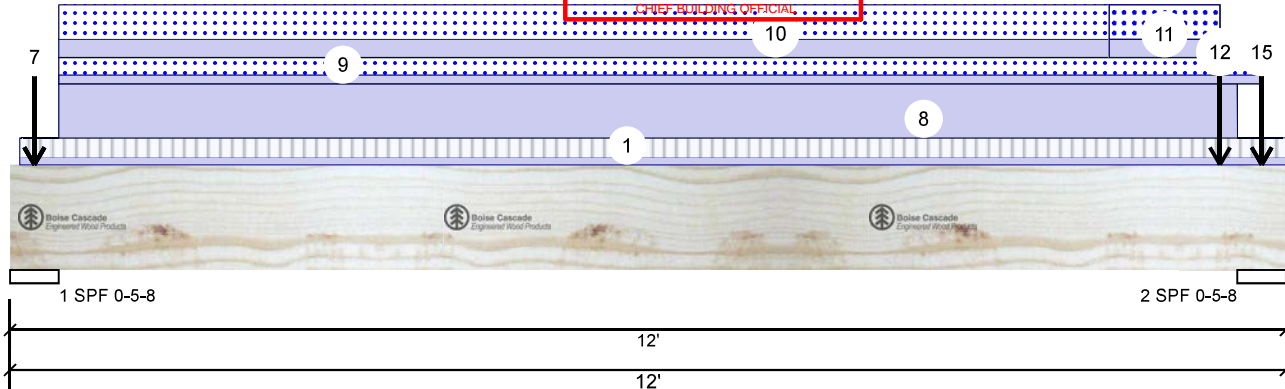
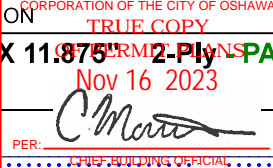
Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

F9 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED Level: Second Floor



Member Information

| | | | |
|---------------------|-------------|----------------|------------------------------------|
| Type: | Girder | Application: | Floor (Residential) |
| Plies: | 2 | Design Method: | LSD |
| Moisture Condition: | Dry | Building Code: | NBCC 2015 OBC 2012(2020 Update) |
| Deflection LL: | 360 | Load Sharing: | No |
| Deflection TL: | 240 | Deck: | Not Checked |
| Importance: | Normal - II | Vibration: | Not Checked |
| General Load | | | |
| Floor Live: | 40 PSF | | |
| Dead: | 15 PSF | | |

Unfactored Reactions UNPATTERNED lb (Uplift)

| Brg | Direction | Live | Dead | Snow | Wind |
|-----|-----------|------|------|------|------|
| 1 | Vertical | 170 | 943 | 583 | 0 |
| 2 | Vertical | 173 | 1406 | 1456 | 0 |

Bearings and Factored Reactions

| Bearing | Length | Dir. | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|---------|--------|------|------------|-------------|-------|----------|--------------|
| 1 - SPF | 5.501" | Vert | 19% | 1178 / 838 | 2017 | L | 1.25D+1.5L+S |
| 2 - SPF | 5.500" | Vert | 35% | 1758 / 2357 | 4115 | L | 1.25D+1.5S+L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|---------------|----------------|-----------|---------------|-------------|--------------|---------|
| Moment | 4891 ft-lb | 6'1 7/16" | 31145 ft-lb | 0.157 (16%) | 1.25D+1.5L+S | L |
| Unbraced | 4891 ft-lb | 6'1 7/16" | 31145 ft-lb | 0.157 (16%) | 1.25D+1.5L+S | L |
| Shear | 1633 lb | 10'6 5/8" | 11631 lb | 0.140 (14%) | 1.25D+1.5L+S | L |
| Perm Defl in. | 0.052 (L/2599) | 6' 5/16" | 0.374 (L/360) | 0.138 (14%) | D | Uniform |
| LL Defl inch | 0.035 (L/3825) | 6' 7/8" | 0.374 (L/360) | 0.094 (9%) | S+0.5L | L |
| TL Defl inch | 0.087 (L/1548) | 6' 9/16" | 0.560 (L/240) | 0.155 (16%) | D+S+0.5L | L |

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 3 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be continuously laterally braced.
- 8 Bottom must be laterally braced at bearings.
- 9 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

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2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
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6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/15/2023

Page 29 of 29

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-1 STD

OSHAWA ON

Project #:

CORPORATION OF THE CITY OF OSHAWA

TRUE COPY

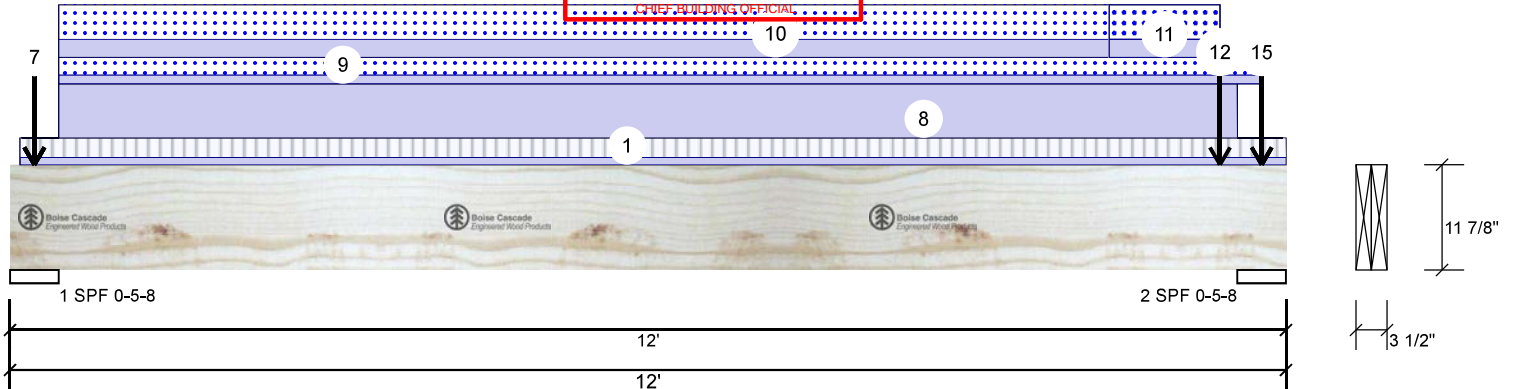
077-TERMINALS

Nov 16 2023

PER: *C. M...*

CHIEF BUILDING OFFICIAL

F9 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED Level: Second Floor



| ID | Load Type | Location | Trib Width | Side | Dead | Live | Snow | Wind | Comments |
|----|----------------|------------------|------------|------|--------|--------|---------|-------|------------------|
| 1 | Tie-In | 0-1-2 to 12-0-0 | 0-8-11 | Top | 15 PSF | 40 PSF | 0 PSF | 0 PSF | |
| 2 | Point | 0-2-12 | | Top | 24 lb | 0 lb | 46 lb | 0 lb | |
| | Bearing Length | 0-5-8 | | | | | | | |
| 3 | Point | 0-2-12 | | Top | 21 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 4 | Point | 0-2-12 | | Top | 24 lb | 0 lb | 46 lb | 0 lb | |
| | Bearing Length | 0-5-8 | | | | | | | |
| 5 | Point | 0-2-12 | | Top | 20 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 6 | Point | 0-2-12 | | Top | 23 lb | 0 lb | 43 lb | 0 lb | |
| | Bearing Length | 0-5-8 | | | | | | | |
| 7 | Point | 0-2-12 | | Top | 19 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 8 | Part. Uniform | 0-5-8 to 11-6-8 | | Top | 80 PLF | 0 PLF | 0 PLF | 0 PLF | Wall Self Weight |
| 9 | Part. Uniform | 0-5-8 to 11-9-0 | | Top | 13 PLF | 0 PLF | 26 PLF | 0 PLF | |
| 10 | Part. Uniform | 0-5-8 to 10-4-1 | | Top | 27 PLF | 0 PLF | 51 PLF | 0 PLF | |
| 11 | Part. Uniform | 10-4-1 to 11-4-9 | | Top | 27 PLF | 0 PLF | 51 PLF | 0 PLF | |
| 12 | Point | 11-4-9 | | Top | 599 lb | 0 lb | 1053 lb | 0 lb | F16 |
| | Bearing Length | 0-5-8 | | | | | | | |
| 13 | Point | 11-9-4 | | Top | 6 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 14 | Point | 11-9-4 | | Top | 13 lb | 0 lb | 0 lb | 0 lb | Wall Self Weight |
| | Bearing Length | 0-5-8 | | | | | | | |
| 15 | Point | 11-9-4 | | Top | 1 lb | 0 lb | 0 lb | 0 lb | Wall Self W |
| | Bearing Length | 0-5-8 | | | | | | | |
| | Self Weight | | | | 12 PLF | | | | |

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JULY 24, 2023

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