

2.0E PWLVL

Client: SWIFT CREEK

Project: Address:

9/16/2025 Input by: KIRK ROBERTSON

Job Name: CLIFTON Project #: 24061913

2-Ply - PASSED 1.750" X 20.000"

Level: Level





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- 1				
ĺ	Type:	Girder	Application:	Floor
	Plies:	2	Design Method:	ASD
	Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
	Deflection LL:	480	Load Sharing:	No
	Deflection TL:	360	Deck:	Not Checked
	Importance:	Normal - II		
	Temperature:	Temp <= 100°F		
	General Load			
	Floor Live:	20 PSF		
	Dead:	20 PSF		
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Reactions	UNPATTERNED	lb	(Uplift)
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Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	3817	4658	0	0	0
2	Vertical	3817	4658	0	0	0

### Analysis Results

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	38513 ft-lb	9'6 1/2"	54424 ft-lb	71%	D+L	L
Unbraced	38513 ft-lb	9'6 1/2"	38605 ft-lb	100%	D+L	L
Shear	6661 lb	2' 1/2"	13300 lb	50%	D+L	L
LL Defl inch	0.232 (L/963)	9'6 9/16"	0.466 (L/480)	50%	L	L
TL Defl inch	0.515 (L/434)	9'6 9/16"	0.621 (L/360)	83%	D+L	L

### **Bearings**

Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	63%	4658 / 3817	8475	L	D+L
2 - SPF End Grain	4.500"	Vert	63%	4658 / 3817	8475	L	D+L

### **Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Compression edge bracing required at 3'7" o.c. or less.
- 7 Lateral slenderness ratio based on single ply width.

### Loads

Load	Side	units	Dead 0.9	Live 1
Туре			+	+
Uniform	Тор	PLF	400	400
Uniform	Тор	PLF	70	
Self Weight		PLF	18	

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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. 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 Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Client: SWIFT CREEK 9/16/2025 Page 2 of 40 Project: Input by: KIRK ROBERTSON isDesign Address: Job Name: CLIFTON Project #: 24061913 Level: Level 1.750" X 20.000" 2-Ply - PASSED 2.0E PWLVL 1 SPF End Grain 0-4-8 2 SPF End Grain 0-4-8 3 1/2" **Multi-Ply Analysis** Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6". Capacity 0.0 PLF Yield Limit per Foot 271.6 PLF Yield Limit per Fastener 90.5 lb. См Yield Mode IV Edge Distance 1 1/2" Min. End Distance 3" Load Combination **Duration Factor** 1.00 For flat roofs provide proper drainage to prevent ponding Manufacturer Info Notes 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. Handling & Installation Pacific Woodtech Corp Handling & Installation

1. UVI 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 1850 Park Lane Burlington, WA 98233 (800) 515-7570

This design is valid until 2/18/2027

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



Project: Address:

9/16/2025 Input by: KIRK ROBERTSON

Job Name: CLIFTON

Level: Level

Project #: 24061913

2.0E PWLVL

1.750" X 11.875"

2-Ply - PASSED





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ASD **IBC/IRC 2015** 

No Not Checked

	Mem	ber	Infor	mation
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Type:	Girder	Application:
Plies:	2	Design Method:
Moisture Condition:	Dry	Building Code:
Deflection LL:	480	Load Sharing:
Deflection TL:	360	Deck:
Importance:	Normal - II	
Temperature:	Temp <= 100°F	
General Load		
Floor Live:	20 PSF	

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	315	1975	0	0	0
2	Vertical	315	1975	0	0	0
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### **Analysis Results**

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8500 ft-lb	7'10 1/2"	21295 ft-lb	40%	D+L	L
Unbraced	8500 ft-lb	7'10 1/2"	8515 ft-lb	100%	D+L	L
Shear	1893 lb	1'4 3/8"	7897 lb	24%	D+L	L
LL Defl inch	0.050 (L/3642)	7'10 9/16"	0.382 (L/480)	13%	L	L
TL Defl inch	0.366 (L/501)	7'10 9/16"	0.510 (L/360)	72%	D+L	L

### **Bearings**

Bearing Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF 4.500" End Grain	Vert	17%	1975 / 315	2290	L	D+L
2 - SPF 4.500" End Grain	Vert	17%	1975 / 315	2290	L	D+L

### **Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.

20 PSF

- 6 Compression edge bracing required at 11' o.c. or less.
- 7 Lateral slenderness ratio based on single ply width.

### Loads

Load	Side	units	Dead 0.9	Live 1
Type Uniform			+	+
Uniform	Тор	PLF	40	40
Uniform	Тор	PLF	200	
Self Weight		PLF	11	

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

This design is valid until 2/18/2027

Client: SWIFT CREEK 9/16/2025 Page 4 of 40 Project: Input by: KIRK ROBERTSON isDesign Address: Job Name: CLIFTON Project #: 24061913 Level: Level 1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL 11 7/8" 2 SPF End Grain 0-4-8 1 SPF End Grain 0-4-8 3 1/2" 15'9' Multi-Ply Analysis Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6". Capacity 0.0 PLF Yield Limit per Foot 181.1 PLF Yield Limit per Fastener 90.5 lb. См Yield Mode IV Edge Distance 1 1/2" Min. End Distance 3" Load Combination **Duration Factor** 1.00 For flat roofs provide proper drainage to prevent ponding Manufacturer Info Notes NOtes

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I. VIL 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

Design assumes top edge is laterally restrained is provide lateral support at bearing points to avoid lateral displacement and rotation 1850 Park Lane Burlington, WA 98233 (800) 515-7570

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



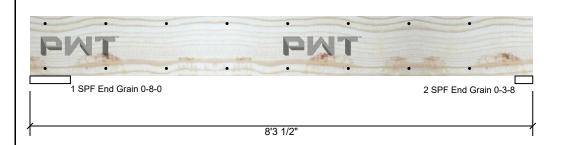
Project: Address: 9/16/2025

Input by: KIRK ROBERTSON

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL BM3

Level: Level



Floor

ASD

No

**IBC/IRC 2015** 

Not Checked

Application:

Design Method:

**Building Code:** 

Load Sharing:

Deck:



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Mam	hor	Inf	orm	ation
MEIII	Jei	11111	ULLI	ation

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°F

General Load Floor Live: 20 PSF Dead: 20 PSF

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	217	393	0	0	0
2	Vertical	198	359	0	0	0

### **Analysis Results**

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Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1023 ft-lb	4'4"	21295 ft-lb	5%	D+L	L
Unbraced	1023 ft-lb	4'4"	11272 ft-lb	9%	D+L	L
Shear	377 lb	1'7 7/8"	7897 lb	5%	D+L	L
LL Defl inch	0.004 (L/23503)	4'4 1/16"	0.191 (L/480)	2%	L	L
TL Defl inch	0.011 (L/8347)	4'4 1/16"	0.254 (L/360)	4%	D+L	L

### **Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Compression edge bracing required at 7'8" o.c. or less.
- 7 Lateral slenderness ratio based on single ply width.

### Loads

Load	Side	units	Dead 0.9	Live 1
Туре			+	+
Uniform	Тор	PLF	50	50
Uniform	Тор	PLF	30	
Self Weight		PLF	11	

### **Bearings**

Bearing Length	Dir.	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF 8.000" End Grain	Vert	3%	393 / 217	610	L	D+L
2 - SPF 3.500" End Grain	Vert	5%	359 / 198	557	L	D+L

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- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- 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
- 6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Client: SWIFT CREEK 9/16/2025 Page 6 of 40 Project: Input by: KIRK ROBERTSON isDesign Address: Job Name: CLIFTON Project #: 24061913 1.750" X 11.875" 2-Ply - PASSED Level: Level 2.0E PWLVL 1 SPF End Grain 0-8-0 2 SPF End Grain 0-3-8

### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

8'3 1/2"

Capacity 0.0 PLF Yield Limit per Foot 181.1 PLF Yield Limit per Fastener 90.5 lb. См Yield Mode IV Edge Distance 1 1/2" Min. End Distance 3" Load Combination **Duration Factor** 1.00

NOtes

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

### Handling & Installation

- Handling & Installation

  1. UVI 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

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

This design is valid until 2/18/2027

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909 11 7/8"



Member Information

Client: SWIFT CREEK

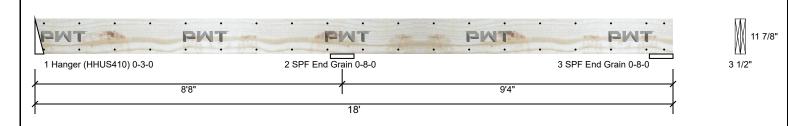
Project: Address: 9/16/2025

Input by: KIRK ROBERTSON Job Name: CLIFTON

Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level



Туре:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	20 PSF		
Dead:	20 PSF		
Analysis Results	S		

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Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-1985 ft-lb	8'8"	21295 ft-lb	9%	D+L	LL
Unbraced	-1985 ft-lb	8'8"	5640 ft-lb	35%	D+L	LL
Pos Moment	1350 ft-lb	13'10 13/16"	21295 ft-lb	6%	D+L	_L
Unbraced	1350 ft-lb	13'10 13/16"	5640 ft-lb	24%	D+L	_L
Shear	875 lb	9'11 7/8"	7897 lb	11%	D+L	LL
LL Defl inch	0.010 (L/10903)	13'3 7/8"	0.220 (L/480)	4%	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.

13'6 1/16" 0.294 (L/360) 6%

D+L

- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Fill all hanger nailing holes.

TL Defl inch 0.016 (L/6485)

- 5 Left Header: LVL, Thickness: 3 1/2"
- 6 Girders are designed to be supported on bottom edge only and across their full width.
- 7 Top loads must be supported equally by all plies.
- 8 Compression edge bracing required at 17'4" o.c. or less.
- 9 Lateral slenderness ratio based on single ply width.

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	329	365	0	0	0
2	Vertical	1085	1202	0	0	0
3	Vertical	386	427	0	0	0

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### **Bearings**

I	Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
	1 - Hanger	3.000"	Vert	8%	365 / 387	752	L_	D+L
	2 - SPF End Grain	8.000"	Vert	10%	1202 / 1085	2287	LL	D+L
I	3 - SPF End Grain	8.000"	Vert	4%	427 / 437	864	_L	D+L

### Notes

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

### 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

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6.	For pon	roofs	provide	proper	drainage	to	preve

Client: SWIFT CREEK

Project: Address: Date: 9/16/2025

Project #:

Input by: KIRK ROBERTSON Job Name: CLIFTON 24061913

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1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level

Loads

Side Dead 0.9 Live 1 Load units Туре Тор PLF 100 100 Uniform Self Weight PLF 11

NOtes

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

### Handling & Installation

- Handling & Installation

  1. IVI. 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 2/18/2027

Manufacturer Info Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Citrix Version 25.54.1231 Powered by iStruct™ Dataset: 25032601.5586-1002-Release (embedded)

Client: SWIFT CREEK

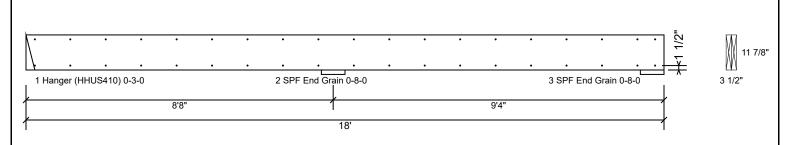
Project: Address: 9/16/2025

Input by: KIRK ROBERTSON Page 9 of 40

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level



### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

·		
Capacity	0.0 %	
Load	0.0 PLF	
Yield Limit per Foot	181.1 PLF	
Yield Limit per Fastener	90.5 lb.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

### Notes

NOtes

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

### Handling & Installation

- IARIGUING & INSTALLATION

  LVL beams must not be cut or drilled

  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beams trength 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

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Manufacturer Info



BM5

2.0E PWLVL

Client:

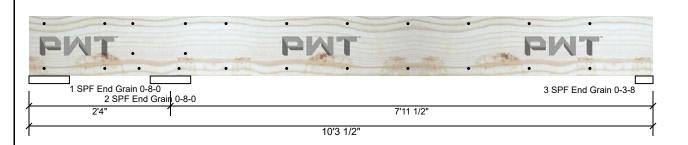
Project: Address: SWIFT CREEK

9/16/2025

Input by: KIRK ROBERTSON Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED

Level: Level





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∕lember Informat	tion
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Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	20 PSF		
Dead:	20 PSF		

### Reactions UNPATTERNED Ib (Uplift)

Br	rg Dire	ction I	Live D	ead S	Snow \	Wind (	Const
	1 Verti	cal 0 (-	610) (-6	632)	0	0	0
:	2 Verti	cal 3	3109 3	3185	0	0	0
;	3 Verti	cal	975 1	1010	0	0	0
ı							

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-3830 ft-lb	2'4"	21295 ft-lb	18%	D+L	LL
Unbraced	-3830 ft-lb	2'4"	9449 ft-lb	41%	D+L	LL
Pos Moment	2951 ft-lb	7' 7/16"	21295 ft-lb	14%	D+L	_L
Unbraced	2951 ft-lb	7' 7/16"	9449 ft-lb	31%	D+L	_L
Shear	2253 lb	1'7 7/8"	7897 lb	29%	D+L	LL
LL Defl inch	0.013 (L/6976)	6'8 1/16"	0.195 (L/480)	7%	L	_L
TL Defl inch	0.027 (L/3446)	6'8 1/8"	0.260 (L/360)	10%	D+L	_L

### **Bearings**

Τ								
	Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
	1 - SPF End Grain	8.000"	Vert	0%	-632 / -868	-1500 (-1500)	_r	D+L(D+L)
	2 - SPF End Grain	8.000"	Vert	26%	3185 / 3109	6295	LL	D+L
	3 - SPF End Grain	3.500"	Vert	19%	1010 / 978	1988	_L	D+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 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- $\,5\,$  Girders are designed to be supported on bottom edge only and across their full width.
- 6 Top loads must be supported equally by all plies.
- 7 Tie-down connection required at bearing 1 for uplift 1500 lb (Combination D+L, Load Case \_L).
- 8 Compression edge bracing required at 9'8" o.c. or less.
- 9 Lateral slenderness ratio based on single ply width.

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

### 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
  2 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
- 6. For flat roofs provide proper drainage to prevent ponding

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Client: SWIFT CREEK

Project: Address:

9/16/2025 Input by: KIRK ROBERTSON Page 11 of 40

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level

Loads					
Load	Location	Side	units	Dead 0.9	Live 1
Type Uniform	Start			+	+
Uniform		Тор	PLF	300	300
Point	2-1-12	Near Face	lb	365	387
Self Weight			PLF	11	

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. Calculated Structured Designs is responsible only of the threading of the design criteria and loadings shown. It is the the component autiability 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 1. The design assumes top edge is laterally restrained 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

### Handling & Installation

6. For flat roofs provide proper drainage to prevent ponding

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Manufacturer Info

Project: Address: 9/16/2025

Input by: KIRK ROBERTSON Page 12 of 40

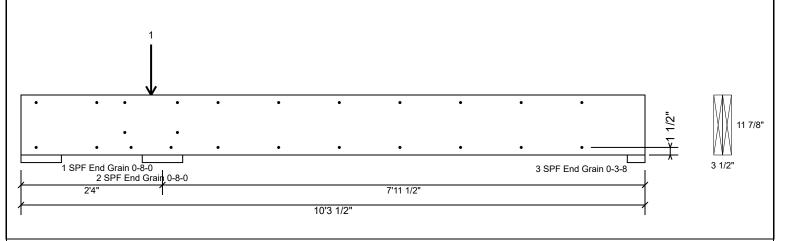
Job Name: CLIFTON Project #: 24061913

2.0E PWLVL

1.750" X 11.875"

2-Ply - PASSED

Level: Level



### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6".

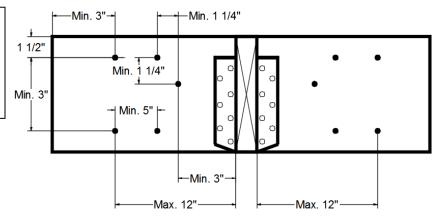
Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	181.1 PLF
Yield Limit per Fastener	90.5 lb.
См	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

### **Concentrated Load**

Fasten at concentrated side load at 2-1-12 with a minimum of (6) - 10d Box nails (.128x3") in the

pattern snown.		
Capacity	69.2 %	
Load	376.0lb.	
Total Yield Limit	543.3 lb.	
Cg	1.0000	
Cg Cm	1	
Yield Limit per Fastener	90.5 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1 00	

### Min/Max fastener distances for Concentrated Side Loads



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 dimensione and localized.

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
 Very service conditions, unless noted otherwise
 Provide lateral support at bearing points to avoid lateral displacement and rotation

### 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
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/18/2027

application, and to verify the dimensions and loads.	approvals
Lumber	<ol><li>Damaged Beams must not be used</li></ol>
Dry service conditions unless noted otherwise	<ol> <li>Design assumes top edge is laterally restrained</li> </ol>



Client:

SWIFT CREEK

Project: Address: Date: 9/16/2025

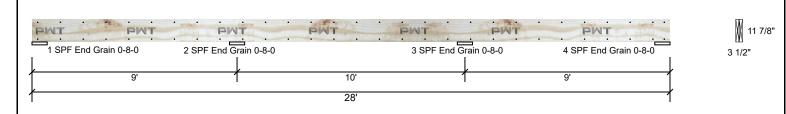
Input by: KIRK ROBERTSON

Page 13 of 40

Job Name: CLIFTON Project #: 24061913

BM6 2.0E PWLVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information							
Type:	Girder	Application:	Floor				
Plies:	2	Design Method:	ASD				
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015				
Deflection LL:	480	Load Sharing:	No				
Deflection TL:	360	Deck:	Not Checked				
Importance:	Normal - II						
Temperature:	Temp <= 100°F						
General Load							
Floor Live:	20 PSF						
Dead:	20 PSF						
Analysis Posulte	-						

ŀ	Analysis Res	sults					
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Neg Moment	-1952 ft-lb	19'	21295 ft-lb	9%	D+L	_LL
	Unbraced	-1952 ft-lb	19'	3658 ft-lb	53%	D+L	_LL
	Pos Moment	1255 ft-lb	24'1 5/16"	21295 ft-lb	6%	D+L	L_L
	Unbraced	1255 ft-lb	24'1 5/16"	3658 ft-lb	34%	D+L	L_L
	Shear	874 lb	7'8 1/8"	7897 lb	11%	D+L	LL_
	LL Defl inch	0.006 (L/21312)	14'	0.250 (L/480)	2%	L	_L_
	TL Defl inch	0.014 (L/7477)	4'3 7/16"	0.283 (L/360)	5%	D+L	L_L

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	187	640	0	0	0
2	Vertical	513	1751	0	0	0
3	Vertical	513	1751	0	0	0
4	Vertical	187	640	0	0	0
ı						

### Bearings

Dearings	•						
Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	8.000"	Vert	4%	640 / 219	859	L_L	D+L
2 - SPF End Grain	8.000"	Vert	10%	1751 / 548	2299	LL_	D+L
3 - SPF End Grain	8.000"	Vert	10%	1751 / 548	2299	_LL	D+L
4 - SPF End Grain	8.000"	Vert	4%	640 / 219	859	L_L	D+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 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6"
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Compression edge bracing required at 27' o.c. or less.
- 7 Lateral slenderness ratio based on single ply width.

Loads				
Load	Side	units	Dead 0.9	Live '
Туре			+	+
Uniform	Тор	PLF	50	50
Uniform	Тор	PLF	110	
Self Weight		PLF	11	

### 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.

### Lumbei

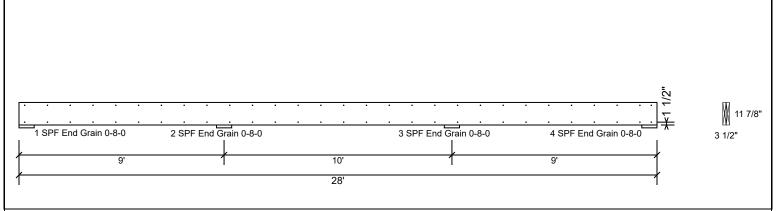
Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corro

### 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 avoil lateral displacement and rotation
- 6. For flat roofs provide proper drainage to prevent ponding

rosive	lateral displacement and rotation	This design is valid until 2/18/2027

Client: SWIFT CREEK Date: 9/16/2025 Project: Input by: KIRK ROBERTSON isDesign Address: Job Name: CLIFTON Project #: 24061913 1.750" X 11.875" 2-Ply - PASSED Level: Level 2.0E PWLVL



### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

rasterrail pries asing E	TOWS OF TOO BOX Halls (TEONS ) at
Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	181.1 PLF
Yield Limit per Fastener	90.5 lb.
См	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

### Notes

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.

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

### Handling & Installation

- Handling & Installation

  1. UVI 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

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Pacific Woodtech Corp

1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

This design is valid until 2/18/2027

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Client:

Project: Address: SWIFT CREEK

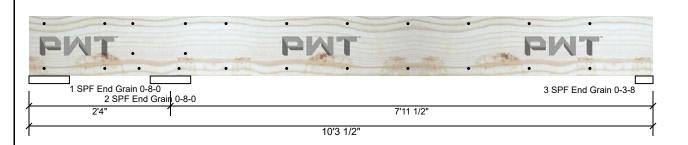
9/16/2025

Input by: KIRK ROBERTSON

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level





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∕lember Informat	tion
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Туре:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	20 PSF		
Dead:	20 PSF		

### Reactions UNPATTERNED Ib (Uplift)

Br	rg Dire	ction I	Live D	ead S	Snow \	Wind (	Const
	1 Verti	cal 0 (-	610) (-6	632)	0	0	0
:	2 Verti	cal 3	3109 3	3185	0	0	0
;	3 Verti	cal	975 1	1010	0	0	0
ı							

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-3830 ft-lb	2'4"	21295 ft-lb	18%	D+L	LL
Unbraced	-3830 ft-lb	2'4"	9449 ft-lb	41%	D+L	LL
Pos Moment	2951 ft-lb	7' 7/16"	21295 ft-lb	14%	D+L	_L
Unbraced	2951 ft-lb	7' 7/16"	9449 ft-lb	31%	D+L	_L
Shear	2253 lb	1'7 7/8"	7897 lb	29%	D+L	LL
LL Defl inch	0.013 (L/6976)	6'8 1/16"	0.195 (L/480)	7%	L	_L
TL Defl inch	0.027 (L/3446)	6'8 1/8"	0.260 (L/360)	10%	D+L	_L

### **Bearings**

-								
	Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
	1 - SPF End Grain	8.000"	Vert	0%	-632 / -868	-1500 (-1500)	_L	D+L(D+L)
	2 - SPF End Grain	8.000"	Vert	26%	3185 / 3109	6295	LL	D+L
	3 - SPF End Grain	3.500"	Vert	19%	1010 / 978	1988	_L	D+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 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- $\,5\,$  Girders are designed to be supported on bottom edge only and across their full width.
- 6 Top loads must be supported equally by all plies.
- 7 Tie-down connection required at bearing 1 for uplift 1500 lb (Combination D+L, Load Case \_L).
- 8 Compression edge bracing required at 9'8" o.c. or less.
- 9 Lateral slenderness ratio based on single ply width.

### 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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- chemicals
- uct information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals

  3. Damaged Beams must not be used

  4. Design assumes too edge to later.
- 6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

П	nandling & installation							
1.	LVL be	ams	must not be c	ut or	drilled			
2.	Refer	to	manufacture	er's	produ			
	regardi	ina	installation	rec	uireme			

Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation This design is valid until 2/18/2027

Client: SWIFT CREEK

Project: Address:

9/16/2025 Input by:

KIRK ROBERTSON Job Name: CLIFTON

Page 16 of 40

Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL **BM7** 

Level: Level

.oads	
1	

Luaus					
Load	Location	Side	units	Dead 0.9	Live 1
Туре	Start			+	+
Uniform		Тор	PLF	300	300
Point	2-1-12	Far Face	lb	365	387
Self Weight			PLF	11	

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. Calculated Structured Designs is responsible only of the threading of the design criteria and loadings shown. It is the the component autiability 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 1. The design assumes top edge is laterally restrained 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

### Handling & Installation

6. For flat roofs provide proper drainage to prevent ponding

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Manufacturer Info

Project: Address: 9/16/2025

Input by: KIRK ROBERTSON Job Name: CLIFTON

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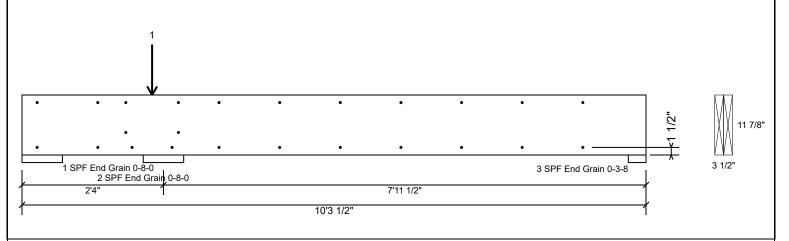
Project #: 24061913

2.0E PWLVL

1.750" X 11.875"

2-Ply - PASSED

Level: Level



### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6".

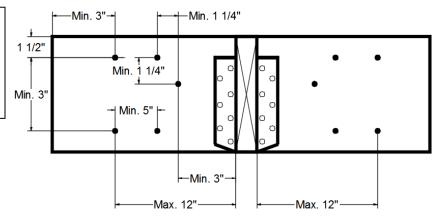
Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	181.1 PLF
Yield Limit per Fastener	90.5 lb.
См	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

### **Concentrated Load**

Fasten at concentrated side load at 2-1-12 with a minimum of (6) - 10d Box nails (.128x3") in the

pattern snown.		
Capacity	69.2 %	
Load	376.0lb.	
Total Yield Limit	543.3 lb.	
Cg	1.0000	
Cg Cm	1	
Yield Limit per Fastener	90.5 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1.00	

### Min/Max fastener distances for Concentrated Side Loads



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.

Notes

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

### 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
- 6. For flat roofs provide proper drainage to prevent ponding

LVL not to be treated with fire retardant or corrosive	lateral displacement and rotation	This design is valid until 2/18/2027
Citrix Version 25.54.1231 Powered by iStruct™	Dataset: 25032601.5586-1002-Release (e	embedded)



**Member Information** 

Client: SWIFT CREEK

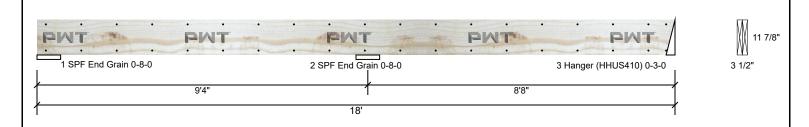
Project: Address: Date: 9/16/2025

Input by: KIRK ROBERTSON

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL BM8

Level: Level



### Application: Type: Floor Plies: 2 Design Method: ASD Moisture Condition: Dry **Building Code: IBC/IRC 2015** Deflection LL: 480 Load Sharing: No Deflection TL: 360 Deck: Not Checked Importance: Normal - II Temp <= 100°F Temperature: General Load 20 PSF Floor Live: 20 PSF Dead:

ı							
ĺ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Neg Moment	-1985 ft-lb	9'4"	21295 ft-lb	9%	D+L	LL
l	Unbraced	-1985 ft-lb	9'4"	5640 ft-lb	35%	D+L	LL
l	Pos Moment	1350 ft-lb	4'1 3/16"	21295 ft-lb	6%	D+L	L_
l	Unbraced	1350 ft-lb	4'1 3/16"	5640 ft-lb	24%	D+L	L_
l	Shear	875 lb	8' 1/8"	7897 lb	11%	D+L	LL
	LL Defl inch	0.010 (L/10903)	4'8 3/16"	0.220 (L/480)	4%	L	L_

### **Design Notes**

Analysis Results

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.

4'6" 0.294 (L/360) 6%

D+L

- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Fill all hanger nailing holes.

TL Defl inch 0.016 (L/6485)

- 5 Right Header: LVL, Thickness: 3 1/2"
- 6 Girders are designed to be supported on bottom edge only and across their full width.
- 7 Top loads must be supported equally by all plies.
- 8 Compression edge bracing required at 17'4" o.c. or less.
- 9 Lateral slenderness ratio based on single ply width.

Reactions	UNPAT	TERNED	lb	(Uplift)
-----------	-------	--------	----	----------

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	386	427	0	0	0
2	Vertical	1085	1202	0	0	0
3	Vertical	329	365	0	0	0

Page 18 of 40

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ĸ	ea	n	~	c
v	ca	 •	u	3

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	8.000"	Vert	4%	427 / 437	864	L_	D+L
2 - SPF End Grain	8.000"	Vert	10%	1202 / 1085	2287	LL	D+L
3 - Hanger	3.000"	Vert	8%	365 / 387	752	_L	D+L

### 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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- 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
- 6. For flat roofs provide proper drainage to prevent ponding

|--|

Client: SWIFT CREEK

Project: Address: Date: 9/16/2025

Project #:

Input by: KIRK ROBERTSON Job Name: CLIFTON 24061913

Page 19 of 40

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL BM8

Level: Level

Loads

Side Dead 0.9 Live 1 Load units Type Тор PLF 100 100 Uniform Self Weight PLF 11

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.

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

### Handling & Installation

- Handling & Installation

  1. IVI. 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

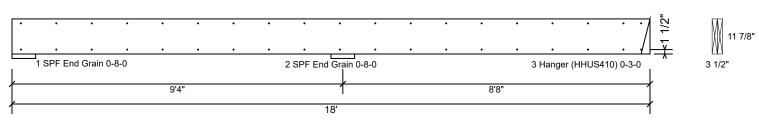
  5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Manufacturer Info

Client: SWIFT CREEK 9/16/2025 Project: Input by: KIRK ROBERTSON isDesign Address: Job Name: CLIFTON Project #: 24061913 1.750" X 11.875" 2-Ply - PASSED Level: Level 2.0E PWLVL BM8



### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	181.1 PLF
Yield Limit per Fastener	90.5 lb.
CM	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

### Notes

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.

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

- Handling & Installation
- IARIGUING & INSTALLATION

  LVL beams must not be cut or drilled

  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beams trength 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

This design is valid until 2/18/2027

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909 Page 20 of 40

Manufacturer Info



Client:

Project: Address: SWIFT CREEK

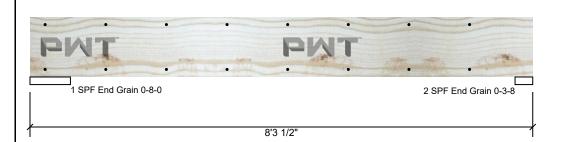
9/16/2025

Input by: KIRK ROBERTSON Job Name: CLIFTON

Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL **BM9** 

Level: Level



Floor

ASD

No

**IBC/IRC 2015** 

Not Checked

Application:

Design Method:

**Building Code:** 

Load Sharing:

Deck:



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Vlem		

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°I

General Load Floor Live: 20 PSF Dead: 20 PSF

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	217	393	0	0	0
2	Vertical	198	359	0	0	0

### **Analysis Results**

•						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1023 ft-lb	4'4"	21295 ft-lb	5%	D+L	L
Unbraced	1023 ft-lb	4'4"	11272 ft-lb	9%	D+L	L
Shear	377 lb	1'7 7/8"	7897 lb	5%	D+L	L
LL Defl inch	0.004 (L/23503)	4'4 1/16"	0.191 (L/480)	2%	L	L
TL Defl inch	0.011 (L/8347)	4'4 1/16"	0.254 (L/360)	4%	D+L	L

### **Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Compression edge bracing required at 7'8" o.c. or less.
- 7 Lateral slenderness ratio based on single ply width.

### Loads

Load	Side	units	Dead 0.9	Live 1
Туре			+	+
Uniform	Тор	PLF	50	50
Uniform	Тор	PLF	30	
Self Weight		PLF	11	

### **Bearings**

Bearing Le	ength E	Dir. Cap	. Rea	ct D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF 8.0 End Grain	000" V	/ert 3%	o o	393 / 217	610	L	D+L
2 - SPF 3.5 End Grain	500" V	/ert 5%	ó	359 / 198	557	L	D+L

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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- 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
- 6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/18/2027

Client: SWIFT CREEK 9/16/2025 Page 22 of 40 Project: Input by: KIRK ROBERTSON isDesign Address: Job Name: CLIFTON Project #: 24061913 1.750" X 11.875" 2-Ply - PASSED Level: Level 2.0E PWLVL 11 7/8" 1 SPF End Grain 0-8-0 2 SPF End Grain 0-3-8 8'3 1/2" Multi-Ply Analysis Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6". Capacity 0.0 PLF Yield Limit per Foot 181.1 PLF Yield Limit per Fastener 90.5 lb. См Yield Mode IV Edge Distance 1 1/2" Min. End Distance 3" Load Combination **Duration Factor** 1.00

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.

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

### Handling & Installation

- Handling & Installation

  1. UVI 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
- For flat roofs provide proper drainage to prevent ponding

1850 Park Lane

Manufacturer Info

This design is valid until 2/18/2027

Pacific Woodtech Corp Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909



Project: Address: Date: 9/16/2025

Input by: KIRK ROBERTSON

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level

Reactions UNPATTERNED Ib (Uplift)

Dir.

Vert

Vert

Live

198

217

Dead

359

393

Cap. React D/L lb

359 / 198

393 / 217

5%

3%

Brg

1

2

**Bearings** 

End Grain

End Grain

Direction

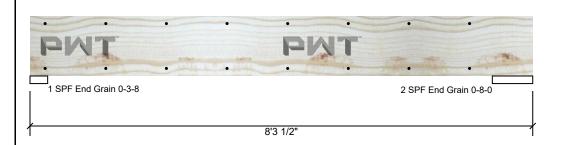
Vertical

Vertical

Bearing Length

1 - SPF 3.500"

2 - SPF 8.000"





Const

Ld. Comb.

D+I

D+L

0

0

3 1/2

Wind

0

0

Snow

n

0

Total Ld. Case

557 L

610 L

Page 23 of 40

Member Information

Type: Plies: 2 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 360 Importance: Normal - II Temperature: Temp <= 100°F

General Load 20 PSF Floor Live:

Application: Floor Design Method: ASD **Building Code: IBC/IRC 2015** 

Load Sharing: No

Deck: Not Checked

20 PSF Dead:

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1023 ft-lb	3'11 1/2"	21295 ft-lb	5%	D+L	L
Unbraced	1023 ft-lb	3'11 1/2"	11272 ft-lb	9%	D+L	L
Shear	377 lb	1'3 3/8"	7897 lb	5%	D+L	L
LL Defl inch	0.004 (L/23503)	3'11 9/16"	0.191 (L/480)	2%	L	L
TL Defl inch	0.011 (L/8347)	3'11 9/16"	0.254 (L/360)	4%	D+L	L

### **Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Compression edge bracing required at 7'8" o.c. or less.
- 7 Lateral slenderness ratio based on single ply width

Ī	na	ds	`

Load	Side	units	Dead 0.9	Live 1
Туре			+	+
Uniform	Тор	PLF	50	50
Uniform	Тор	PLF	30	
Self Weight		PLF	11	

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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- 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
- 6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/18/2027

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570

Manufacturer Info

www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Client: SWIFT CREEK 9/16/2025 Project: Input by: KIRK ROBERTSON isDesign Address: Job Name: CLIFTON Project #: 24061913 1.750" X 11.875" 2-Ply - PASSED Level: Level 2.0E PWLVL





Page 24 of 40

### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	181.1 PLF
Yield Limit per Fastener	90.5 lb.
CM	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

### Notes

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.

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

### Handling & Installation

- Handling & Installation

  1. UVI 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

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/18/2027

Manufacturer Info Pacific Woodtech Corp

1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909



Project: Address:

Application:

Design Method:

**Building Code:** 

Load Sharing:

Deck:

Floor

ASD

No

**IBC/IRC 2015** 

Not Checked

Date: 9/16/2025

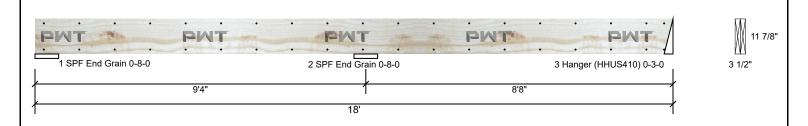
Input by: KIRK ROBERTSON Job Name: CLIFTON

Project #: 24061913 Level: Level

### 2.0E PWLVL

1.750" X 11.875"

2-Ply - PASSED



Gerierai Load	
Floor Live:	20 PSF
Dead:	20 PSF

**Member Information** 

Moisture Condition: Dry

Deflection LL:

Deflection TL:

Importance:

Temperature:

Dead:

2

480

360

Normal - II Temp <= 100°F

Type:

Plies:

Analysis Results
------------------

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-1985 ft-lb	9'4"	21295 ft-lb	9%	D+L	LL
Unbraced	-1985 ft-lb	9'4"	5640 ft-lb	35%	D+L	LL
Pos Moment	1350 ft-lb	4'1 3/16"	21295 ft-lb	6%	D+L	L_
Unbraced	1350 ft-lb	4'1 3/16"	5640 ft-lb	24%	D+L	L_
Shear	875 lb	8' 1/8"	7897 lb	11%	D+L	LL
LL Defl inch	0.010 (L/10903)	4'8 3/16"	0.220 (L/480)	4%	L	L_
TL Defl inch	0.016 (L/6485)	4'6"	0.294 (L/360)	6%	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 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Fill all hanger nailing holes.
- 5 Right Header: LVL, Thickness: 3 1/2"
- 6 Girders are designed to be supported on bottom edge only and across their full width.
- 7 Top loads must be supported equally by all plies.
- 8 Compression edge bracing required at 17'4" o.c. or less.
- 9 Lateral slenderness ratio based on single ply width.

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	386	427	0	0	0
2	Vertical	1085	1202	0	0	0
3	Vertical	329	365	0	0	0

Page 25 of 40

### **Bearings**

Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	8.000"	Vert	4%	427 / 437	864	L_	D+L
2 - SPF End Grain	8.000"	Vert	10%	1202 / 1085	2287	LL	D+L
3 - Hanger	3.000"	Vert	8%	365 / 387	752	_L	D+L

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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- 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
- 6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/18/2027

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570

Manufacturer Info

www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Client: SWIFT CREEK

Project: Address:

Date: 9/16/2025

Input by: KIRK ROBERTSON Page 26 of 40

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL **BM11** 

Level: Level

Loads

Self Weight

Side Load Туре Тор Uniform

Dead 0.9 units PLF

PLF

Live 1 100

11

100

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.

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

  1. IVI. 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

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Manufacturer Info

isDesign 2.0E PWLVL

Client: SWIFT CREEK

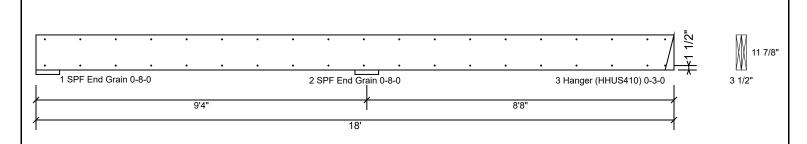
Project: Address: 9/16/2025

Input by: KIRK ROBERTSON Job Name: CLIFTON 24061913

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Project #: 1.750" X 11.875" 2-Ply - PASSED

Level: Level



### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

·		
Capacity	0.0 %	
Load	0.0 PLF	
Yield Limit per Foot	181.1 PLF	
Yield Limit per Fastener	90.5 lb.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

### Notes

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.

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

### Handling & Installation

- IARIGUING & INSTALLATION

  LVL beams must not be cut or drilled

  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beams trength 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

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Manufacturer Info



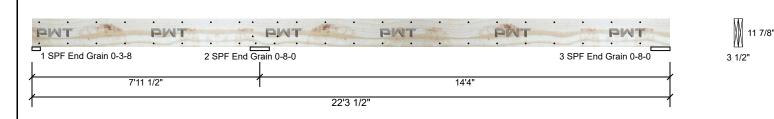
Project: Address: Date: 9/16/2025

Input by: KIRK ROBERTSON Page 28 of 40

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level



### Member Information Application: Type: Floor Plies: 2 Design Method: ASD Moisture Condition: Dry **Building Code: IBC/IRC 2015** Deflection LL: 480 Load Sharing: No Deflection TL: 360 Deck: Not Checked Importance: Normal - II Temp <= 100°F Temperature: General Load 20 PSF Floor Live: Dead: 20 PSF Analysis Results

•	Analysis Results							
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	
	Neg Moment	-10987 ft-lb	7'11 1/2"	21295 ft-lb	52%	D+L	LL	
	Unbraced	-10987 ft-lb	7'11 1/2"	11010 ft-lb	100%	D+L	LL	
	Pos Moment	9929 ft-lb	16' 13/16"	21295 ft-lb	47%	D+L	_L	
	Unbraced	9929 ft-lb	16' 13/16"	9941 ft-lb	100%	D+L	_L	
	Shear	4206 lb	9'3 3/8"	7897 lb	53%	D+L	LL	
	LL Defl inch	0.156 (L/1060)	15'4 3/4"	0.345 (L/480)	45%	L	_L	
	TL Defl inch	0.301 (L/551)	15'5 11/16"	0.460 (L/360)	65%	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 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- 5 Girders are designed to be supported on bottom edge only and across their full width.
- 6 Top loads must be supported equally by all plies.
- 7 Compression edge bracing required at 7'10" o.c. or less.
- 8 Lateral slenderness ratio based on single ply width.

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	525	544	0	0	0
2	Vertical	4712	4846	0	0	0
3	Vertical	1837	1904	0	0	0

### **Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	16%	544 / 1110	1654	L_	D+L
2 - SPF End Grain	8.000"	Vert	40%	4846 / 4712	9558	LL	D+L
3 - SPF End Grain	8.000"	Vert	16%	1904 / 1897	3801	_L	D+L

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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- 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
- 6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Client: SWIFT CREEK

Project: Address: Date: 9/16/2025 Input by:

KIRK ROBERTSON

Page 29 of 40

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL **BM12** 

Level: Level

Loads Location Side Dead 0.9 Live 1 Load units Туре Start Тор PLF 300 300 Uniform Point 8-1-12 Far Face lb 365 387 Self Weight **PLF** 

### Notes

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.

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

### Handling & Installation

- Handling & Installation

  1. IVI. 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 Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570

www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909



Project: Address: 9/16/2025

Input by: KIRK ROBERTSON Job Name: CLIFTON

Page 30 of 40

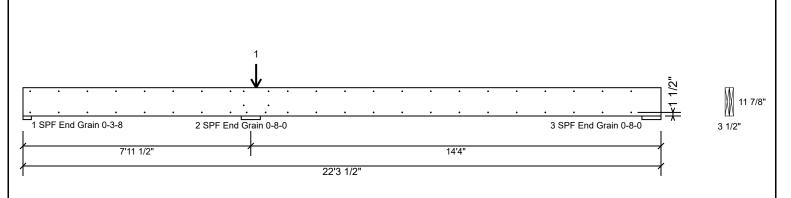
Project #: 24061913

2.0E PWLVL

1.750" X 11.875"

2-Ply - PASSED





### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6".

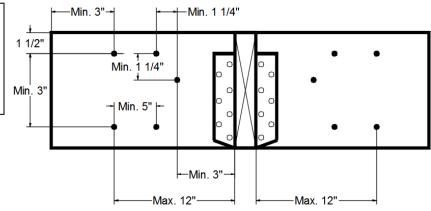
Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	181.1 PLF
Yield Limit per Fastener	90.5 lb.
CM	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

### **Concentrated Load**

Fasten at concentrated side load at 8-1-12 with a minimum of (6) - 10d Box nails (.128x3") in the pattern shown.

partern snomm		
Capacity	69.2 %	
Load	376.0lb.	
Total Yield Limit	543.3 lb.	
Cg	1.0000	
Cg Cm	1	
Yield Limit per Fastener	90.5 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1.00	

### Min/Max fastener distances for Concentrated Side Loads



# Notes 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.

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

This design is valid until 2/18/2027

Citrix Version 25.54.1231 Powered b	v iStruct™ Dataset: 2503:	2601 5586-1002-Release	(embedded



Client:

Project: Address: SWIFT CREEK

Date: 9/16/2025

Input by: KIRK ROBERTSON Job Name: CLIFTON

Page 31 of 40

Wind

0

0

0

0

Const

0

0

0

0

Ld. Comb.

D+I

D+L

D+L

D+L

Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL **BM13** 

Level: Level

Reactions UNPATTERNED Ib (Uplift)

Live

159

541

541

159

Dir.

Vert

Vert

Vert

Vert

Dead

543

1848

1848

543

Cap. React D/L lb

543 / 206

1848 / 567

1848 / 567

543 / 206

3%

10%

10%

3%

Snow

n

0

0

0

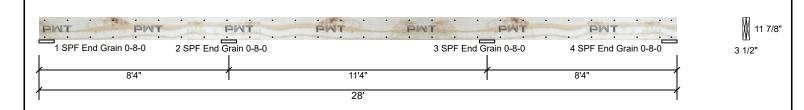
Total Ld. Case

749 L L

2415 LL\_

2415 \_LL

749 L\_L



Brg

1

2

3

4

Bearings

End Grain

End Grain 3 - SPF 8.000"

End Grain 4 - SPF 8.000"

Fnd Grain

Direction

Vertical

Vertical

Vertical

Vertical

Bearing Length

1-SPF 8.000"

2 - SPF 8.000"

### Member Information Application: Type: Floor ASD Plies: 2 Design Method: Moisture Condition: Dry **Building Code: IBC/IRC 2015** Deflection LL: 480 Load Sharing: No Deflection TL: 360 Deck: Not Checked Importance: Normal - II Temp <= 100°F Temperature: General Load 20 PSF Floor Live: 20 PSF Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2200 ft-lb	8'4"	21295 ft-lb	10%	D+L	LL_
Unbraced	-2200 ft-lb	8'4"	3658 ft-lb	60%	D+L	LL_
Pos Moment	1515 ft-lb	14'	21295 ft-lb	7%	D+L	_L_
Unbraced	1515 ft-lb	14'	3658 ft-lb	41%	D+L	_L_
Shear	979 lb	18'4 1/8"	7897 lb	12%	D+L	_LL
LL Defl inch	0.009 (L/15840)	14'	0.283 (L/480)	3%	L	_L_
TL Defl inch	0.026 (L/5178)	14'	0.378 (L/360)	7%	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 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Compression edge bracing required at 27' o.c. or less.
- 7 Lateral slenderness ratio based on single ply width.

Loads				
Load	Side	units	Dead 0.9	Live 1
Туре			+	+
Uniform	Тор	PLF	50	50
Uniform	Тор	PLF	110	
Self Weight		PLF	11	

# 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.

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

### 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
- 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

This design is valid until 2/18/2027

oodtech Corp Lane , WA 98233 -7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

. For flat roofs provide proper drainage to prevent	Manufacturer Info
ponding	Pacific Woodtech C 1850 Park Lane Burlington, WA 9823 (800) 515-7570



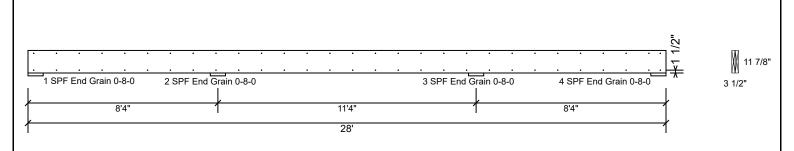
Project: Address: 9/16/2025

Input by: KIRK ROBERTSON Page 32 of 40

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level



### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

	•	•
Capacity	0.0 %	
Load	0.0 PLF	
Yield Limit per Foot	181.1 PLF	
Yield Limit per Fastener	90.5 lb.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

### Notes

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.

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

### Handling & Installation

- Infoculing & Installation

  I. VIL 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

  Design assumes top edge is laterally restrained is provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/18/2027

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

Manufacturer Info



Project: Address: Date: 9/16/2025

Input by: KIRK ROBERTSON

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Application:

Design Method:

**Building Code:** 

Load Sharing:

Deck:

Floor

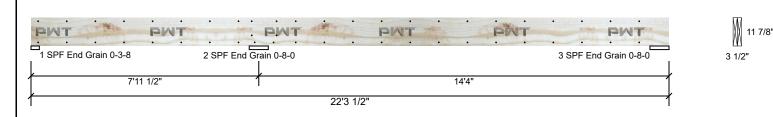
ASD

No

**IBC/IRC 2015** 

Not Checked

Level: Level



**Member Information** Type: Plies: 2 Moisture Condition: Dry

Deflection LL: 480 Deflection TL: 360 Importance: Normal - II

Temp <= 100°F Temperature:

General Load

20 PSF Floor Live: Dead: 20 PSF

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	525	544	0	0	0
2	Vertical	4712	4846	0	0	0
3	Vertical	1837	1904	0	0	0
l .						

Page 33 of 40

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-10987 ft-lb	7'11 1/2"	21295 ft-lb	52%	D+L	LL
Unbraced	-10987 ft-lb	7'11 1/2"	11010 ft-lb	100%	D+L	LL
Pos Moment	9929 ft-lb	16' 13/16"	21295 ft-lb	47%	D+L	_L
Unbraced	9929 ft-lb	16' 13/16"	9941 ft-lb	100%	D+L	_L
Shear	4206 lb	9'3 3/8"	7897 lb	53%	D+L	LL
LL Defl inch	0.156 (L/1060)	15'4 3/4"	0.345 (L/480)	45%	L	_L
TL Defl inch	0.301 (L/551)	15'5 11/16"	0.460 (L/360)	65%	D+L	_L

### **Bearings**

Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	16%	544 / 1110	1654	L_	D+L
2 - SPF End Grain	8.000"	Vert	40%	4846 / 4712	9558	LL	D+L
3 - SPF End Grain	8.000"	Vert	16%	1904 / 1897	3801	_L	D+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 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- $\,5\,$  Girders are designed to be supported on bottom edge only and across their full width.
- 6 Top loads must be supported equally by all plies.
- 7 Compression edge bracing required at 7'10" o.c. or less.
- 8 Lateral slenderness ratio based on single ply width.

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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled Refer to manufacturer's produ-regarding installation requirem 's product information requirements
- aterally restrained
- 6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/18/2027

Manufacturer Info Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

d to verify t				fastening approvals		beam	stren
			3.	Damaged		must n	ot be
			4.	Design as	sumes t	op eda	e is la

Provide lateral support at bearing points to avoid lateral displacement and rotation

Citrix Version 25.54.1231 Powered by iStruct™ Dataset: 25032601.5586-1002-Release (embedded)

Client: SWIFT CREEK

Project: Address: Date: Input by:

9/16/2025 KIRK ROBERTSON Page 34 of 40

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level

Loads					
Load	Location	Side	units	Dead 0.9	Live 1
Type Uniform	Start			+	+
Uniform		Тор	PLF	300	300
Point	8-1-12	Near Face	lb	365	387
Self Weight			PLF	11	

### Notes

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.

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

### Handling & Installation

- Handling & Installation

  1. IVI. 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

This design is valid until 2/18/2027



Project: Address: 9/16/2025

Input by: KIRK ROBERTSON Job Name: CLIFTON

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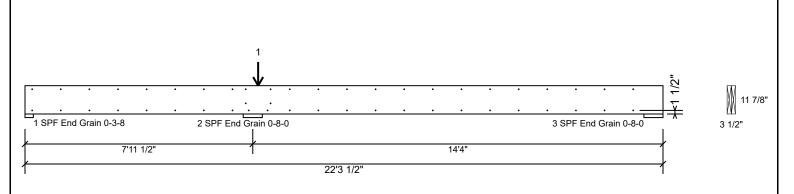
Project #: 24061913

2.0E PWLVL

1.750" X 11.875"

2-Ply - PASSED

Level: Level



### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6".

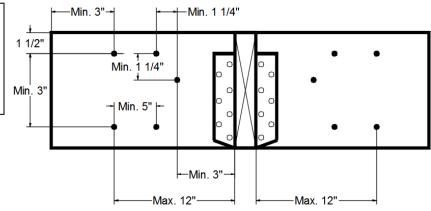
maximum on a distance not to exceed a .				
Capacity	0.0 %			
Load	0.0 PLF			
Yield Limit per Foot	181.1 PLF			
Yield Limit per Fastener	90.5 lb.			
См	1			
Yield Mode	IV			
Edge Distance	1 1/2"			
Min. End Distance	3"			
Load Combination				
Duration Factor	1.00			

### **Concentrated Load**

Fasten at concentrated side load at 8-1-12 with a minimum of (6) – 10d Box nails (.128x3") in the pattern shown.

partern snomm		
Capacity	69.2 %	
Load	376.0lb.	
Total Yield Limit	543.3 lb.	
Cg	1.0000	
Cg Cm	1	
Yield Limit per Fastener	90.5 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1.00	

### Min/Max fastener distances for Concentrated Side Loads



# Notes 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.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- 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
- 6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/18/2027

Citrix Version 25 54 1231 Powered h	y iStruct™ Dataset: 25032601.5586-1002-Release (embedded)



Member Information

Client: SWIFT CREEK

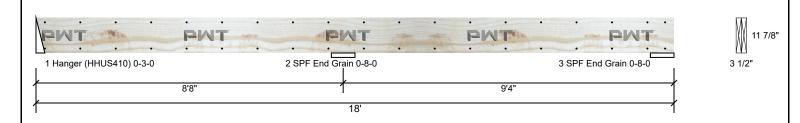
Project: Address: 9/16/2025

Input by: KIRK ROBERTSON Page 36 of 40

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL **BM15** 

Level: Level



Туре:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	20 PSF		
Dead:	20 PSF		
<b>Analysis Results</b>	s		

,	Alialysis Results							
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	
	Neg Moment	-1985 ft-lb	8'8"	21295 ft-lb	9%	D+L	LL	
	Unbraced	-1985 ft-lb	8'8"	5640 ft-lb	35%	D+L	LL	
	Pos Moment	1350 ft-lb	13'10 13/16"	21295 ft-lb	6%	D+L	_L	
	Unbraced	1350 ft-lb	13'10 13/16"	5640 ft-lb	24%	D+L	_L	
	Shear	875 lb	9'11 7/8"	7897 lb	11%	D+L	LL	
	LL Defl inch	0.010 (L/10903)	13'3 7/8"	0.220 (L/480)	4%	L	_L	
	TL Defl inch	0.016 (L/6485)	13'6 1/16"	0.294 (L/360)	6%	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 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Fill all hanger nailing holes.
- 5 Left Header: LVL, Thickness: 3 1/2"
- 6 Girders are designed to be supported on bottom edge only and across their full width.
- 7 Top loads must be supported equally by all plies.
- 8 Compression edge bracing required at 17'4" o.c. or less.
- 9 Lateral slenderness ratio based on single ply width.

Reactions	UNPATTERNED	lb	(Uplift)
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Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	329	365	0	0	0
2	Vertical	1085	1202	0	0	0
3	Vertical	386	427	0	0	0

### **Bearings**

Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	8%	365 / 387	752	L_	D+L
2 - SPF End Grain	8.000"	Vert	10%	1202 / 1085	2287	LL	D+L
3 - SPF End Grain	8.000"	Vert	4%	427 / 437	864	_L	D+L

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.

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

### 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

Manufacturer Info Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com APA: PR-L233, ICC-ES: ESR-2909

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	F	5						

Client: SWIFT CREEK

Project: Address: Date: 9/16/2025 Input by: KIRK ROBERTSON

Job Name: CLIFTON Project #: 24061913 Page 37 of 40

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL **BM15** 

Level: Level

Loads

Side Dead 0.9 Live 1 Load units Type Тор PLF 100 100 Uniform Self Weight PLF 11

### Notes

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.

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

  1. IVI. 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 2/18/2027

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Manufacturer Info



Project: Address: Input by:

9/16/2025

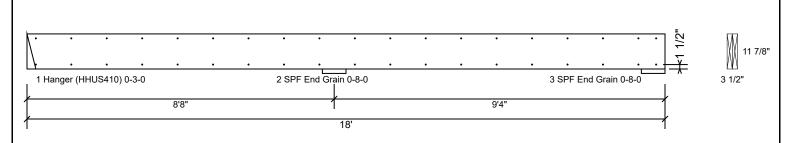
KIRK ROBERTSON

Page 38 of 40

Job Name: CLIFTON Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL

Level: Level



### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

·		
Capacity	0.0 %	
Load	0.0 PLF	
Yield Limit per Foot	181.1 PLF	
Yield Limit per Fastener	90.5 lb.	
См	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

### Notes

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.

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

### Handling & Installation

- IARIGUING & INSTALLATION

  LVL beams must not be cut or drilled

  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beams trength 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

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Project: Address:

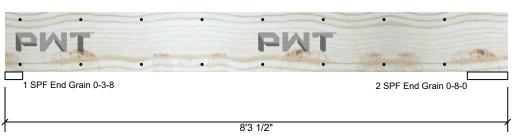
9/16/2025

Input by: KIRK ROBERTSON Job Name: CLIFTON

Project #: 24061913

1.750" X 11.875" 2-Ply - PASSED 2.0E PWLVL **BM16** 

Level: Level



Floor

ASD

No

**IBC/IRC 2015** 

Not Checked

Application:

Design Method:

**Building Code:** 

Load Sharing:

Deck:



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Member Information	И	em	ber	Info	rmatior
--------------------	---	----	-----	------	---------

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Tomn <= 10

Temp <= 100°F

General Load

20 PSF Floor Live: 20 PSF Dead:

### Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	198	359	0	0	0
2	Vertical	217	393	0	0	0

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1023 ft-lb	3'11 1/2"	21295 ft-lb	5%	D+L	L
Unbraced	1023 ft-lb	3'11 1/2"	11272 ft-lb	9%	D+L	L
Shear	377 lb	1'3 3/8"	7897 lb	5%	D+L	L
LL Defl inch	0.004 (L/23503)	3'11 9/16"	0.191 (L/480)	2%	L	L
TL Defl inch	0.011 (L/8347)	3'11 9/16"	0.254 (L/360)	4%	D+L	L

### **Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Compression edge bracing required at 7'8" o.c. or less.
- 7 Lateral slenderness ratio based on single ply width.

### Loads

Load	Side	units	Dead 0.9	Live 1
Туре			+	+
Uniform	Тор	PLF	50	50
Uniform	Тор	PLF	30	
Self Weight		PLF	11	

### **Bearings**

Bearing	Length	Dir.	Cap. Re	act D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	5%	359 / 198	557	L	D+L
2 - SPF End Grain	8.000"	Vert	3%	393 / 217	610	L	D+L

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.

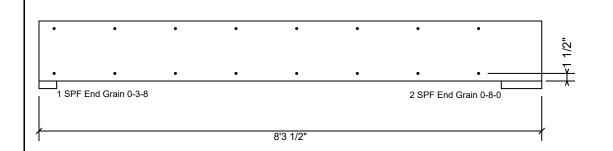
- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive

### 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
- Danaged Beams must not be used
  Design assumes top edge is laterally restrained
  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 2/18/2027

Client: SWIFT CREEK 9/16/2025 Project: Input by: KIRK ROBERTSON isDesign Address: Job Name: CLIFTON Project #: 24061913 1.750" X 11.875" 2-Ply - PASSED Level: Level 2.0E PWLVL





Page 40 of 40

### Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	181.1 PLF
Yield Limit per Fastener	90.5 lb.
CM	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

### Notes

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.

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

- Handling & Installation
- Handling & Installation

  1. UVI 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

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/18/2027

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Manufacturer Info