

Client:

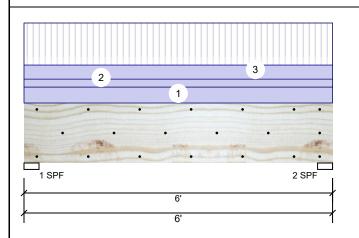
Project: Address: Benjamin Stout Real Estate

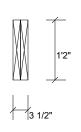
Date: 3/3/2021

Input by: David Landry Job Name: The Fawnbrook Project #: The Fawnbrook

1.750" X 14.000" **Kerto-S LVL** 2-Ply - PASSED BM₁

Level: Level





Page 1 of 10

Member Information

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

Application: Floor Design Method: ASD **Building Code: IBC/IRC 2015** Load Sharing: No Deck: Not Checked

Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	951	891	0	0	0
2	951	891	0	0	0

Bearings

Bearing Length	Cap. R	eact D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF 3.500"	35%	891 / 951	1842	L	D+L	
2 - SPE 3500"	35%	891 / 951	1842	1	D+I	

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2357 ft-lb	3'	26999 ft-lb	0.087 (9%)	D+L	L
Unbraced	2357 ft-lb	3'	26999 ft-lb	0.087 (9%)	D+L	L
Shear	1478 lb	4'7 1/4"	10453 lb	0.141 (14%)	D+L	L
LL Defl inch	0.007 (L/9415)	3'	0.139 (L/480)	0.050 (5%)	L	L
TL Defl inch	0.014 (L/4862)	3'	0.185 (L/360)	0.070 (7%)	D+L	L

Design Notes

- 1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be continuously braced.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on single ply width.

. Lateral elei	· Later an electricity ratio bacous en enigle pry maan									
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Тор	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Above
2	Uniform			Тор	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	C1GE
3	Uniform			Far Face	106 PLF	317 PLF	0 PLF	0 PLF	0 PLF	F2
	Self Weight				11 PLF					

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

Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633

Manufacturer Info

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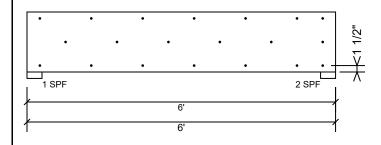
Client: Benjamin Stout Real Estate

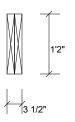
Project: Address: Date: 3/3/2021

Input by: David Landry Job Name: The Fawnbrook Project #: The Fawnbrook

1.750" X 14.000" 2-Ply - PASSED **Kerto-S LVL** BM₁

Level: Level





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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"

rasterrain pries asing 5 row	3 Of Tod Box Halls (.TEOXS) at
Capacity	86.1 %
Load	211.5 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
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

- 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

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

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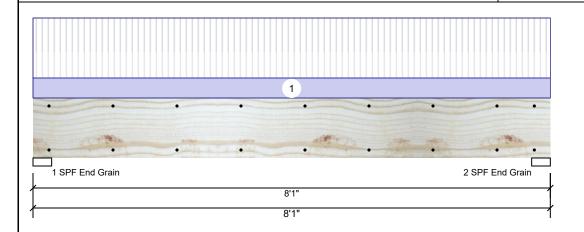
Client: Project: Address: Benjamin Stout Real Estate

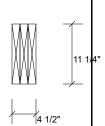
Date: 3/3/2021

Input by: David Landry Job Name: The Fawnbrook Project #: The Fawnbrook

2.000" X 12.000" 3-Ply - PASSED S-P-F #2 BM₂

Level: Level





Page 3 of 10

Member	Information
Type:	Girder

Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal Temperature: Temp <= 100°F

Application: Design Method: ASD **Building Code: IBC/IRC 2015** Load Sharing: Yes Deck: Not Checked

Reactions UNPATTERNED Ib (Uplift)									
Brg	Live	Dead	Snow	Wind	Const				
1	2837	946	0	0	0				
2	2837	946	0	0	0				

Analysis Results

Actual Comb. Case Analysis Location Allowed Capacity Moment 6802 ft-lb 4' 1/2" 7960 ft-lb 0.855 (85%) D+L L Unbraced 6802 ft-lb 4' 1/2" 7960 ft-lb 0.855 (85%) D+L L 2691 lb 0.591 (59%) D+L Shear 1'2" 4556 lb L LL Defl inch 0.071 (L/1281) 4' 9/16" 0.254 (L/360) 0.280 (28%) L L TL Defl inch 0.095 (L/961) 4' 9/16" 0.381 (L/240) 0.250 (25%) D+L L

Bearings

Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1-SPF 3.500" 946 / 2837 3783 L D+L End Grain 2 - SPF 3.500" 946 / 2837 3783 L D+L End Grain

Design Notes

- 1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be continuously braced.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Тор	234 PLF	702 PLF	0 PLF	0 PLF	0 PLF	F1

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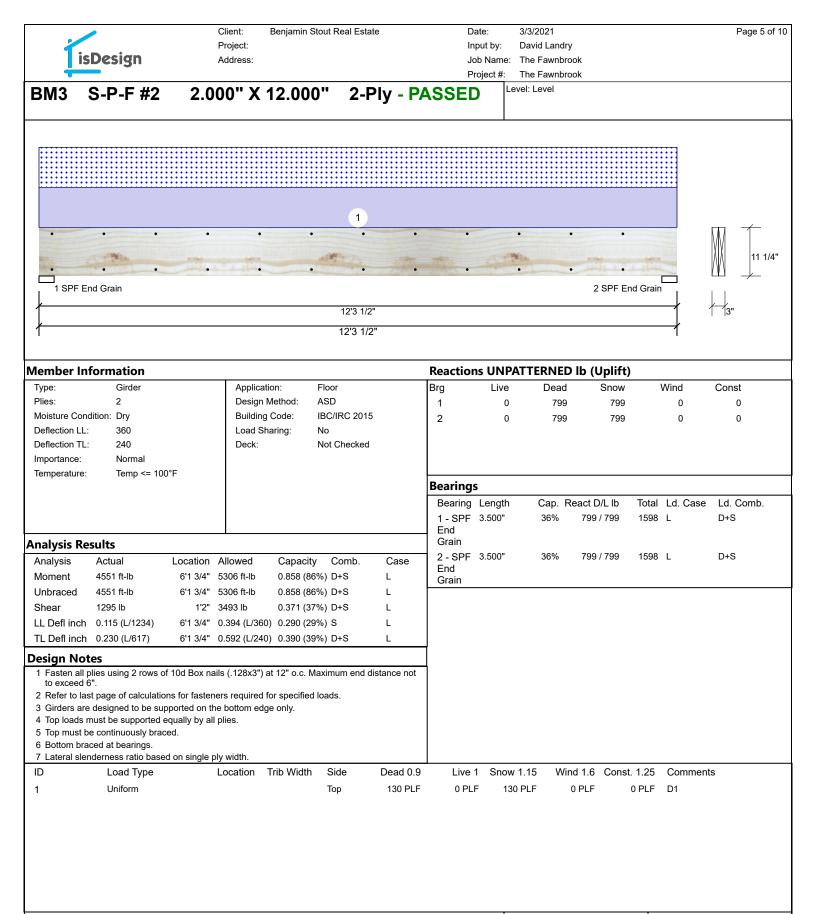
Client: Benjamin Stout Real Estate Date: 3/3/2021 Page 4 of 10 Project: Input by: David Landry isDesign Address: Job Name: The Fawnbrook Project #: The Fawnbrook Level: Level 2.000" X 12.000" 3-Ply - PASSED S-P-F #2 **BM2** 1 SPF End Grain 2 SPF End Grain 8'1" 8'1" Multi-Ply Analysis

This design is valid until 2/26/2023

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

Capacity	0.0 %	
Load	0.0 PLF	ļ
Yield Limit per Foot	157.4 PLF	ļ
Yield Limit per Fastener	78.7 lb.	ļ
Yield Mode	IV	ļ
Edge Distance	1 1/2"	ļ
Min. End Distance	3"	ļ
Load Combination		ļ
Duration Factor	1.00	ļ

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This design is valid until 2/26/2023

Manufacturer Info

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1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS



Client: Benjamin Stout Real Estate Date: 3/3/2021 Page 6 of 10 Project: Input by: David Landry isDesign Address: Job Name: The Fawnbrook Project #: The Fawnbrook 2-Ply - PASSED Level: Level 2.000" X 12.000" **BM3** S-P-F #2 1 SPF End Grain 2 SPF End Grain 12'3 1/2" 12'3 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 Load 157.4 PLF Yield Limit per Foot Yield Limit per Fastener 78.7 lb. Yield Mode IV Edge Distance 1 1/2" Min. End Distance 3" Load Combination Duration Factor 1.00 Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS

This design is valid until 2/26/2023

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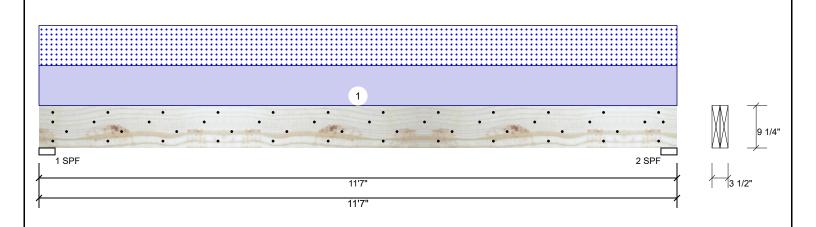
Client: Benjamin Stout Real Estate

Project: Address: 3/3/2021

Input by: David Landry Job Name: The Fawnbrook Project #: The Fawnbrook

1.750" X 9.250" **Kerto-S LVL** 2-Ply - PASSED BM4

Level: Level



Member Info	mber Information				Reactions UNPATTERNED Ib (Uplift)						
Type:	Girder	Application:	Roof	Brg	Live	Dead	Snow	V	Vind	Const	
Plies:	2	Slope:	0/12	1	0	1721	1680		0	0	
Moisture Condition	on: Dry	Design Method:	ASD	2	0	1721	1680		0	0	
Deflection LL:	360	Building Code:	IBC/IRC 2015								
Deflection TL:	240	Load Sharing:	No								
Importance:	Normal	Deck:	Not Checked								
Temperature:	Temp <= 100°F										
				Bearing	gs						
				Bearing	g Length	Cap. Rea	ct D/L lb	Total	Ld. Case	Ld. Comb.	
				1 - SPF	3.500"	65% 17	21 / 1680	3401	L	D+S	
				2 - SPE	3 500"	65% 17	21 / 1680	3401	1	D+S	

Analysis Results

Ī	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	9084 ft-lb	5'9 1/2"	14423 ft-lb	0.630 (63%)	D+S	L
	Unbraced	9084 ft-lb	5'9 1/2"	14423 ft-lb	0.630 (63%)	D+S	L
	Shear	3261 lb	10'7"	7943 lb	0.411 (41%)	D+S	L
	LL Defl inch	0.232 (L/574)	5'9 1/2"	0.371 (L/360)	0.630 (63%)	S	L
	TL Defl inch	0.471 (L/284)	5'9 1/2"	0.556 (L/240)	0.850 (85%)	D+S	L

Design Notes

- 1 Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top must be continuously braced.
- 5 Bottom braced at bearings.
- 6 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Far Face	290 PLF	0 PLF	290 PLF	0 PLF	0 PLF	A2
	Self Weight				7 PLF					

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

Handling & Installation

- For flat roofs provide proper drainage to prevent ponding

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Manufacturer Info

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Client: Benjamin Stout Real Estate

Project: Address:

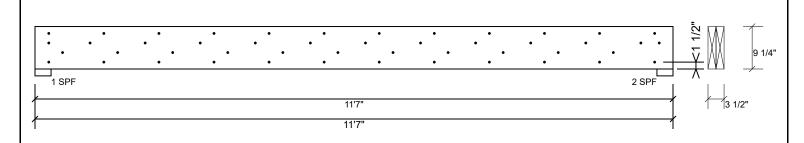
Input by: David Landry Job Name: The Fawnbrook Project #: The Fawnbrook

3/3/2021

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1.750" X 9.250" **Kerto-S LVL** 2-Ply - PASSED BM4

Level: Level



Multi-Ply Analysis

Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	77.0 %	
Load	290.0 PLF	
Yield Limit per Foot	376.5 PLF	
Yield Limit per Fastener	94.1 lb.	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination	D+S	
Duration Factor	1 15	

Notes

NOtes

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

Handling & Installation

- Informing & 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

- This design is valid until 2/26/2023

 For flat roofs provide proper drainage to prevent ponding Manufacturer Info

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Client:

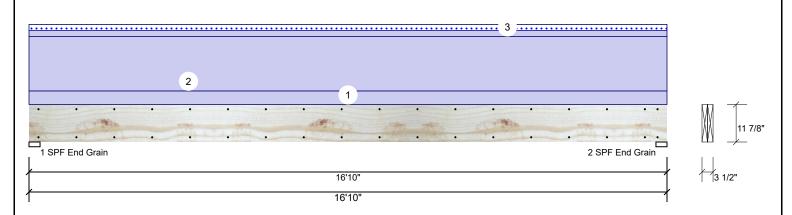
Project: Address: Benjamin Stout Real Estate

Date: 3/3/2021

Input by: David Landry Job Name: The Fawnbrook Project #: The Fawnbrook

1.750" X 11.875" **Kerto-S LVL** 2-Ply - PASSED **GDH**

Level: Level



Member Inforn	nation				Reaction	ns UNPAT	TERNED II	o (Uplift)		
Type:	Girder	Application:	Floor		Brg	Live	Dead	Snow	Wind	Const
Plies:	2	Design Method:	ASD		1	0	2140	168	0	0
Moisture Condition:	: Dry	Building Code:	IBC/IRC 2015		2	0	2140	168	0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal									
Temperature:	Temp <= 100°F									
					Bearing	s				
					Bearing	Length	Cap. Rea	ct D/L lb	Total Ld. Case	Ld. Comb.
					1 - SPF	3.500"	22% 2	140 / 168	2308 L	D+S
					End					
Analysis Result	s				Grain					
Analysis Act	ual Location	Allowed Capac	city Comb.	Case	2-SPF	3.500"	22% 2	140 / 168	2308 L	D+S
Moment 852	11 ft-lb 8'5"	17919 ft-lb 0.476 (48%) D	Uniform	End Grain					

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8521 ft-lb	8'5"	17919 ft-lb	0.476 (48%)	D	Uniform
Unbraced	8521 ft-lb	8'5"	17919 ft-lb	0.476 (48%)	D	Uniform
Shear	1830 lb	15'7 3/8"	7980 lb	0.229 (23%)	D	Uniform
LL Defl inch	0.035 (L/5617)	8'5 1/16"	0.546 (L/360)	0.060 (6%)	S	L
TL Defl inch	0.480 (L/410)	8'5 1/16"	0.819 (L/240)	0.590 (59%)	D+S	L

Design Notes

- 1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be continuously braced.
- 6 Bottom braced at bearings.

/ Lateral slenderness ratio based on single ply width.											
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments	
1	Uniform			Тор	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Above	
2	Uniform			Тор	180 PLF	0 PLF	0 PLF	0 PLF	0 PLF	B1GE	
3	Tie-In	0-0-0 to 16-10-0	1-0-0	Тор	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	Roof Load	
	Self Weight				9 PLF						

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

Handling & Installation

- Informing & 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

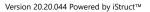
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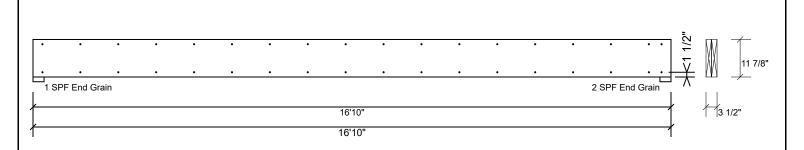
Client: Benjamin Stout Real Estate

Project: Address: Date: 3/3/2021

Input by: David Landry Job Name: The Fawnbrook Project #: The Fawnbrook

1.750" X 11.875" **Kerto-S LVL** 2-Ply - PASSED **GDH**

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"

rasterrain pries asing E	TOWS OF TOO BOX Halls (.TEOXS) at
Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
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

- 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

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 4. Design assumes top edge is laterally restrained

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

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Manufacturer Info

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This design is valid until 2/26/2023 CSD DESIGN