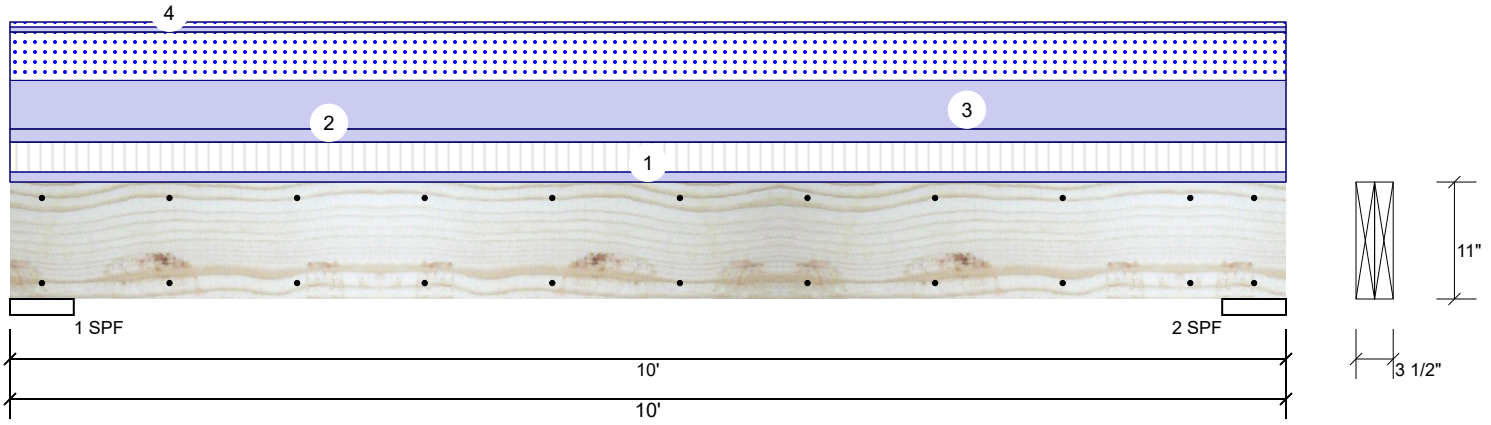
Client:	Ben Stout Real Estate	Date:	5/18/2020
Project:		Input by:	David Landry
Address:		Job Name:	Lot 16 Blackberry Manor
		Project #:	J0320-1194

10'-FB. @ NOOK/ BAY WINDOW Kerto-S LVL 1.750" X 11.000" 2-Ply - PASSED

Level: 1ST. FLOOR



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	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	1210	3133	2155	0	0
2	1210	3133	2155	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	63%	3133 / 2524	5657	L	D+0.75(L+S)
2 - SPF	6.000"	63%	3133 / 2524	5657	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	11775 ft-lb	5'	19874 ft-lb	0.592 (59%)	D+0.75(L+S)	L
Unbraced	11775 ft-lb	5'	11805 ft-lb	0.997 (100%)	D+0.75(L+S)	L
Shear	4189 lb	1'4 1/4"	9445 lb	0.443 (44%)	D+0.75(L+S)	L
LL Defl inch	0.117 (L/935)	5'	0.228 (L/480)	0.510 (51%)	0.75(L+S)	L
TL Defl inch	0.263 (L/417)	5'	0.304 (L/360)	0.860 (86%)	D+0.75(L+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 laterally braced at a maximum of 6'8 1/4" o.c.
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			Top	81 PLF	242 PLF	0 PLF	0 PLF	0 PLF	F08 FL. TRUSSES
2	Uniform			Top	106 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL ABOVE
3	Uniform			Top	391 PLF	0 PLF	391 PLF	0 PLF	0 PLF	"A" RF. TRUSSES
4	Tie-In	0-0-0 to 10-0-0	2-0-0	Far Face	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	FIELD FRAMIING
	Self Weight				9 PLF					

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 2/26/2023

Manufacturer Info

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

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

Client:	Ben Stout Real Estate	Date:	5/18/2020
Project:		Input by:	David Landry
Address:		Job Name:	Lot 16 Blackberry Manor
		Project #:	J0320-1194

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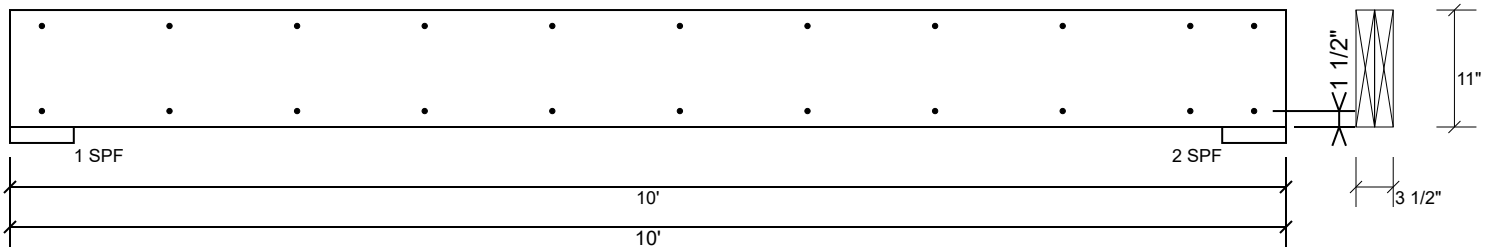
Level: 1ST. FLOOR



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	21.2 %
Load	40.0 PLF
Yield Limit per Foot	188.3 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

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Lumber

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

Handling & Installation

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

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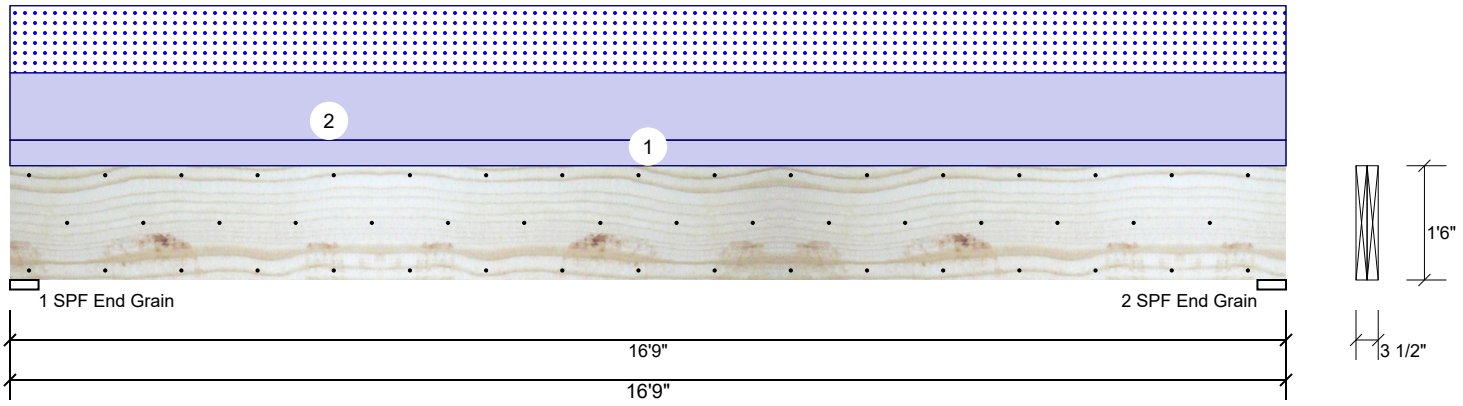
Client:	Ben Stout Real Estate	Date:	5/18/2020
Project:		Input by:	David Landry
Address:		Job Name:	Lot 16 Blackberry Manor
		Project #:	J0320-1194

GDH Kerto-S LVL 1.750" X 18.000" 2-Ply - PASSED

Level: 1ST. FLOOR



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		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	4648	3275	0	0
2	0	4648	3275	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	58%	4648 / 3275	7923	L	D+S
2 - SPF End Grain	4.500"	58%	4648 / 3275	7923	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	30826 ft-lb	8'4 1/2"	49428 ft-lb	0.624 (62%)	D+S	L
Unbraced	30826 ft-lb	8'4 1/2"	30960 ft-lb	0.996 (100%)	D+S	L
Shear	6218 lb	14'11 3/8"	15456 lb	0.402 (40%)	D+S	L
LL Defl inch	0.199 (L/973)	8'4 9/16"	0.404 (L/480)	0.490 (49%)	S	L
TL Defl inch	0.482 (L/402)	8'4 9/16"	0.538 (L/360)	0.890 (89%)	D+S	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 laterally braced at a maximum of 4'1 1/8" o.c.
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			Top	150 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL ABOVE / FL. GABLE TRUSS
2	Uniform			Top	391 PLF	0 PLF	391 PLF	0 PLF	0 PLF	"A" RF. TRUSSES
	Self Weight				14 PLF					

Notes

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Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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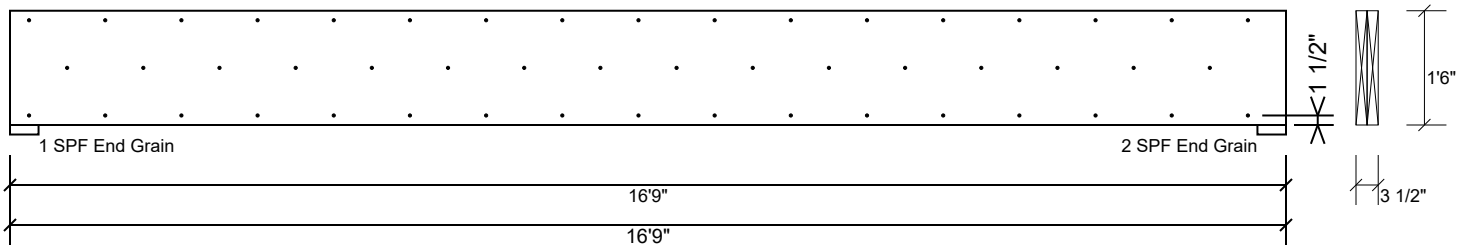

Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 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	
Duration Factor	1.00

Notes

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