

1	isDesign		JAY NORRIS 117 KNIGHT RD		Date: Input by: Job Nam Project #		Page 3 of 9
FB1	Kerto-S LV	L 1.750"	X 16.000"	3-Ply -		Level: Level	
•	· · · ·	· · · · ·		· · · ·	· · · ·	· · · · · ·	<sup>5</sup> m +-
	· · · · ·	· · · · ·	· · · ·	· · · ·	· · · · ·	· · · · · · ·	
1 SPF	F End Grain 0-5-1			2 SPI	End Grain 0-5-8	3 SPF End Grair	
		15'9 1/4"	24'2	2 1/2"	1	8'5 1/4"	5 1/4"
	<b>y Analysis</b> I plies using 4 rows (	of SDW22500 at 1	2" o.c Maximur	n end distand	e not to exceed	16".	
Capacity Load	{	31.7 % 333.3 PLF					
Yield Limit p Yield Limit p		1020.0 PLF 255.0 lb.					
Cm Yield Mode		1 ₋ookup					
Edge Distan	nce	1 1/2"					
Min. End Dis Load Combi		5" D+L					
Duration Fa	ctor	1.00					
1							
Notes		chemicals	6.	For flat roofs provide n	roper drainage to prevent	Manufacturer Info	
Calculated Strue structural adeq	ictured Designs is responsible only of th juacy of this component based on th	Handling & Installatio	n	ponding		Metsä Wood 301 Merritt 7 Building, 2nd Floor	1
design criteria responsibility of	a and loadings shown. It is the of the customer and/or the contractor component suitability of the intender	te 2. Refer to manufacturer	s product information requirements. multi-ply			Norwalk, CT 06851 (800) 622-5850	
application, and	t to verify the dimensions and loads.	approvals 3. Damaged Beams must not	be used			www.metsawood.com/us	
1. Dry service	conditions, unless noted otherwise be treated with fire retardant or corrosiv	<ol> <li>Design assumes top edge</li> <li>Provide lateral support at lateral displacement and re</li> </ol>	bearing points to avoid	This design is valid	until 6/28/2026		

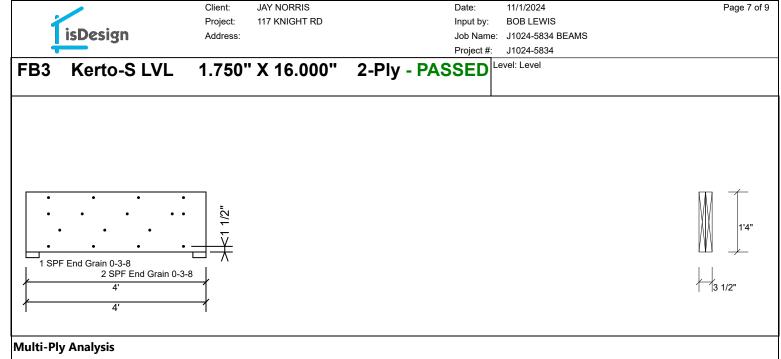
is	Design	Client: Project: Address:	JAY NORRIS 117 KNIGHT RD		Date: Input by: Job Narr Project #	ne: J1024-5834 BE	AMS		Page 4 of 9
FB2 K	Kerto-S LVL	1.750"	' X 16.000	)" 2-Ply	- PASSED	Level: Level			
1 SPF End	d Grain 0-3-8	1 • • • •	2 SPF End	Grain 0-3-8					1'4" 
		o		Ι					
Member Inf	ormation				Reactions UN	IPATTERNED II	o (Uplift)		
Type: Plies: Moisture Cond Deflection LL: Deflection TL: Importance:	Girder 2 ition: Dry 480 240 Normal - II	Buildin	Method: ASD g Code: IRC 2 sharing: No		Brg Direction 1 Vertical 2 Vertical	Live 256 256	Dead 5 114 114	Snow Wind 0 0 0 0	0
Temperature:	Temp <= 100°F				Bearings Bearing Leng 1 - SPF 3.500 End		React D/L lb 114 / 256	Total Ld. Case 370 L	Ld. Comb. D+L
Analysis Res					Grain 2 - SPF 3.500	"Vert 4%	114 / 256	370 L	D+L
Analysis Moment Unbraced Shear LL Defl inch TL Defl inch	661 ft-lb 661 ft-lb 236 lb 6'4 0.003 4' 1 (L/31179)		0.019 (2%) D	+L L +L L L	End Grain	Vert 470	114 / 250	370 L	U+L
Design Note	. ,				7				
<ol> <li>Provide sup may also be</li> <li>Fasten all pi to exceed 6'</li> <li>Refer to last</li> <li>Girders are</li> <li>Top loads m</li> <li>Top must be</li> <li>Bottom mus</li> </ol>	port to prevent lateral moves required at the interior be lies using 3 rows of 10d B ". t page of calculations for far designed to be supported just be supported equally the laterally braced at end t be laterally braced at end	earings by the bui ox nails (.128x3") asteners required on the bottom ec by all plies. earings. d bearings.	lding code. at 12" o.c. Maximu for specified loads	im end distance not					
8 Lateral slend	derness ratio based on sir Load Type	ngle ply width. Location	Trib Width Sid	de Dead 0.9	Live 1 Sn	ow 1.15 Wind	1.6 Const. 1.2	25 Comments	
1	Uniform Self Weight	2004/01	1-7-3 Top		40 PSF	0 PSF 0 F			
structural adequacy of design criteria and responsibility of the cu	loadings shown. It is the 2. ustomer and/or the contractor to	LVL beams must not be Refer to manufactu regarding installation	cut or drilled rer's product information requirements, multi-ply	ponding	proper drainage to prevent	Manufacturer Info Metsä Wood 301 Merritt 7 Building Norwalk, CT 06851	g, 2nd Floor		
application, and to verification and to verification and the service condition of the service co	4.	fastening details, beam approvals Damaged Beams must i Design assumes top edg	strength values, and code not be used ge is laterally restrained at bearing points to avoid	2	d until 6/28/2026	(800) 622-5850 www.metsawood.com	m/us		

	Client Projec		Date: Input by:	11/1/2024 BOB LEWIS	Page 5 of 9
<b>isDesign</b>	Addre			: J1024-5834 BEAMS	
			Project #:	J1024-5834	
FB2 Kerto-S	SLVL 1.7	50" X 16.000"	2-Ply - PASSED	evel: Level	
	· · ·	· · ·	<		1'4"
1 SPF End Grain 0-3-8	•••	• • 2 SPF End Grai	· · · · · · · · · · · · · · · · · · ·		
<u>/</u>	8'				3 1/2"
1	8'		/		
apacity oad ïeld Limit per Foot ïeld Limit per Fastener	rows of 10d Box n 0.0 % 0.0 PLF 245.6 PLF 81.9 lb.	ails (.128x3") at 12" o.	c Maximum end distance no	t to exceed 6".	
M ield Mode	1 IV				
dge Distance	1 1/2"				
lin. End Distance oad Combination	3"				
uration Factor	1.00				

Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the	LVL beams must not be cut or drilled     Refer to manufacturer's product information     regarding installation requirements multi-ply	ponding This design is valid until 6/28/2026	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us	

is	Design	P	lient: roject: ddress:	JAY NORRIS 117 KNIGHT			ln Jo	ate: put by: ob Name roject #:	11/1/202 BOB LE : J1024-58 J1024-58	WIS 334 BEAN	ЛS			Page 6 of 9
FB3 K	Kerto-S L	VL 1.	750"	X 16.0	00"	2-Ply -			_evel: Level					
2														
1 SPF End	1 	rain 0-3-8												1'4"
Member Inf	ormation						Reactior		DATTERN		(Unlift)			
Type: Plies: Moisture Cond Deflection LL: Deflection TL: Importance:	Girder 2		Applicat Design I Building Load Sh Deck:	Method: A Code: II aring: N	iloor NSD RC 2018 Io Iot Checked	1	1	ection ical	Live 128 128	C		Snow 0 0	Wind 0 0	Cons
Temperature:	Temp <= 100	)°F					Bearing Bearing 1 - SPF End	Length	n Dir. Vert	Cap. R 31%	eact D/L lb 3057 / 128	Total 3185	Ld. Case L	Ld. Comb D+L
Analysis Res	sults						Grain							
Analysis Moment Unbraced Shear LL Defl inch		2' 2' 1'7 1/2" 1(	1109 ft-lb 7224 ft-lb 0752 lb	Capacity 0.078 (8%) 0.089 (9%) 0.241 (24%) 0.003 (0%)	D 5) D	Case Uniform Uniform Uniform L	2 - SPF End Grain	3.500"	Vert	31%	3057 / 128	3185	L	D+L
TI Deflinch	(L/139825) 0.008 (L/5616)	2' 1/16" 0.	178 (L/240	) 0.043 (4%)	D+L	L								
Design Not			(	,			1							
<ol> <li>Provide sup may also be</li> <li>Fasten all p</li> <li>6".</li> <li>Refer to lasi</li> <li>Simpson fasi</li> <li>Girders are</li> <li>Top loads m</li> <li>Top must be</li> <li>Bottom must</li> </ol>	port to prevent late required at the int lies using 4 rows of t page of calculatio steners applied fror designed to be sup just be supported e laterally braced at t be laterally brace	erior bearings l f SDW22338 a n s for fasteners n a single side oported on the equally by all pl c end bearings. d at end bearings.	by the build t 12" o.c. M s required f of the men bottom edg ies.	ling code. laximum end for specified lo nber use tip va	distance not bads.	t to exceed								
ID	Load Type	Lo	ocation	Trib Width	Side	Dead 0.9	Live	1 Snov	w 1.15	Wind 1.6	6 Const. 1.	25 Con	nments	
1	Uniform				Near Face		0 PL		0 PLF	0 PLF			IRS	
2	Uniform Self Weight			1-7-3	Тор	10 PSF 12 PLF	40 PS	F	0 PSF	0 PSI	= 0 P	SF		
structural adequacy o design criteria and responsibility of the cu ensure the compone application, and to verif <b>Lumber</b> 1. Dry service condition	Designs is responsible only f this component based o loadings shown. It is ustomer and/or the contract submer and/or the contract the dimensions and loads.	n the thor to anded 1. LVL beam 2. Refer to regarding approvals 3. Damaged 4. Design as 5. Provide la	& Installation s must not be cu- o manufacture installation details, beam s Beams must no sumes top edge	at or drilled r's product infor requirements, m strength values, and t be used is laterally restraine at bearing points to	pono mation ulti-ply d code d	flat roofs provide p ling	roper drainage to	prevent	Manufactur Metsä Wood 301 Merritt 7 Norwalk, CT (800) 622-58 www.metsav	Building, 2 06851 850		-		

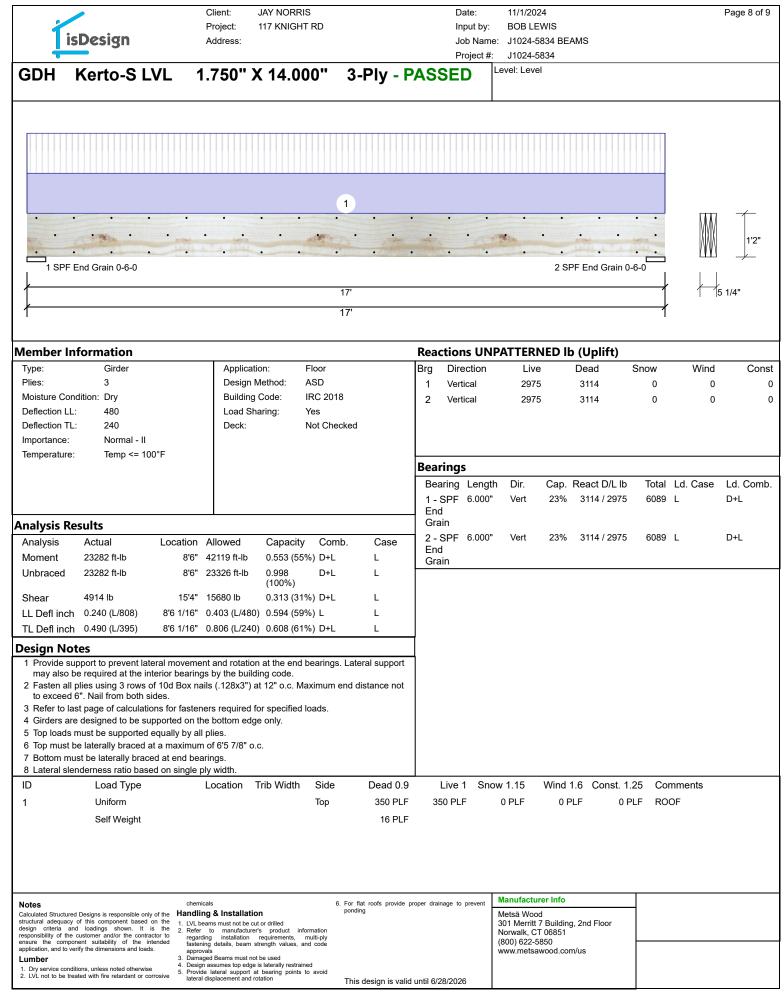
Version 23.40.705 Powered by iStruct™ Dataset: 24070801.3993



Fasten all plies using 4 rows of SDW22338 at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	81.7 %
Load	750.0 PLF
Yield Limit per Foot	918.0 PLF
Yield Limit per Fastener	229.5 lb.
См	1
Yield Mode	Lookup
Edge Distance	1 1/2"
Min. End Distance	6"
Load Combination	D
Duration Factor	0.90

Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	
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	1. LVL beams must not be cut or drilled 2. Refer to manufacturer's product information regarding installation requirements, multi-ply	ponding	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850	
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	Instanting 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		(000) 022-0600 www.metsawood.com/us	



	Client:			Date:	11/1/2024	Page 9 o
isDesign	Project: Address:	117 KNIGHT RD		Input by: Job Name	BOB LEWIS : J1024-5834 BEAMS	
				Project #:		
DH Kerto-S	LVL 1.750"	X 14.000"	3-Ply - P	ASSED	Level: Level	
				L. L		
	· · · ·	• • •	•••	•••	· · · ·	· · · · · · · · · · · · · · · · · · ·
			• •	• •	• • •	
1 SPF End Grain 0-6-0	)				2 SPF End Grain 0-	6-0 /
			17'			5 1/4"
1			17'			1
ulti-Ply Analysis						
sten all plies using 3	rows of 10d Box nails	(.128x3") at 12" o	.c Nail from b	oth sides. Maxi	imum end distance not to	exceed
pacity	0.0 %					
ad	0.0 PLF					
eld Limit per Foot eld Limit per Fastener	245.6 PLF 81.9 lb.					
١	1					
eld Mode	IV					
ge Distance n. End Distance	1 1/2" 3"					
ad Combination	3					
Iration Factor	1.00					
				I	Manufactures Info	1
lotes	chemicals		. For flat roofs provide pro	per drainage to prevent	Manufacturer Info	4

Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	
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. <b>Lumber</b> 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive	LVL beams must not be cut or drilled     Refer to manufacturer's product information     regarding installation requirements multi-ply	ponding This design is valid until 6/28/2026	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us	