

Version 18.80.245 Powered by iStruct™

isDesign™	Client: Ben Stout Real Est Project: Address:	ate Date Desi Job Proj	e: 3/16/2020 igner: David Landry Name: Spoon Residence ect #: J1119-5196	Page 2 of
BM1 Kerto-S LVL	1.750" X 14.000"	2-Ply - PASSED	Level: Level	
· · · · · · · · · · · · · · · · · · ·	· · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
1 SPF End Grain		17'2" 17'2"	2 SPF End	d Grain
Julti-Ply Analysis				1
ald Limit per Fastener 81.9 ald Mode IV Ige Distance 11/2 n. End Distance 3" ad Combination <u>tration Factor 1.00</u>) lb. 2")			
otes I alculated Structured Designs is responsible only of the I	chemicals Handling & Installation	 For flat roofs provide proper drainage to preponding 	went Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor	Comtech, Inc. 1001 S. Relly Road, Suite #639 Fayetteville, NC USA
sign criteria and loadings show. It is the sponsibility of the customer and/or the contractor to surve the component suitability of the intended oplication, and to verify the dimensions and loads. umber . Dry service conditions, unless noted otherwise . UN not to be treated with fire retardant or corrosive	 Lv-Learns must not be cut or aniled 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 trotation 	This desire is used until 40/44/2020	Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	28314 910-864-TRUS

This design is valid until 12/11/2021

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		С	lient: B	Ben Stout Rea	al Estate		D	ate:	3/16/2020				Page 3 of 6
	icDecian"	n P	roject:				D	esigner:	David Landry				
3	Ispesign	A	ddress:				Jo	b Name:	Spoon Reside	nce			
							P	roject #:	J1119-5196				
BM2	S-P-F #2	2.00	0" X 1	2.000'	' 2-P	'ly - PA	ASSE		vel: Level				
					1								
	and the second s		Later a	· · · · · · · · · · · · · · · · · · ·	A lar Press	· · · · ·	Tanka Ta		ita.	A TON		•	M 1
		- Harris			. :								11 1/4"
1 SPF E	nd Grain			2 \$	SPF End Gra	iin				3 SPF Er	d Grain		, 1.1
,		4010						10					
		12'6"			I			12	.0				3"
1					25'							1	
Member I	nformation						Reaction	ns UNPA	TTERNED	lb (Uplift)			
Type:	Girder		Applicatio	n: Fl	oor		Bra	Live	Dead	Snow	,	Wind	Const
Plies:	2		Design M	ethod: A	SD		1	0	912	0		0	0
Moisture Co	ndition: Dry		Building C	Code: IB	C/IRC 2015		2	0	2677	0		0	0
Deflection L	L: 480		Load Sha	ring: N	0		3	0	912	0		0	0
Deflection T	L: 360		Deck:	N	ot Checked								
Importance:	Normal												
Temperature	e: Temp <= 100°	Ϋ́F					Desident						
							Bearing	5					
							Bearing	Length	Cap. Re	act D/L lb	Total	Ld. Case	Ld. Comb.
							1 - SPF	8.000"	9%	912 / 0	912	Uniform	D
Analysis R	esults						Grain						
Analysis	Actual	Location A	llowed	Capacity	Comb	Case	2 - SPF	8.000"	26%	2677 / 0	2677	Uniform	D
Nea Mome	nt -3184 ft-lb	12'6" 4	153 ft-lb	0.767 (77%) D	Uniform	End						
Pos Mome	nt 1791 ft-lb	5' 3/4" 4	153 ft-lb	0.431 (43%	,) D	Uniform		8 000"	0%	012/0	012	Uniform	D
Unbraced	1791 ft-lb	5' 3/4" 34	460 ft-lb	0.518 (52%	,) D	Uniform	End	0.000	970	91270	912	Ofmorth	D
Shear	1170 lb	11'6 3/4" 2	734 lb	0.428 (43%)) D	Uniform	Grain						
LL Defl incl	h 0.000 (L/999)	0 99	99.000 (L/0)	0.000 (0%)									
TL Defl inc	h 0.068 (L/2109)	5'7 7/16" 0.	397 (L/360)	0.170 (17%) D	Uniform							
Docian Na	atos				-		1						
1 Fasten al	l plies using 2 rows of	10d Box nails	(128x3") at	12" o.c. Max	imum end di	stance not	1						
to exceed	1 6".		(12 0.0.1110.									
2 Refer to I	ast page of calculation	s for fastener	s required for	r specified lo	ads.								
3 Girders a 4 Top loads	re designed to be supp must be supported ea	ported on the	bottom eage ies	oniy.									
5 Top brace	ed at bearings.	1))											
6 Lateral sl	enderness ratio based	on single ply	width.										
ID	Load Type	Lo	ocation Tr	rib Width	Side	Dead 0.9	Live	1 Snow	1.15 Wind	11.6 Const	. 1.25	Comment	S
1	Uniform				Тор	180 PLF	0 PL	F 0	PLF 0	PLF	0 PLF	B1GE	
								Ma	anufacturer Info		Cc 10	mtech, Inc. 01 S. Reilly Road	Suite #639
											Fa	yetteville, NC	
											28 91	314 0-864-TRUS	
					This o	design is valid	until 12/11/20	21				con	тесн
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	Client:	Ben Stout Real Estate	Date:	3/16/2020	Page 4 of 6
ic Decigr	™ Project:		Designer:	David Landry	
Is Design	Address:		Job Name:	Spoon Residence	
			Project #:	J1119-5196	
BM2 SDE#2	2 000" X	12 000" 2_Phy _ PA		evel: Level	
DIVIZ 3-F-F#Z	2.000 A	12.000 2-Fly - FA	SSED		
					-
					112
• • • • •	• • • •		• • •		
<u> </u>		<u> </u>			<u> </u>
1 SPF End Grain		2 SPF End Grain		3 SPF End G	rain A
	12'6"	1	1	2'6"	1]3"
I ∤		25'			/
1		20			I
Multi-Ply Analysis					
Fastan all alian vairan 2 an		(100-21) at 121 a a Martine a			
Fasten all piles using 2 ro	ws of TUG Box nails	(.128x3) at 12 O.C Maximum er	nd distance not	t to exceed 6	
Capacity	0.0 %				
Load Vield Limit per Foot	0.0 PLF 157 4 PLF				
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				
			—	Manufacturer Info	Comtech. Inc.
			Ľ		1001 S. Reilly Road, Suite #639 Favetteville, NC
					USA 28314
					910-864-TRUS
		This design is valid un	til 12/11/2021		соттесн



		Client: Ben Stout F	eal Estate	Date:	3/16/2020	Page 5 of 6
	isDesign™	Project: Address:		Designer: Job Name	: David Landry e: Spoon Residence	
				Project #:	J1119-5196	
BM3	Kerto-S LVL	1.750" X 11.	875" 2-Ply	- PASSED		
			1			· m /
	and the second s		and the second			11 7/8"
1 SPF E	nd Grain	2	SPF End Grain		3 SPF EI	nd Grain
	12				12'4"	3 1/2"
1			24'4"			
Moneterry	nformation			Doortions 111		
Type:	Girder	Application:	Floor	Brg Live	e Dead Snow	Wind Const
Plies:	2	Design Method:	ASD	1	0 1877 1832	0 0
Moisture Co Deflection I	ondition: Dry	Building Code:	IBC/IRC 2015 No	2	0 5669 5534	0 0
Deflection 1	L: 360	Deck:	Not Checked	3	0 1902 1857	0 0
Importance	Normal					
Temperatur	e: Temp <= 100°F			D a si su sa		
				Bearings		
				Bearing Lengt	h Cap. React D/L lb	Iotal Ld. Case Ld. Comb.
				End	10% 10577 1970	3027 L_ D+3
Analysis F	Results			Grain		
Analysis	Actual Locatio	n Allowed Capacity	Comb. Case	End	46% 5706/5571	11277 LL D+S
Neg Mome	ent -132// ft-lb 10/3 7/	2' 22897 ft-lb 0.580 (58 8'' 22807 ft lb 0.383 (38	%) D+S LL	Grain		
Unbraced	8776 ft-lb 19'3 7/	$3^{\circ} 22097$ (1-10 0.303 (30 8" 9701 ft-1b 0.905 (90	%) D+S _L	3 - SPF 3.500" End	36% 1884 / 1962	3846 _L D+S
Shear	4981 lb 12'11 7/	8" 10197 lb 0.488 (49	%) D+S LL	Grain		
LL Defl inc	h 0.128 (L/1132) 18'6 3/	8" 0.303 (L/480) 0.420 (42	%) S _L			
TL Defl inc	h 0.237 (L/614) 18'7 11/1	6" 0.403 (L/360) 0.590 (59	%) D+S _L			
Design N	otes					
1 Fasten a	II plies using 2 rows of 10d Box d 6"	nails (.128x3") at 12" o.c. M	aximum end distance not			
2 Refer to	last page of calculations for fas	teners required for specified	loads.			
3 Girders a	are designed to be supported o	n the bottom edge only.				
5 Top brac	ed at bearings.	an piles.				
6 Lateral s	lenderness ratio based on sing	le ply width.				1.2E Comments
	Load Type	Location Trib Width	Jue Dead 0.9		DWILID VVING 1.6 CONST.	
I	Solf Woight			UPLF 3		
	Sell Weight		9 PLF			
					Monufactures info	Contech Inc
Notes Calculated Structure	red Designs is responsible only of the Har	nemicals dling & Installation	 For flat roofs provide ponding 	proper drainage to prevent	Manutacturer Into	1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequa design criteria	cy of this component based on the 1. L and loadings shown. It is the 2. F	/L beams must not be cut or drilled efer to manufacturer's product inf	ormation		301 Merritt 7 Building, 2nd Floor	USA 28314 010 864 TRUC
responsibility of the ensure the com application and to	ne customer and/or the contractor to ponent suitability of the intended verify the dimensions and loads.	garding installation requirements, stening details, beam strength values, a	multi-ply nd code		(800) 622-5850	910-804-1RUS
Lumber	, a 3. E 4. E	amaged Beams must not be used esign assumes top edge is laterally restrain	ed		ICC-ES: ESR-3633	
 Dry service col LVL not to be 	treated with fire retardant or corrosive 5.	rovide lateral support at bearing points teral displacement and rotation	to avoid This design is valid	d until 12/11/2021		соттесн
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		Client:	Ben Stout Real Es	tate	Date:	3/16/2020	Page 6 of 6
	isDesign™	Project:			Designer:	David Landry	
5	ISDESIGN	Address:			Job Name	: Spoon Residence	
					Project #:	J1119-5196	
BM3	Kerto-S LVL	1.750"	' X 11.875	5" 2-Ply	- PASSED	Levei: Levei	
							=
			<u> </u>		<u> </u>	· · · · ·	
1 SPE F	nd Grain		<u> </u>	nd Grain	• • •	<u></u> 3 SE	$ \xrightarrow{\cdot} \xrightarrow{\cdot} \xrightarrow{-} \xrightarrow{-} \xrightarrow{-} \xrightarrow{-} \xrightarrow{-} \xrightarrow{-} \xrightarrow{-} -$
						0.01	
	12'			ſ		12'4"	3 1/2"
				24'4"			
Mariat Dire	Amahasia						
Multi-Ply	Analysis						
Fasten all	plies using 2 rows of 10	d Box nails (.128x3") at 12"	o.c Maximum	end distance no	ot to exceed 6"	
Capacity	0.0 %	=					
Yield Limit pe	r Foot 163.7 F	PLF					
Yield Limit pe	r Fastener 81.9 lb						
Yield Mode	IV						
Edge Distanc Min. End Dist	e 1.1/2" ance 3"						
Load Combin	ation						
Duration Fact	or 1.00						
<u> </u>					T	Manufactures lafe	Contach Inc
Notes	ct	nemicals Idling & Installation	on	 For flat roofs provide ponding 	proper drainage to prevent	Manutacturer Into	1001 S. Reilly Road, Suite #639 Favetteville NC
structural adequa design criteria	cy of this component based on the 1. Ly and loadings shown. It is the 2.	/L beams must not be ci	ut or drilled			301 Merritt 7 Building, 2nd Floo	Dr USA 28314
responsibility of the ensure the com	he customer and/or the contractor to ponent suitability of the intended fa	erer to manufacture garding installation istening details beam	requirements, multi-ply strength values, and code			Norwalk, CT 06851 (800) 622-5850	910-864-TRUS
application, and to Lumber	verify the dimensions and loads. ap 3. D	pprovals amaged Beams must no	t be used			www.metsawood.com/us ICC-ES: ESR-3633	
1. Dry service co 2. LVL not to be	nditions, unless noted otherwise 4. D treated with fire retardant or corrosive	esign assumes top edge rovide lateral support a	e is laterally restrained at bearing points to avoid				сотесн
	la	icorar uspracement and r	otation	This design is valid	d until 12/11/2021		

