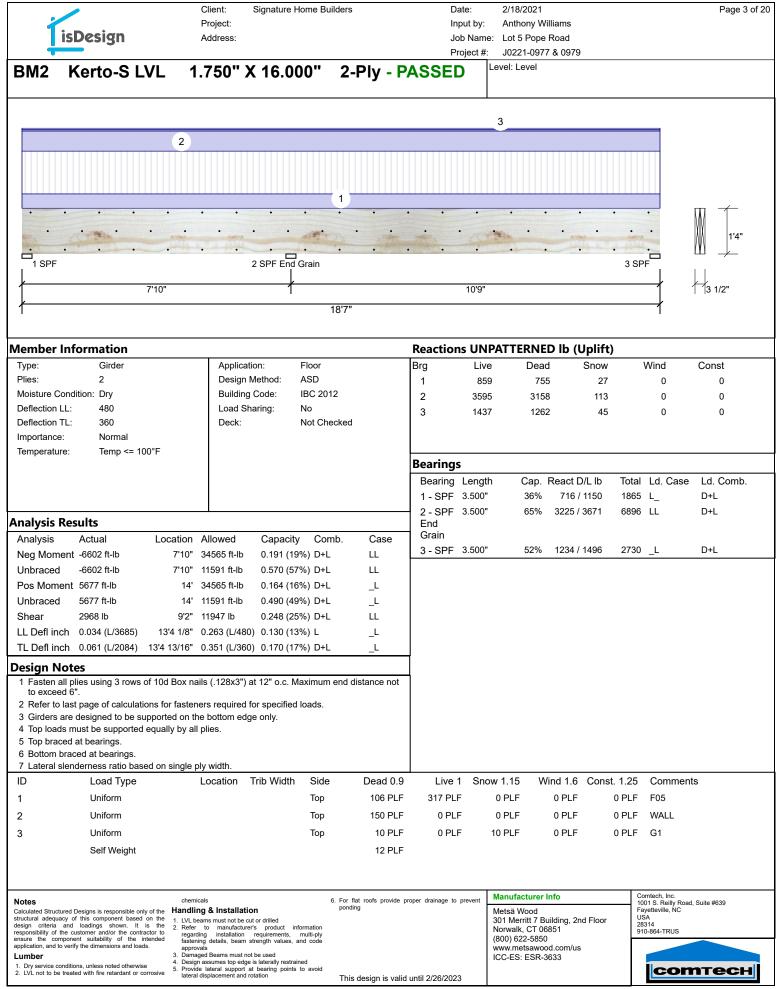


Ţ	sDesign	Client: S Project: Address:	Signature Home Builders	Date: 2/18/2021 Input by: Anthony Williams Job Name: Lot 5 Pope Road Project #: J0221-0977 & 0979	Page 2 of 20
BM1	Kerto-S LVL	1.750" X	16.000" 2-Ply - P	ASSED Level: Level	
· · · · · · · · · · · · · · · · · · ·		· · · · · ·		· · · · · · · · · · · · · · · · · · ·	
			18'3 1/2"		
1			18'3 1/2"		1
Multi-Ply A Fasten all p Capacity Load Yield Limit per Yield Mode Edge Distance Min. End Dista Load Combina Duration Facto	Plies using 4 rows of 77.4 77.4 253. Foot 327. Fastener 81.9 IV 11/2 Ince 3" tion D+L	% 5 PLF 4 PLF lb. 2"	128x3") at 12" o.c Maximum	end distance not to exceed 6"	

Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
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 interded 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	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 2/26/2023	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	Fayetteville, NC USA 28314 910-864-TRUS



1	isDesign	Client: Signature Ho Project: Address:	me Builders	Date: 2/18/2021 Input by: Anthony Williams Job Name: Lot 5 Pope Road	Page 4 of
BM2		4 750" V 40 00		Project #: J0221-0977 & 0979	
	Kerto-S LVL	1.750 A 10.00	0" 2-Ply - PASS		
				-	
•	• • •	• • • •	• • •	• • • • • •	I]2] ·
			· · · · ·	· · · · · ·	· · · · · · · · · · · · · · · · · · ·
1 SPF	=	2 SPF End G	rain		
1	7'10'	"		10'9"	3 1/2"
ł			18'7"		
Multi-DI	y Analysis				
-		of 10d Box nails (.128x3") at	12" o.c Maximum end d	stance not to exceed 6"	
Capacity Load	0.	0 % 0 PLF			
/ield Limit p	per Foot 24	45.6 PLF			
		1.9 lb.			
′ield Mode Edge Distan		//2"			
Ain. End Dis					
oad Combi					
Duration Fac	ctor 1.	.00			
Notes		chemicals	6. For flat roofs provide proper draina		Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structural adequ	ctured Designs is responsible only of the quacy of this component based on the		ponding	Metsä Wood 301 Merritt 7 Building, 2nd Floor	Fayetteville, NC USA
design criteria responsibility of	a and loadings shown. It is the f the customer and/or the contractor to	2. Refer to manufacturer's product infor	nation	301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	28314 910-864-TRUS
ensure the co	to verify the dimensions and loads.	regarding installation requirements, m fastening details, beam strength values, and approvals	code	(800) 622-5850 www.metsawood.com/us	
Lumber		 Damaged Beams must not be used Design assumes top edge is laterally restraine 	3	ICC-ES: ESR-3633	
 Dry service LVL not to b 	conditions, unless noted otherwise be treated with fire retardant or corrosive	5 Provide lateral support at bearing points to	avoid This design is valid until 2/26	/2023	сотесн
			i no ucorgi i o Vallu ultul Z/ZC		

	F	Client: Signature Home Builders Project:	Dai Inp		2/18/2021 Anthony Willian	าร			Page 5 of
BM3 Ke	esign A	ddress:			₋ot 5 Pope Roa J0221-0977 & (
DIVIS NE		750" X 46 000" 2 Dby			el: Level	1979			
	\mathbf{F}_{1}^{T}	750" X 16.000" 2-Ply -	PASSED						
1 SPF	1 2 SPF 4'2" 4'2"								1'4" 1'4"
Vember Infor			Reaction		TTERNED I	h (Unlift)	<u> </u>		
Type:	Girder	Application: Floor	Brg	Live	Dead	Snow		/ind	Const
Plies:	2	Design Method: ASD	1	763	280	0		0	0
Moisture Condition	n: Dry	Building Code: IBC 2012	2	763	280	0		0	0
Deflection LL:	480	Load Sharing: No							
Deflection TL:	360	Deck: Not Checked							
Importance:	Normal								
Temperature:	Temp <= 100°F		Bearings						
					Con Boo	ot D/L lb	Tatal	d Casa	Id Comb
			Bearing 1 - SPF	-	Cap. Rea 20%	280 / 763	1043 I	_d. Case	Ld. Comb. D+L
			2 - SPF			280 / 763	1043 I		D+L
Analysis Resul	lts		2 011	0.000	2070	2007.00		-	
Analysis Ad	ctual Location A	llowed Capacity Comb. Case	,						
Moment 87	70 ft-lb 2'1" 3	4565 ft-lb 0.025 (3%) D+L L							
Unbraced 87	70 ft-lb 2'1" 2	7449 ft-lb 0.032 (3%) D+L L							
Shear 91	17 lb 2'7 3/8" 1	1947 lb 0.077 (8%) D+L L							
LL Defl inch 0.0		.093 (L/480) 0.020 (2%) L L							
•	./22654)								
TL Defl inch 0.0	.003 2'1 1/16" 0 ./16568)	.124 (L/360) 0.020 (2%) D+L L							
,	,								
Design Notes		s (.128x3") at 12" o.c. Maximum end distance n							
to exceed 6".	-								
	age of calculations for fastener								
2 Refer to last pa	0 11	bollom edge only.							
2 Refer to last pa3 Girders are des4 Top braced at b5 Bottom braced	-								
 2 Refer to last particular design of the second s	rness ratio based on single ply		<u> </u>	<u> </u>	AF 140 -		4 05	• • • •	_
2 Refer to last pa 3 Girders are des 4 Top braced at b 5 Bottom braced 6 Lateral slender ID	rness ratio based on single ply Load Type L	ocation Trib Width Side Dead				1.6 Const		Comment	S
2 Refer to last pa 3 Girders are des 4 Top braced at b 5 Bottom braced 6 Lateral slender 1D	rness ratio based on single ply		PLF 366 PLF			1.6 Const PLF		Comment F08	S

Í	isDesign	Client: Project: Address:	Signature Home Bu	uilders	Date: Input by: Job Name:	2/18/2021 Anthony Williams Lot 5 Pope Road	Page 6 of 20
BM3			K 16.000"	2-Ply - PA	Project #:	J0221-0977 & 0979 evel: Level	
					i		
· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	SPF					1'4"
	4'2" 4'2"						13 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"

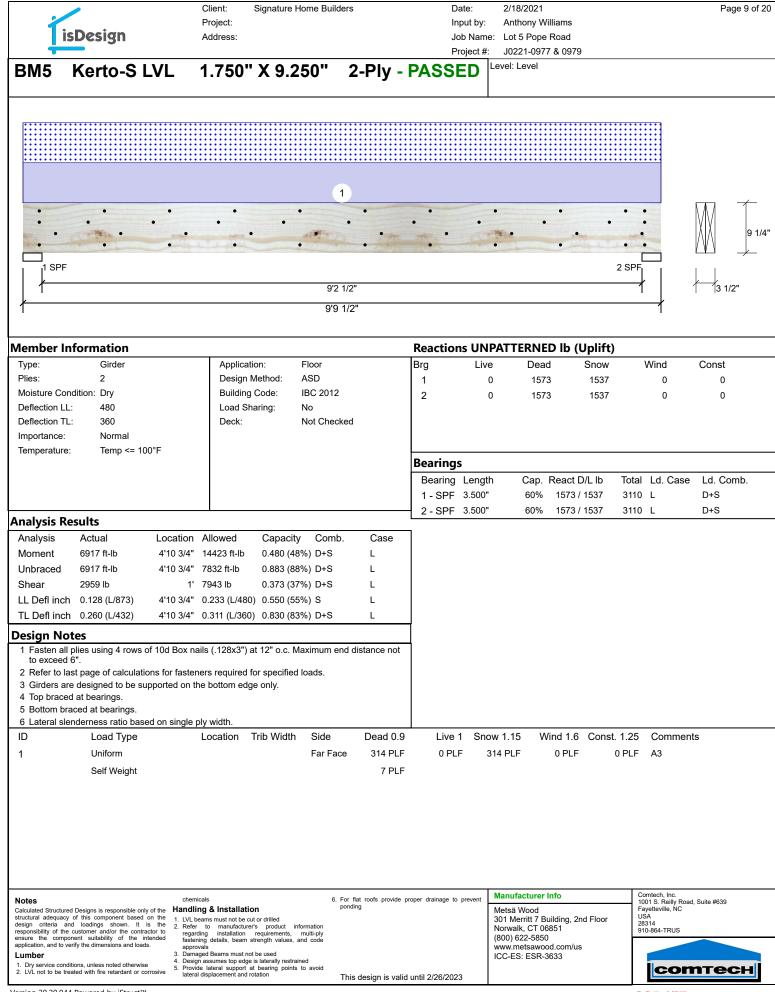
Capacity	99.4 %
Load	244.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639	
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design oriteria 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	1. IVI beams must not be cut or drilled	ponding This design is valid until 2/26/2023	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	Fayetteville, NC USA 28314 910-864-TRUS	

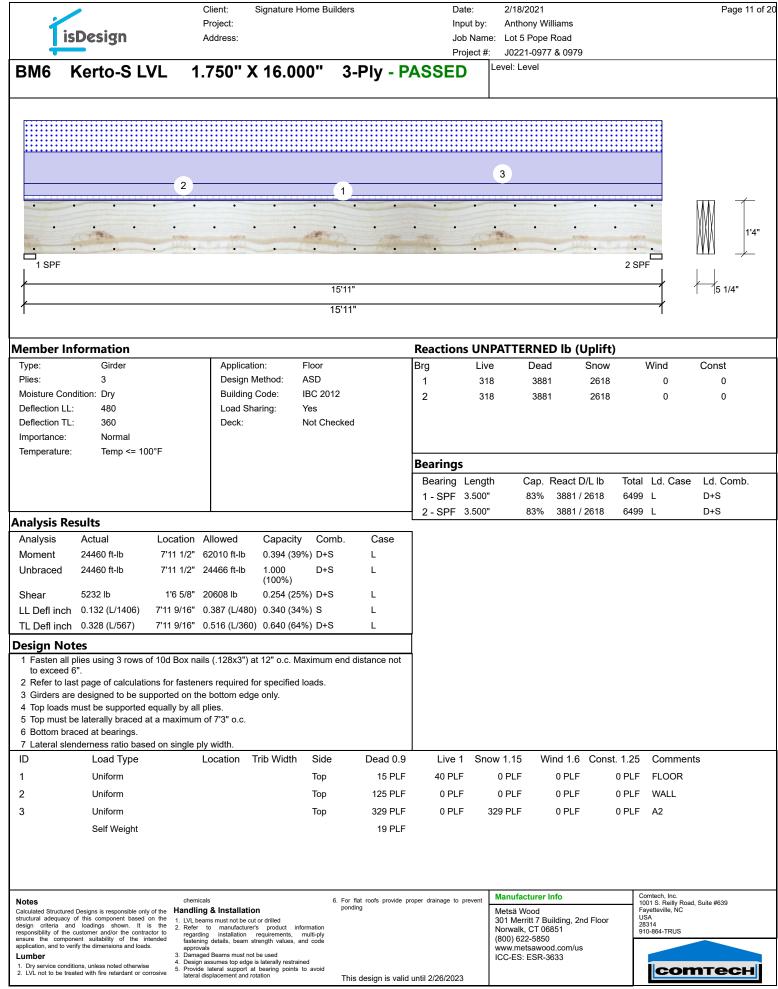
Ĺ	isDesign	Р	Project:	Signature Ho	me Builders			out by:	2/18/2021 Anthony V	Villiams				Page 7 o
_ _	ispesign	A	ddress:					o Name: oject #:	: Lot 5 Pop J0221-09					
3M4	Kerto-S L	VL 1.	750" X	16.00	0" 2-	Plv - P	ASSED	-	evel: Level					
					-									
				3										
	2		1											,
-	•	·	•	•	•									\mathbf{M} \mathbf{T}
•	•	•	•	•	•	• •								1'4"
1.	and the second	- Miner	-		and the states	100								M I.
						2 SPF								
		010	4/0"											
ļ			1/2"]
1		8'3	1/2"			1								
lember l	nformation						Reaction	s UNP	ΔTTFRN	FD lb (U	nlift)			
Туре:	Girder		Applicatio	on: F	loor		Brg	Live		-	Snow	V	Vind	Const
Plies:	2		Design M		SD		1	166	18	92	1364		0	0
Moisture Co Deflection L	ondition: Dry		Building (Load Sha		3C 2012 Io		2	166	18	92	1364		0	0
Deflection T			Deck:	•	lot Checked									
Importance:	Normal													
Temperature	e: Temp <= 10	0°F												
							Bearings		0	De e et D/		T-4-1		L d. Oarrah
							Bearing 1 - SPF	-	63%	React D/		10tal 3256	Ld. Case	Ld. Comb. D+S
							2 - SPF		63%			3256		D+S
nalysis R	Results						ـــــــــــــــــــــــــــــــــــــ							
Analysis	Actual		llowed	Capacity	Comb.	Case								
Moment	6057 ft-lb 6057 ft-lb		9750 ft-lb	0.152 (15%	-	L								
Unbraced Shear	2037 lb	4'1 3/4" 1 1'6 5/8" 1		0.401 (40% 0.148 (15%		L 1								
	h 0.017 (L/5541)			•	,	L								
		4'1 13/16" 0				L								
esign No	otes						1							
1 Fasten al	II plies using 3 rows o	of 10d Box nails	s (.128x3") at	12" o.c. Ma	kimum end d	listance not	1							
to exceed 2 Refer to I	d 6". last page of calculatio	ons for fastener	s required fo	or specified lo	ads									
3 Girders a	are designed to be su	pported on the	bottom edge	•										
•	s must be supported ed at bearings.	equally by all pl	lies.											
6 Bottom b	raced at bearings.													
	lenderness ratio base			rib \\/:-1+1-	Side	Deadloc	1.5	0	N145 '	Mind 1.0	Const	1.05	Commercia	
ID 1	Load Type	L	ocation T	rib Width	Side	Dead 0.9		Snov	w 1.15 \ 0 PLF	Nind 1.6				5
1 2	Uniform Uniform				Top	15 PLF 100 PLF			0 PLF	0 PLF 0 PLF			FLOOR WALL	
2 3	Uniform				Тор Тор	329 PLF			0 PLF 29 PLF	0 PLF		PLF PLF		
5	Self Weight				104	329 PLF 12 PLF		34		VFLF	U	1 LP	174	
	Sell Weight													
												1 -		
Notes	red Decigns is respective and	chemicals	s & Installation	n	6. For fl pondir	lat roofs provide p ng	proper drainage to p	Jieveni	Manufacture Metsä Wood	r Info		100	ntech, Inc. 1 S. Reilly Road retteville, NC	, Suite #639
tructural adequad	red Designs is responsible only cy of this component based and loadings shown. It i	on the 1. LVL beam s the 2. Refer to	ns must not be cut						301 Merritt 7		Floor	US/ 283	A :14	
	ne customer and/or the contra	ctor to regarding	installation r	requirements, m	ulti-ply				Norwalk, CT ((800) 622-585			910	-864-TRUS	
esponsibility of the	ponent suitability of the in	laotorning	details, beam str	ength values, and	code									
esponsibility of the nsure the comp pplication, and to umber	verify the dimensions and loads	 approvals 3. Damaged 4. Docimp or 	details, beam str s d Beams must not b	-					www.metsawe ICC-ES: ESR	ood.com/us				

isDesign	Client: Project: Address	Signature Home Builders	Date: Input by: Job Name Project #:	2/18/2021 Anthony Williams : Lot 5 Pope Road J0221-0977 & 0979	Page 8 of 20
BM4 Kerto-S	LVL 1.750	" X 16.000" 2-Ply		Level: Level	
• • • • • • • • • • • • • • • • • • •	· · ·	· · · · · · · · · · · · · · · · · · ·			1'4"
	8'3 1/2" 8'3 1/2"				1/2"
Multi-Ply Analysis Fasten all plies using 3 Capacity	rows of 10d Box nai	ls (.128x3") at 12" o.c Maxi	mum end distance no	ot to exceed 6"	
Load	0.0 % 0.0 PLF				
Yield Limit per Foot	245.6 PLF				
Yield Limit per Fastener	81.9 lb.				
Yield Mode	IV 1 1 (Oli				
Edge Distance Min. End Distance	1 1/2" 3"				
Load Combination	5				
Duration Factor	1.00				

Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
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 requirements multi-ply	ponding This design is valid until 2/26/2023	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	Fayetteville, NC USA 28314 910-864-TRUS



	Client: Signature Home B		2/18/2021	Page 10 of 2
isDesign	Project: Address:	Input by	: Anthony Williams ne: Lot 5 Pope Road	
	Address.	Project		
BM5 Kerto-S LVL	1.750" X 9.250"	2-Ply - PASSED	Level: Level	
	• •	• •	•	
••••	• •	• • •	• •	
	• • •	• •	• •	• • <u> </u>
1 SPF			2	
			۷	
		9'2 1/2"		1 1 13 1/2"
1	ę	9'9 1/2"		1
Multi-Ply Analysis				
Fasten all plies using 4 rows of 1		o.c Maximum end distance	not to exceed 6"	
Capacity 83.4 Load 314.0				
Yield Limit per Foot 376.5	5 PLF			
Yield Limit per Fastener 94.1 Yield Mode IV	lb.			
Edge Distance 1 1/2	n			
Min. End Distance 3"				
Load Combination D+S Duration Factor 1.15				
Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the 1.	andling & Installation LVL beams must not be cut or drilled	ponding	Metsä Wood 301 Merritt 7 Building, 2nd Floor	Fayetteville, NC USA
	Refer to manufacturer's product information regarding installation requirements, multi-ply		Norwalk, CT 06851 (800) 622-5850	28314 910-864-TRUS
application, and to verify the dimensions and loads. Lumber 3.	fastening details, beam strength values, and code approvals Damaged Beams must not be used		www.metsawood.com/us ICC-ES: ESR-3633	
4. Descendence difference internet de thereide i	Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation		100-LO. LOR-3033	соттесн
Version 20.20.011 Powered by iStruct™	aural usplacement and totation	This design is valid until 2/26/2023		



1	isDesign	Client: Project: Address:	Signature Home Bi	uilders		Date: Input by: Job Name Project #:	2/18/2021 Anthony Williams : Lot 5 Pope Road J0221-0977 & 0979		Page 12 of 20
BM6	Kerto-S LVL	1.750"	X 16.000"	3-Ply	- PASS		Level: Level		
		• •	• •	•	• •	•	· ·	••••	
.	· · ·	•	• •	• •	•	•	 	↓ ↓ 1 1/2" · · · · · · · ·	1'4"
	-			15'11"				2 SPF	5 1/4"
∤				15'11"					
	y Analysis plies using 3 rows of ⁻	10d Box nails	(.128x3") at 12"	o.c Nail fr	om both si	des. Maxi	mum end distance	not to exceed	

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

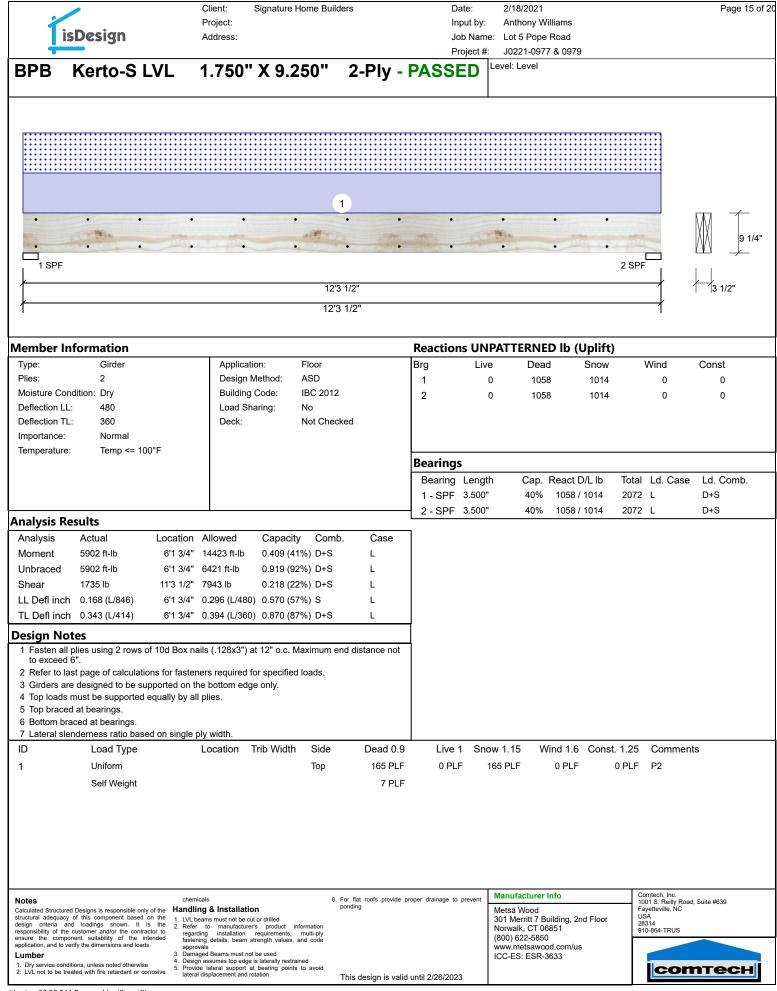
Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility 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	LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installaturer's product information fastening details, beam strength values, and code approvate. Beams must not be used Design assumes top edge is laterally restrined besign assumes top edge is laterally restrined.		Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	Payetteville, NC USA 28314 910-864-TRUS
			·	

is	Design	Project: Address:			Job	Name: Lot	ony Williams 5 Pope Road 21-0977 & 0979		
GDH I	Kerto-S LV	L 1.750" X 1	4.000" 2	2-Ply - P	,				
1 SPF Er		2	1	34			2 SPF E	End Grain	112"
ŕ			19'3	3"					
	·				Desetions			4)	
ember Inf	Girder	Application:	Floor		Brg	Live	RNED Ib (Uplif	-	Const
Plies: Moisture Cond Deflection LL: Deflection TL: mportance:	480 360 Normal	Design Meth Building Cod Load Sharing Deck:	e: IBC 2012	ed	1	578 578		0 0 0 0	0 0
Temperature:	Temp <= 100°F				Bearings				
					Bearing L 1 - SPF 6 End	0	Cap. React D/L lb 13% 1885 / 578	Total Ld. C 2463 L	ase Ld. Comb. D+L
nalysis Re					Grain 2 - SPF 6	000"	13% 1885 / 577	2463 L	D+L
	10800 ft-lb 10800 ft-lb 2052 lb 0.102 (L/2160)	9'7 1/2" 26999 ft-lb 0. 9'7 1/2" 10812 ft-lb 0. 1'7 1/4" 10453 lb 0. 9'7 9/16" 0.459 (L/480) 0.	()	Case L L L	End Grain				
esign Not	. ,	9'7 9/16" 0.612 (L/360) 0.	710 (71%) D+L	L					
 Fasten all p to exceed 6 Refer to las Girders are Top loads m Top must be Bottom brac Lateral slen 	lies using 3 rows of 10 ". t page of calculations designed to be suppor- nust be supported equ e laterally braced at a ced at bearings. derness ratio based of	n single ply width.	ecified loads. ly.						
D	Load Type Uniform	Location Trib	Width Side	Dead 0.9 35 PLF	Live 1 60 PLF	Snow 1.15 0 PLF	Wind 1.6 Cons 0 PLF	st. 1.25 Comr 0 PLF F+4	nents
	Uniform Uniform Self Weight		Тор Тор	35 PLF 150 PLF 11 PLF	0 PLF	0 PLF 0 PLF		0 PLF F+4 0 PLF WALL	
otes alculated Structured ructural adequacy or sponsibility of the c surve the compon	Self Weight	e 2. Refer to manufacturer's provide the second	6. Fo po lied oduct information ements, multi-ply			event Manufa Metsä V 301 Me Norwali	cturer Info	Comtech, Inc 1001 S. Reill Fayetteville, 1	Road, Suite #639 IC

CSD DESIGN

	Client: Signature Home B Project:	uilders Date: Input by	2/18/2021 r: Anthony Williams	Page 14 of 2
isDesign	Address:	Job Nar	ne: Lot 5 Pope Road	
GDH Kerto-S LVI	1 750" X 14 000"	Project 2-Ply - PASSED	#: J0221-0977 & 0979 Level: Level	
	· · · · · ·			· · · · · · · · · · · · · · · · · · ·
1 SPF End Grain			••••••••••••••••••••••••••••••••••••••	╧╼═╡╪╴╙╶┝╴
		18'3"		3 1/2"
↓ ↓ /		19'3"		31/2
ļ				I
Multi-Ply Analysis				
	of 10d Box nails (.128x3") at 12"	o.c Maximum end distance	not to exceed 6"	
	0.0 % 0.0 PLF			
	45.6 PLF			
Yield Limit per Fastener 8 Yield Mode ال	11.9 lb. V			
5	1/2"			
Min. End Distance 3 Load Combination	3"			
	.00			
	ak amina la	C For flat sofe provide server 1	Manufacturer Info	Comtech, Inc.
Notes Calculated Structured Designs is responsible only of the		For flat roofs provide proper drainage to prevent ponding	Metsä Wood	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC
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	e 2. Refer to manufacturer's product information		301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	USA 28314 910-864-TRUS
ensure the component suitability of the intender application, and to verify the dimensions and loads.	d fastening details, beam strength values, and code approvals		(800) 622-5850 www.metsawood.com/us	
Lumber 1. Dry service conditions, unless noted otherwise	 Damaged Beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid 		ICC-ES: ESR-3633	соттесн
2. LVL not to be treated with fire retardant or corrosive	e lateral displacement and rotation	This design is valid until 2/26/2023		
Version 20.20.044 Powered by iStruct™				

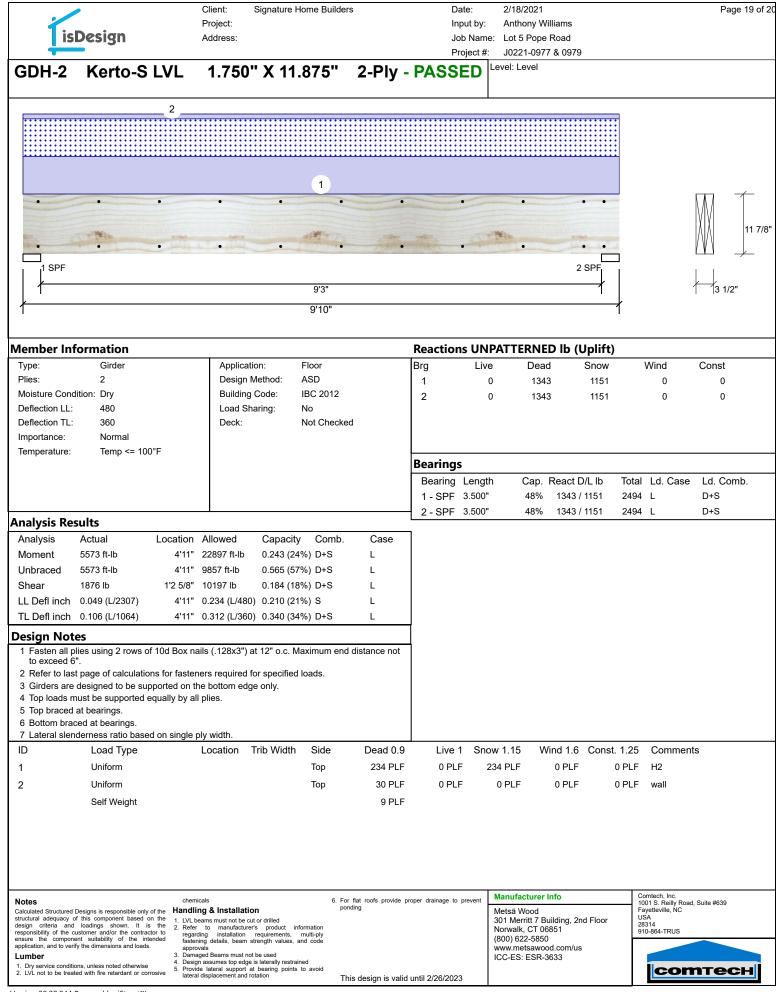
by



	Client: Signature Home I		ate: 2/18/2021	Page 16 of 2
isDesign	Project: Address:	Jo	but by: Anthony Williams b Name: Lot 5 Pope Road	
BPB Kerto-S LVL	1.750" X 9.250'	2-Ply - PASSE	oject #: J0221-0977 & 0979 D Level: Level	
	• • •	• • •	• • •	§ ∭ 1
			• • • -	9 1/4"
1 SPF				
		12'3 1/2"		1 3 1/2"
		12'3 1/2"		1
Multi-Ply Analysis				
Fasten all plies using 2 rows of 10 Capacity 0.0 %		o.c Maximum end dista	nce not to exceed 6"	
Load 0.0 PL Yield Limit per Foot 163.7				
Yield Limit per Fastener 81.9 lb Yield Mode IV	0.			
Edge Distance 1 1/2"				
Min. End Distance 3" Load Combination				
Duration Factor 1.00				
Notes Calculated Structured Designs is responsible only of the Hal	chemicals	6. For flat roofs provide proper drainage to ponding	prevent Manufacturer Info Metsä Wood	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequacy of this component based on the 1. I design criteria and loadings shown. It is the 2. I	LVL beams must not be cut or drilled Refer to manufacturer's product information		301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	USA 28314
responsibility of the customer and/or the contractor to ensure the component suitability of the intended	regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals		(800) 622-5850 www.metsawood.com/us	910-864-TRUS
Lumber 3. [Damaged Beams must not be used Design assumes top edge is laterally restrained		ICC-ES: ESR-3633	
	Provide lateral support at bearing points to avoid lateral displacement and rotation	This design is valid until 2/26/2023	3	соттесн
Version 20.20.044 Reward by iStructTM				

	•	Client: Signature Ho Project:	me Builders	Da Inp		8/2021 thony Williams			Page 17
is	Design	Address:				5 Pope Road 221-0977 & 0979			
H6 Ke	erto-S LVL	1.750" X 9.250	" 2-Ply - I		,				
				3					
	2								
		11							
	•	•			•				\mathbb{M} 1
	· ·				a rittle				
1 SPF					2 SPF				
		6'6" 6'6"							1 13 1/2"
I		00				I			
lember Info	ormation			Reaction	s UNPATT	ERNED Ib (Upli	ft)		
Туре:	Girder		loor	Brg	Live	Dead Sno		Wind	Const
Plies: Moisture Condi	2 ition: Drv	ő	\SD BC 2012	1	1229 1229	2045 11 2045 11		0 0	0 0
Deflection LL:	480	Ŭ	lo	2	1225	2040 11	20	0	0
Deflection TL:	360	Deck: N	lot Checked						
mportance:	Normal								
Temperature:	Temp <= 100°F			Bearings					
						0	T-4-1		
				Bearing	-	Cap. React D/L I		Ld. Case	
				1 - SPF 2 - SPF		73% 2045 / 176 73% 2045 / 176			D+0.75(L+S) D+0.75(L+S)
nalysis Res	sults			2-011	0.000	1070 20407 110	0010		D:0.70(E:0)
Analysis	Actual Loca	ation Allowed Capacity	Comb. Case						
Moment	5348 ft-lb	3'3" 14423 ft-lb 0.371 (37%	b) D+0.75(L+S) L						
Unbraced	5348 ft-lb	3'3" 10533 ft-lb 0.508 (51%	b) D+0.75(L+S) L						
Shear	2637 lb	5'6" 7943 lb 0.332 (33%	b) D+0.75(L+S) L						
LL Defl inch	0.044 (L/1645)	3'3" 0.151 (L/480) 0.290 (29%	b) 0.75(L+S) L						
TL Defl inch	0.095 (L/762)	3'3" 0.201 (L/360) 0.470 (47%	b) D+0.75(L+S) L						
esign Note	es								
1 Fasten all pli	lies using 2 rows of 10d I	Box nails (.128x3") at 12" o.c. Ma	ximum end distance no	t					
to exceed 6"		fasteners required for specified lo	ada						
		d on the bottom edge only.	Jaus.						
•	ust be supported equally	y by all plies.							
5 Top braced a 6 Bottom brace	-								
	derness ratio based on s	single ply width.							
D	Load Type	Location Trib Width	Side Dead 0	.9 Live 1	Snow 1.1	5 Wind 1.6 Co	nst. 1.25	Comment	ts
1	Uniform		Top 126 PL	.F 378 PLF	0 PL	F 0 PLF	0 PLF	F03	
2	Uniform		Top 346 PL	F 0 PLF	346 PL	F 0 PLF	0 PLF	A3A	
3	Uniform		Top 150 PL				0 PLF		
~	Self Weight		7 PL		016	. LI	2. LI		
			<i>i</i> FL						
		chemicals	6. For flat roofs provid	e proper drainage to p	prevent Manu	facturer Info	C	Comtech, Inc. 001 S. Reilly Road	1. Suite #639
lotes	Designs is responsible only of the	Handling & Installation	ponding		Metsä	Wood	E	ayetteville, NC	, ouice #039
alculated Structured D					I 301 M	lerritt 7 Building, 2nd Flo		8314	
tructural adequacy of esign criteria and esponsibility of the cus	f this component based on the loadings shown. It is the ustomer and/or the contractor to	1. LVL beams must not be cut or drilled 2. Refer to manufacturer's product infor	mation		Norwa	alk, CT 06851		10-864-TRUS	
alculated Structured D tructural adequacy of esign criteria and esponsibility of the cus nsure the componer	f this component based on the	1. LVL beams must not be cut or drilled	ulti-ply		Norwa (800)	622-5850			
Calculated Structured D tructural adequacy of esign criteria and esponsibility of the cus nsure the componer pplication, and to verify .umber	f this component based on the loadings shown. It is the stormer and/or the contractor to int suitability of the intended y the dimensions and loads.	 LVL beams must not be cut or drilled Refer to manufacturer's product infor regarding installation requirements, m fastening details, beam strength values, and 	ulti-ply i code d		Norwa (800) www.r				

	Client:	Signature Home Bui	lders	Date:	2/18/2021	Page 18 of 2
isDesign	Project: Address:			Input by: Job Name:	Anthony Williams Lot 5 Pope Road	
				Project #:	J0221-0977 & 0979	
H6 Kerto-S L	VL 1.750"	X 9.250"	2-Ply - PASSE	ED Le	evel: Level	
• •	•	•	• •		• =	\overline{M}
					1/2.	
	•	•	• •		• 1	9 1/
1 SPF				2 SF	Ϋ́F	
		6'6"				3 1/2"
f		6'6"				
Multi-Ply Analysis						
Fasten all plies using 2	rows of 10d Box nails	(.128x3") at 12" o	o.c Maximum end dis	stance not	to exceed 6"	
Capacity	0.0 %					
Load Viold Limit per Feet	0.0 PLF					
Yield Limit per Foot Yield Limit per Fastener	163.7 PLF 81.9 lb.					
Yield Mode	IV					
Edge Distance Min. End Distance	1 1/2" 3"					
Load Combination						
Duration Factor	1.00					
Notes	chemicals		. For flat roofs provide proper drainage	e to prevent	lanufacturer Info	Comtech, Inc.
Calculated Structured Designs is responsible structural adequacy of this component ba	e only of the Handling & Installa	tion	ponding	N	Metsä Wood	 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA
design criteria and loadings shown. responsibility of the customer and/or the c	It is the 2 Refer to manufact contractor to regarding installation	rer's product information requirements, multi-ply		N	01 Merritt 7 Building, 2nd Floor lorwalk, CT 06851	28314 910-864-TRUS
ensure the component suitability of the application, and to verify the dimensions and	loads. approvals	n strength values, and code		v	300) 622-5850 /ww.metsawood.com/us	
Lumber 1. Dry service conditions, unless noted othe	3. Damaged Beams must 4. Design assumes top er 5. Provide lateral support	not be used lge is laterally restrained t at bearing points to avoid		10	CC-ES: ESR-3633	сотесн
2. LVL not to be treated with fire retardant	or corrosive lateral displacement ar	d rotation	This design is valid until 2/26/2	2023		Connech



	•		Client:	Signature Home E	Builders	Date:	2/18/2021	Page 20 of 2
			Project:			Input by:	Anthony Williams	
isl	Design		Address:			Job Nam	ne: Lot 5 Pope Road	
						Project #	#: J0221-0977 & 0979	
GDH-2	Kerto-S	LVL	1.750	" X 11.87	5" 2-Plv	- PASSED	Level: Level	
					· · J			
	•	•	•	•	•		• • • 1	$\overline{1}$
	•	•	•	•	•	• •		
	•	•	•	•	•	• •	• • • •	<u> </u>
								─★ □□ ≠
1 SPF							2 SPF	
				9'3	"		ł	3 1/2"
∤				9'10	ר"			
				0.10	, ,		I	
Multi-Ply A	nalysis							
Fasten all plie	es using 2 row	s of 10d	Box nails	(.128x3") at 12"	' o.c Maximur	n end distance r	not to exceed 6"	
Capacity	5	0.0 %						
Load		0.0 PLF	_					
Yield Limit per Fo Yield Limit per Fa		163.7 PLF 81.9 lb.	F					
Yield Mode	isteriei	IV						
Edge Distance		1 1/2"						
Min. End Distanc		3"						
Load Combinatio Duration Factor	n	1.00						
Duration 1 actor		1.00						
Notes		chem	icals		6. For flat roofs provide	proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured E structural adequacy of	Designs is responsible only f this component based of	on the 1. IVI b	ing & Installat		ponding		Metsä Wood 301 Merritt 7 Building, 2nd Floor	Fayetteville, NC USA
design criteria and responsibility of the cu	loadings shown. It is ustomer and/or the contract	the 2. Refer	r to manufactu	rer's product information requirements, multi-ply			Norwalk, CT 06851	28314 910-864-TRUS
ensure the compone	nt suitability of the int y the dimensions and loads	ended faster appro	ning details, beam ovals	strength values, and code			(800) 622-5850 www.metsawood.com/us	
Lumber	ns, unless noted otherwise	 Dama 4. Desig 	aged Beams must r on assumes top edg	ge is laterally restrained			ICC-ES: ESR-3633	
	ed with fire retardant or cor	5. Provi	de lateral support al displacement and	at bearing points to avoid	This design is va	lid until 2/26/2023		соттесн
L					9.1 10 14			