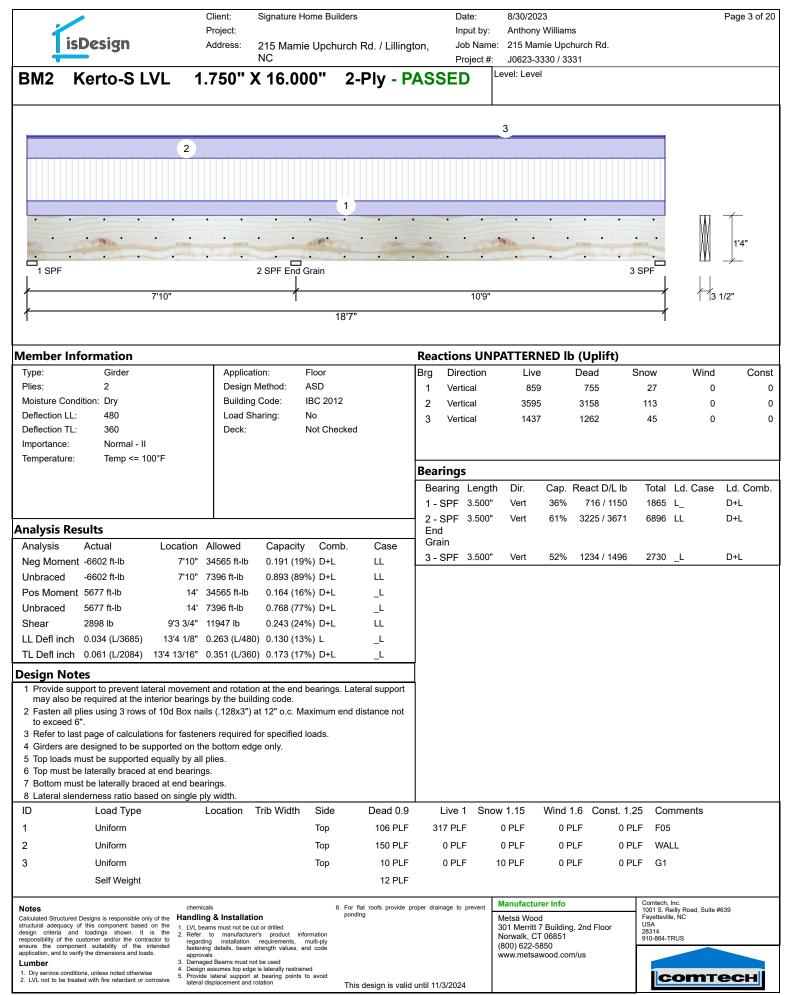


isDesign	Client: Project: Address:	Signature Home Builders 215 Mamie Upchurch Rd. / Lillington,	Input by: Ar	30/2023 hthony Williams I5 Mamie Upchurch Rd.	Page 2 of 20
		NC		0623-3330 / 3331	
BM1 Kerto-S	LVL 1.750"	X 16.000" 2-Ply - PAS		: Level	
1					
↓					m <i>*</i>
	· · · · ·		· · · ·	· · · · ·	· · · · · · · · · · · · · · · · · · ·
1 SPF	<u></u> .	<u> </u>	• •		
/		18'3 1/2"			1 3 1/2"
│ <i>∤</i>		18'3 1/2"			
Multi-Ply Analysis					
Fasten all plies using 4	rows of 10d Box nails	(.128x3") at 12" o.c Maximum end	l distance not to	exceed 6".	
Capacity	77.4 %				
Load	253.5 PLF				
Yield Limit per Foot	327.4 PLF				
Yield Limit per Fastener	81.9 lb.				
Yield Mode	IV				
Edge Distance	1 1/2"				
Min. End Distance Load Combination	3" D+L				
Duration Factor	1.00				
	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	1. I VI beams must not be cut or drilled	ponding This design is valid until 11/3/2024	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us	Fayetteville, NC USA 28314 910-864-TRUS



2			Client: Project:	Signature Home B	uilders	Date: Input by:	8/30/2023 Anthony Williams	Page 4 of 2
1	isDesign		Address:	215 Mamie Upc NC	hurch Rd. / Lillir	igton, Job Nam	ne: 215 Mamie Upchurch Rd.	
BM2	Kerto-S		1.750"	X 16.000"	2-Ply -	Project #	t: J0623-3330 / 3331 Level: Level	
					,			
•	• • •	•	• •	• •	• •	• • •	• • • •	
•	• •	•	• •	• • •	• •	• •		· · [] [] [] [] [] [] [] [] [] [] [] [] []
1 SPF	• • •	•	• •	2 SPF End Grain	•••	• • •	• • • •	
		714.0"				10/0/		
<u> </u>		7'10"			18'7"	10'9"		1 1/3 1/2"
ļ					107			Ι
Multi-Ply	Analysis							
	plies using 3 r		d Box nails	(.128x3") at 12"	o.c Maximur	n end distance n	ot to exceed 6".	
Capacity oad		0.0 % 0.0 PL	F					
'ield Limit per		245.6 I	PLF					
'ield Limit per 'ield Mode	r Fastener	81.9 lb IV						
dge Distance	e	1 1/2"						
lin. End Dista		3"						
oad Combina Juration Facto		1.00						
structural adequa	ured Designs is responsible cy of this component bas and loadings shown.	only of the Han sed on the 1. L	hemicals Idling & Installa VL beams must not be		 For flat roofs provide ponding 	proper drainage to prevent	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314
responsibility of the ensure the com application, and to Lumber 1. Dry service cor	the customer and/or the component suitability of the powerify the dimensions and in onditions, unless noted other treated with fire retardant of the suitable sui	ontractor to re e intended fa loads. a 3. D wise 5. P	egarding installation astening details, bear pprovals lamaged Beams must lesign assumes top ed	n requirements, multi-ply n strength values, and code not be used ge is laterally restrained t at bearing points to avoid		lid until 11/3/2024	(800) 622-5850 www.metsawood.com/us	910-864-TRUS

lis	Design	Client: Project: Address:	Signature Hor 215 Mamie NC	ne Builders Upchurch Rd	d. / Lillingto	Inp n, Jo	ate: out by: b Name: oject #:	8/30/2023 Anthony 1 : 215 Mam J0623-33	Williams	n Rd.			Page 5 of 2
BM3	Kerto-S LVL	1.750"	X 16.000)" 2-P	ly - PA		-	evel: Level					
1 SPF	1	2 SPF											1'4" 1 1'4"
/ Member In	4'2"	1			F	eaction		ATTERN		Inlift)			
Type:	Girder	Applic	ation: FI	oor	1		ction	Live	De De		Snow	Wind	Con
Plies: Moisture Con Deflection LL Deflection TL Importance:	: 480 : 360 Normal - II	Desig Buildi	n Method: As ng Code: IB Sharing: Ne	SD IC 2012 o ot Checked		1 Verti 2 Verti		763 763		80 80	0 0	0 0	
Temperature:	Temp <= 100°F					earings							
						Bearing 1 - SPF	Length 3.500"	Vert	Cap. Rea	280 / 763	1043		Ld. Com D+L D+L
Analysis Re	sults	•				2 - SPF	3.500	Vert	20%	280 / 763	1043	L	D+L
Analysis Moment Unbraced Shear LL Defl inch TL Defl inch	870 ft-lb 870 ft-lb 897 lb 2 0.002 2'' (L/22654) 0.003 2''	cation Allowed 2'1" 34565 ft-lt 2'1" 27947 ft-lt 2'6 1/2" 11947 lb 1 1/16" 0.093 (L/4) 1 1/16" 0.124 (L/3)	0.031 (3%) 0.075 (8%) 80) 0.021 (2%)	D+L D+L D+L L	Case L L L L L								
	(L/16568)												
may also b 2 Fasten all to exceed b 3 Refer to lat 4 Girders are 5 Top must b 6 Bottom mu	pport to prevent lateral n e required at the interior plies using 3 rows of 10c	bearings by the bu Box nails (.128x3) or fasteners require ed on the bottom e bearings. end bearings.	uilding code. ') at 12" o.c. Max d for specified loa	imum end dista									
ID	Load Type	Location	Trib Width	Side D	Dead 0.9	Live 1	Snov	w 1.15	Wind 1.6	Const. 1.	25 Com	ments	
1	Uniform Self Weight			Near Face	122 PLF 12 PLF	366 PLF	:	0 PLF	0 PLF	0 P	LF F08		
structural adequacy design criteria ann responsibility of the ensure the compoi application, and to ve Lumber 1. Dry service condition	I Designs is responsible only of the of this component based on the d loadings shown. It is the usutomer and/or the contractor to nent suitability of the intended rify the dimensions and loads. tions, unless noted otherwise ated with fire retardant or corrosive	 LVL beams must not b Refer to manufact regarding installatio 	e cut or drilled urer's product inform n requirements, mu m strength values, and t not be used dge is laterally restrained rt at bearing points to	ponding nation tii-ply code avoid	oofs provide prope sign is valid un		prevent	Manufacture Metsä Wood 301 Merritt 7 Norwalk, CT (800) 622-58 www.metsaw	Building, 2nd 06851 50	l Floor	Fayetteville USA 28314 910-864-TF	illy Road, Suite ♯ , NC	

	Client: Project:	Signature Home Bu	uilders	Date: Input by:	8/30/2023 Anthony Williams	Page 6 of 20
isDesign	Address:	215 Mamie Upcł NC	nurch Rd. / Lillington,	Job Name: Project #:		
BM3 Kerto-S LVL	1.750"	X 16.000"	2-Ply - PASS	SED L	evel: Level	
· · · ·						1'4"
4'2"						3 1/2"
4'2"						

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	I. 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. Beams must not be used Design assumes top edge is laterally restrined besign assumes top edge is laterally restrined.	ponding This design is valid until 11/3/2024	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us	Fayetteville, NC USA 28314 910-864-TRUS

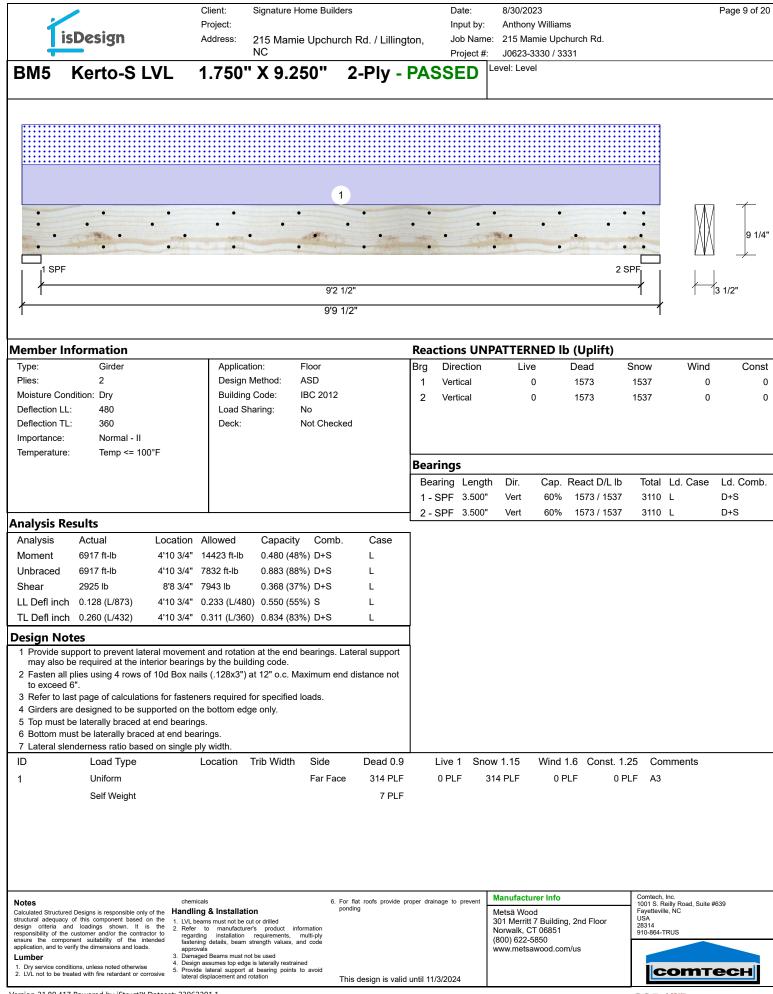
Í.	sDesign	Pr	oject:	nature Home Bu			Date: Input by:	8/30/202 Anthony e: 215 Man	Williams	ah Dd			Page 7 of
	SDesign	AC	Idress: 215 NC		nurch Rd. / Lilling	jton,	Project #:		330 / 3331	ch Ra.			
3 M 4	Kerto-S L\	/L 1.7	′50'' X 1	6.000"	2-Ply - F	PASSE	D	Level: Level					
	2			3									
•	· ·	. 1	• •	•	·····							M	-
•		•	•		• •							XXX	1'4"
		and the second										/ W \	
1 SPF		8'3 1	1/2"		2 SPF								1/2"
		8'3 1											1/2
	nformation Girder		Application:	Floor		1	ons UN irection	PATTERN		-	Snow	Wind	Со
Type: Plies:	2		Design Meth			Ŭ	ertical	Live 166		ead 892	1364	0	COI
Moisture Cor			Building Cod		12	2 V	ertical	166	1	892	1364	0	
Deflection LL Deflection TL			Load Sharing Deck:	g: No Not Ch	ecked								
Importance:	Normal - II		Dook.		oonou								
Temperature:	: Temp <= 100)°F											
						Bearin	gs						
						Bearin	g Lengt	h Dir.	Cap. Re	act D/L lb	Total	Ld. Case	Ld. Com
						1 - SP	F 3.500"	Vert	63% 1	892 / 1364	3256	L	D+S
nalysis Re	oculte					2 - SP	- 3.500	Vert	63% 1	892 / 1364	3256	L	D+S
Analysis	Actual	Location Al	lowed C	apacity Cor	nb. Case	٦							
Moment	6057 ft-lb			152 (15%) D+S									
Unbraced	6057 ft-lb	4'1 3/4" 15		401 (40%) D+S									
Shear	1997 lb	1'7 1/2" 13		145 (15%) D+8									
	0.017 (L/5541)			- (-)	L								
	. ,	4'1 13/16" 0.2	. ,	. ,									
esign No			()	()		1							
1 Provide su	upport to prevent late				s. Lateral support	1							
	be required at the int plies using 3 rows of	•			end distance not								
to exceed			(.12000) ut 12										
	ast page of calculatio re designed to be sup												
	must be supported e		•	iry.									
	be laterally braced at	•											
	ust be laterally brace enderness ratio base												
	Load Type			Width Side	Dead 0.9	 Live	e 1 Sno	ow 1 15	Wind 1 6	Const. 1	25 Corr	ments	
1	Uniform	20		Тор	15 PLF			0 PLF	0 PLF		PLF FLO		
2	Uniform			Тор	100 PLF		°LF	0 PLF	0 PLF		PLF WAL		
				•				329 PLF	0 PLF		PLF A2		
3	Uniform			Тор	329 PLF		PLF (029 FLF	UPLF	UI			
	Self Weight				12 PLF								
lotos		chemicals			6. For flat roofs provide	proper drainage	to prevent	Manufactur	er Info		Comtech, Ir	1C.	****
Notes Calculated Structure	ed Designs is responsible only	of the Handling &	& Installation		ponding	propor urainage	10 Pievelli	Metsä Wood	1		 1001 S. Re Fayetteville USA 	illy Road, Suite , NC	¥639
lesign criteria ar	r of this component based o nd loadings shown. It is customer and/or the contrac	the 2. Refer to	must not be cut or dr manufacturer's p	roduct information				301 Merritt 7 Norwalk, CT		nd Floor	28314 910-864-TF	RUS	
coportaidning of the	onent suitability of the inte	ended footoning	installation requi details, beam strengt	ements, multi-ply h values, and code				(800) 622-58	350		10 304-11		
ensure the compo opplication, and to ve	erify the dimensions and loads.		, ,					WWW motoo	wood com/w				
pplication, and to ve umber	erify the dimensions and loads. litions, unless noted otherwise	approvals 3. Damaged I 4. Design ass	Beams must not be us sumes top edge is late teral support at bear	ed rally restrained				www.metsav	vood.com/us	5			

isDesign	Client: Signature Hom Project: Address: 215 Mamie U NC	e Builders Jpchurch Rd. / Lillington,	Input by: Ar Job Name: 21	30/2023 ithony Williams 5 Mamie Upchurch Rd. 623-3330 / 3331	Page 8 of 2
BM4 Kerto-S LVL	- 1.750" X 16.000	" 2-Ply - PASSE		Level	
• • • • • • • • • • • • • • • • 1 SPF		· · · · · · · · · · · · · · · · · · ·			1'4" 1'4"
Multi-Ply Analysis	of 10d Box nails (.128x3") at 1	12" o.c Maximum end dis	tance not to	exceed 6".	
Yield Limit per Foot 2 Yield Limit per Fastener 8 Yield Mode 1 Edge Distance 1 Min. End Distance 3 .oad Combination 3	0.0 PLF 245.6 PLF 31.9 lb. V 1/2" " 1.00				
Notes Calculated Structured Designs is responsible only of th structural adequacy of this component based on th design or there is and loadings shown. It is th	 e 1. LVL beams must not be cut or drilled e 2. Refer to manufacturer's product informa 	 For flat roofs provide proper drainage ponding ation 	Mets 301 M	i facturer Info ä Wood Aerritt 7 Building, 2nd Floor alk, CT 06851	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910.864-TPUIS
responsibility of the customer and/or the contractor t ensure the component suitability of the intende application, and to verify the dimensions and loads. Lumbor 1. Dry service conditions, unless noted otherwise 2. UVL not to be treated with fire retardant or corrosiv	 regarding installation requirements, multi- dastening details, beam strength values, and c approvals Damaged Beams must not be used Design assumes top edge is laterally restrained Browide lateral support at bearing noting to a 	i-ply oode	(800) www.	alk, CT 06851 622-5850 metsawood.com/us	910-864-TRUS

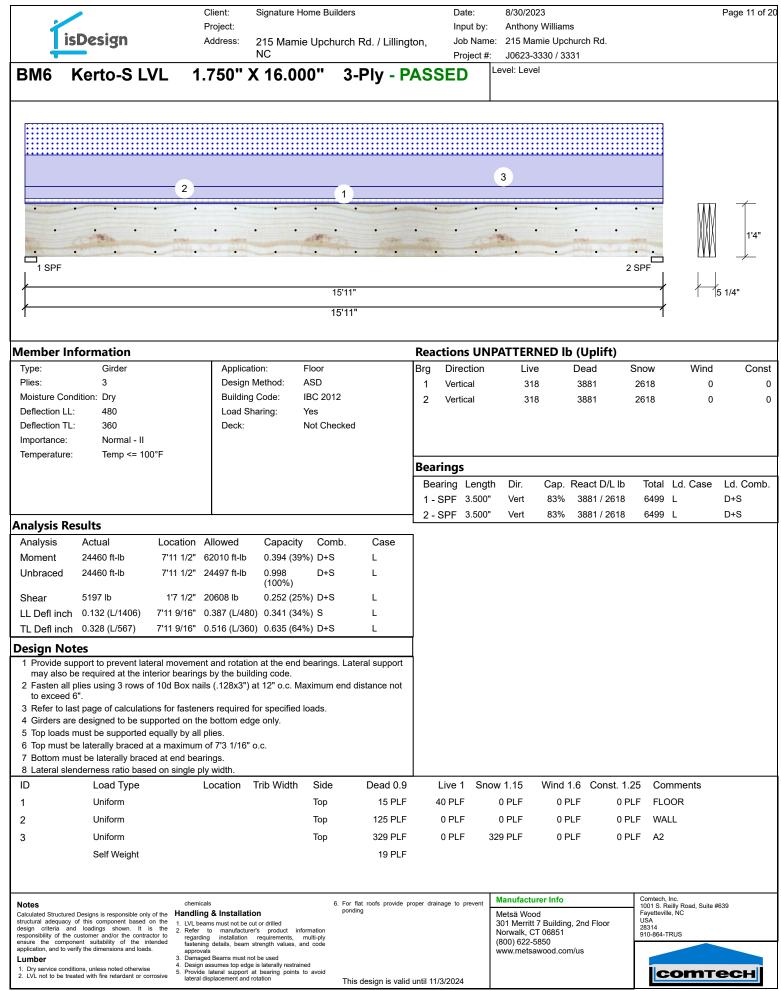
This design is valid until 11/3/2024

Version 21.80.417 Powered by iStruct [™] Dataset: 23062201.1

CSD DESIGN



	Client:	Signature Home Bu	ilders	Date:	8/30/2023	Page 10 of 20
	Project:			Input by:	Anthony Williams	
isDesign	Address:		urch Rd. / Lillington,		215 Mamie Upchurch Rd.	
		NC		Project #:	J0623-3330 / 3331 _evel: Level	
BM5 Kerto-S L	VL 1.750'	' X 9.250"	2-Ply - PAS	SED		
						<i>,</i>
• •	• •	٠	• •		• •	•• •
	•	•	• •	•	•••	• <u></u>
• •	• •	٠	• •		• •	•• <u>+</u> <u>+</u> <u>+</u> / <u>+</u> /
			'2 1/2"			
						1 1 13 1/2"
1		9	9 1/2"			1
Multi-Ply Analysis						
Fasten all plies using 4 rows	s of 10d Box nails	(.128x3") at 12"	o.c Maximum end d	istance no	ot to exceed 6".	
Capacity	83.4 %					
Load Yield Limit per Foot	314.0 PLF 376.5 PLF					
Yield Limit per Fastener	94.1 lb.					
Yield Mode	IV					
Edge Distance Min. End Distance	1 1/2" 3"					
Load Combination	5 D+S					
Duration Factor	1.15					
				<u> </u>	Manufacturer Info	Comtech, Inc.
Notes Calculated Structured Designs is responsible only o	chemicals f the Handling & Installati		 For flat roofs provide proper draina ponding 	ge to prevent	Metsä Wood	1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequacy of this component based on design criteria and loadings shown. It is	the 1. LVL beams must not be of the 2. Refer to manufacture	cut or drilled er's product information			301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	USA 28314 910-864-TRUS
responsibility of the customer and/or the contractor ensure the component suitability of the inter application, and to verify the dimensions and loads.	or to regarding installation	requirements, multi-ply strength values, and code			(800) 622-5850 www.metsawood.com/us	510-004-11/05
Lumber	 Damaged Beams must n Design assumes top edg 	e is laterally restrained			www.metsawoou.com/us	
 Dry service conditions, unless noted otherwise LVL not to be treated with fire retardant or corror 	E. Describe detected according to the second sec	at bearing points to avoid	This design is valid until 11/3	/2024		сотесн
			3	-		

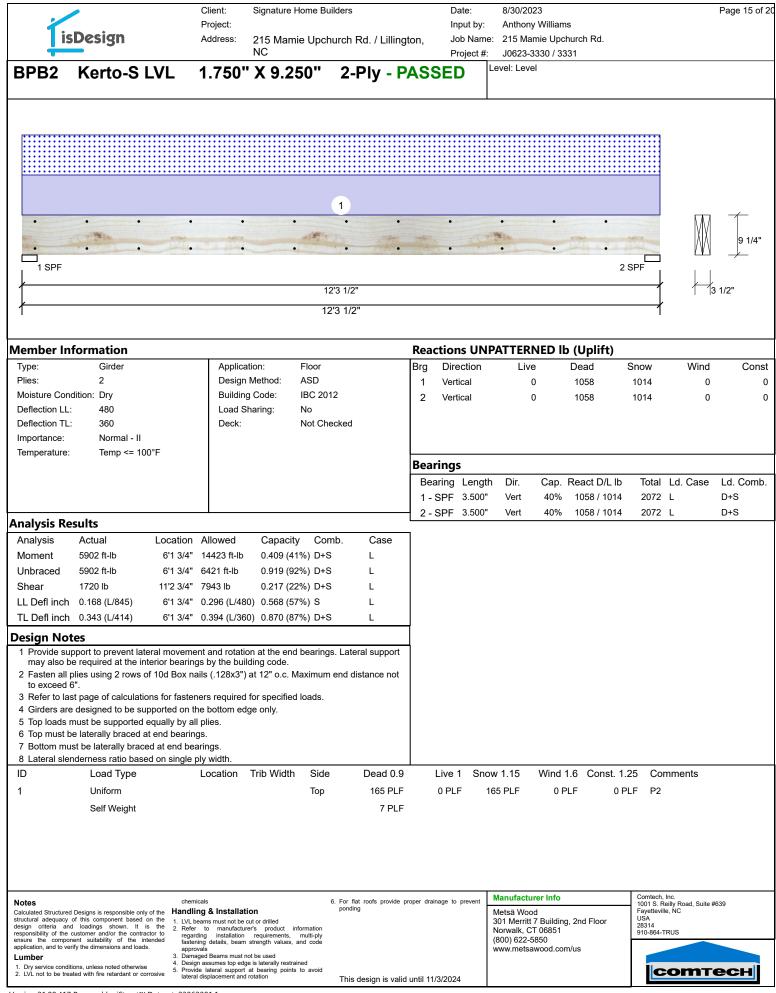


isDesign	Client: Signature Hor Project: Address: 215 Mamie NC	ne Builders Upchurch Rd. / Lillington,	Date: Input by: Job Name: Project #:	8/30/2023 Anthony Williams 215 Mamie Upchurch Rd. J0623-3330 / 3331	Page 12 of 20
BM6 Kerto-S LVL	1.750" X 16.000)" 3-Ply - PASS	SED L	evel: Level	
· · · · · · · · · · · · · · · · · · ·	· · · · · ·	• •	· · ·	· · · · · · · · · · · · · · · · · · ·	∎ZĨ L
Multi-Ply Analysis Fasten all plies using 3 rows of 10)d Box nails (128x3") at	12" o.c. Nail from both	ides Maxir	num end distance not to exceed	
6".					
Capacity 0.0 % Load 0.0 PL Yield Limit per Foot 245.6 Yield Limit per Fastener 81.9 lt Yield Mode IV Edge Distance 1 1/2" Min. End Distance 3" Load Combination Duration Factor	_F PLF b.				

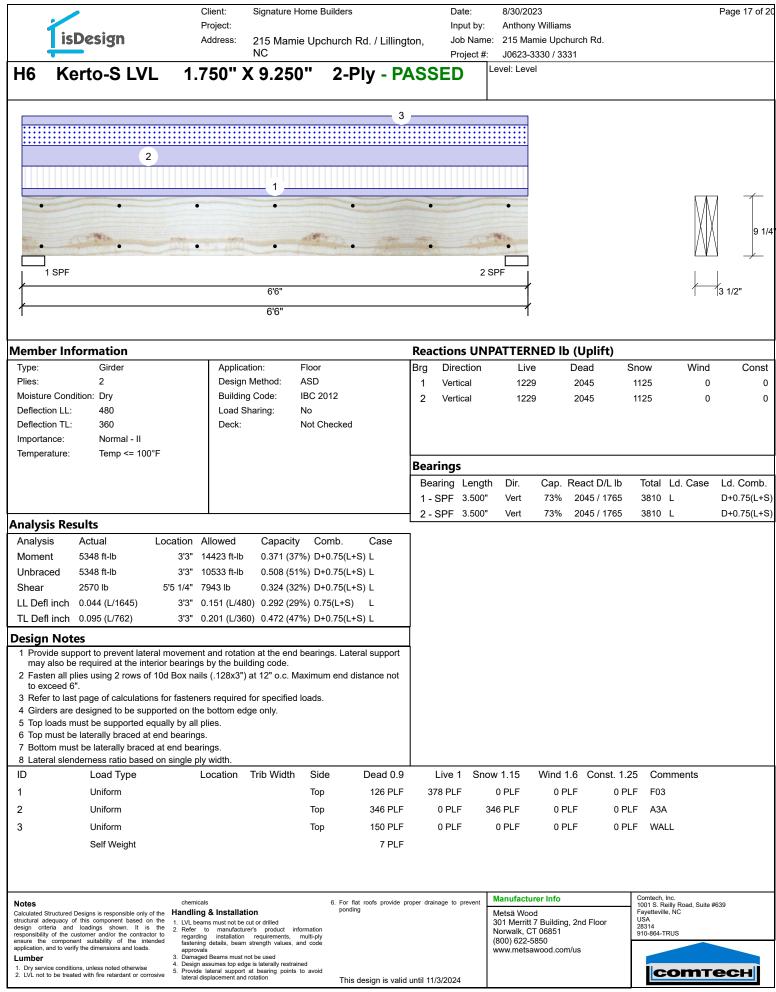
Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads. Lumbor 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive	I. 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 repetrationed. Browide lateral support at bearing points to avoid		Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us	Fajetteville, NC USA 28314 910-864-TRUS

		C	Client:	Signature Hom	e Builders			Date:	8/30/202	3			Page 13 of 20
	Design		Project:					Input by:	Anthony				
	Design	A		215 Mamie L NC	Jpchurch R	d. / Lilling	,	Job Name Project #:		nie Upchurch Rd. 330 / 3331			
	Karta C I V	1 4		-		אור ם			Level: Level				
GDH	Kerto-S LV	L 1.	/50 /	(14.000	2-6	Ply - P	A33E	.U					
												1	
		2											
		2											
					1								
•	•	• •	•	• •		•	•	4.	• •	•	•	M	1
	· · ·		• •	• 4	Mary .	· Toper	•		Wine.	•		XXX	1'2"
	No. of Concession, Name	- Landa - L			tan atrontor.		Service Martine	See in the set		- strings in	- Aller	- W	
1 SPF E	nd Grain									2 SPF E	nd Grain		
					18'3"							× 3	1/2"
					19'3"						· · · ,	r	
					195						l		
Member In			1				-			IED lb (Uplif			
Type:	Girder		Applicati				Ĭ	rection	Live	Dead	Snow	Wind	Const
Plies: Moisture Con	2 dition: Dry		Design N Building		D 2012			ertical	578	1885	0	0	0
Deflection LL:			Load Sha				2 Ve	ertical	578	1885	0	0	0
Deflection TL:			Deck:		t Checked								
Importance:	Normal - II												
Temperature:	Temp <= 100°F	F											
							Bearing						
							1	g Length		Cap. React D/		Ld. Case	Ld. Comb.
							End	= 6.000"	Vert	14% 1885 /	578 2463	· L	D+L
Analysis Re	sults						Grain						
Analysis		Location A	llowed	Capacity	Comb.	Case		= 6.000"	Vert	14% 1885 /	577 2463) L	D+L
Moment	10800 ft-lb	9'7 1/2" 2	6999 ft-lb	0.400 (40%)	D+L	L	End Grain						
Unbraced	10800 ft-lb	9'7 1/2" 1	0822 ft-lb	0.998	D+L	L							
Shear	2049 lb	1'8" 1	0453 lb	(100%) 0.196 (20%)	D+I	1							
				0.222 (22%)		L							
				0.711 (71%)		L							
Design Not							1						
	oport to prevent latera	al movement	and rotation	at the end bea	arings. Latera	al support	1						
	e required at the inter				-								
to exceed 6	blies using 3 rows of 1 5".	IUG BOX Nalis	s(.126x3)a	I IZ O.C. WAXI	num ena ais	lance not							
	t page of calculations				ds.								
	e designed to be supp nust be supported equ			e only.									
	e laterally braced at a			0.C.									
	st be laterally braced iderness ratio based of		0										
ID	Load Type			Frib Width	Side	Dead 0.9	Live	e 1 Sno	w 1 15	Wind 1.6 Cons	st 1.25 Co	omments	
1	Uniform	-	ocation		Гор	35 PLF	60 P		0 PLF	0 PLF	0 PLF F+		
2	Uniform				Гор	150 PLF	0 P		0 PLF	0 PLF	0 PLF W		
2	Self Weight					11 PLF	0.		0.2.	0.2.	0.2		
						11 I ⁻ LI ⁻							
Notes		chemicals	s		6 For flot	roofs provide p	roper drainage	to prevent	Manufacture	er Info	Comtech	1, Inc.	*****
Notes Calculated Structured	Designs is responsible only of this component based on the second	the Handling	& Installatio		ponding	. solo provide p	por urailiage	provolit	Metsä Wood		Fayettev	Reilly Road, Suite # /ille, NC	9504
design criteria and	l loadings shown. It is	the 2 Pofor t	ns must not be cut to manufacturer	t or drilled 's product informa requirements, mult	tion				Norwalk, CT		28314 910-864	-TRUS	
ensure the compor application, and to ver	customer and/or the contractor ient suitability of the intend ify the dimensions and loads.	approvals	i details, beam si s	trength values, and o	ode				(800) 622-58 www.metsaw				
Lumber 1. Dry service condit	ions, unless noted otherwise	 Damaged Design as 	d Beams must not ssumes top edge	is laterally restrained	void								
	ted with fire retardant or corros	ive lateral dis	splacement and ro	bearing points to a tation		esign is valid	until 11/3/20)24				COMT	CH

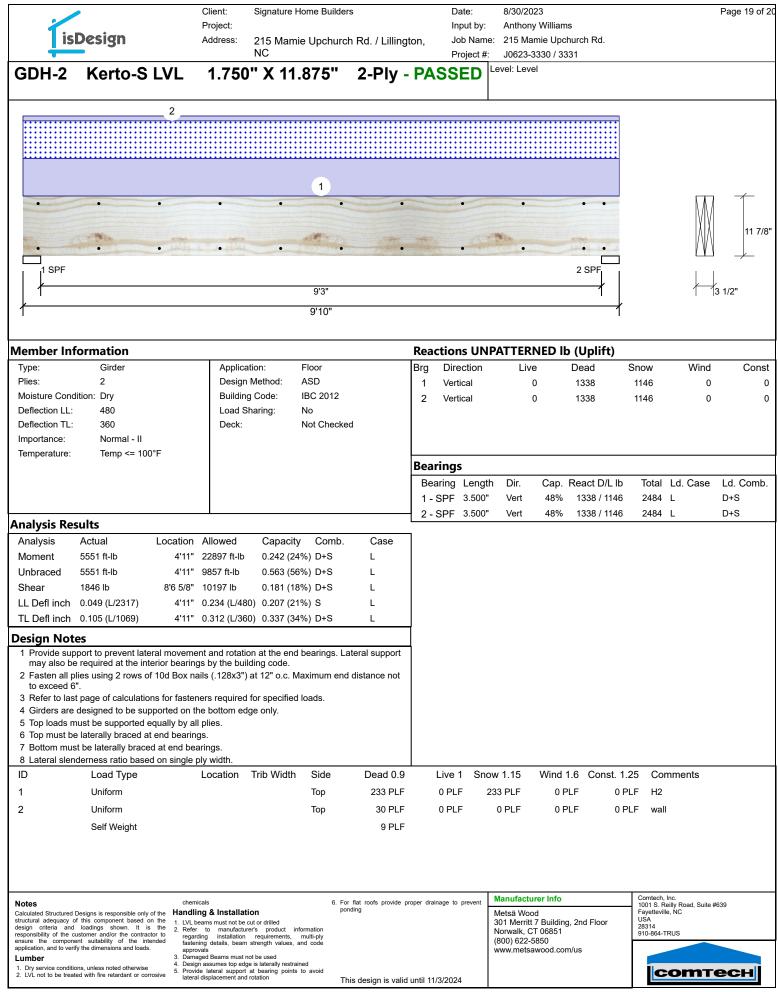
1	isDesign		Client: Project:	Signature Home B			Date: Input by:	8/30/2023 Anthony Williams 215 Mamie Llochurch Rd	Page 14 of
			Address:	215 Mamie Upo NC		U	Project #:	215 Mamie Upchurch Rd. J0623-3330 / 3331 evel: Level	
GDH	Kerto-S	LVL	1.750"	X 14.000"	2-Ply	- PASSI	ED	evel. Level	
	· · · ·	•	• •		• •	• •	•	• • • •	
	· ·			· · ·			•		
	PF End Grain							2 SPF End C	Grain
					18'3" 19'3"				1 1/2"
	ly Analysis	rous of 1()d Dov poile	(100,01) at 101		una and dia	toncono	t to overand C"	
Capacity	II plies using 3	0.0 %		(.128x3") at 12"	o.c Maxim	um ena ais	tance no	t to exceed 6".	
Load Yield Limit p		0.0 PL 245.6	PLF						
Yield Limit p Yield Mode	per Fastener	81.9 lt IV	0.						
Edge Distar Min. End Di	nce	1 1/2" 3"							
Load Comb	bination								
Duration Fa	actor	1.00							
							I	Manufacturor Info	Comtech, Inc.
Notes Calculated Stru	uctured Designs is responsibl	e only of the Ha	chemicals ndling & Installa	ation	For flat roofs prov ponding	vide proper drainage	to prevent	Manufacturer Info Metsä Wood	1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adeq design criteria	quacy of this component ba a and loadings shown.	ased on the 1. It is the 2	LVL beams must not be Refer to manufact	e cut or drilled urer's product information				301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	USA 28314 910-864-TRUS
application, and	of the customer and/or the c component suitability of th d to verify the dimensions and	l loads.	fastening details, bear approvals	n requirements, multi-ply m strength values, and code				(800) 622-5850 www.metsawood.com/us	
1. Dry service	e conditions, unless noted othe	3. 4. 5.	Damaged Beams must Design assumes top eo Provide lateral suppor	dge is laterally restrained rt at bearing points to avoid					соттесн
 LVL not to b 	be treated with fire retardant	UI CUITOSIVE	lateral displacement an	nd rotation	This design is	valid until 11/3/2	024		Contech



					Client:	Signature Home B	uilders		Date:	8/30/2023	Page 16 of 20
		sDesig	'n		Project: Address:	215 Mamie Upc NC	hurch Rd. / Lil	lington,	Input by: Job Name Project #:	Anthony Williams e: 215 Mamie Upchurch Rd. J0623-3330 / 3331	
BP	B2	Kert	o-S l	VL	1.750'	' X 9.250"	2-Ply -	PASS	ED	Level: Level	
											-
•		•	•	•	•	•	٠	•	•	• • •	
	1 SPF	•	•	•	•	•	•	•	•	• • •-	
						1	2'3 1/2"				3 1/2"
/						1	2'3 1/2"				
Multi	i-Ply /	Analysis									
Faster Capacit		olies using	g 2 row	rs of 10d 0.0 %	Box nails	(.128x3") at 12"	o.c Maxim	um end di	stance n	ot to exceed 6".	
Load Yield Li	mit per			0.0 PLF 163.7 PLF	=						
Yield M	ode	Fastener		81.9 lb. IV							
Edge D Min. En	id Dista	nce		1 1/2" 3"							
Load Co Duration				1.00							
Notes				chemi	icals		6. For flat roofs prov	vide proper drainag	ge to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculate structural design responsit	ed Structure I adequacy criteria a bility of the	y of this compor nd loadings s e customer and/c	hent based on hown. It is for the contract	of the Handlin in the 1. LVL b the 2. Refer tor to regard	ng & Installat eams must not be to manufactur ding installation	cut or drilled er's product information requirements, multi-ply	ponding		. ,	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	T001 S. Kelliy Koad, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS
ensure application Lumber 1. Dry s	the compon- on, and to v er ervice cond	onent suitability verify the dimension ditions, unless not eated with fire re-	of the inte ons and loads. ted otherwise	ended fasten appro 3. Dama 4. Desig 5. Provio	ning details, beam vals liged Beams must r n assumes top edg	strength values, and code not be used le is laterally restrained at bearing points to avoid	This design in		2024	(800) 622-5850 www.metsawood.com/us	соттесн
							rnis design is	valid until 11/3/	2024		



	Client:	Signature Home B	uilders	Date:	8/30/2023	Page 18 of 20
isDesign	Project: Address:	045 Mansia Llua	hunde Del (Lillingetern	Input by:	Anthony Williams e: 215 Mamie Upchurch Rd.	
	Address.	NC	hurch Rd. / Lillington,	Project #		
H6 Kerto-S L	VL 1.750"	X 9.250"	2-Ply - PASS	ED	Level: Level	
			,			
						,
• •	٠	•	• •		•	\overline{M}
					• 11/2"	9 1/4
•••	•	•	• •		• + ¥	
				0		
1 SPF		6'6"		2	SPF	3 1/2"
,						3 1/2
		6'6"			I	
Multi-Ply Analysis		(100.00) . 100		• .		
Fasten all plies using 2 rc Capacity	ows of 10d Box nails	s (.128x3") at 12"	o.c Maximum end d	istance n	ot to exceed 6".	
Load	0.0 PLF					
Yield Limit per Foot Yield Limit per Fastener	163.7 PLF 81.9 lb.					
Yield Mode	IV					
Edge Distance	1 1/2"					
Min. End Distance Load Combination	3"					
Duration Factor	1.00					
Notes Calculated Structured Designs is responsible o structural adequacy of this component base design criteria and loadings shown. It responsibility of the customer and/or the con ensure the component suitability of the application, and to verify the dimensions and loc Lumber 1. Dry service conditions, unless noted otherw 2. UN are to be to text with file neredent or so that the be to text with file neredent or so that are to be to text with file neredent or so that are to be to text with file neredent or so that are to be to text with file neredent or so that are to be to text with file neredent or so that are to be to text with file neredent or so that are to be to text with the neredent or so that are to be to text with the neredent or so that are to be to text with the neredent or so that are to be to text with the neredent or so that the text of te	d on the is the tractor to intended ads. 1. LVL beams must not b 2. Refer to manufac regarding installatic fastening details, bea approvals 3. Damaged Beams mus 4. Design assumes top e 5. Provide lateral suppo	e cut or drilled turer's product information n requirements, multi-ply m strength values, and code t not be used dge is laterally restrained rt at bearing points to avoid	 For flat roofs provide proper draina ponding 	ige to prevent	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayettervile, NC USA 28314 28314 910-864-TRUS
2. LVL not to be treated with fire retardant or	corrosive lateral displacement a	nd rotation	This design is valid until 11/3	/2024		



	•		Client:	Signature Home B	Builders		Date:	8/30/2023	Paç	ge 20 of 20
isl	Design		Project: Address:	215 Mamie Upo NC	hurch Rd. / Lil	llington,	Input by: Job Name Project #:	Anthony Williams 215 Mamie Upchurch Rd. J0623-3330 / 3331		
GDH-2	Kerto-S	LVL	1.750)" X 11.875	5" 2-Pl			Level: Level		
		•	•				•			
•	•	•	•	•	•	•	•		<11/2"	
	•			•		•	•		$\overline{\Sigma}$ M	11 7/8"
		-	•		<u> </u>	-	-			<u> </u>
				9'3					3 1/2	2"
				9'10				f		
Multi-Ply Aı	-									
Fasten all plie Capacity	es using 2 row	vs of 10d 0.0 %	Box nails	(.128x3") at 12"	o.c Maxim	um end dist	tance nc	ot to exceed 6".		
Load		0.0 PLF	F							
Yield Limit per Fo Yield Limit per Fa		163.7 PL 81.9 lb.	F							
Yield Mode Edge Distance		IV 1 1/2"								
Min. End Distanc		3"								
Load Combinatio Duration Factor	n	1.00								
Notes			nicals		 For flat roofs prov ponding 	vide proper drainage	to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639	
structural adequacy of design criteria and	Designs is responsible only this component based loadings shown. It is	on the 1. LVL t s the 2 Poto	beams must not be		ponulity			Metsä Wood 301 Merritt 7 Building, 2nd Floor	Fayetteville, NC USA 28314	
responsibility of the cu ensure the compone	istomer and/or the contra nt suitability of the in y the dimensions and loads	ctor to regain tended faste	rding installation ning details, beam	requirements, multi-ply strength values, and code				Norwalk, CT 06851 (800) 622-5850	910-864-TRUS	
Lumber	ns, unless noted otherwise	3. Dam 4. Desi	ovals aged Beams must r gn assumes top edg	ge is laterally restrained				www.metsawood.com/us		
	ed with fire retardant or co		ide lateral support al displacement and	at bearing points to avoid I rotation	This design is	valid until 11/3/20	024		соттес	CH