2		Client: Weave Project:	Homes		Date: Input		2021 nall Naylor			Page 1 c
	isDesign	Address: Gasto	n II (181035B)				on II (181035B)			
-B2	Kerto-S LVL	4 750" V 0	4 000"	2 014	Proje		vel			
Ъ2	Kerto-S LVL	- 1.750" X 2	4.000	3-PIy -	PASSE	J				
4	•		6							
	2	3	l			5				
•									·	\mathbf{M}
·	- Comme		all and	• •		C. Win			• •	2'
 1 SPF E	nd Grain			11 P		Prost of		2 SPF End G	- rain	Ш
<u></u>			0010							
<u> </u>			22'6" 22'6"							ິ ິ 5 1/4"
I			22.0						I	
ember I	nformation				Reactions l	JNPATTE	RNED Ib (U	plift)		
Гуре:	Girder	Application:	Floor		Г	Live		Snow	Wind	Const
Plies: Moisture Co	3 andition: Dry	Design Method: Building Code:	ASD IBC 2012		1	225	6536	5095	0	0
Deflection L	•	Load Sharing:	Yes		2	225	4429	3676	0	0
Deflection T		Deck:	Not Checked							
mportance:										
emperature	e: Temp <= 100°F				Poorings					
					Bearings	in ortha	Deast D			I d. Camb
					Bearing Le 1 - SPF 3.5	0	Cap. React D/ 73% 6536 / 5		I Ld. Case	Ld. Comb. D+S
					End					
nalysis F Analysis		cation Allowed Capa	acity Comb.	Case	Grain 2 - SPF 3.5	500"	51% 4429/3	676 8104	4 L	D+S
Noment			(50%) D+S	L	End					
Jnbraced			(99%) D+S	L	Grain					
Shear	10093 lb	2'2 5/8" 30912 lb 0.327	′ (33%) D+S	L						
L Defl inc	h 0.226 (L/1171) 11'1	11/16" 0.552 (L/480) 0.410	(41%) S	L						
L Defl inc	h 0.501 (L/528)	11' 7/8" 0.735 (L/360) 0.680	(68%) D+S	L						
esign No					ļ					
 Fasten a to exceed 		d Box nails (.128x3") at 12" o.	c. Maximum end d	listance not						
		or fasteners required for spec	fied loads.							
	s must be supported equa	ted on the bottom edge only. Ilv bv all plies.								
5 Top must	be laterally braced at a m									
	raced at bearings. lenderness ratio based on	single ply width								
D	Load Type	Location Trib Wi	dth Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Commen	ts
	Tie-In	0-0-0 to 22-6-0 0-6-0	Far Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	1' Floor	
!	Part. Uniform	0-0-0 to 11-7-8	Тор	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall	
3	Part. Uniform	0-0-0 to 11-4-0	Near Face	79 PLF	0 PLF	79 PLF	0 PLF	0 PLF	M2	
ļ	Part. Uniform	0-0-0 to 11-0-0	Тор	341 PLF	0 PLF	341 PLF	0 PLF	0 PLF	A2	
i	Part. Uniform	11-4-0 to 22-6-0	Near Face	164 PLF	0 PLF	164 PLF	0 PLF	0 PLF		
6	Point Self Weight	11-5-12	Тор	2293 lb 28 PLF	0 lb	2293 lb	0 lb	0 lb	B2	
								r		
otes	red Designs is responsible only of the	chemicals Handling & Installation	6. For fl pondi		oper drainage to preve	ent Manufac Metsä W	turer Info		Comtech, Inc. 1001 S. Reilly Road Fayetteville, NC	, Suite #639
ructural adequad esign criteria	cy of this component based on the and loadings shown. It is the	 LVL beams must not be cut or drilled Refer to manufacturer's production 	t information			301 Merr	itt 7 Building, 2nd CT 06851	Floor	JSA 28314	
sponsibility of the some	e customer and/or the contractor to ponent suitability of the intended verify the dimensions and loads.	regarding installation requireme fastening details, beam strength va	nts, multi-ply			(800) 622	2-5850		910-864-TRUS	
plication, and to umber	vering the dimensions and loads.	approvals 3. Damaged Beams must not be used 4. Design assumes top edge is laterally	restrained				<u>sawood.com/us</u> ESR-3633			
	nditions, unless noted otherwise									

FB1 K		Ac	oject:	ver Homes ton II (181035I	В)	lnı Jo	ate: out by: b Name: oject #:	5/25/2021 Marshall N Gaston II (⁻	-			Page 1 o
	erto-S LV	′L 1.	750" X	14.000"	2-Ply -		-	vel: Level				
				1			2					M 1
No 13	- Min		THE	Mary	p.tr.	T	-	(ta	Fire			1'2"
									2 SPF]		
/				11'4 1/2"					,	1		3 1/2"
<u>}</u>				11'4 1/2"					,	ł		
lember Info			Application	Floor					D lb (Uplif	•	\\/ind	Canat
Type: Plies:	Girder 2		Application: Design Metho	Floor od: ASD		Brg 1	Live 2129	Dea 77			Wind 0	Const 0
Moisture Conditi	ion: Dry		Building Code			2	2523	90			0	0
Deflection LL:	480		Load Sharing									
Deflection TL: mportance:	360 Normal		Deck:	Not Check	ed							
Temperature:	Temp <= 100°	F										
	·					Bearings						
						Bearing	-		React D/L lb		Ld. Case	Ld. Comb.
						1 - SPF		43%	771/2129	2899		D+L
nalysis Resu	ults					2 - SPF	6.000	38%	904 / 2523	3426	L	D+L
		Location Al		pacity Comb.	Case]						
	8168 ft-lb	5'9 3/16" 26		03 (30%) D+L	L							
	3168 ft-lb 2446 lb	5'9 3/16" 10 9'9 1/4" 10		'96 (80%) D+L 234 (23%) D+L	L							
LL Defl inch			455 lb 0.2 266 (L/480) 0.3		L							
L Defl inch			354 (L/360) 0.3	. ,	L							
esign Note			. ,	, , , , , , , , , , , , , , , , , , ,		ſ						
 Multiple plies Top loads mu Top braced at Bottom brace 	d at bearings. erness ratio based	together as pe jually by all pli on single ply v	r manufacturer': es. width.	s details.								
ID	Load Type	Lo	cation Trib \		Dead 0.9		Snow		/ind 1.6 Con			ts
	Uniform			Тор	106 PLF	318 PLF		PLF	0 PLF	0 PLF	F5	
	Part. Uniform Self Weight	3-6-8 to	11-4-8	Тор	44 PLF	132 PLF	- C	PLF	0 PLF	0 PLF	F9	
1 2					11 PLF							

Name: Gaston II (181035B) act #: D Level: Level Image: Construct of the state of the
End Grain UNPATTERNED Ib (Uplift) Live Dead Snow Wind Const 1060 1887 1113 0 0
$\begin{array}{c c} \\ \hline \\ $
UNPATTERNED Ib (Uplift) Live Dead Snow Wind Const 1060 1887 1113 0 0
UNPATTERNED Ib (Uplift) Live Dead Snow Wind Const 1060 1887 1113 0 0
UNPATTERNED Ib (Uplift) Live Dead Snow Wind Const 1060 1887 1113 0 0
UNPATTERNED Ib (Uplift) Live Dead Snow Wind Const 1060 1887 1113 0 0
UNPATTERNED Ib (Uplift) Live Dead Snow Wind Const 1060 1887 1113 0 0
LiveDeadSnowWindConst10601887111300
LiveDeadSnowWindConst10601887111300
1060 1887 1113 0 0
ength Cap. React D/L lb Total Ld. Case Ld. Comb
500" 33% 1887 / 1629 3516 L D+0.75(L+
500" 33% 1887 / 1629 3516 L D+0.75(L+
Snow 1.15 Wind 1.6 Const. 1.25 Comments
0 PLF 0 PLF 0 PLF F4
0 PLF 0 PLF 0 PLF WALL
338 PLF 0 PLF 0 PLF A4
500

liaD		Client: Weaver Ho Project:		Date: Input b		Page 1
	esign	Address: Gaston I	(181035B)	Job Na Project	ame: Gaston II (181035B) t #:	
Front GDH	H Kerto-S L	VL 1.750" X 14	.000" 2-P	y - PASSED	Level: Level	
		2			3	
			1			M T
1 SPF End G	rain	the star pla	ANT THE P	And the c	2 SPI	F End Grain
r			18'10"			3 1/2"
ŕ			18'10"			
ember Info	mation			Reactions U	INPATTERNED Ib (Uplif	ft)
ype:	Girder	Application:	Floor	Ũ	live Dead Snov	
Plies: Moisture Conditio	2 on: Drv	Design Method: Building Code:	ASD IBC 2012	1	0 1619 952 0 1720 1052	
Deflection LL:	480	Load Sharing:	No	2	0 1720 103.	2 0 0
Deflection TL:	360	Deck:	Not Checked			
mportance:	Normal					
emperature:	Temp <= 100°F			Dearinge		
				Bearings		
				Bearing Len		Total Ld. Case Ld. Comb.
				1 - SPF 3.00 End	00" 28% 1619/952	2571 L D+S
nalysis Resu	Its			Grain		
-		tion Allowed Capacit	/ Comb. Ca	2 - SPF 3.00	00" 30% 1720 / 1052	2772 L D+S
Moment 1	2090 ft-lb 9'8	7/8" 31049 ft-lb 0.389 (39	9%) D+S L	End Grain		
Unbraced 1	2090 ft-lb 9'8	7/8" 12111 ft-lb 0.998	D+S L			
Shear 2	360 lb 17'5 :	(100%) 3/4" 12021 lb 0.196 (20)%) D+S			
		/16" 0.461 (L/480) 0.400 (40				
TL Defl inch 0		/16" 0.615 (L/360) 0.800 (80	,			
esign Notes						
		on the bottom edge only.				
	•	er as per manufacturer's deta	ils.			
	t be supported equally					
5 Bottom braced	iterally braced at a maxi I at bearings.					
	rness ratio based on sir	ngle ply width.				
ID	Load Type	Location Trib Width	Side Dea	nd 0.9 Live 1 S	Snow 1.15 Wind 1.6 Con	st. 1.25 Comments
1	Uniform		Тор 6	0 PLF 0 PLF	0 PLF 0 PLF	0 PLF wall
2	Part. Uniform	0-0-0 to 9-6-0	Top 9	6 PLF 0 PLF	96 PLF 0 PLF	0 PLF M2
3	Part. Uniform 9	-6-0 to 18-10-0	Тор 11	7 PLF 0 PLF	117 PLF 0 PLF	0 PLF M3
	Self Weight		1	1 PLF		
1 2 3	Uniform Part. Uniform Part. Uniform 9	0-0-0 to 9-6-0	Тор 6 Тор 9 Тор 11	0 PLF 0 PLF 6 PLF 0 PLF 7 PLF 0 PLF	0 PLF 0 PLF 96 PLF 0 PLF	0 PLF wall 0 PLF M2
						Our to it
Notes	inne je menosejikle setu statu - U	chemicals	6. For flat roofs ponding	provide proper drainage to preven	Manufacturer Info Metsä Wood	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequacy of th	is component based on the 1.	Andling & Installation			301 Merritt 7 Building, 2nd Floor	
esponsibility of the custo ensure the component	mer and/or the contractor to suitability of the intended	Refer to manufacturer's product in regarding installation requirements, fastening details, beam strength values,	multi-ply		Norwalk, CT 06851 (800) 622-5850	910-864-TRUS
pplication, and to verify th umber	e dimensions and loads. 3.	approvals Damaged Beams must not be used			www.metsawood.com/us ICC-ES: ESR-3633	
	unless noted otherwise 4.	Design assumes top edge is laterally restra Provide lateral support at bearing points	ined to avoid		100-LU. LUIX-3033	соттесн
. LVL not to be treated v	with fire retardant or corrosive	lateral displacement and rotation		is valid until 2/26/2023		

-	•	Client Projec		er Homes		Date Inpu	e: it by:	5/25/2021 Marshall N	aylor			Page 1 of
is	Design	Addre	^{ss:} Gast	on II (181035	B)			Gaston II (181035B)			
Vindow	_ Udr Korto		1 750"	X 14.000	" 2_DIv	- PASSE	ect #:	vel: Level				
VIIIGOW	nui. Keito	-3 LVL	1.750	A 14.000	2-riy	- FA33L						
	6 3 4											
2			-1-	5								
	VV											\square \uparrow
in the second												1'2"
10	C. W.L.	177.	17		-							
1 SPF End	Grain			2 SPF End 0	Grain .							
		6'10"										3 1/2"
<u> </u>		6'10"										1 10 112
1		010			I							
lember Inf	ormation					Reactions	UNPA	TTERNE	D lb (Up	lift)		
Туре:	Girder	A	pplication:	Floor		Brg	Live	Dea		IOW	Wind	Const
Plies: Moisture Cond	2		esign Metho			1	2861	338		990	0	0
Deflection LL:	480		uilding Code bad Sharing:	No		2	873	190	6 1	168	0	0
Deflection TL:	360		eck:	Not Check	ed							
Importance:	Normal											
Temperature:	Temp <= 100°F					Bearings						
						Bearing L	enath	Cap.	React D/L	lb Tota	Ld. Case	Ld. Comb.
						1 - SPF 3		77%	3387 / 363			D+0.75(L+S)
nalysis Res	ults					End Grain						
Analysis		ocation Allow	ed Ca	pacity Comb	Case	2-SPF 3	8.000"	38%	1906 / 153	31 3437	'L	D+0.75(L+S)
Moment	11172 ft-lb	2' 31049	-	60 (36%) D+0.75	(L+S) L	End Grain						
Unbraced	11172 ft-lb	2' 15735		10 (71%) D+0.75								
Shear		1'4 1/4" 12021		34 (53%) D+0.75								
				00 (20%) 0.75(L+ 0 (31%) D+0.75								
		20170 0.213	(1/300) 0.3	IU (3178) D+0.73	(L+0) L	ļ						
Design Note 1 Girders are	es designed to be suppor	rted on the botto	m edge only			1						
	s must be fastened tog	• •	anufacturer's	details.								
4 Top braced	ust be supported equa at bearings.	ally by all plies.										
	ed at bearings. derness ratio based or	n single ply widt	h									
ID	Load Type	Locat		/idth Side	Dead 0.9	Live 1	Snow	1.15 V	/ind 1.6 C	onst. 1.25	Commer	ts
1	Uniform			Тор	120 PLF	0 PLF		PLF	0 PLF	0 PLF		
2	Tie-In	0-0-0 to 2-	0-0 1-0-0	Тор	20 PSF	0 PSF	20	PSF	0 PSF	0 PSF	2' ROOF	
3	Point	1-	9-8	Тор	1040 lb	3115 lb		0 lb	0 lb	0 lb	F08	
4	Point	2-	0-0	Тор	2385 lb	0 lb	23	85 lb	0 lb	0 lb	C3	
5	Part. Uniform	2-3-0 to 6-1	0-0	Тор	160 PLF	0 PLF	160	PLF	0 PLF	0 PLF	C2	
6	Part. Uniform	2-3-0 to 0-	0-0	Тор	97 PLF	300 PLF	C	PLF	0 PLF	0 PLF	F07	
	Self Weight				11 PLF							
Notes		chemicals		6. F	or flat roofs provide pr	oper drainage to pre	event	anufacturer	Info	1	Comtech, Inc. 001 S. Reilly Road	d, Suite #639
structural adequacy of	Designs is responsible only of the this component based on the	9 1. LVL beams must	not be cut or drille	1	onding		30	etsä Wood)1 Merritt 7 B	uilding, 2nd F	loor l	Fayetteville, NC JSA 28314	
esign criteria and esponsibility of the cu	loadings shown. It is the stomer and/or the contractor to nt suitability of the intended	regarding ins	allation requiren	uct information nents, multi-ply values, and code			N	orwalk, CT 06 00) 622-5850	6851)		10-864-TRUS	
nsure the compone												
nsure the compone pplication, and to verif umber	y the dimensions and loads.	approvals 3. Damaged Beam 4. Design assumes 5. Provide lateral	s must not be used					ww.metsawo C-ES: ESR-	<u>od.com/us</u> 3633			

i.e.	locian	Project:	Veaver Homes		Date: Input by		l Naylor		Page 1 of
	Design	Address: (Gaston II (181035B	5)	Job Nar Project	ne: Gaston	II (181035B)		
GDH-2	Kerto-S LVL	. 1.750"	X 11.875"	2-Ply -	PASSED	Level: Leve	I		
			1						
	- 10-	1. C. 172	atter and	17	-	- 14-			
1 SPF End	l Grain				2	SPF End Gra	in I.		
			8'10"						3 1/2"
1			8'10"				1		
lember Info	ormation				Reactions UI	IPATTER	NED Ib (Uplift)	1	
Type: Plies: Moisture Condit Deflection LL: Deflection TL:	Girder 2 ion: Dry 480 360	Application Design M Building (Load Sha Deck:	ethod: ASD Code: IBC 2012	d	Brg Li 1 2	0 1	ead Snow 145 1104 145 1104	Wind 0 0	Const 0 0
mportance: Temperature:	Normal Temp <= 100°F			-	Bearings Bearing Leng 1 - SPF 3.000		 p. React D/L lb % 1145 / 1104 	Total Ld. Case 2249 L	Ld. Comb. D+S
	.14				End Grain	25	% 114371104	2249 L	D+3
Moment Unbraced	Actual Locat 4554 ft-lb 4554 ft-lb 4554 ft-lb 1650 lb 1'2 0.036 (L/2845) 4'5 1,	ion Allowed 4'5" 22897 ft-lb 4'5" 10675 ft-lb 1/8" 10197 lb 1'16" 0.211 (L/480) 1'16" 0.282 (L/360)		Case L L L L L	2 - SPF 3.000 End Grain)" 25	% 1145 / 1104	2249 L	D+S
esign Note									
 Multiple plies Top loads muture Top braced a Bottom brace 	•	er as per manufacti by all plies.							
ID 1	Load Type Uniform	Location T	rib Width Side Top	Dead 0.9 250 PLF	Live 1 Sr 0 PLF	iow 1.15 250 PLF	Wind 1.6 Const 0 PLF	. 1.25 Commen 0 PLF G2	ts
	Self Weight			9 PLF					
ructural adequacy of ssign criteria and sponsibility of the cus ssure the componen oplication, and to verify umber . Dry service condition	loadings shown. It is the 2. tomer and/or the contractor to t suitability of the intended the dimensions and loads. s, unless noted otherwise		por product information equirements, multi-ply angth values, and code le used laterally restrained	r flat roofs provide p ding	proper drainage to prevent	Norwalk, CT (800) 622-5	d 7 Building, 2nd Floor 06851 850 wood.com/us	Comtech, Inc. 1001 S. Reilly Roac Fayetteville, NC USA 28314 910-864-TRUS	
. LVL not to be treated	with fire retardant or corrosive 5.	Provide lateral support at lateral displacement and rot		is design is valio	until 2/26/2023			con	птесн

