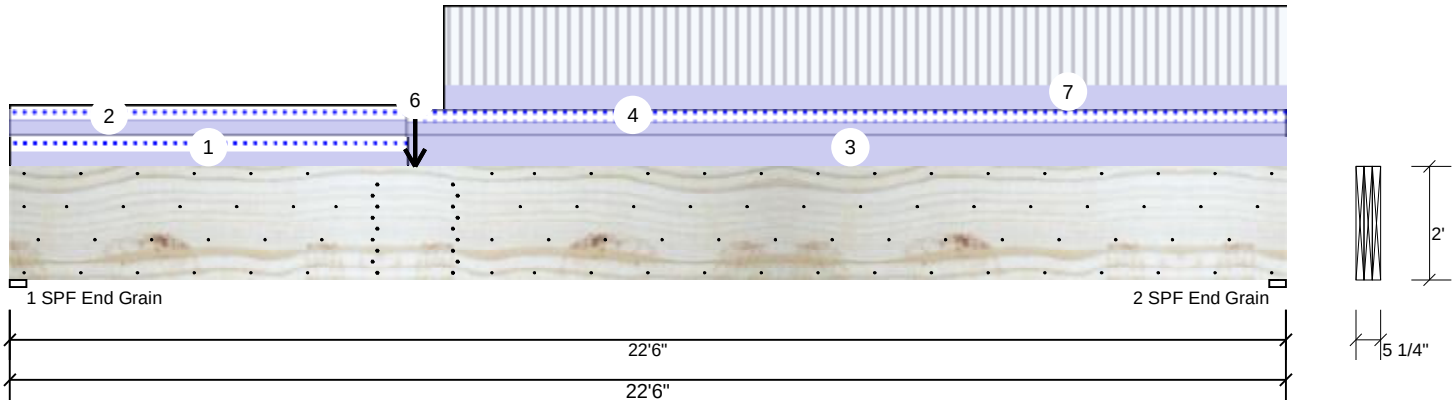
Client:	Southern Touch Homes	Date:	4/6/2022
Project:	Barstow II "B"	Input by:	Christine Shivy
Address:	Barstow II "B"	Job Name:	Barstow II "B"
		Project #:	

BM1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	5907	4111	1162	0	0
2	Vertical	5045	3964	685	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	65%	4111 / 5907	10017	L	D+L
2 - SPF End Grain	3.500"	Vert	58%	3964 / 5045	9009	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	65693 ft-lb	7'1 7/8"	114169 ft-lb	0.575 (58%)	D+L	L
Unbraced	65693 ft-lb	7'1 7/8"	65752 ft-lb	0.999 (100%)	D+L	L
Shear	10635 lb	2'3 1/2"	26880 lb	0.396 (40%)	D+L	L
LL Defl inch	0.304 (L/871)	10'5 15/16"	0.552 (L/480)	0.551 (55%)	L	L
TL Defl inch	0.507 (L/522)	10'7 11/16"	0.735 (L/360)	0.690 (69%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
5 Simpson fasteners applied from a single side of the member use tip values where published.
6 Girders are designed to be supported on the bottom edge only.
7 Top loads must be supported equally by all plies.
8 Top must be laterally braced at a maximum of 3'11 9/16" o.c.
9 Bottom must be laterally braced at end bearings.
10 Lateral slenderness ratio based on single ply width.

Notes

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 chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening 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
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

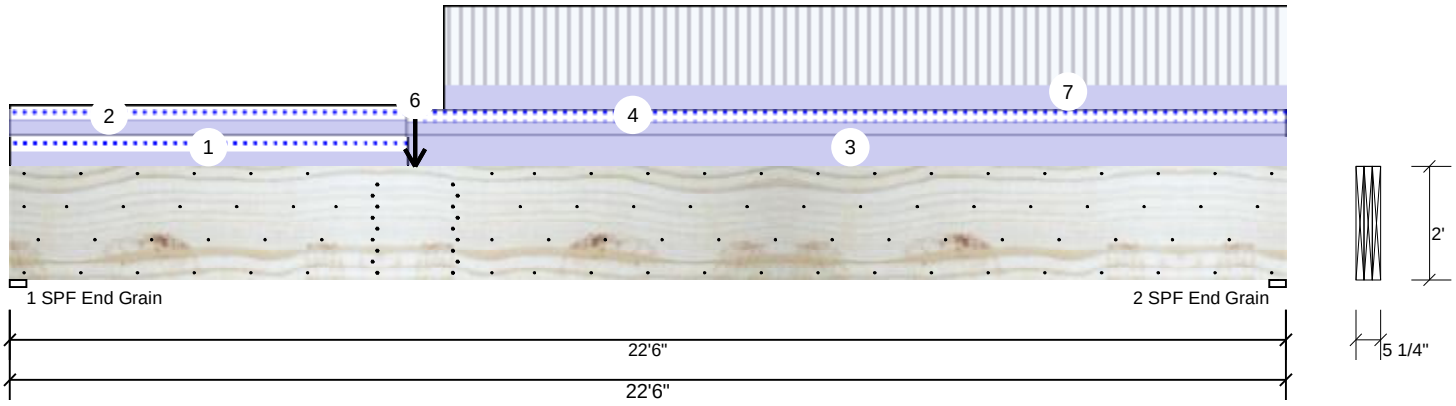
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Southern Touch Homes	Date:	4/6/2022
Project:	Barstow II "B"	Input by:	Christine Shivy
Address:	Barstow II "B"	Job Name:	Barstow II "B"
		Project #:	

BM1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 7-0-0		Far Face	61 PLF	0 PLF	61 PLF	0 PLF	0 PLF	M4
2	Part. Uniform	0-0-0 to 7-0-0		Near Face	56 PLF	0 PLF	56 PLF	0 PLF	0 PLF	M8A
3	Part. Uniform	7-0-0 to 22-6-0		Top	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Exterior Wall
4	Part. Uniform	7-0-0 to 22-6-0		Near Face	45 PLF	0 PLF	45 PLF	0 PLF	0 PLF	M8
5	Point	7-1-12		Far Face	2160 lb	6480 lb	0 lb	0 lb	0 lb	BM2
6	Point	7-1-12		Top	331 lb	0 lb	331 lb	0 lb	0 lb	D1GE
	Bearing Length	0-3-8								
7	Part. Uniform	7-7-12 to 22-6-0		Far Face	101 PLF	301 PLF	0 PLF	0 PLF	0 PLF	F1
	Self Weight				28 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening 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
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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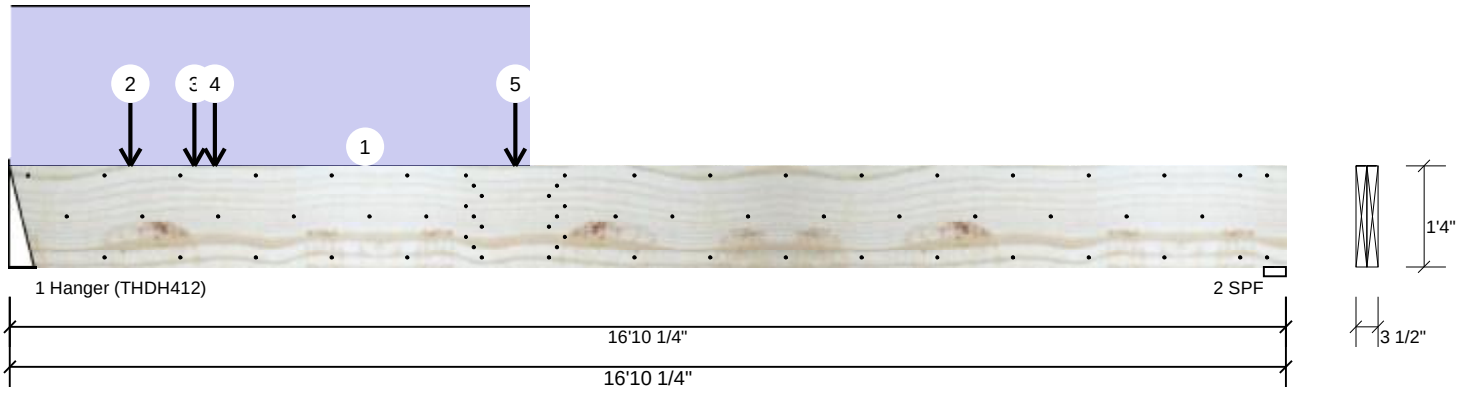
28314
910-864-TRUS

Client:	Southern Touch Homes	Date:	4/6/2022
Project:	Barstow II "B"	Input by:	Christine Shivy
Address:	Barstow II "B"	Job Name:	Barstow II "B"
		Project #:	

BM2 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	975	4880	3759	0	0
2	Vertical	628	1043	563	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	Vert	73%	4880 / 3759	8639	L	D+S
2 - SPF	3.500"	Vert	37%	1043 / 894	1937	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	18652 ft-lb	6'3 11/16"	39750 ft-lb	0.469 (47%)	D+0.75(L+S)	L
Unbraced	18652 ft-lb	6'3 11/16"	18711 ft-lb	0.997 (100%)	D+0.75(L+S)	L
Shear	8384 lb	1'8"	13739 lb	0.610 (61%)	D+S	L
LL Defl inch	0.175 (L/1123)	7'3 11/16"	0.409 (L/480)	0.428 (43%)	0.75(L+S)	L
TL Defl inch	0.377 (L/522)	7'3 1/8"	0.546 (L/360)	0.690 (69%)	D+0.75(L+S)	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
5. Fill all hanger nailing holes.
6. Girders are designed to be supported on the bottom edge only.
7. Top loads must be supported equally by all plies.
8. Top must be laterally braced at a maximum of 6'3 1/4" o.c.
9. Bottom must be laterally braced at end bearings.
10. Lateral slenderness ratio based on single ply width.

Notes

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 chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening 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
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

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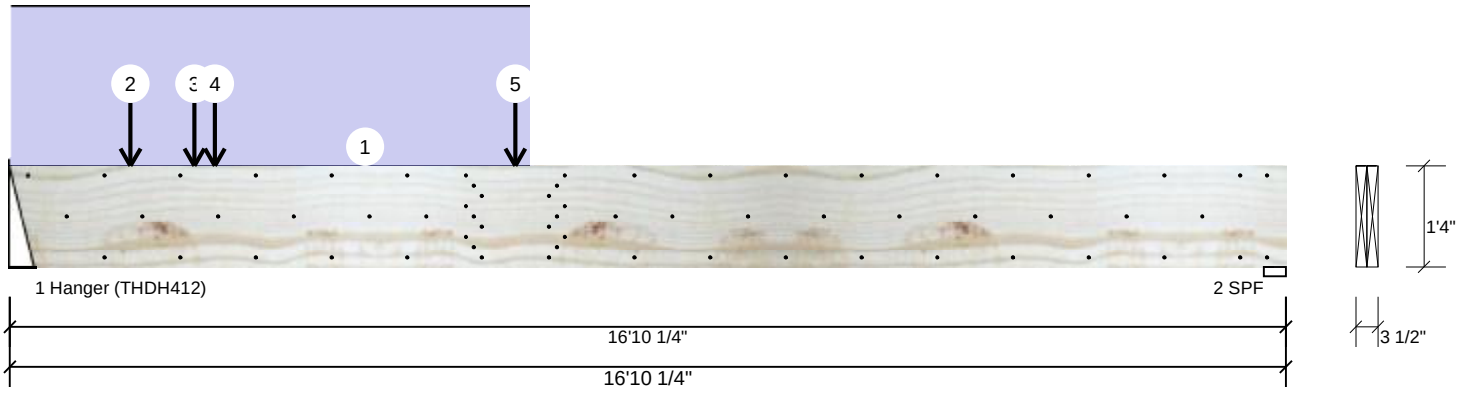
910-864-TRUS

Client:	Southern Touch Homes	Date:	4/6/2022
Project:	Barstow II "B"	Input by:	Christine Shivy
Address:	Barstow II "B"	Job Name:	Barstow II "B"
		Project #:	

BM2 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED

Level: Level



ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 6-10-4		Top	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Exterior Wall
2	Point	1-7-2		Top	388 lb	0 lb	388 lb	0 lb	0 lb	B1GE
	Bearing Length	0-3-8								
3	Point	2-5-4		Top	3415 lb	0 lb	3415 lb	0 lb	0 lb	B1GR
	Bearing Length	0-3-8								
4	Point	2-8-8		Top	519 lb	0 lb	519 lb	0 lb	0 lb	A4GE
	Bearing Length	0-3-8								
5	Point	6-8-2		Near Face	535 lb	1603 lb	0 lb	0 lb	0 lb	BM4
	Self Weight				12 PLF					

Notes

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 chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening 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
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

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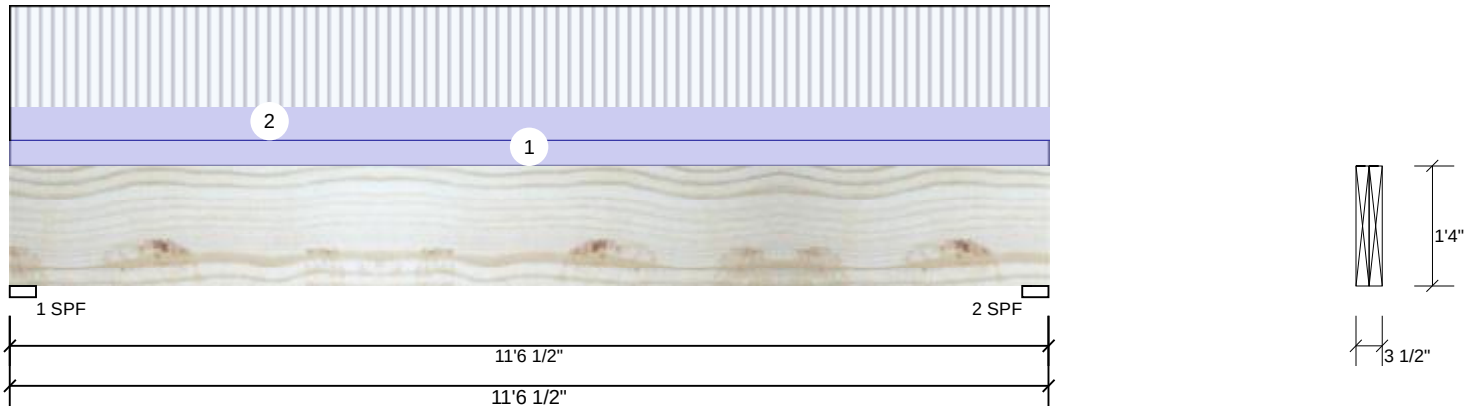
Client:	Southern Touch Homes	Date:	4/6/2022
Project:	Barstow II "B"	Input by:	Christine Shivy
Address:	Barstow II "B"	Job Name:	Barstow II "B"
		Project #:	

BM3 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1824	1145	0	0	0
2	Vertical	1824	1145	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	57%	1145 / 1824	2969	L	D+L
2 - SPF	3.500"	Vert	57%	1145 / 1824	2969	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7929 ft-lb	5'9 1/4"	34565 ft-lb	0.229 (23%)	D+L	L
Unbraced	7929 ft-lb	5'9 1/4"	11133 ft-lb	0.712 (71%)	D+L	L
Shear	2712 lb	9'11"	11947 lb	0.227 (23%)	D+L	L
LL Defl inch	0.055 (L/2411)	5'9 1/4"	0.278 (L/480)	0.199 (20%)	L	L
TL Defl inch	0.090 (L/1481)	5'9 1/4"	0.555 (L/240)	0.162 (16%)	D+L	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Girders are designed to be supported on the bottom edge only.
3. Multiple plies must be fastened together as per manufacturer's details.
4. Top loads must be supported equally by all plies.
5. Top must be laterally braced at end bearings.
6. Bottom must be laterally braced at end bearings.
7. Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	80 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Interior Wall
2	Uniform			Far Face	106 PLF	316 PLF	0 PLF	0 PLF	0 PLF	F7
	Self Weight				12 PLF					

Notes

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 chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening 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
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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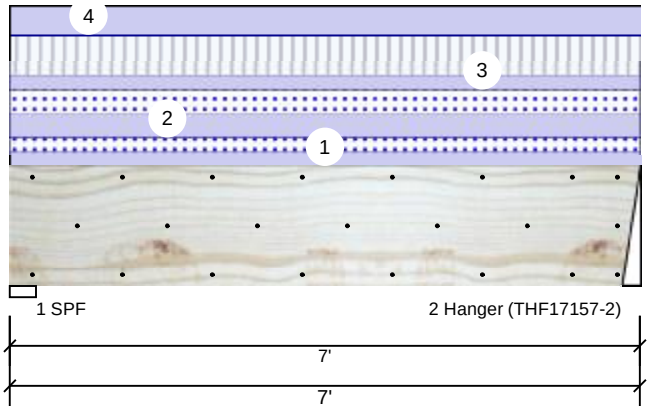
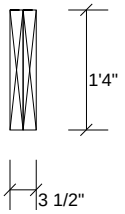
Client:	Southern Touch Homes	Date:	4/6/2022
Project:	Barstow II "B"	Input by:	Christine Shivy
Address:	Barstow II "B"	Job Name:	Barstow II "B"
		Project #:	

BM4 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	627	1280	584	0	0
2	Vertical	612	1250	571	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	42%	1280 / 908	2189	L	D+0.75(L+S)
2 - Hanger	2.500"	Vert	29%	1250 / 887	2137	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2973 ft-lb	3'6 1/2"	34565 ft-lb	0.086 (9%)	D+L	L
Unbraced	3412 ft-lb	3'6 1/2"	17713 ft-lb	0.193 (19%)	D+0.75(L+S)	L
Shear	1445 lb	5'5 1/2"	11947 lb	0.121 (12%)	D+L	L
LL Defl inch	0.008 (L/10459)	3'6 1/2"	0.166 (L/480)	0.046 (5%)	0.75(L+S)	L
TL Defl inch	0.018 (L/4341)	3'6 1/2"	0.222 (L/360)	0.083 (8%)	D+0.75(L+S)	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Fill all hanger nailing holes.
5. Girders are designed to be supported on the bottom edge only.
6. Top loads must be supported equally by all plies.
7. Top must be laterally braced at end bearings.
8. Bottom must be laterally braced at end bearings.
9. Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Near Face	61 PLF	0 PLF	61 PLF	0 PLF	0 PLF	M4
2	Uniform			Top	104 PLF	0 PLF	104 PLF	0 PLF	0 PLF	C1
3	Uniform			Far Face	59 PLF	177 PLF	0 PLF	0 PLF	0 PLF	F3
4	Uniform			Top	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Exterior Wall
	Self Weight				12 PLF					

Notes

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 chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening 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
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

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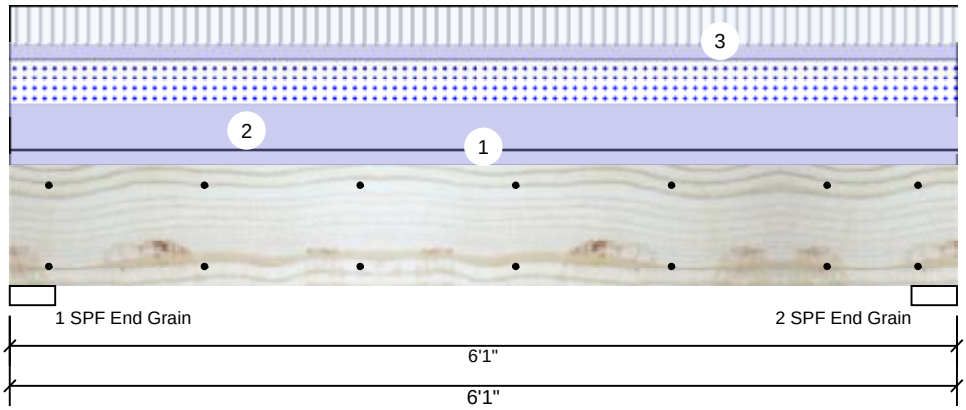
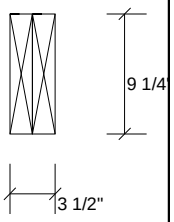
Project:	Barstow II "B"	Input by:	Christine Shivy
Address:	Barstow II "B"	Job Name:	Barstow II "B"
		Project #:	

BM5 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	961	1783	1059	0	0
2	Vertical	961	1783	1059	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	32%	1783 / 1515	3298	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	Vert	32%	1783 / 1515	3298	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4288 ft-lb	3' 1/2"	14423 ft-lb	0.297 (30%)	D+0.75(L+S)	L
Unbraced	4288 ft-lb	3' 1/2"	10944 ft-lb	0.392 (39%)	D+0.75(L+S)	L
Shear	2151 lb	1' 3/4"	7943 lb	0.271 (27%)	D+0.75(L+S)	L
LL Defl inch	0.031 (L/2156)	3' 1/2"	0.141 (L/480)	0.223 (22%)	0.75(L+S)	L
TL Defl inch	0.068 (L/990)	3' 1/2"	0.188 (L/360)	0.363 (36%)	D+0.75(L+S)	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Girders are designed to be supported on the bottom edge only.
5. Top loads must be supported equally by all plies.
6. Top must be laterally braced at end bearings.
7. Bottom must be laterally braced at end bearings.
8. Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Exterior Wall
2	Uniform			Top	348 PLF	0 PLF	348 PLF	0 PLF	0 PLF	A1
3	Uniform			Top	106 PLF	316 PLF	0 PLF	0 PLF	0 PLF	F7
	Self Weight				7 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening 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
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

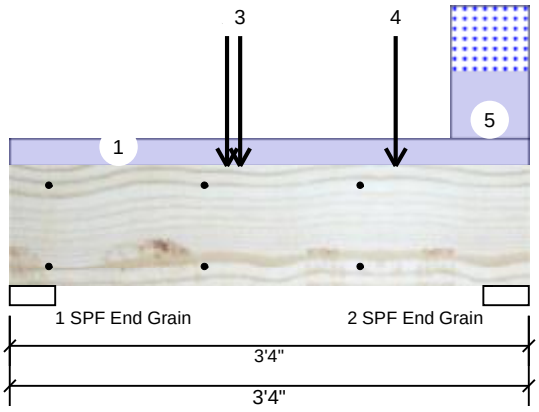
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

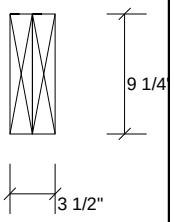
Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Southern Touch Homes	Date:	4/6/2022
Project:	Barstow II "B"	Input by:	Christine Shivy
Address:	Barstow II "B"	Job Name:	Barstow II "B"
		Project #:	

BM6 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1004	914	401	0	0
2	Vertical	1667	1127	392	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	19%	914 / 1054	1968	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	Vert	27%	1127 / 1667	2793	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2228 ft-lb	1'5 3/4"	12542 ft-lb	0.178 (18%)	D+L	L
Unbraced	2228 ft-lb	1'5 3/4"	11972 ft-lb	0.186 (19%)	D+L	L
Shear	2038 lb	2'3 1/4"	6907 lb	0.295 (30%)	D+L	L
LL Defl inch	0.008 (L/4191)	1'5 3/4"	0.072 (L/480)	0.115 (11%)	0.75(L+S)	L
TL Defl inch	0.014 (L/2383)	1'5 3/4"	0.096 (L/360)	0.151 (15%)	D+0.75(L+S)	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Girders are designed to be supported on the bottom edge only.
5. Top loads must be supported equally by all plies.
6. Top must be laterally braced at end bearings.
7. Bottom must be laterally braced at end bearings.
8. Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	100 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Interior Wall
2	Point	1-4-12		Top	669 lb	0 lb	669 lb	0 lb	0 lb	C2
	Bearing Length	0-3-8								
3	Point	1-5-12		Top	406 lb	1218 lb	0 lb	0 lb	0 lb	F3
	Bearing Length	0-3-8								

Continued on page 2...

Notes

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Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
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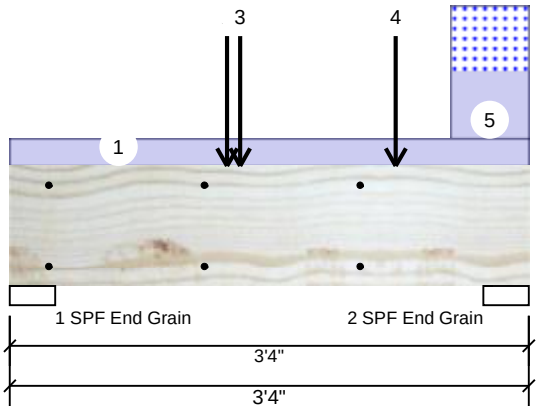
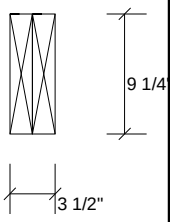
BM6 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





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ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
4	Point	2-5-12		Top	485 lb	1453 lb	0 lb	0 lb	0 lb	BM2
	Bearing Length	0-3-8								
5	Part. Uniform	2-10-0 to 3-4-0		Top	247 PLF	0 PLF	247 PLF	0 PLF	0 PLF	A4GE
	Self Weight				7 PLF					

Notes

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Lumber

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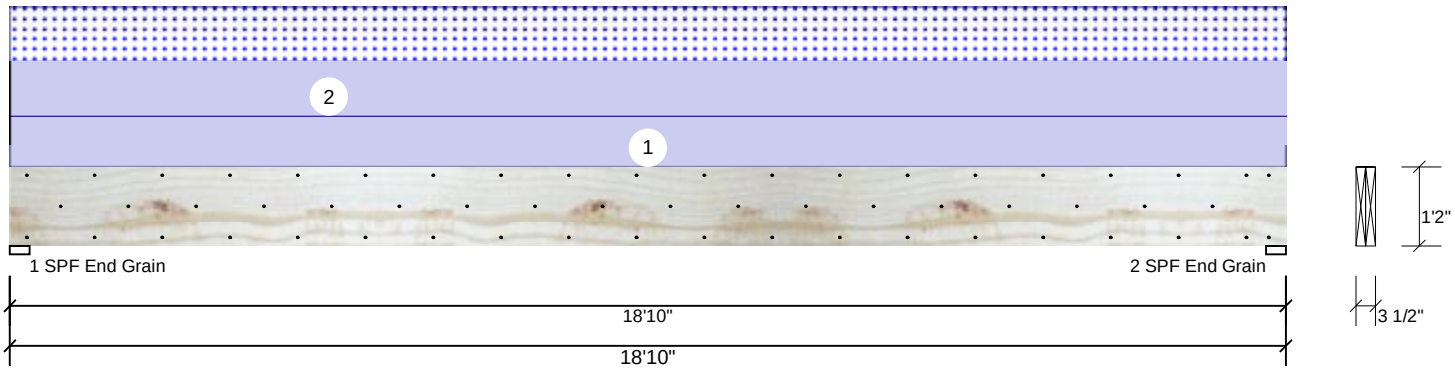
Client:	Southern Touch Homes	Date:	4/6/2022
Project:	Barstow II "B"	Input by:	Christine Shivy
Address:	Barstow II "B"	Job Name:	Barstow II "B"
		Project #:	

GDH Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



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Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1270	603	0	0
2	Vertical	0	1270	603	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	18%	1270 / 603	1873	L	D+S
2 - SPF End Grain	3.500"	Vert	18%	1270 / 603	1873	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8394 ft-lb	9'5"	31049 ft-lb	0.270 (27%)	D+S	L
Unbraced	8394 ft-lb	9'5"	8403 ft-lb	0.999 (100%)	D+S	L
Shear	1596 lb	1'5 1/2"	12021 lb	0.133 (13%)	D+S	L
LL Defl inch	0.109 (L/2025)	9'5 1/16"	0.459 (L/480)	0.237 (24%)	S	L
TL Defl inch	0.338 (L/652)	9'5 1/16"	0.612 (L/360)	0.553 (55%)	D+S	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Girders are designed to be supported on the bottom edge only.
5. Top loads must be supported equally by all plies.
6. Top must be laterally braced at a maximum of 13'7 5/8" o.c.
7. Bottom must be laterally braced at end bearings.
8. Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Exterior Load
2	Uniform			Top	64 PLF	0 PLF	64 PLF	0 PLF	0 PLF	M8
	Self Weight				11 PLF					

Notes

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