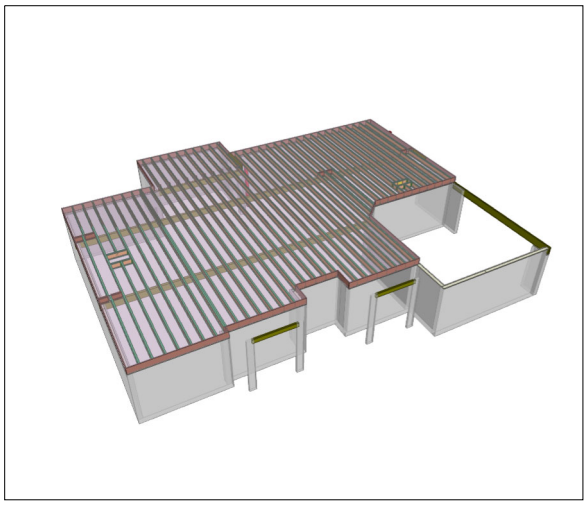
Kempsville Chesapeake Component Plant
3300 Business Center Drive
Chesapeake, VA 23323

Phone #: 757-485-8590



Builder: MITCHELL HOMES
Project: WINCHESTER MODEL - WHITETREE

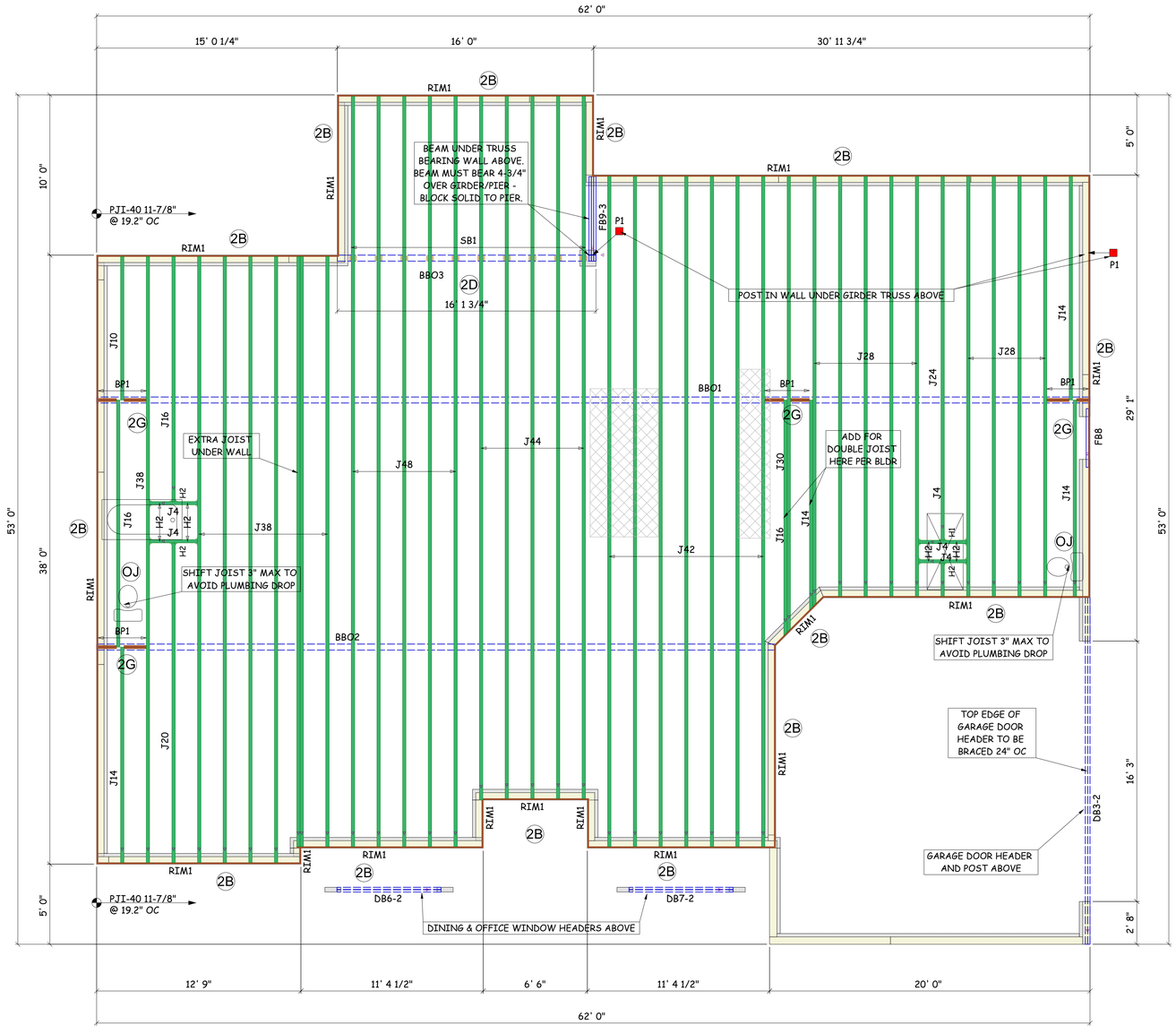
THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for component installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.

General Notes:

** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

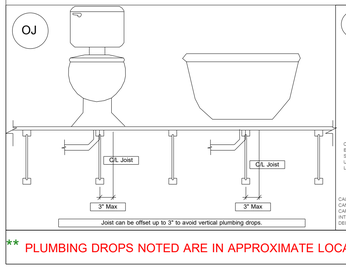
** LVL AND JOISTS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

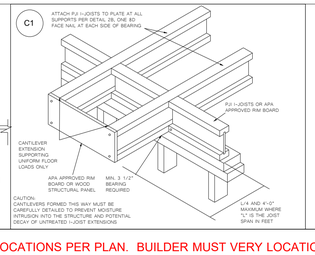


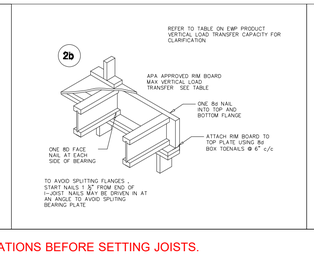
Products				
PlotID	Length	Product	Plies	Net Qty
J48	48' 0"	11 7/8" PJI-40	1	5
J44	44' 0"	11 7/8" PJI-40	1	5
J42	42' 0"	11 7/8" PJI-40	1	7
J38	38' 0"	11 7/8" PJI-40	1	8
J30	30' 0"	11 7/8" PJI-40	1	1
J28	28' 0"	11 7/8" PJI-40	1	9
J24	24' 0"	11 7/8" PJI-40	1	1
J20	20' 0"	11 7/8" PJI-40	1	1
J16	16' 0"	11 7/8" PJI-40	1	3
J14	14' 0"	11 7/8" PJI-40	1	4
J10	10' 0"	11 7/8" PJI-40	1	1
J4	4' 0"	11 7/8" PJI-40	1	4
J4	4' 0"	11 7/8" PJI-40	1	1
DB6-2	8' 0"	2.1 RigidLam SP LVL 1-3/4 x 7-1/4	2	2
DB7-2	8' 0"	2.1 RigidLam SP LVL 1-3/4 x 7-1/4	2	2
FB9-3	6' 0"	2.1 RigidLam SP LVL 1-3/4 x 11-7/8	3	3
FB8	4' 0"	2.1 RigidLam SP LVL 1-3/4 x 11-7/8	1	1
DB3-2	22' 0"	2.1 RigidLam SP LVL 1-3/4 x 14	2	2
RIM1	12' 0"	1 1/8" x 11 7/8" APA Rim Board	1	19
BP1	2' 0"	11 7/8" PJI-40	1	5
P1	10' 0"	5.5x5.5 AFP Combination 50 Power Col.	1	2

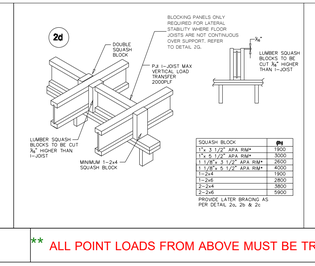
Connector Summary					
PlotID	Qty	Manuf	Product	Backer Blocks	Web Stiff
H1	1	Simpson	IUS2.56/11.88	2	No
H2	11	Simpson	IUS2.56/11.88	No	No

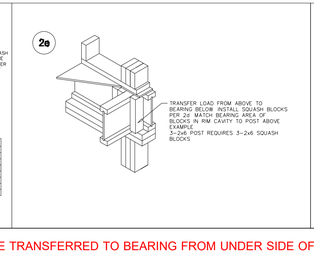
BLOCK SOLID UNDER ALL POST/POINT LOADS FROM ABOVE - TYPICAL AT ALL LOCATIONS

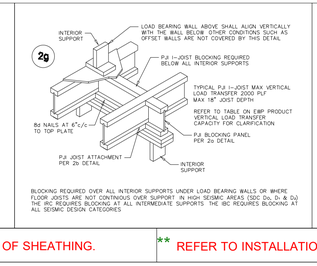


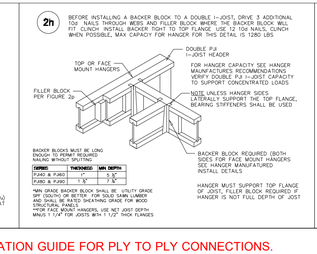












LABEL LEGEND

BBO = Beam by Others
PBO = Post by Others
GBO = Girder by Others
J = I-Joist
FB = Flush Beam
DB = Dropped Beam
RB = Roof Beam
BP = Blocking Panels
SB = Squash Blocks

1ST FLOOR LAYOUT

DRAWING SCALE : 1/4" = 1'-0"

** PLUMBING DROPS NOTED ARE IN APPROXIMATE LOCATIONS PER PLAN. BUILDER MUST VERY LOCATIONS BEFORE SETTING JOISTS.

** ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

** REFER TO INSTALLATION GUIDE FOR PLY TO PLY CONNECTIONS.

Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name

This is an I-Joist Placement Plan Only. All designs of I-Joist follow the IBC/IRC Code Requirements along with Manufacturer's guidelines. This is NOT an engineered placement plan. This placement plan is created from plans provided by the customer using Manufactures guidelines. It is the responsibility of the EOR, or builder to review and approve all bearing conditions, connections, spans, loading, product usage, and quantities. Do not notch or drill holes in beams or flanges on joists without prior approval from the manufacturing Representative. Unless following hole guidlines in the installation guide found at buildwithkempsville.com. Builder takes full responsibility for doing so and NO Back charge will be accepted.

Kempsville Building Materials
A Division of the Carter Lumber Company

MITCHELL HOMES
WINCHESTER MODEL
WHITETREE

Scale: **1/4" = 1'-0"**
Date: **8/21/2025**
Designer: **CDH**
Project #: **25080196**
Sheet Number:
1 / 1

** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

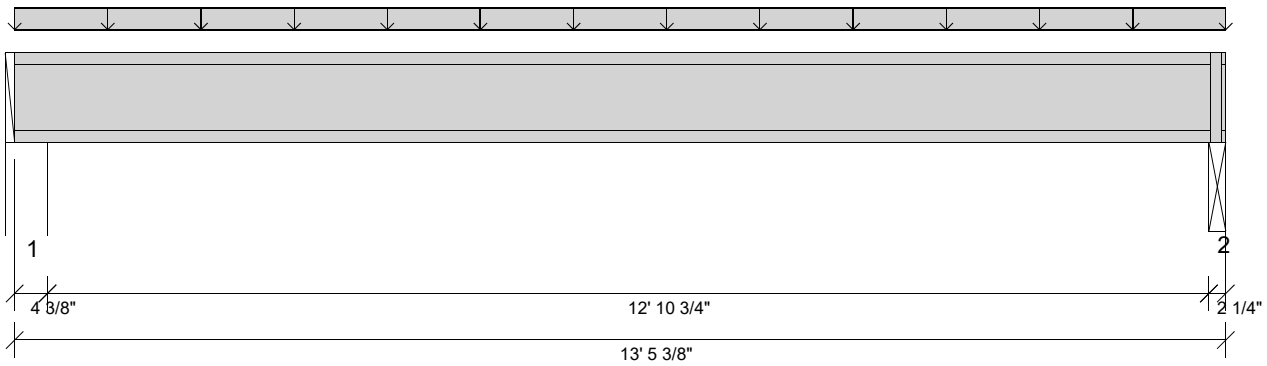
** DAMAGED FLOOR JOISTS SHOULD NOT BE INSTALLED UNLESS APPROVED BY COMPONENT PLANT.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J14 - i1787** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 10 3/4"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 13'- 4 1/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 9 13/16"	D + L	1.00	1703 lb ft	3545 lb ft	Passed - 48%
Max Shear:	0'- 4 7/16"	D + L	1.00	516 lb	1620 lb	Passed - 32%
Live Load (LL) Pos. Defl.:	6'- 9 3/4"	L		0.121"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 9 3/4"	D + L		0.151"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	553 lb		1430 lb	4648 lb	Passed - 39%
2	2 1/4"	D + L	1.00	530 lb		1251 lb	3178 lb	Passed - 42%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	13'- 5 3/8"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W14(i14)	111 lb	442 lb	-	-	-
2	13'- 3 1/8"	13'- 5 3/8"	BBO2(i18)	106 lb	424 lb	-	-	-

DESIGN NOTES

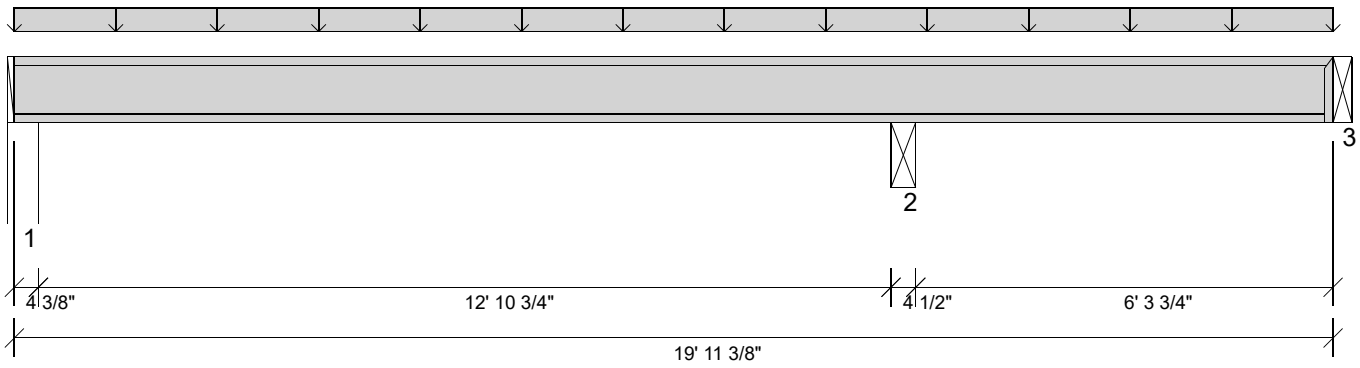
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

MiTek	Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J20 - i1760** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 10 3/4"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 13'- 5 3/8"
- 425 psi Beam @ 19'- 11 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	5'- 8 15/16"	D + L	1.00	1188 lb ft	3545 lb ft	Passed - 34%
Max Neg. Moment:	13'- 5 3/8"	D + L	1.00	1299 lb ft	3545 lb ft	Passed - 37%
Max Shear:	13'- 3 1/16"	D + L	1.00	609 lb	1620 lb	Passed - 38%
Live Load (LL) Pos. Defl.:	6'- 3 7/8"	L		0.077"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	16'- 2 5/16"	L		0.010"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 3 11/16"	D + L		0.095"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	16'- 1 1/2"	D + L		0.012"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	467 lb		1430 lb	4648 lb	Passed - 33%
2	4 1/2"	D + L	1.00	1085 lb		3000 lb	6356 lb	Passed - 36%
3	1 3/4"	D + L	1.00	211 lb		1200 lb	-	Passed - 18%
3	1 3/4"	D + L	1.00		-129 lb	-	-	

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
3	IUS2.56/11.88	Simpson	-	10- 10d	2- Strong-Grip	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	19'- 11 3/8"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

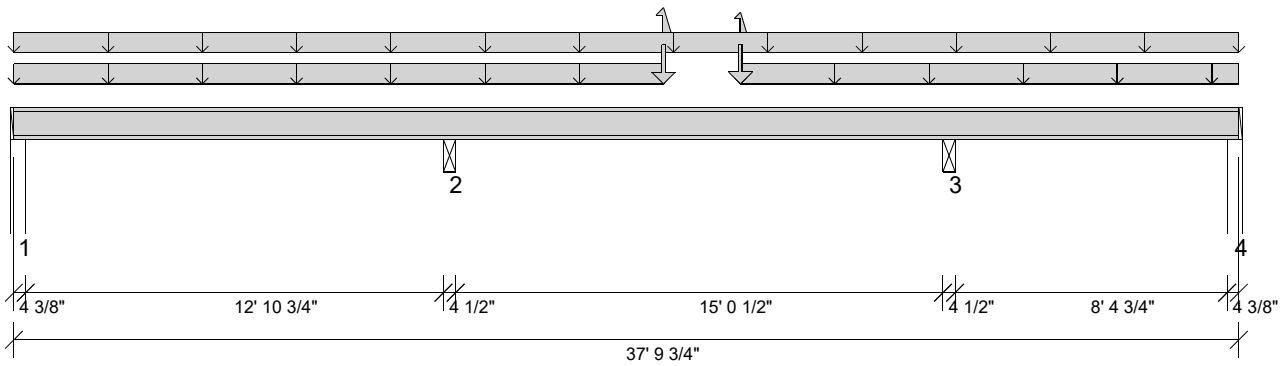
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W14(i14)	92 lb	375/-8 lb	-	-	-
2	13'- 3 1/8"	13'- 7 5/8"	BBO2(i18)	217 lb	868 lb	-	-	-
3	19'- 11 3/8"	19'- 11 3/8"	J4(i1815)	14 lb	197/-143 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J38 - i1795** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26 — Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 10 3/4"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 13'- 5 3/8"
- 565 psi Beam @ 28'- 10 3/8"
- 425 psi Wall @ 37'- 6 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	20'- 8 15/16"	D + L	1.00	1803 lb ft	3545 lb ft	Passed - 51%
Max Neg. Moment:	13'- 5 3/8"	D + L	1.00	2159 lb ft	3545 lb ft	Passed - 61%
Max Shear:	13'- 7 11/16"	D + L	1.00	801 lb	1620 lb	Passed - 49%
Live Load (LL) Pos. Defl.:	21'- 7/16"	L		0.151"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	7'- 10 5/8"	L		0.049"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	21'- 1 1/8"	D + L		0.173"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	32'- 4 7/8"	D + L		0.029"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	479 lb		1430 lb	4648 lb	Passed - 33%
2	4 1/2"	D + L	1.00	1483 lb		3000 lb	6356 lb	Passed - 49%
3	4 1/2"	D + L	1.00	1374 lb		3000 lb	6356 lb	Passed - 46%
4	4 3/8"	D + L	1.00	340 lb		1430 lb	4648 lb	Passed - 24%
4	4 3/8"	D + L	1.00		-117 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	37'- 9 3/4"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	32 lb/ft	-	-	-
Uniform	0'	20'- 5/8"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	32 lb/ft	-	-	-
Uniform	22'- 5 1/8"	37'- 9 3/4"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	32 lb/ft	-	-	-
Point	20'- 5/8"	20'- 5/8"	J4(i1815)	Back	26 lb	175/-71 lb	-	-	-
Point	22'- 5 1/8"	22'- 5 1/8"	J4(i1818)	Back	36 lb	170/-27 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W14(i14)	81 lb	397/-81 lb	-	-	-
2	13'- 3 1/8"	13'- 7 5/8"	BBO2(i18)	285 lb	1222/-59 lb	-	-	-
3	28'- 8 1/8"	29'- 5/8"	BBO1(i17)	245 lb	1129/-63 lb	-	-	-
4	37'- 5 3/8"	37'- 9 3/4"	W38(i1204)	40 lb	300/-157 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
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- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Beam Stability Factor used in the calculation for Allowable Max Neg Moment (CL) = 1.00
- Bearing length at support 1, 4 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J38 - i1784** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

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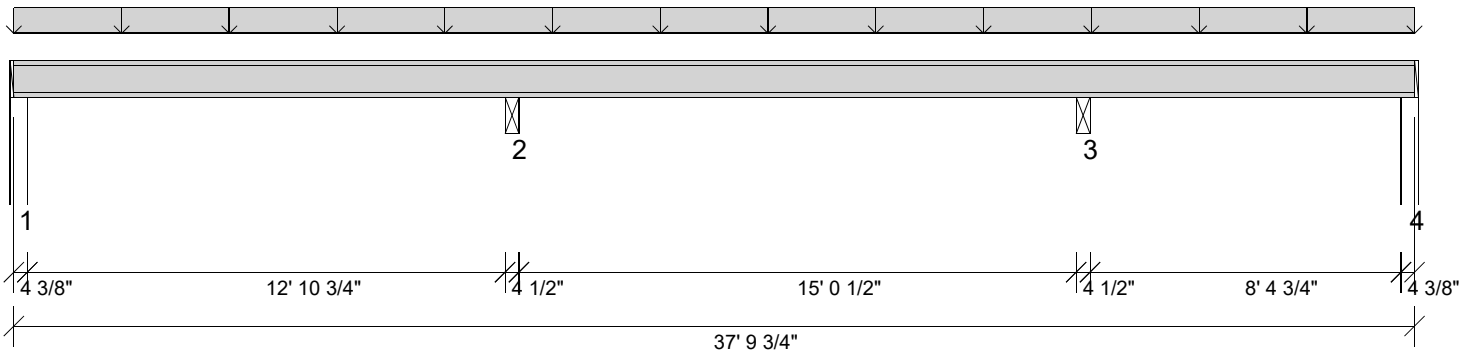


DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 15'- 1/2"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 13'- 5 3/8"
- 565 psi Beam @ 28'- 10 3/8"
- 425 psi Wall @ 37'- 6 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	5'- 11 1/4"	D + L	1.00	1274 lb ft	3545 lb ft	Passed - 36%
Max Neg. Moment:	13'- 5 3/8"	D + L	1.00	1811 lb ft	3545 lb ft	Passed - 51%
Max Shear:	13'- 7 11/16"	D + L	1.00	654 lb	1620 lb	Passed - 40%
Live Load (LL) Pos. Defl.:	6'- 6 1/2"	L		0.095"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	20'- 1/16"	L		0.041"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 5 1/4"	D + L		0.105"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	18'- 11 3/8"	D + L		0.030"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	482 lb		1430 lb	4648 lb	Passed - 34%
2	4 1/2"	D + L	1.00	1309 lb		3000 lb	6356 lb	Passed - 44%
3	4 1/2"	D + L	1.00	1157 lb		3000 lb	6356 lb	Passed - 39%
4	4 3/8"	D + L	1.00	347 lb		1430 lb	4648 lb	Passed - 24%
4	4 3/8"	D + L	1.00		-65 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	37'- 9 3/4"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W14(i14)	85 lb	397/-58 lb	-	-	-
2	13'- 3 1/8"	13'- 7 5/8"	BBO2(i18)	262 lb	1072 lb	-	-	-
3	28'- 8 1/8"	29'- 5/8"	BBO1(i17)	214 lb	943 lb	-	-	-
4	37'- 5 3/8"	37'- 9 3/4"	W38(i1204)	47 lb	300/-112 lb	-	-	-

DESIGN NOTES

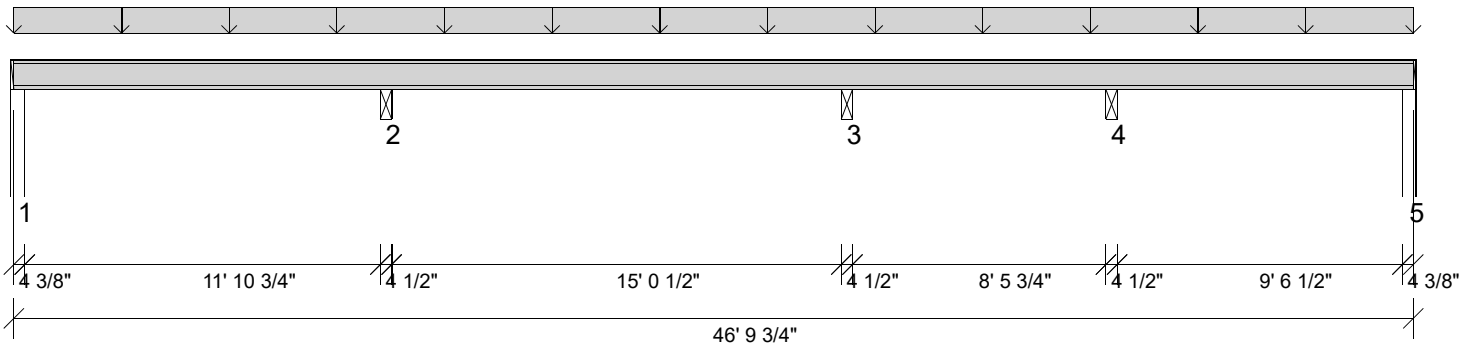
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Beam Stability Factor used in the calculation for Allowable Max Neg Moment (CL) = 1.00
- Bearing length at support 1, 4 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J48 - i1782** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 15'- 1/2"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 12'- 5 3/8"
- 565 psi Beam @ 27'- 10 3/8"
- 565 psi Beam @ 36'- 8 5/8"
- 425 psi Wall @ 46'- 6 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	20'- 1 3/4"	D + L	1.00	1233 lb ft	3545 lb ft	Passed - 35%
Max Neg. Moment:	12'- 5 3/8"	D + L	1.00	1712 lb ft	3545 lb ft	Passed - 48%
Max Shear:	12'- 7 11/16"	D + L	1.00	650 lb	1620 lb	Passed - 40%
Live Load (LL) Pos. Defl.:	20'- 1 1/16"	L		0.105"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	31'- 9 13/16"	L		0.023"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	20'- 1 13/16"	D + L		0.122"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	31'- 9 1/4"	D + L		0.024"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	447 lb		1430 lb	4648 lb	Passed - 31%
2	4 1/2"	D + L	1.00	1271 lb		3000 lb	6356 lb	Passed - 42%
3	4 1/2"	D + L	1.00	1143 lb		3000 lb	6356 lb	Passed - 38%
4	4 1/2"	D + L	1.00	909 lb		3000 lb	6356 lb	Passed - 30%
5	4 3/8"	D + L	1.00	392 lb		1430 lb	4648 lb	Passed - 27%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	46'- 9 3/4"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

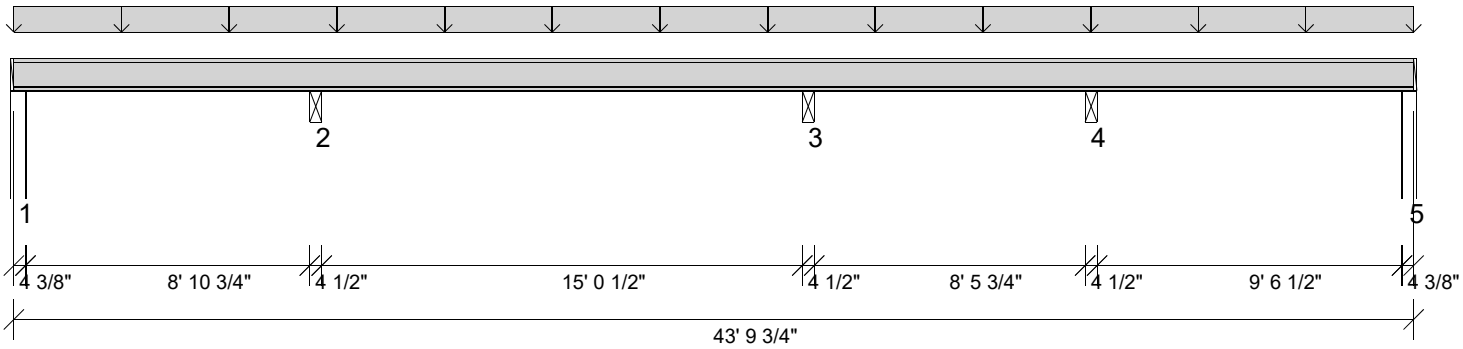
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W12(i13)	76 lb	371/-66 lb	-	-	-
2	12'- 3 1/8"	12'- 7 5/8"	BBO2(i18)	254 lb	1038 lb	-	-	-
3	27'- 8 1/8"	28'- 5/8"	BBO1(i17)	200 lb	942 lb	-	-	-
4	36'- 6 3/8"	36'- 10 7/8"	BBO3(i1377)	149 lb	760 lb	-	-	-
5	46'- 5 3/8"	46'- 9 3/4"	W45(i1303)	72 lb	319/-30 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1, 5 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J44 - i1808** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26 — Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 15'- 1/2"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 9'- 5 3/8"
- 565 psi Beam @ 24'- 10 3/8"
- 565 psi Beam @ 33'- 8 5/8"
- 425 psi Wall @ 43'- 6 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	17'- 2 9/16"	D + L	1.00	1213 lb ft	3545 lb ft	Passed - 34%
Max Neg. Moment:	9'- 5 3/8"	D + L	1.00	1478 lb ft	3545 lb ft	Passed - 42%
Max Shear:	9'- 7 11/16"	D + L	1.00	630 lb	1620 lb	Passed - 39%
Live Load (LL) Pos. Defl.:	17'- 2 1/8"	L		0.100"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	28'- 10"	L		0.022"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	17'- 2 5/16"	D + L		0.119"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	28'- 9 5/16"	D + L		0.024"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	343 lb		1430 lb	4648 lb	Passed - 24%
1	4 3/8"	D + L	1.00		-51 lb	-	-	
2	4 1/2"	D + L	1.00	1148 lb		3000 lb	6356 lb	Passed - 38%
3	4 1/2"	D + L	1.00	1136 lb		3000 lb	6356 lb	Passed - 38%
4	4 1/2"	D + L	1.00	890 lb		3000 lb	6356 lb	Passed - 30%
5	4 3/8"	D + L	1.00	391 lb		1430 lb	4648 lb	Passed - 27%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	43'- 9 3/4"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W10(i7)	49 lb	294/-100 lb	-	-	-
2	9'- 3 1/8"	9'- 7 5/8"	BBO2(i18)	230 lb	943 lb	-	-	-
3	24'- 8 1/8"	25'- 5/8"	BBO1(i17)	207 lb	929 lb	-	-	-
4	33'- 6 3/8"	33'- 10 7/8"	BBO3(i1377)	146 lb	744 lb	-	-	-
5	43'- 5 3/8"	43'- 9 3/4"	W45(i1303)	73 lb	318/-28 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
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- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1, 5 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

MiTek	Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J42 - i1806** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

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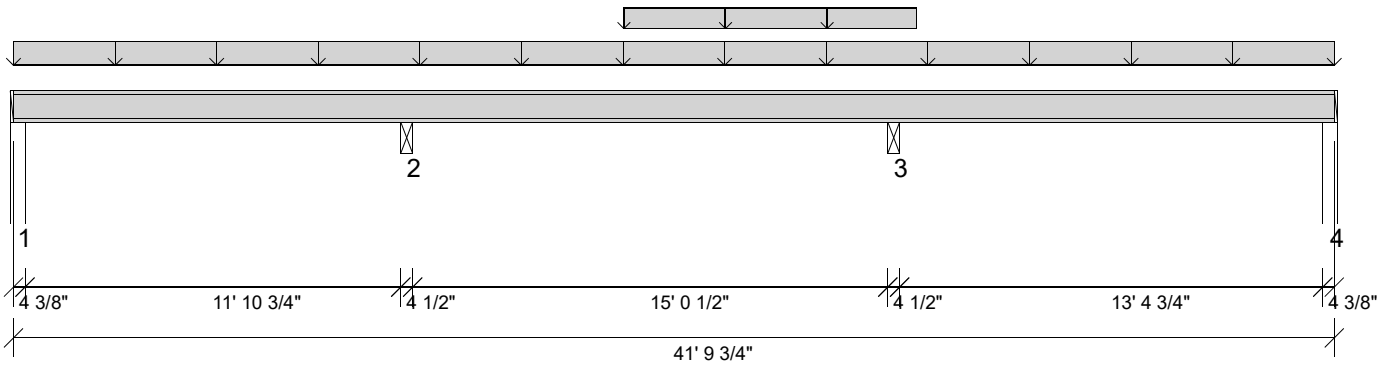

DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 15'- 1/2"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 12'- 5 3/8"
- 565 psi Beam @ 27'- 10 3/8"
- 425 psi Wall @ 41'- 6 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	20'- 6 11/16"	D + L	1.00	1582 lb ft	3545 lb ft	Passed - 45%
Max Neg. Moment:	27'- 10 3/8"	D + L	1.00	2162 lb ft	3545 lb ft	Passed - 61%
Max Shear:	27'- 8 1/16"	D + L	1.00	859 lb	1620 lb	Passed - 53%
Live Load (LL) Pos. Defl.:	34'- 11 13/16"	L		0.111"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	20'- 6"	L		0.059"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	20'- 3 3/4"	D + L		0.156"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	32'- 10 1/8"	D + L		0.041"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	447 lb		1430 lb	4648 lb	Passed - 31%
1	4 3/8"	D + L	1.00		-7 lb	-	-	
2	4 1/2"	D + L	1.00	1297 lb		3000 lb	6357 lb	Passed - 43%
3	4 1/2"	D + L	1.00	1607 lb		3000 lb	6356 lb	Passed - 54%
4	4 3/8"	D + L	1.00	488 lb		1430 lb	4649 lb	Passed - 34%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	41'- 9 3/4"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-
Uniform	19'- 3 7/8"	28'- 6 7/8"	FC1 Floor Decking (Plan View Fill)	Top	32 lb/ft	-	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W8(i2)	63 lb	385/-69 lb	-	-	-
2	12'- 3 1/8"	12'- 7 5/8"	BBO2(i18)	329 lb	1048 lb	-	-	-
3	27'- 8 1/8"	28'- 5/8"	BBO1(i17)	505 lb	1102 lb	-	-	-
4	41'- 5 3/8"	41'- 9 3/4"	W4(i4)	71 lb	417/-57 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Beam Stability Factor used in the calculation for Allowable Max Neg Moment (CL) = 1.00
- Bearing length at support 1, 4 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J30 - i1817** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

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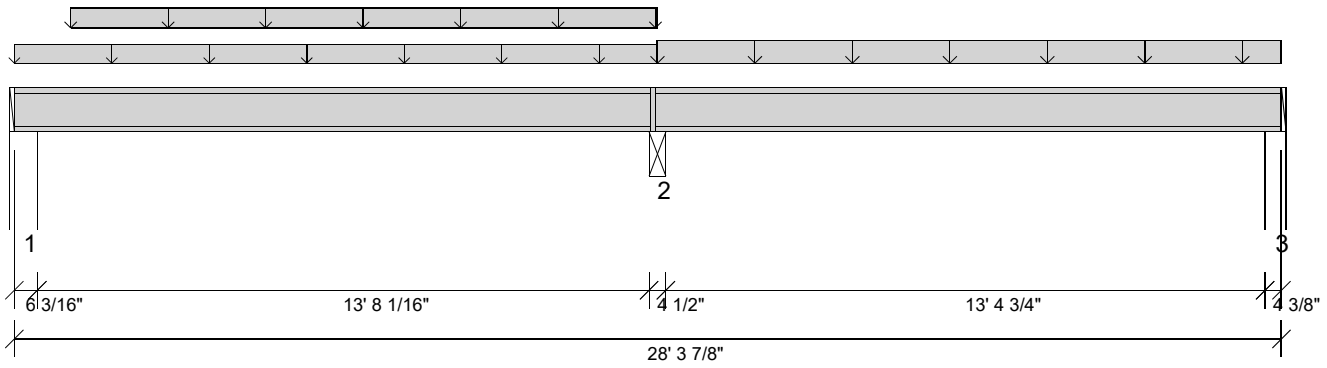
Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0'- 1 1/4" Bottom: 13'- 8 1/16"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 5 3/16"
- 565 psi Beam @ 14'- 4 1/2"
- 425 psi Wall @ 28'- 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	22'- 1 5/8"	D + L	1.00	1390 lb ft	3545 lb ft	Passed - 39%
Max Neg. Moment:	14'- 4 1/2"	D + L	1.00	1413 lb ft	3545 lb ft	Passed - 40%
Max Shear:	14'- 6 13/16"	D + L	1.00	636 lb	1620 lb	Passed - 39%
Live Load (LL) Pos. Defl.:	21'- 6 15/16"	L		0.102"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	8'- 5 13/16"	L		0.038"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	21'- 7 9/16"	D + L		0.123"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	8'- 11 11/16"	D + L		0.037"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	6 3/16"	D + L	1.00	217 lb		1430 lb	6574 lb	Passed - 15%
1	6 3/16"	D + L	1.00		-20 lb	-	-	
2	4 1/2"	D + L	1.00	1031 lb		3000 lb	6356 lb	Passed - 34%
3	4 3/8"	D + L	1.00	502 lb		1430 lb	4649 lb	Passed - 35%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	14'- 4 1/2"	FC1 Floor Decking (Plan View Fill)	Top	1 lb/ft	4 lb/ft	-	-	-
Uniform	1'- 3 1/8"	14'- 4 1/2"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	28 lb/ft	-	-	-
Uniform	14'- 4 1/2"	28'- 3 7/8"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 6 3/16"	W18(i20)	33 lb	185/-53 lb	-	-	-
2	14'- 2 1/4"	14'- 6 3/4"	BBO1(i17)	208 lb	823 lb	-	-	-
3	27'- 11 1/2"	28'- 3 7/8"	W4(i4)	95 lb	407/-29 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
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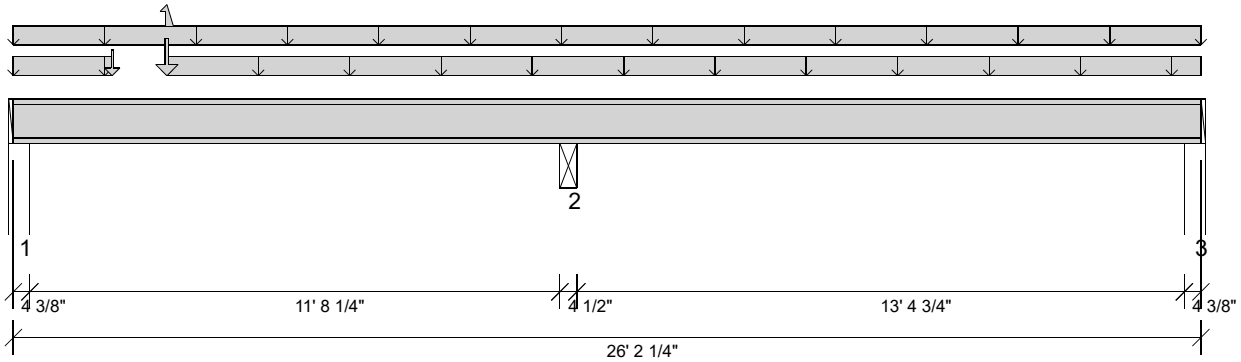
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1, 3 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J28 - i1826** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26 — Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 13'- 4 3/4"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 12'- 2 7/8"
- 425 psi Wall @ 25'- 10 7/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	4'- 6 5/16"	D + L	1.00	1371 lb ft	3545 lb ft	Passed - 39%
Max Neg. Moment:	12'- 2 7/8"	D + L	1.00	1805 lb ft	3545 lb ft	Passed - 51%
Max Shear:	12'- 9/16"	D + L	1.00	668 lb	1620 lb	Passed - 41%
Live Load (LL) Pos. Defl.:	19'- 5 3/4"	L		0.099"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	7'- 2 1/4"	L		0.030"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	19'- 6 7/8"	D + L		0.116"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	8'- 9/16"	D + L		0.024"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	605 lb		1430 lb	4648 lb	Passed - 42%
2	4 1/2"	D + L	1.00	1362 lb		3000 lb	6356 lb	Passed - 45%
3	4 3/8"	D + L	1.00	493 lb		1430 lb	4649 lb	Passed - 34%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	26'- 2 1/4"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	32 lb/ft	-	-	-
Uniform	0'	2'- 2 1/8"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	32 lb/ft	-	-	-
Uniform	3'- 4 5/8"	26'- 2 1/4"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	32 lb/ft	-	-	-
Point	2'- 2 1/8"	2'- 2 1/8"	J4(i1828)	Front	17 lb	70 lb	-	-	-
Point	3'- 4 5/8"	3'- 4 5/8"	J4(i1824)	Front	29 lb	168/-52 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W17(i21)	100 lb	505/-67 lb	-	-	-
2	12'- 5/8"	12'- 5 1/8"	BBO1(i17)	269 lb	1094/-19 lb	-	-	-
3	25'- 9 7/8"	26'- 2 1/4"	W4(i4)	89 lb	403/-48 lb	-	-	-

DESIGN NOTES

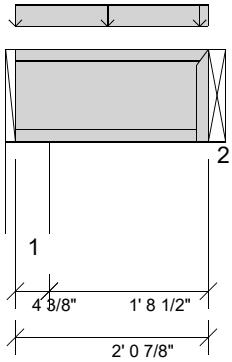
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Beam Stability Factor used in the calculation for Allowable Max Neg Moment (CL) = 1.00
- Bearing length at support 1, 3 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

MiTek	Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J4 - i1829** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 8 1/2"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 425 psi Beam @ 2'- 7/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	1'- 2 9/16"	D + L	1.00	30 lb ft	3545 lb ft	Passed - 1%
Max Shear:	2'- 13/16"	D + L	1.00	68 lb	1620 lb	Passed - 4%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	105 lb		1430 lb	4649 lb	Passed - 7%
2	1 3/4"	D + L	1.00	77 lb		1200 lb	-	Passed - 6%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
2	IUS2.56/11.88	Simpson	-	10- 10d	2- Strong-Grip	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	2'- 7/8"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

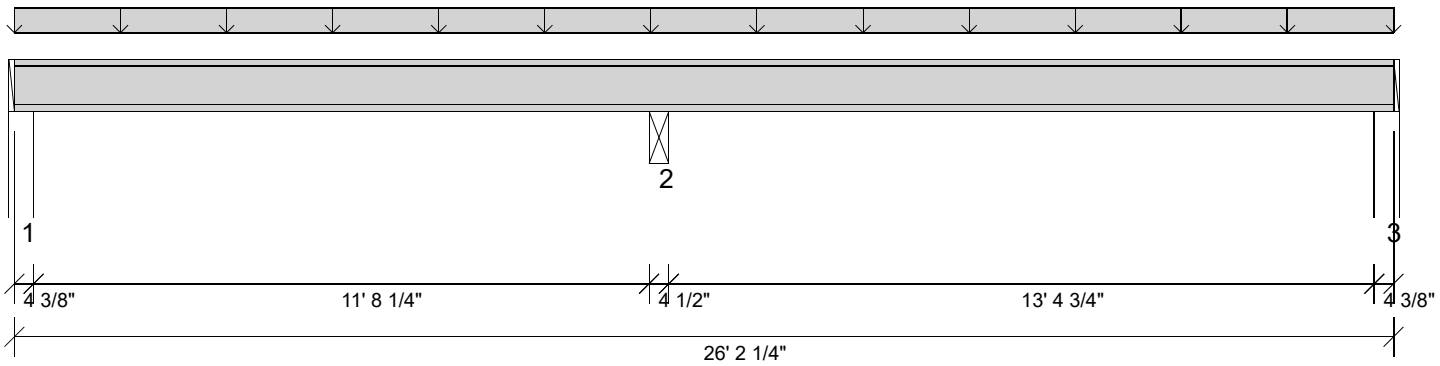
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W17(i21)	21 lb	84 lb	-	-	-
2	2'- 7/8"	2'- 7/8"	J4(i1828)	15 lb	62 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J28 - i1779** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26 — Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 13'- 4 3/4"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 12'- 2 7/8"
- 425 psi Wall @ 25'- 10 7/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	20'- 1 3/16"	D + L	1.00	1343 lb ft	3545 lb ft	Passed - 38%
Max Neg. Moment:	12'- 2 7/8"	D + L	1.00	1661 lb ft	3545 lb ft	Passed - 47%
Max Shear:	12'- 5 3/16"	D + L	1.00	652 lb	1620 lb	Passed - 40%
Live Load (LL) Pos. Defl.:	19'- 5 3/4"	L		0.099"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	7'- 2 1/4"	L		0.030"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	19'- 6 11/16"	D + L		0.117"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	7'- 9 7/8"	D + L		0.026"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/8"	D + L	1.00	436 lb		1430 lb	4649 lb	Passed - 31%
2	4 1/2"	D + L	1.00	1285 lb		3000 lb	6356 lb	Passed - 43%
3	4 3/8"	D + L	1.00	495 lb		1430 lb	4649 lb	Passed - 35%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	26'- 2 1/4"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W17(i21)	74 lb	362/-67 lb	-	-	-
2	12'- 5/8"	12'- 5 1/8"	BBO1(i17)	257 lb	1028 lb	-	-	-
3	25'- 9 7/8"	26'- 2 1/4"	W4(i4)	91 lb	403/-39 lb	-	-	-

DESIGN NOTES

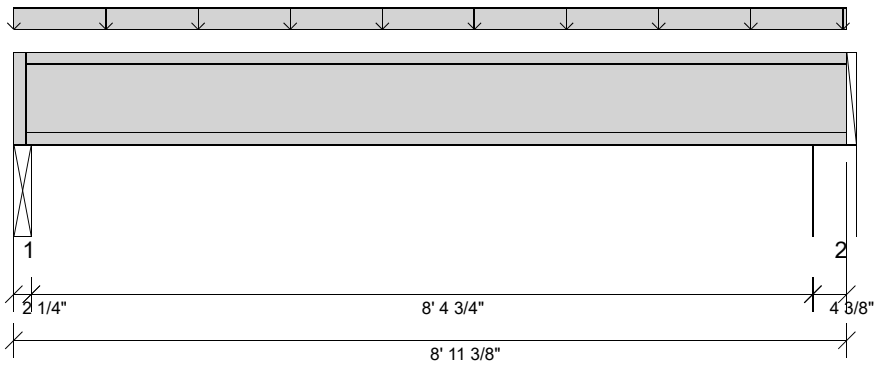
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1, 3 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J10 - i1799** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 8'- 4 3/4"

Bearing Stress of Support Material:

- 565 psi Beam @ 0'- 1 1/4"
- 425 psi Wall @ 8'- 8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	4'- 4 9/16"	D + L	1.00	730 lb ft	3545 lb ft	Passed - 21%
Max Shear:	8'- 6 15/16"	D + L	1.00	336 lb	1620 lb	Passed - 21%
Live Load (LL) Pos. Defl.:	4'- 4 5/8"	L		0.027"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 4 5/8"	D + L		0.034"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	2 1/4"	D + L	1.00	350 lb		1251 lb	3178 lb	Passed - 28%
2	4 3/8"	D + L	1.00	373 lb		1430 lb	4648 lb	Passed - 26%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	8'- 11 3/8"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 2 1/4"	BBO1(i17)	70 lb	280 lb	-	-	-
2	8'- 7"	8'- 11 3/8"	W38(i1204)	75 lb	298 lb	-	-	-

DESIGN NOTES

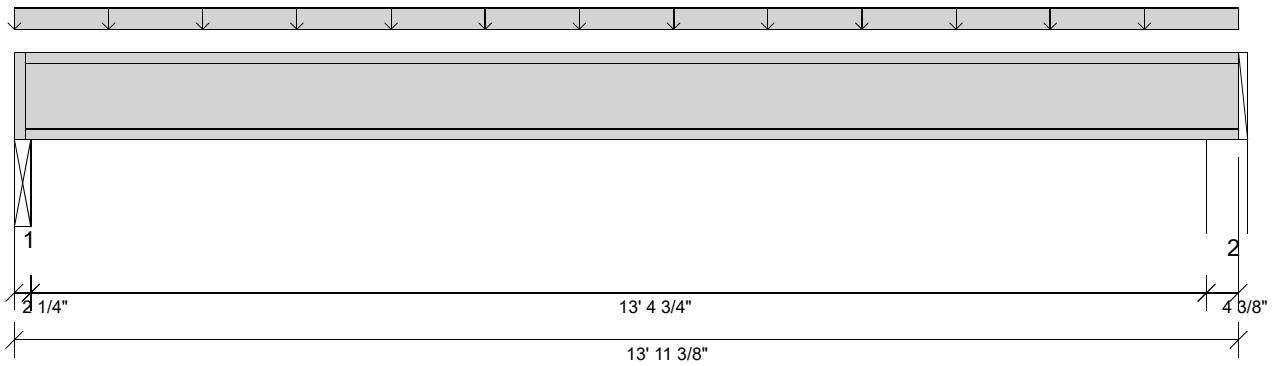
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 2 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

MiTek	Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J14 - i1771** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 13'- 4 3/4"

Bearing Stress of Support Material:

- 565 psi Beam @ 0'- 1 1/4"
- 425 psi Wall @ 13'- 8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 10 9/16"	D + L	1.00	1607 lb ft	3545 lb ft	Passed - 45%
Max Shear:	13'- 6 15/16"	D + L	1.00	469 lb	1620 lb	Passed - 29%
Live Load (LL) Pos. Defl.:	6'- 10 5/8"	L		0.122"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 10 5/8"	D + L		0.152"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	2 1/4"	D + L	1.00	482 lb		1251 lb	3178 lb	Passed - 38%
2	4 3/8"	D + L	1.00	501 lb		1430 lb	4649 lb	Passed - 35%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	13'- 11 3/8"	FC1 Floor Decking (Plan View Fill)	Top	14 lb/ft	56 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 2 1/4"	BBO1(i17)	96 lb	385 lb	-	-	-
2	13'- 7"	13'- 11 3/8"	W4(i4)	100 lb	401 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
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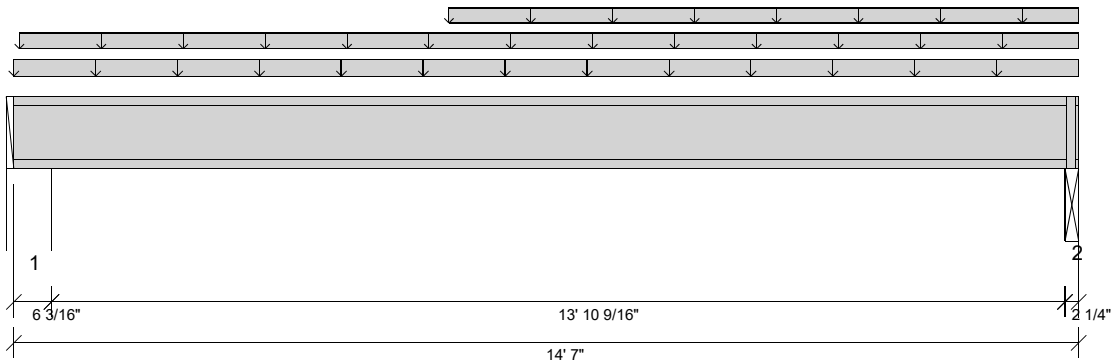
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 2 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J16 - i1793** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0'- 1 1/4" Bottom: 13'- 10 9/16"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 5 3/16"
- 565 psi Beam @ 14'- 5 3/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	7'- 6"	D + L	1.00	1008 lb ft	3545 lb ft	Passed - 28%
Max Shear:	14'- 4 11/16"	D + L	1.00	285 lb	1620 lb	Passed - 18%
Live Load (LL) Pos. Defl.:	7'- 5 1/2"	L		0.079"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	7'- 5 5/8"	D + L		0.101"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	6 3/16"	D + L	1.00	306 lb		1430 lb	6574 lb	Passed - 21%
2	2 1/4"	D + L	1.00	293 lb		1251 lb	3178 lb	Passed - 23%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	14'- 7"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	28 lb/ft	-	-	-
Uniform	0'- 15/16"	14'- 7"	FC1 Floor Decking (Plan View Fill)	Top	1 lb/ft	4 lb/ft	-	-	-
Uniform	5'- 11 1/2"	14'- 7"	FC1 Floor Decking (Plan View Fill)	Top	1 lb/ft	-	-	-	-

UNFACTORED REACTIONS

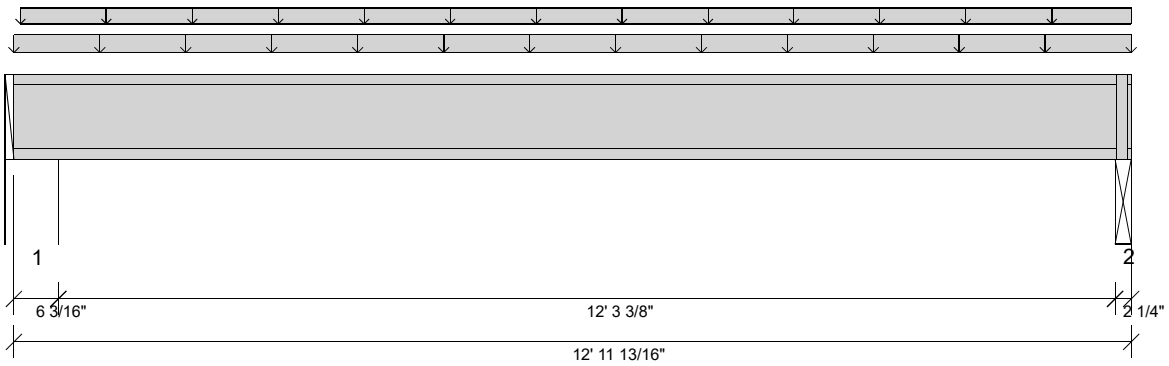
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 6 3/16"	W18(i20)	64 lb	242 lb	-	-	-
2	14'- 4 3/4"	14'- 7"	BBO1(i17)	65 lb	228 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

MiTek	Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J14 - i1759** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26 — Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0'- 1 1/4" Bottom: 12'- 3 3/8"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 5 3/16"
- 565 psi Beam @ 12'- 10 9/16"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 8"	D + L	1.00	772 lb ft	3545 lb ft	Passed - 22%
Max Shear:	0'- 6 1/4"	D + L	1.00	246 lb	1620 lb	Passed - 15%
Live Load (LL) Pos. Defl.:	6'- 7 15/16"	L		0.051"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 7 15/16"	D + L		0.063"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	6 3/16"	D + L	1.00	271 lb		1430 lb	6574 lb	Passed - 19%
2	2 1/4"	D + L	1.00	253 lb		1251 lb	3178 lb	Passed - 20%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	12'- 11 13/16"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	28 lb/ft	-	-	-
Uniform	0'- 15/16"	12'- 11 13/16"	FC1 Floor Decking (Plan View Fill)	Top	1 lb/ft	4 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 6 3/16"	W18(i20)	54 lb	217 lb	-	-	-
2	12'- 9 9/16"	12'- 11 13/16"	BBO1(i17)	51 lb	202 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

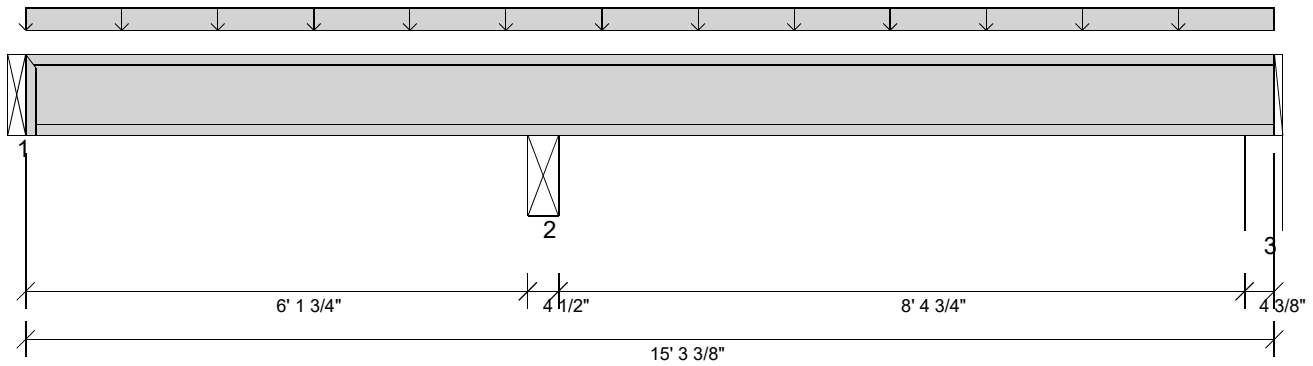
Customer: MITCHELL HOMES Job Name: WINCHESTER Address: City/ State:	Job Name: WINCHESTER Level: 1ST FLOOR Label: J24 - i1823 Type: FloorJoist	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J16 - i1775** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 8'- 4 3/4"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 565 psi Beam @ 6'- 4"
- 425 psi Wall @ 15'

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	11'- 4"	D + L	1.00	533 lb ft	3545 lb ft	Passed - 15%
Max Neg. Moment:	6'- 4"	D + L	1.00	602 lb ft	3545 lb ft	Passed - 17%
Max Shear:	6'- 6 5/16"	D + L	1.00	400 lb	1620 lb	Passed - 25%
Live Load (LL) Pos. Defl.:	10'- 11 7/16"	L		0.019"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	10'- 11 13/16"	D + L		0.023"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	1 3/4"	D + L	1.00	221 lb		1200 lb	-	Passed - 18%
1	1 3/4"	D + L	1.00		-21 lb	-	-	
2	4 1/2"	D + L	1.00	764 lb		3000 lb	6356 lb	Passed - 25%
3	4 3/8"	D + L	1.00	323 lb		1430 lb	4648 lb	Passed - 23%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	IUS2.56/11.88	Simpson	-	10- 10d	2- Strong-Grip	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	15'- 3 3/8"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'	J4(i1818)	33 lb	188/-55 lb	-	-	-
2	6'- 1 3/4"	6'- 6 1/4"	BBO1(i17)	153 lb	611 lb	-	-	-
3	14'- 11"	15'- 3 3/8"	W38(i1204)	62 lb	262/-16 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 3 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J4 - i1815** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

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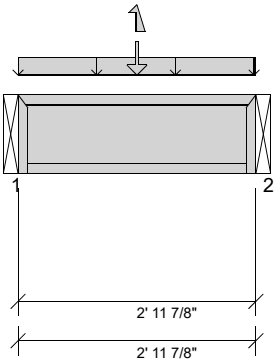


DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 4 11/16"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 425 psi Beam @ 2'- 11 7/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	1'- 5 15/16"	D + L	1.00	224 lb ft	3545 lb ft	Passed - 6%
Max Neg. Moment:	1'- 5 15/16"	D + L	1.00	83 lb ft	3545 lb ft	Passed - 2%
Max Shear:	2'- 11 13/16"	D + L	1.00	194 lb	1620 lb	Passed - 12%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	1 3/4"	D + L	1.00	201 lb		1200 lb	-	Passed - 17%
1	1 3/4"	D + L	1.00		-45 lb	-	-	
2	1 3/4"	D + L	1.00	201 lb		1200 lb	-	Passed - 17%
2	1 3/4"	D + L	1.00		-45 lb	-	-	

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	IUS2.56/11.88	Simpson	-	10- 10d	2- Strong-Grip	-
2	IUS2.56/11.88	Simpson	-	10- 10d	2- Strong-Grip	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	2'- 11 7/8"	FC1 Floor Decking (Plan View Fill)	Top	12 lb/ft	47 lb/ft	-	-	-
Point	1'- 5 15/16"	1'- 5 15/16"	J20(i1760)	Front	14 lb	197/-143 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'	J38(i1780)	26 lb	175/-72 lb	-	-	-
2	2'- 11 7/8"	2'- 11 7/8"	J38(i1795)	26 lb	175/-71 lb	-	-	-

DESIGN NOTES

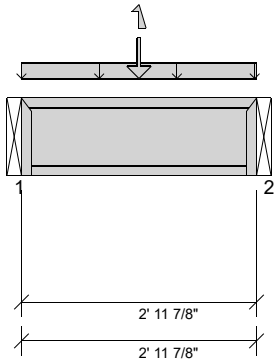
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **J4 - i1824** Type: **FloorJoist**	**1 Ply Member** **11 7/8" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 4 11/16"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 425 psi Beam @ 2'- 11 7/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	1'- 5 15/16"	D + L	1.00	257 lb ft	3545 lb ft	Passed - 7%
Max Neg. Moment:	1'- 5 15/16"	D + L	1.00	42 lb ft	3545 lb ft	Passed - 1%
Max Shear:	0'- 1/16"	D + L	1.00	194 lb	1620 lb	Passed - 12%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	1 3/4"	D + L	1.00	197 lb		1200 lb	-	Passed - 16%
1	1 3/4"	D + L	1.00		-23 lb	-	-	
2	1 3/4"	D + L	1.00	197 lb		1200 lb	-	Passed - 16%
2	1 3/4"	D + L	1.00		-23 lb	-	-	

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	IUS2.56/11.88	Simpson	-	10- 10d	2- Strong-Grip	-
2	IUS2.56/11.88	Simpson	-	10- 10d	2- Strong-Grip	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	2'- 11 7/8"	FC1 Floor Decking (Plan View Fill)	Top	6 lb/ft	24 lb/ft	-	-	-
Point	1'- 5 15/16"	1'- 5 15/16"	J24(i1823)	Back	39 lb	259/-104 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'	J28(i1826)	29 lb	168/-52 lb	-	-	-
2	2'- 11 7/8"	2'- 11 7/8"	J28(i1827)	29 lb	168/-52 lb	-	-	-

DESIGN NOTES

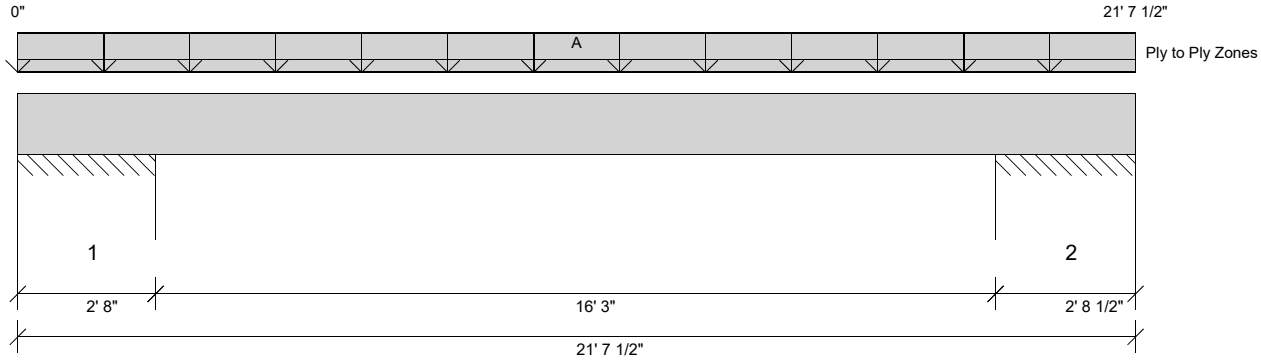
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Reinforcement Accessories are required. Refer to current manufacturer's product literature for installation details.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **DB3-2 - i1610** Type: **Beam**	**2 Ply Member** **2.1 RigidLam SP LVL 1-3/4 x 14**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/450, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 16'- 3"

Bearing Stress of Support Material:

- 725 psi Wall @ 2'- 6 1/2"
- 725 psi Wall @ 19'- 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	10'- 9 7/16"	D + S	1.15	13947 lb ft	32936 lb ft	Passed - 42%
Max Neg. Moment:	19'- 1/2"	D + S	1.15	1762 lb ft	7248 lb ft	Passed - 24%
Max Shear:	17'- 9"	D + S	1.15	3210 lb	10894 lb	Passed - 29%
Live Load (LL) Pos. Defl.:	10'- 9 1/2"	S		0.267"	L/450	Passed - L/729
Total Load (TL) Pos. Defl.:	10'- 9 1/2"	D + S		0.428"	L/240	Passed - L/455

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	1 1/2"	D	0.90		-94 lb	-	-	
1	1' 9"	D + S	1.15	5065 lb		55125 lb	53288 lb	Passed - 10%
2	1' 9"	D + S	1.15	5088 lb		55125 lb	53288 lb	Passed - 10%
2	1 1/2"	D	0.90		-91 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	21'- 7 1/2"	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	0'	21'- 7 1/2"	User Load	Top	179 lb/ft	-	269 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'- 8"	W15(i15)	2070 lb	-	2901 lb	-	-
2	18'- 11"	21'- 7 1/2"	W23(i285)	2080 lb	-	2916 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Design of member is based on a released bearing condition at Support . Ensure that the member is allowed to deflect upward at these supports.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.

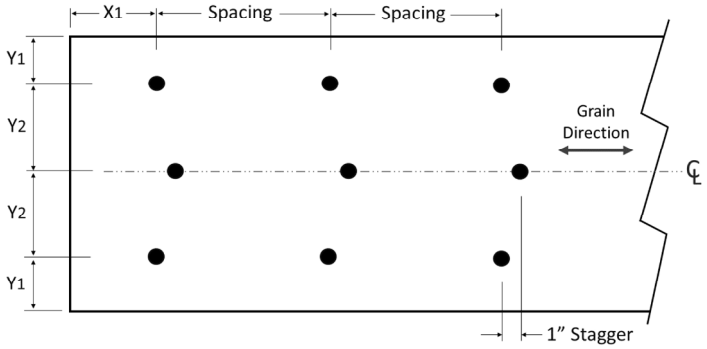
PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 66. Row = 3, Spacing = 12"
  12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 105 lbs. X1 = 2" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer:	MITCHELL HOMES	Job Name:	WINCHESTER	2 Ply Member 2.1 RigidLam SP LVL 1-3/4 x 14	Status: Design Passed
	Job Name:	WINCHESTER	Level:	1ST FLOOR		
	Address:		Label:	DB3-2 - i1610		
	City/ State:		Type:	Beam		

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)

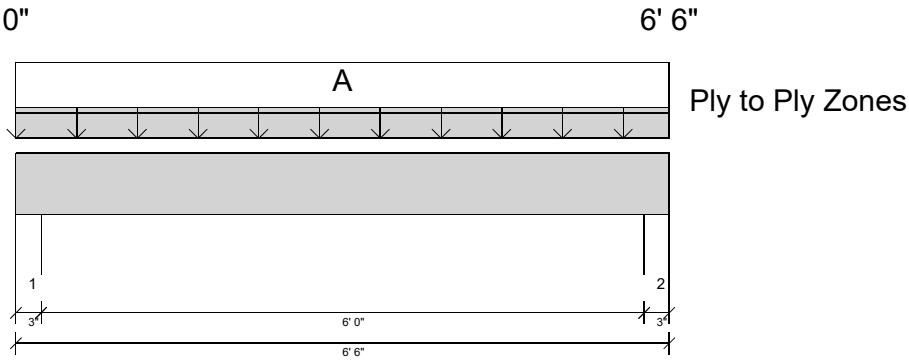


MiTek	Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **DB6-2 - i1608** Type: **Beam**	**2 Ply Member** **2.1 RigidLam SP LVL 1-3/4 x 7-1/4**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 6'

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2"
- 725 psi Wall @ 6'- 4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	3'- 3"	D + S	1.15	3567 lb ft	10075 lb ft	Passed - 35%
Max Shear:	0'- 10 1/4"	D + S	1.15	1803 lb	5642 lb	Passed - 32%
Live Load (LL) Pos. Defl.:	3'- 3"	S		0.078"	L/480	Passed - L/927
Total Load (TL) Pos. Defl.:	3'- 3"	D + S		0.120"	L/240	Passed - L/600

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3"	D + S	1.15	2446 lb		7875 lb	7613 lb	Passed - 32%
2	3"	D + S	1.15	2446 lb		7875 lb	7613 lb	Passed - 32%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	6'- 6"	Self Weight	Top	7 lb/ft	-	-	-	-
Uniform	0'	6'- 6"	User Load	Top	298 lb/ft	-	448 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3"	W31(i532)	992 lb	-	1459 lb	-	-
2	6'- 3"	6'- 6"	W29(i530)	988 lb	-	1453 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.

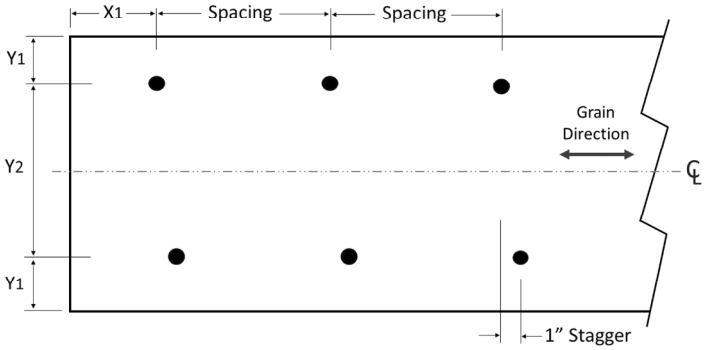
PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 14. Row = 2, Spacing = 12"
  12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 105 lbs. X1 = 2" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer:	MITCHELL HOMES	Job Name:	WINCHESTER	2 Ply Member 2.1 RigidLam SP LVL 1-3/4 x 7-1/4	Status: Design Passed
	Job Name:	WINCHESTER	Level:	1ST FLOOR		
	Address:		Label:	DB6-2 - i1608		
	City/ State:		Type:	Beam		

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)

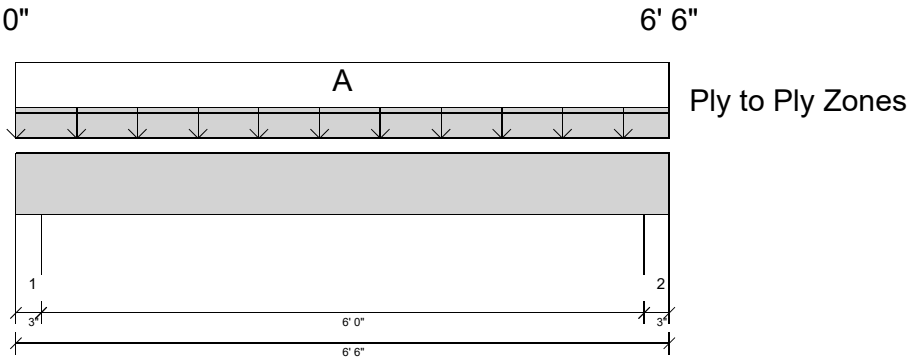


MiTek	Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **DB7-2 - i1379** Type: **Beam**	**2 Ply Member** **2.1 RigidLam SP LVL 1-3/4 x 7-1/4**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 6'

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2"
- 725 psi Wall @ 6'- 4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	3'- 3"	D + S	1.15	5497 lb ft	10075 lb ft	Passed - 55%
Max Shear:	0'- 10 1/4"	D + S	1.15	2778 lb	5642 lb	Passed - 49%
Live Load (LL) Pos. Defl.:	3'- 3"	S		0.120"	L/480	Passed - L/600
Total Load (TL) Pos. Defl.:	3'- 3"	D + S		0.185"	L/240	Passed - L/389

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3"	D + S	1.15	3769 lb		7875 lb	7613 lb	Passed - 50%
2	3"	D + S	1.15	3769 lb		7875 lb	7613 lb	Passed - 50%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	6'- 6"	Self Weight	Top	7 lb/ft	-	-	-	-
Uniform	0'	6'- 6"	User Load	Top	461 lb/ft	-	692 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3"	W27(i528)	1523 lb	-	2254 lb	-	-
2	6'- 3"	6'- 6"	W28(i529)	1517 lb	-	2244 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.

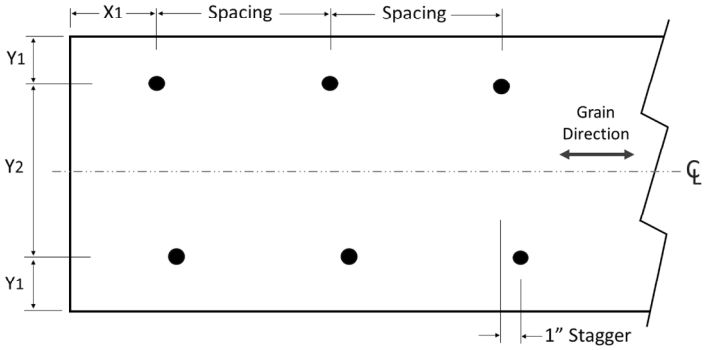
PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 14. Row = 2, Spacing = 12"
  12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 105 lbs. X1 = 2" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer: MITCHELL HOMES Job Name: WINCHESTER Address: City/ State:	Job Name: WINCHESTER Level: 1ST FLOOR Label: DB7-2 - i1379 Type: Beam	2 Ply Member 2.1 RigidLam SP LVL 1-3/4 x 7-1/4	Status: Design Passed

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)



Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **FB9-3 - i1777** Type: **Beam**	**3 Ply Member** **2.1 RigidLam SP LVL 1-3/4 x 11-7/8**	Status: **Design Passed**
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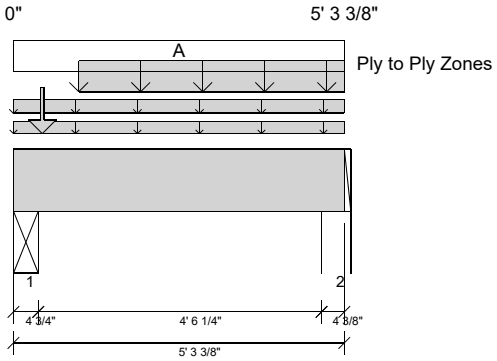
Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 4'- 2 3/4"

Bearing Stress of Support Material:

- 565 psi Beam @ 0'- 3 3/4"
- 425 psi Wall @ 5'

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	2'- 2 3/4"	D + S	1.15	3199 lb ft	36734 lb ft	Passed - 9%
Max Shear:	1'- 4 5/8"	D + S	1.15	1525 lb	13861 lb	Passed - 11%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	4 3/4"	D + S	1.15	13648 lb		18703 lb	14090 lb	Passed - 97%
2	4 3/8"	D + S	1.15	2661 lb		17227 lb	9762 lb	Passed - 27%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	5'- 3 3/8"	Self Weight	Top	16 lb/ft	-	-	-	-
Uniform	0'	5'- 3 3/8"	W48(i1533)	Top	91 lb/ft	-	-	-	-
Uniform	0'	5'- 3 3/8"	FC1 Floor Decking (Plan View Fill)	Top	-	32 lb/ft	-	-	-
Uniform	1'- 1/2"	5'- 3 3/8"	W48(i1533)	Top	292 lb/ft	-	439 lb/ft	-	-
Point	0'- 5 1/2"	0'- 5 1/2"	W48(i1533)	Top	5010 lb	-	7514 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/4"	-	5802 lb	85 lb	8244 lb	-	-
++>	0'- 2 1/4"	0'- 2 1/4"	BBO3(i1377)	5802 lb	85 lb	8244 lb	-	-
++>	0'- 4 5/8"	0'- 4 5/8"	BBO4(i1604)	-	-	-	-	-
2	4'- 11"	5'- 3 3/8"	W4(i4)	1091 lb	84 lb	1172 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 2 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

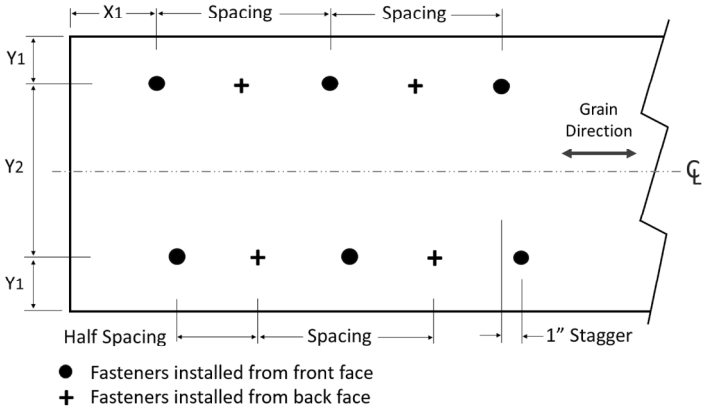
PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 22. Row = 2, Spacing = 12"
  12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 105 lbs. X1 = 2" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer:	MITCHELL HOMES	Job Name:	WINCHESTER	3 Ply Member 2.1 RigidLam SP LVL 1-3/4 x 11-7/8	Status: Design Passed
	Job Name:	WINCHESTER	Level:	1ST FLOOR		
	Address:		Label:	FB9-3 - i1777		
	City/ State:		Type:	Beam		

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM BOTH FACES)

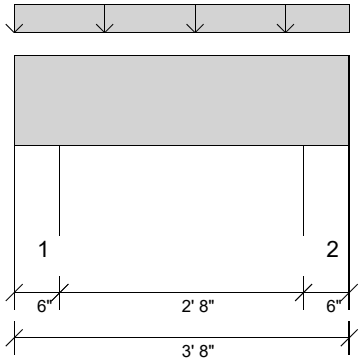


Customer: **MITCHELL HOMES** Job Name: **WINCHESTER** Address: City/ State:	Job Name: **WINCHESTER** Level: **1ST FLOOR** Label: **FB8 - i1769** Type: **Beam**	**1 Ply Member** **2.1 RigidLam SP LVL 1-3/4 x 11-7/8**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 08/21/2025 13:33



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 3'- 8"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 5"
- 425 psi Wall @ 3'- 3"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	1'- 10"	D + S	1.15	168 lb ft	12245 lb ft	Passed - 1%
Max Shear:	2'- 2 1/8"	D + S	1.15	63 lb	4620 lb	Passed - 1%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	6"	D + S	1.15	337 lb		7875 lb	4462 lb	Passed - 8%
2	6"	D + S	1.15	337 lb		7875 lb	4462 lb	Passed - 8%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	3'- 8"	Self Weight	Top	5 lb/ft	-	-	-	-
Uniform	0'	3'- 8"	FC1 Floor Decking (Plan View Fill)	Top	120 lb/ft	19 lb/ft	58 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 6"	W23(i285)	231 lb	35 lb	106 lb	-	-
2	3'- 2"	3'- 8"	W5(i10)	231 lb	35 lb	106 lb	-	-

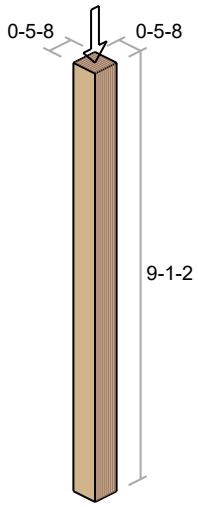
DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

Client:	MITCHELL HOMES	Date:	8/21/2025
Project:		Input by:	CDH
Address:		Job Name:	WINCHESTER
		Project #:	

P1 Anthony Power Column 5.500" X 5.500" - PASSED

Level: Level



Design Method:	ASD
Building Code:	IRC 2021
Importance:	Normal - II
Application:	Column Free Standing
Service Condition:	Dry
Load Sharing:	No

Design OK.

Design Notes

1. Axial load eccentricity of 1/6 side dimension in both cross-section axes, each axis analyzed separately.
2. Designed in accordance with NDS 2018, ASCE7 and IRC 2021.
3. Top and bottom ends of the member must be supported to prevent lateral movement and rotation.
4. Holes and notches are not allowed in member.

Analysis

	Actual	Allowed	Capacity	Load Combination
Slenderness	19.8	50.0	40%	
Axial (lb.)	12524	49268	25%	D+S
Axial + Bending	0.30	1	30%	D+S
Bearing SP (lb.)	12599	17091	74%	D+S
LL Deflection	0.076 (in.) L/1443	0.303 (in.) L/360	25%	S

Design Properties

E:	1900000	Fc:	2300
Ey:	1900000	Fv:	0
Fb:	2100	Fvy:	0
Fby:	2300		

Applied Loads

ID	Load Type	Location	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
Axial								
1	Point	9-1-2	5010 lb	0 lb	7514 lb	0 lb	0 lb	

Manufacturer Info

Anthony Forest Products Co
309 North Washington
El Dorado, AR 71730
(800) 221-2326
www.anthonyforest.com

KEMPSVILLE BUILDING MATERIALS, VA

This design is valid until 2/28/2028