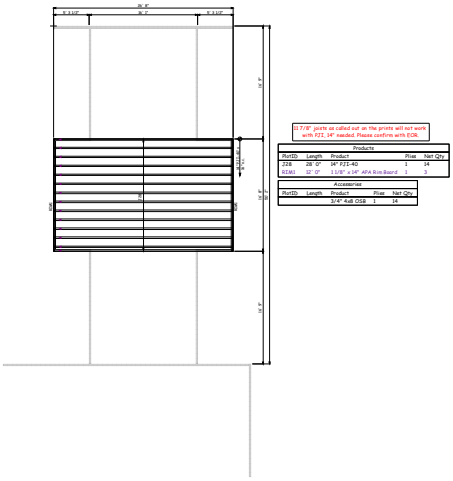
Kempsville Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #:919-775-1450



Builder: **CRH Homes**

Model: **Dalton Res Garage SF Ceiling**

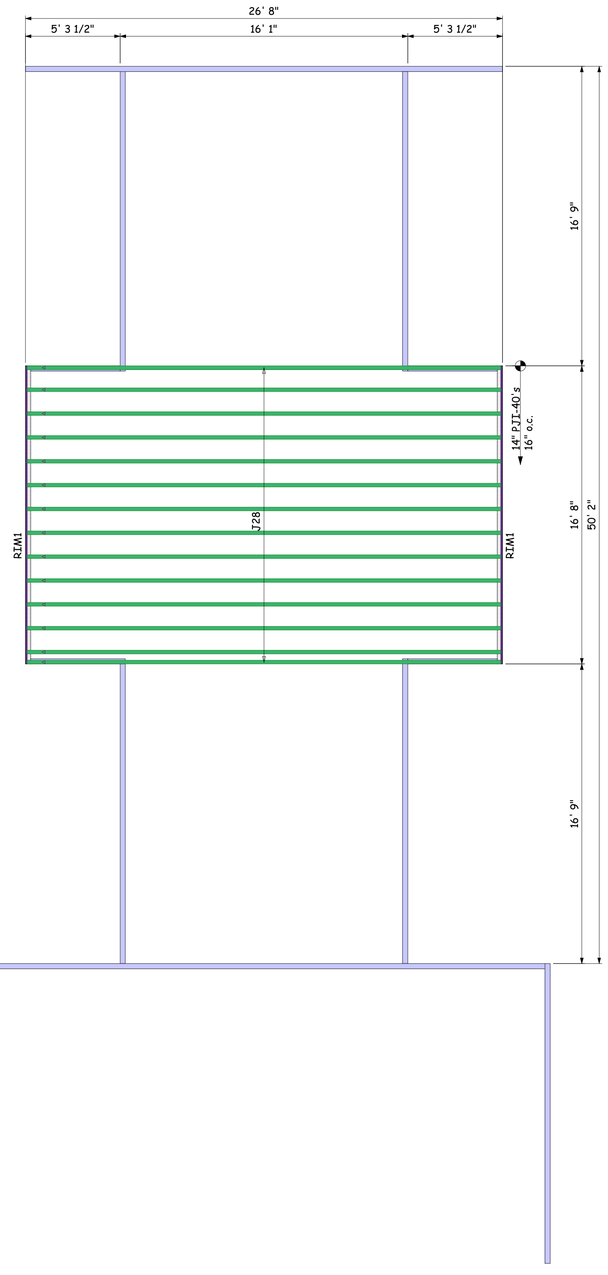
THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss 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.

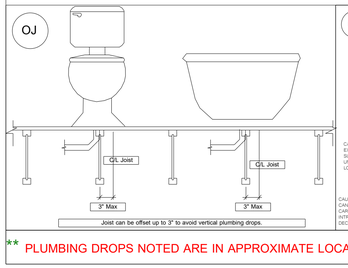


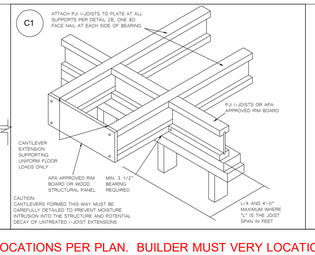
11 7/8" joists as called out on the prints will not work with PJI, 14" needed. Please confirm with EOR.

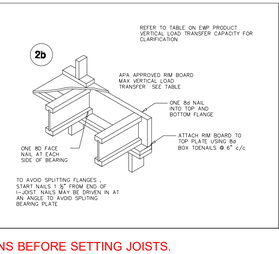
Products				
PlotID	Length	Product	Plies	Net Qty
J28	28' 0"	14" PJI-40	1	14
RIM1	12' 0"	1 1/8" x 14" APA Rim Board	1	3

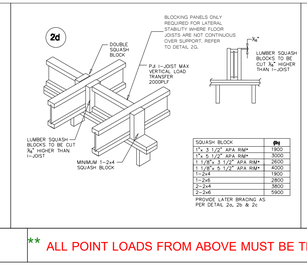
Accessories				
PlotID	Length	Product	Plies	Net Qty
		3/4" 4x8 OSB	1	14

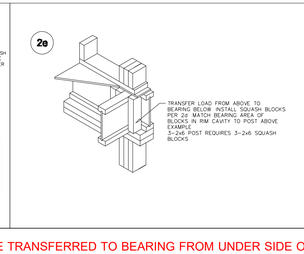
2ND FLOOR CEILING LAYOUT

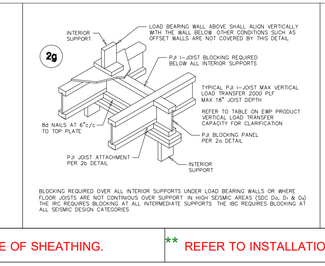


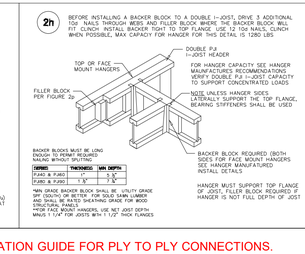












LABEL LEGEND

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

** 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.

** 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.

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 the guidelines in the installation guide of product. Builder takes full responsibility for doing so and NO Back charge will be accepted.

Kempsville Building Materials
A Division of the Carter Lumber Company

CRH Homes

Dalton Res Garage SF CLG

CEILING JOIST LAYOUT

Scale: **1/4" = 1'-0"**

Date: **// 02/13/24**

Designer: **DW**

Project #: **24020039**

Sheet Number:

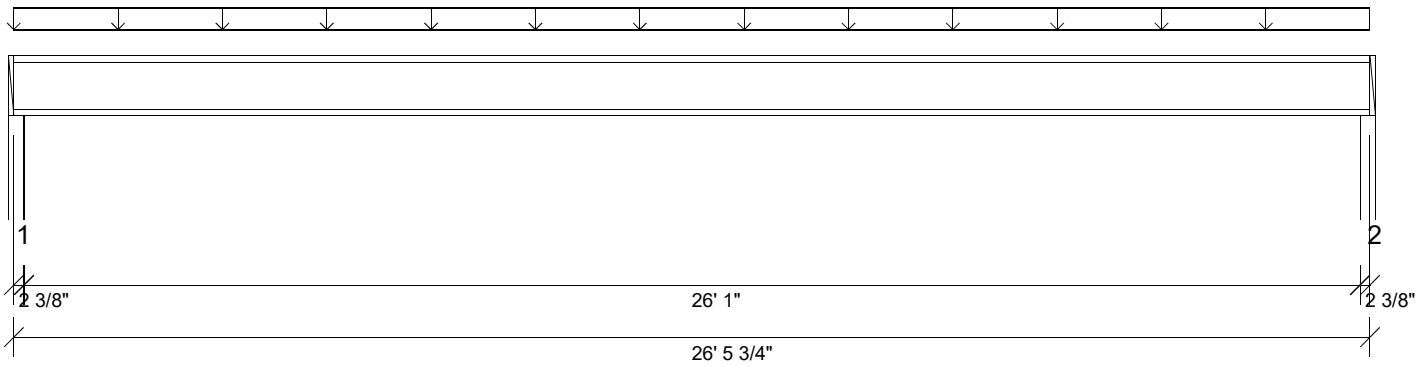
1 / 1

Customer: Job Name: Address: City/ State:	Job Name: **24020039 Dalton Res Garage SF** Level: **3RD FLOOR** Label: **J28 - i148** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.3.353.Update10.11

Report Version: 2021.03.26 02/13/2024 14:56



DESIGN INFORMATION

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" 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: 26'- 1"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 3/8"
- 725 psi Wall @ 26'- 4 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	13'- 2 7/8"	D + L	1.00	3445 lb ft	4270 lb ft	Passed - 81%
Max Shear:	0'- 2 7/16"	D + L	1.00	521 lb	1815 lb	Passed - 29%
Live Load (LL) Pos. Defl.:	13'- 2 7/8"	L		0.513"	L/480	Passed - L/610
Total Load (TL) Pos. Defl.:	13'- 2 7/8"	D + L		0.769"	L/240	Passed - L/406

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 3/8"	D + L	1.00	533 lb		1306 lb	4305 lb	Passed - 41%
2	2 3/8"	D + L	1.00	533 lb		1306 lb	4305 lb	Passed - 41%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	26'- 5 3/4"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	27 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 3/8"	W4(i4)	178 lb	356 lb	-	-	-
2	26'- 3 3/8"	26'- 5 3/4"	W2(i3)	178 lb	356 lb	-	-	-

DESIGN NOTES

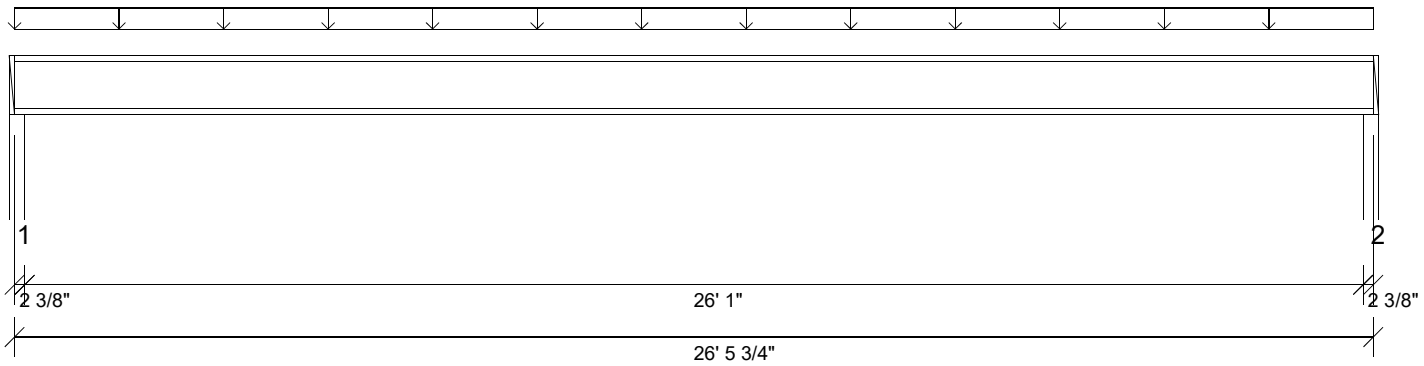
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based 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

MiTek	Customer: Job Name: Address: City/ State:	Job Name: **24020039 Dalton Res Garage SF** Level: **3RD FLOOR** Label: **J28 - i151** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.3.353.Update10.11

Report Version: 2021.03.26 02/13/2024 14:56



DESIGN INFORMATION

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" 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: 26'- 1"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 3/8"
- 725 psi Wall @ 26'- 4 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	13'- 2 7/8"	D + L	1.00	2583 lb ft	4270 lb ft	Passed - 61%
Max Shear:	0'- 2 7/16"	D + L	1.00	391 lb	1815 lb	Passed - 22%
Live Load (LL) Pos. Defl.:	13'- 2 7/8"	L		0.385"	L/480	Passed - L/813
Total Load (TL) Pos. Defl.:	13'- 2 7/8"	D + L		0.577"	L/240	Passed - L/542

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 3/8"	D + L	1.00	400 lb		1306 lb	4305 lb	Passed - 31%
2	2 3/8"	D + L	1.00	400 lb		1306 lb	4305 lb	Passed - 31%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	26'- 5 3/4"	FC1 Floor Decking (Plan View Fill)	Top	10 lb/ft	20 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 3/8"	W4(i4)	133 lb	267 lb	-	-	-
2	26'- 3 3/8"	26'- 5 3/4"	W2(i3)	133 lb	267 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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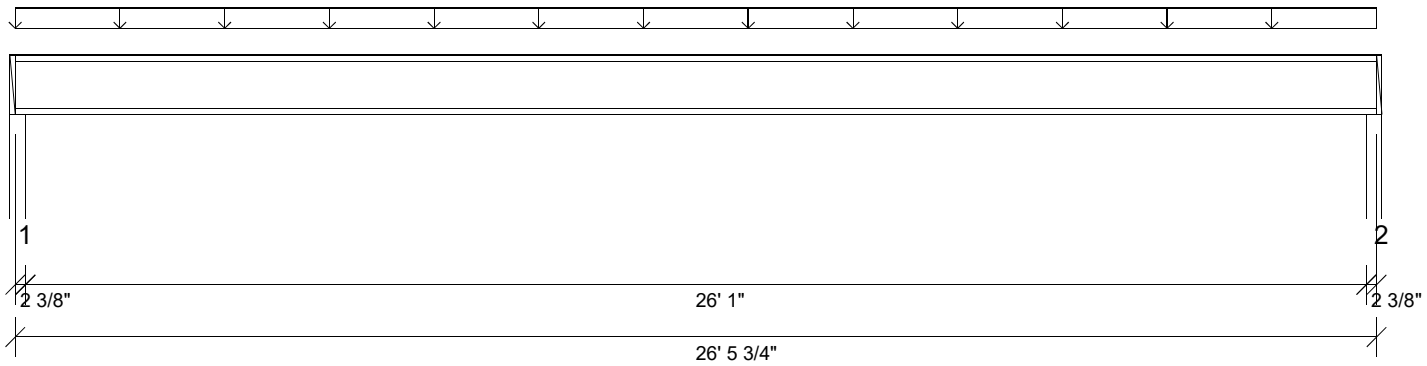
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

MiTek	Customer: Job Name: Address: City/ State:	Job Name: **24020039 Dalton Res Garage SF** Level: **3RD FLOOR** Label: **J28 - i158** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.3.353.Update10.11

Report Version: 2021.03.26 02/13/2024 14:56



DESIGN INFORMATION

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" 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: 26'- 1"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 3/8"
- 725 psi Wall @ 26'- 4 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	13'- 2 7/8"	D + L	1.00	1722 lb ft	4270 lb ft	Passed - 40%
Max Shear:	0'- 2 7/16"	D + L	1.00	261 lb	1815 lb	Passed - 14%
Live Load (LL) Pos. Defl.:	13'- 2 7/8"	L		0.256"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	13'- 2 7/8"	D + L		0.385"	L/240	Passed - L/813

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 3/8"	D + L	1.00	267 lb		1306 lb	4305 lb	Passed - 20%
2	2 3/8"	D + L	1.00	267 lb		1306 lb	4305 lb	Passed - 20%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	26'- 5 3/4"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	13 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 3/8"	W4(i4)	89 lb	178 lb	-	-	-
2	26'- 3 3/8"	26'- 5 3/4"	W2(i3)	89 lb	178 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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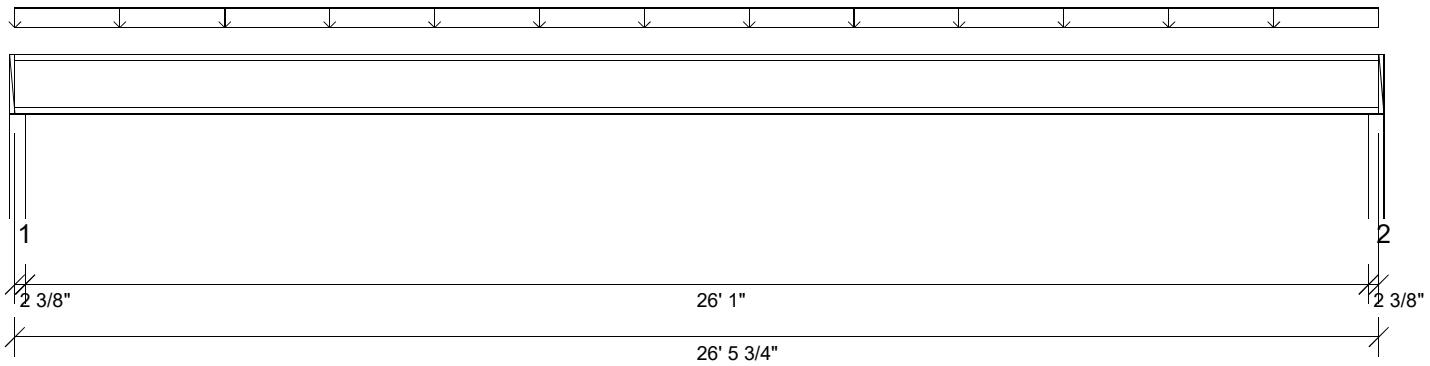
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

MiTek	Customer: Job Name: Address: City/ State:	Job Name: **24020039 Dalton Res Garage SF** Level: **3RD FLOOR** Label: **J28 - i159** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.3.353.Update10.11

Report Version: 2021.03.26 02/13/2024 14:56



DESIGN INFORMATION

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" 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: 26'- 1"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 3/8"
- 725 psi Wall @ 26'- 4 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	13'- 2 7/8"	D + L	1.00	861 lb ft	4270 lb ft	Passed - 20%
Max Shear:	0'- 2 7/16"	D + L	1.00	130 lb	1815 lb	Passed - 7%
Live Load (LL) Pos. Defl.:	13'- 2 7/8"	L		0.128"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	13'- 2 7/8"	D + L		0.192"	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 3/8"	D + L	1.00	133 lb		1306 lb	4305 lb	Passed - 10%
2	2 3/8"	D + L	1.00	133 lb		1306 lb	4305 lb	Passed - 10%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	26'- 5 3/4"	FC1 Floor Decking (Plan View Fill)	Top	3 lb/ft	7 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 3/8"	W4(i4)	44 lb	89 lb	-	-	-
2	26'- 3 3/8"	26'- 5 3/4"	W2(i3)	44 lb	89 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.
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- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00