

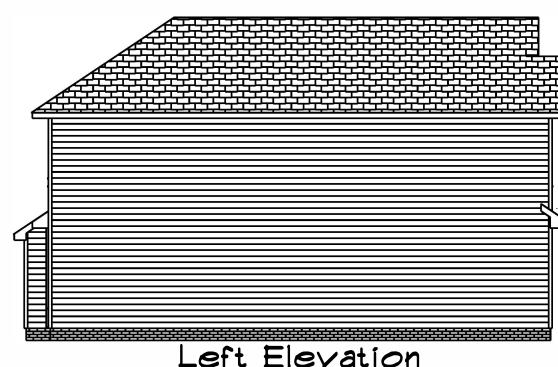








Right Elevation
Scale: 1/8"= 1'0"

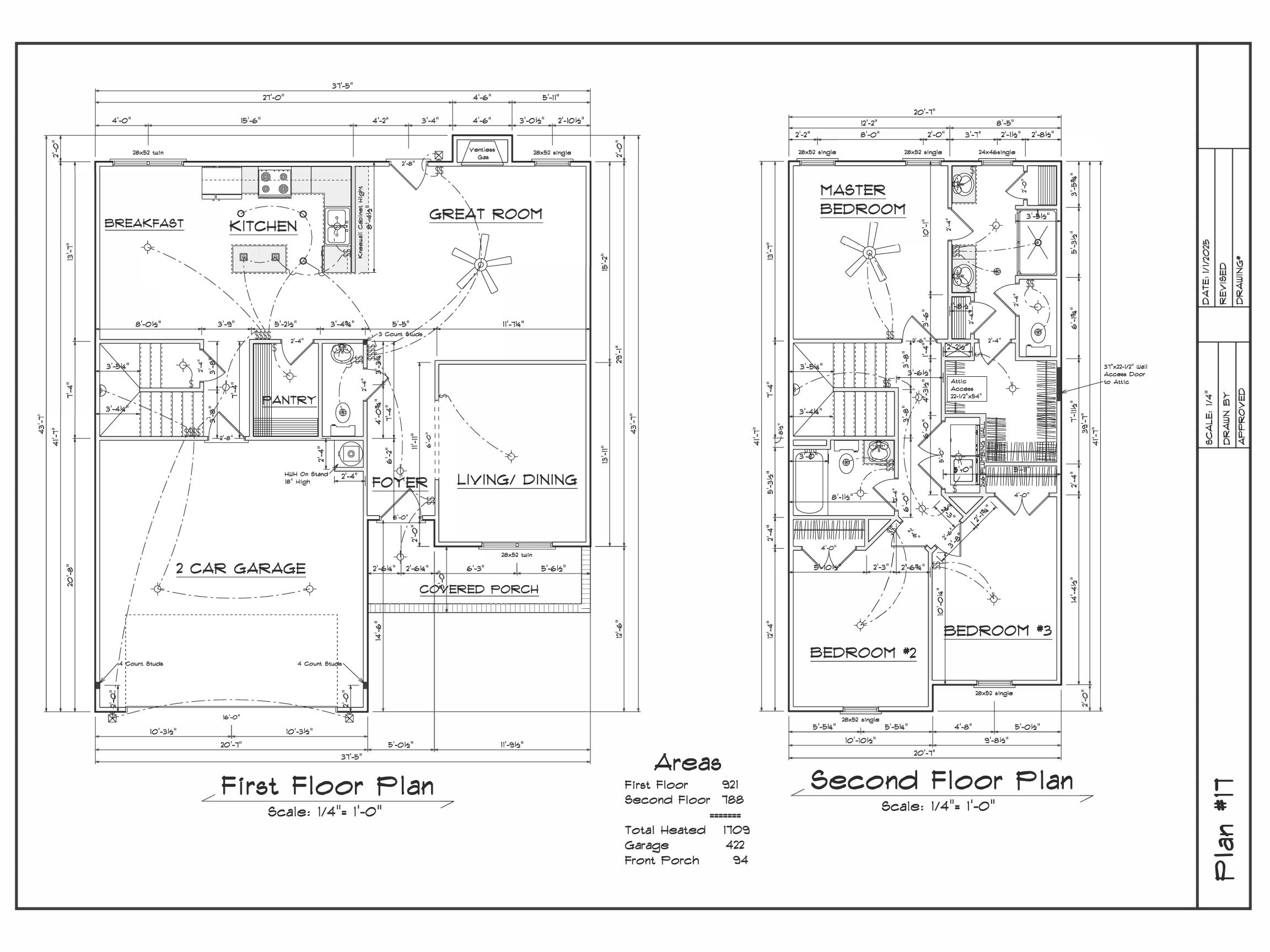


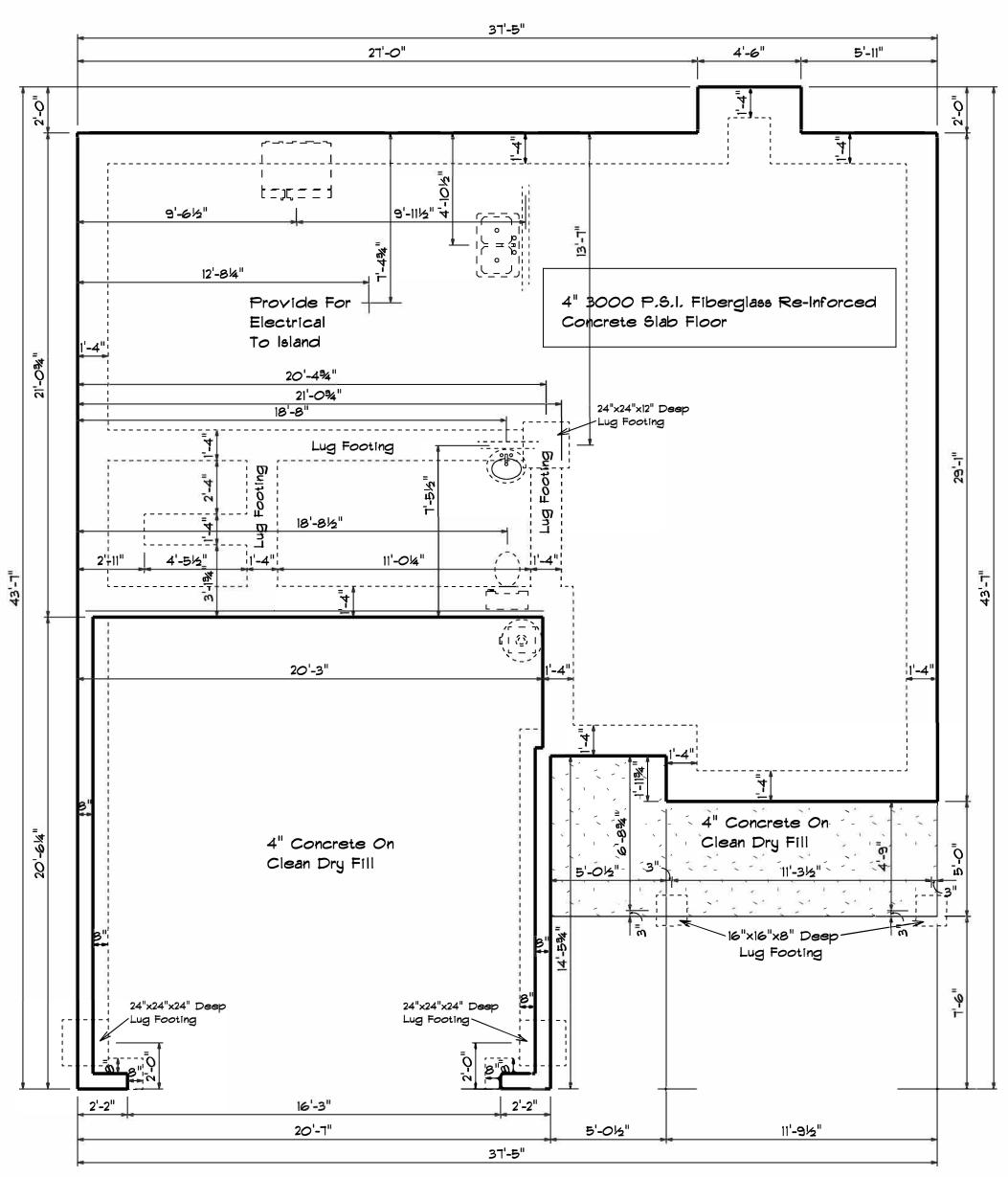
APPROVED

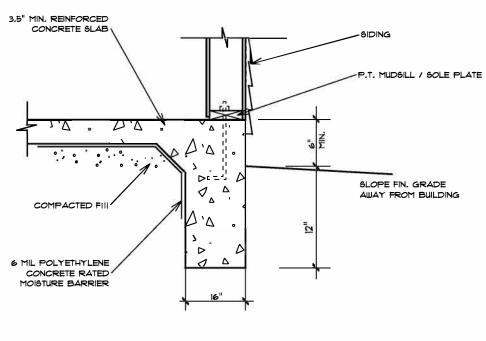
11/10/2025

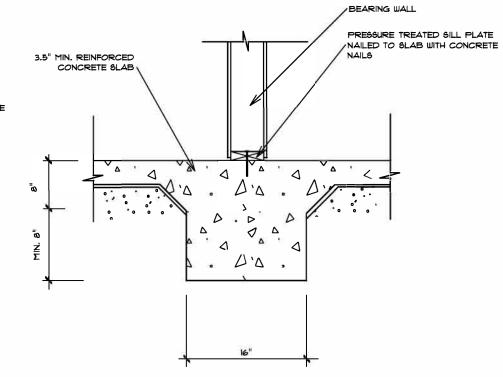
Harnett C O U N T Y NORTH CAROLINA

Left Elevation
Scale: 1/8"= 1'0"









INTEGRAL SLAB FOOTING

DETAIL AT BEARING WALL

FIRST FLOOR OPENING SCHEDULE									
DDUCT CODE	SIZE	HINGE	REVERSED	COUNT					
nit	2'-4"	R	NO	1					
nit	2'-4"	L	NO	2					
nit	2'-8"	R	NO	1					

PRODUCT CODE	SIZE	HINGE	REVERSED	COUNT	
2-0 Door Unit	2'-0"	R	NO	1	
2-4 Door Unit	2'-4"	R	NO	1	
2-4 Door Unit	2'-4" L NO 2'-6" R NO				
2-6 Door Unit	2'-6" R NO				
2-6 Door Unit	2'-6"	L	NO	2	
4-0 Doublehung Door Unit	4'-0"	LR	NO	2	
5-0 Doublehung Door Unit	5'-0"	LR	NO	1	
20x32 single	2'-0" x 3'-2"	N	NA	1	
24x46single	2'-4" x 4'-6"	N	NA	1	
28x52 single	2'-8" x 5'-2"	N	NA	4	

SECOND FLOOR OPENING SCHEDULE

FIRST FLOOR OPENING SCHEDULE										
PRODUCT CODE	SIZE	HINGE	REVERSED	COUNT						
2-4 Door Unit	2'-4"	R	NO	1						
2-4 Door Unit	2'-4"	L	NO	2						
2-8 Door Unit	2'-8"	R	NO	1						
28x52 single	2'-8" x 5'-2"	N	NA	1						
28x52 twin	5'-4" x 5'-2"	NN	NA	2						
32X80 FRENCH A 1	2'-8"	R	NO	1						
36X80 COLONIAL A 1	3'-0"	L	NO	1						
192X84 - 8 PANEL GARAGE DR	16'-0"	U	NO	1						

TURN-DOWN

FOOTING DETAIL

Foundation Plan
Gasla 1/4" 1'0"

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

 $\frac{D}{a}$

SCALE: 1/4" DRAWN BY APPROYED



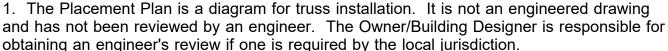
Carter Sanford Component Plant 298 Harvey Faulk Rd Sanford, NC 27332

Phone #:919-775-1450



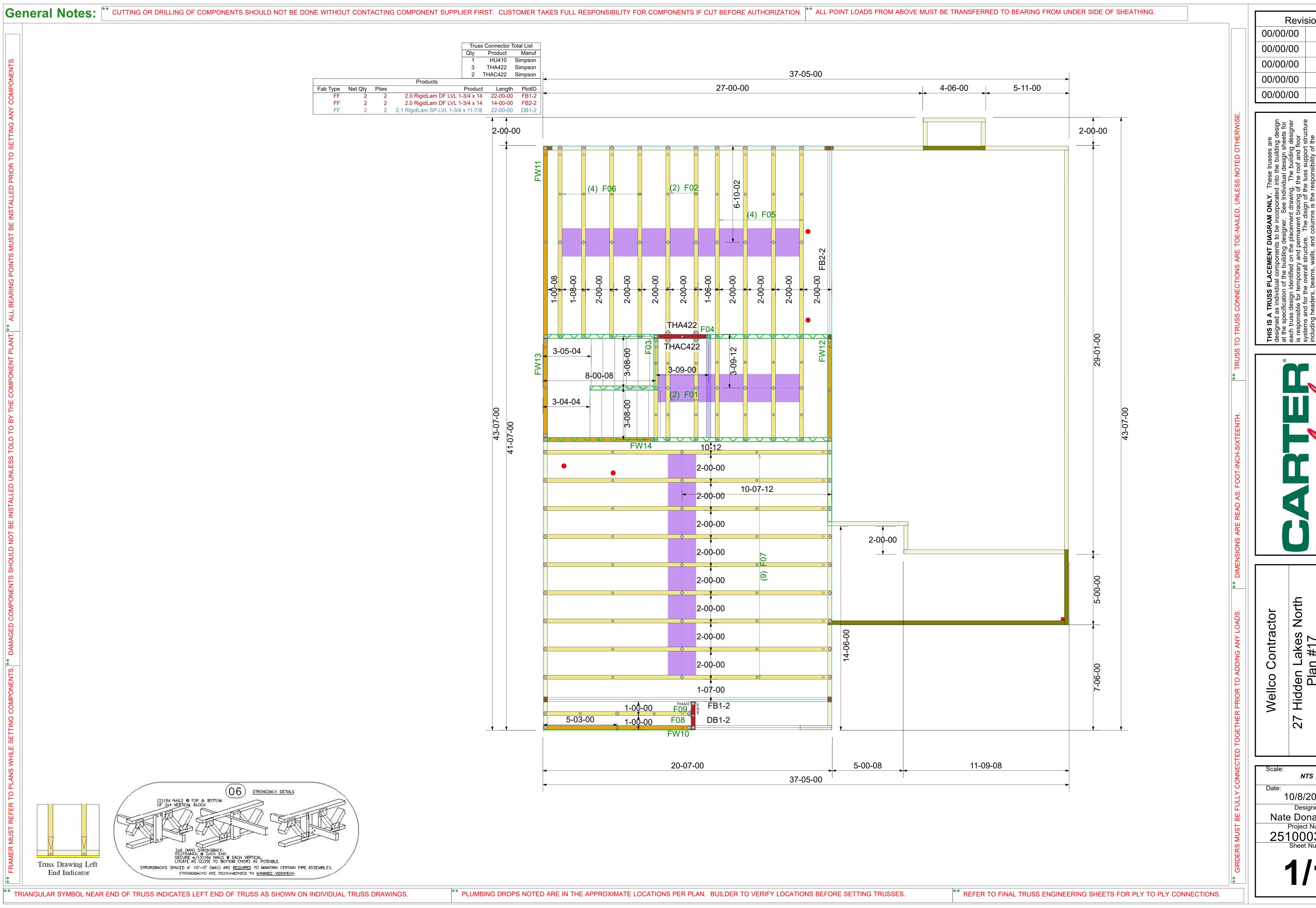
Model: 27 Hidden Lakes North Plan #17

THE PLACEMENT PLAN NOTES:



- 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.
- 9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By:	Date:
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Revisions Name Name Name Name

Name

PLACEMENT

Hidden Lakes Plan #17

FLOOR

10/8/2025 Designer: Nate Donaldson Project Number: 25100037-A



RE: 25100037

27 Hidden Lakes North - Plan 17 - 2nd Floor

Trenco 818 Soundside Rd Edenton, NC 27932

Site Information:

Customer: Wellco Contractor Project Name: 25100037 Lot/Block: 27 Model:

Address: Subdivision: Hidden Lakes North

City: State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special **Loading Conditions):**

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 8.7

Wind Code: ASCE 7-16 Wind Speed: 130 mph Floor Load: N/A psf Roof Load: 40.0 psf

This package includes 14 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	173791910	F01	5/29/2025
2	173791911	F02	5/29/2025
3	173791912	F03	5/29/2025
4	173791913	F04	5/29/2025
5	173791914	F05	5/29/2025
6	173791915	F06	5/29/2025
7	173791916	F07	5/29/2025
8	173791917	F08	5/29/2025
9	173791918	F09	5/29/2025
10	173791919	FW10	5/29/2025
11	173791920	FW11	5/29/2025
12	173791921	FW12	5/29/2025
13	173791922	FW13	5/29/2025
14	173791923	FW14	5/29/2025

The truss drawing(s) referenced above have been prepared by

Truss Engineering Co. under my direct supervision

based on the parameters provided by Carter Components (Sanford, NC)).

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2025

North Carolina COA: C-0844

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

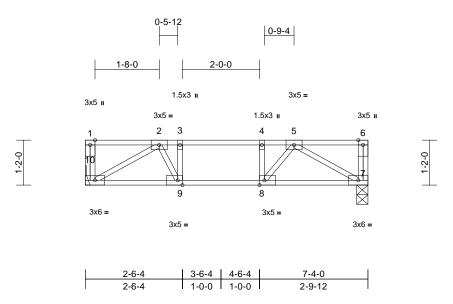


May 29, 2025

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F01	Floor	2	1	Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:43 ID:bufT9l8v6nGfeJJ8?YsO0PyAPBx-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:29.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.03	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.26	Vert(CT)	-0.03	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 39 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) 2x4 SP No.2(flat) BOT CHORD 2x4 SP No.3(flat) **WEBS**

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 7=0-3-8, 10= Mechanical Max Grav 7=390 (LC 1), 10=390 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-76/0, 6-7=-76/0, 1-2=0/0, 2-3=-631/0,

3-4=-631/0, 4-5=-631/0, 5-6=0/0

BOT CHORD 9-10=0/525, 8-9=0/631, 7-8=0/516 WEBS 3-9=-266/0, 4-8=-184/0, 2-10=-607/0, 2-9=0/350, 5-7=-597/0, 5-8=0/282

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

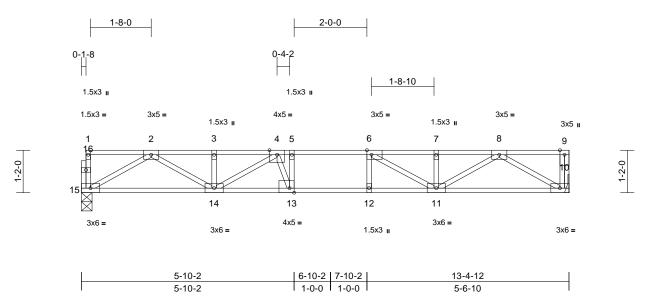


818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F02	Floor	2	1	Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:44 ID:As1BfMWMpJAFs4A5JZwfmyyAPBS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:31.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	-0.13	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.17	13-14	>937	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 69 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS 10= Mechanical, 15=0-3-8 (size) Max Grav 10=723 (LC 1), 15=717 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-15=-71/0, 9-10=-74/0, 1-2=-4/0, 2-3=-1814/0, 3-4=-1814/0, 4-5=-2241/0,

5-6=-2241/0, 6-7=-1808/0, 7-8=-1808/0,

8-9=0/0

BOT CHORD 14-15=0/1088, 13-14=0/2191, 12-13=0/2241,

11-12=0/2241, 10-11=0/1090

WEBS 5-13=-383/96, 6-12=-44/89, 2-15=-1254/0, 2-14=0/847, 3-14=-172/0, 4-14=-472/0, 4-13=-159/487, 8-10=-1261/0, 8-11=0/838,

7-11=-203/33, 6-11=-661/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



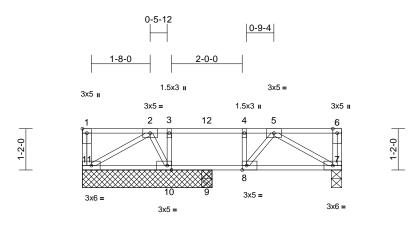
May 29,2025



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F03	Floor	1	1	Job Reference (optional)

Run: 8.73 E Nov 16 2023 Print: 8.730 E Nov 16 2023 MiTek Industries, Inc. Thu May 29 15:35:45 ID:F0zINIvQH8Cji?dFBHVA3iyAPAy-4vFeS?hhZhqKbZGdXfzyuuCG3THZYu6PlBzfJQzBmAU

Page: 1



2-6-4	3-6-4	4-6-4	7-4-0
2-6-4	1-0-0	1-0-0	2-9-12

Scale = 1:32.6

Plate Offsets (X, Y): [1:Edge,0-1-8], [8:0-1-8,Edge], [10:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.02	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.30	Vert(CT)	-0.03	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 39 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.3(flat) WEBS

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS All bearings 3-8-0. except 7=0-3-8, 9=0-3-8 (lb) - Max Uplift All uplift 100 (lb) or less at joint(s) 10

Max Grav All reactions 250 (lb) or less at joint

(s) 9, 10 except 7=332 (LC 4), 11=311 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-461/0, 3-12=-461/0, 4-12=-461/0,

4-5=-461/0

BOT CHORD 10-11=0/382, 9-10=0/461, 8-9=0/461,

7-8=0/408

WEBS 2-11=-442/0, 2-10=-28/297, 5-7=-472/0

NOTES

1) Unbalanced floor live loads have been considered for this design.

2) N/A

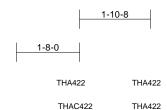
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

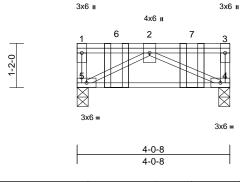


Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F04	Floor Girder	1	1	Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:44 ID:UI?hGN049vKRHNpzDg9HxbyAPAp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:30.5

TOP CHORD

BOT CHORD

WEBS BRACING TOP CHORD

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.47	Vert(CT)	-0.03	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.01	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 29 lb	FT = 20%F, 11%E

LUMBER Concentrated Loads (lb)

2x4 SP No.2(flat) Vert: 6=-921 (F=-294, B=-627), 7=-925 (F=-296, 2x4 SP No.2(flat) B=-629)

2x4 SP No.3(flat)

Structural wood sheathing directly applied or

4-0-8 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 4=0-3-8, 5=0-3-8

Max Grav 4=1143 (LC 1), 5=1120 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-5=-371/0, 3-4=-470/0, 1-2=0/0, 2-3=0/0

BOT CHORD 4-5=0/1336

WEBS 2-5=-1523/0, 2-4=-1488/0

NOTES

- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- Use Simpson Strong-Tie THAC422 (6-16d Girder, 6-16d Truss) or equivalent at 1-0-8 from the left end to connect truss(es) to front face of top chord.
- Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 3-0-8 from the left end to connect truss(es) to front face of top chord.
- 4) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-8 from the left end to 3-0-8 to connect truss(es) to back face of top chord.
- Fill all nail holes where hanger is in contact with lumber.
- 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

 Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 4-5=-10, 1-3=-100



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall

a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPH Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

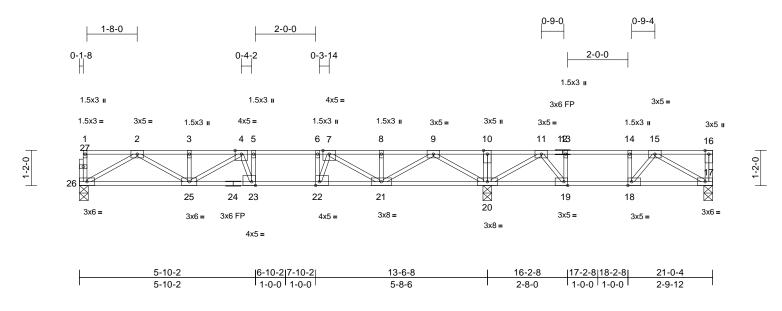


818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F05	Floor	4	1	Job Reference (optional)

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Page: 1



Scale = 1:38.2

Plate Offsets (X, Y): [[18:0-1-8,Edge],	[19:0-1-8, Edge],	[22:0-1-8,Edge],	[23:0-1-8,Edge]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.12	23-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.16	23-25	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.03	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 107 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 6-0-0 oc

bracing.

REACTIONS 17=0-3-8, 20=0-3-8, 26=0-3-8 (size)

17=365 (LC 4), 20=1306 (LC 1), Max Grav

26=684 (LC 10)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-26=-71/0, 16-17=-74/0, 1-2=-4/0,

2-3=-1706/0, 3-4=-1706/0, 4-5=-2032/0, 5-6=-2032/0, 6-7=-2032/0, 7-8=-1412/0, 8-9=-1412/0, 9-10=0/788, 10-11=0/788, 11-13=-544/146, 13-14=-544/146, 14-15=-544/146, 15-16=0/0

BOT CHORD 25-26=0/1034, 23-25=0/2021, 22-23=0/2032,

21-22=0/1909, 20-21=0/579, 19-20=-357/332,

18-19=-146/544, 17-18=-31/471

WEBS 5-23=-279/159 6-22=-520/0 10-20=-218/0

13-19=-371/0, 14-18=-84/127, 2-26=-1191/0, 2-25=0/784, 3-25=-170/0, 4-25=-368/0, 4-23=-225/339, 9-20=-1353/0, 9-21=0/1007, 8-21=-184/0, 7-21=-621/0, 7-22=0/647, 11-20=-786/0, 11-19=0/573, 15-17=-545/35,

15-18=-186/117

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 1.5x3 MT20 unless otherwise indicated

Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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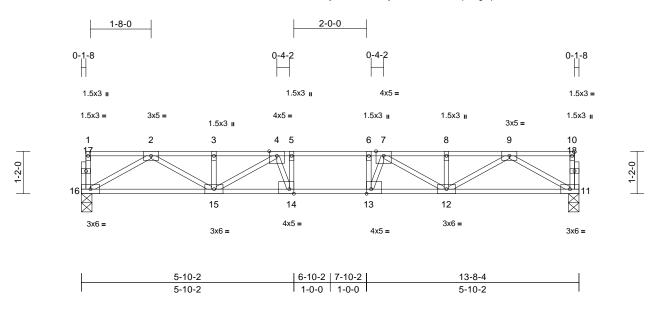
building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F06	Floor	4	1	Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:45 ID:nA12?0w6Uynonv2O6w?sTPyAP9e-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:31.7

Plate Offsets ((X, Y):	[13:0-1-8,Edge],	[14:0-1-8,Edge]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.52	Vert(LL)	-0.12	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.16	13-14	>980	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 71 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

TOP CHORD

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 11=0-3-8, 16=0-3-8

Max Grav 11=733 (LC 1), 16=733 (LC 1) **FORCES** (lb) - Maximum Compression/Maximum

Tension

1-16=-71/0, 10-11=-71/0, 1-2=-4/0,

2-3=-1867/0, 3-4=-1867/0, 4-5=-2344/0,

5-6=-2344/0, 6-7=-2344/0, 7-8=-1867/0, 8-9=-1867/0, 9-10=-4/0

BOT CHORD 15-16=0/1115, 14-15=0/2275, 13-14=0/2344,

12-13=0/2275, 11-12=0/1115

WEBS 5-14=-424/79, 6-13=-424/79, 2-16=-1285/0,

2-15=0/877, 3-15=-173/0, 4-15=-496/0, 4-14=-121/527, 9-11=-1285/0, 9-12=0/877,

8-12=-173/0, 7-12=-496/0, 7-13=-121/527

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- All plates are 1.5x3 MT20 unless otherwise indicated.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

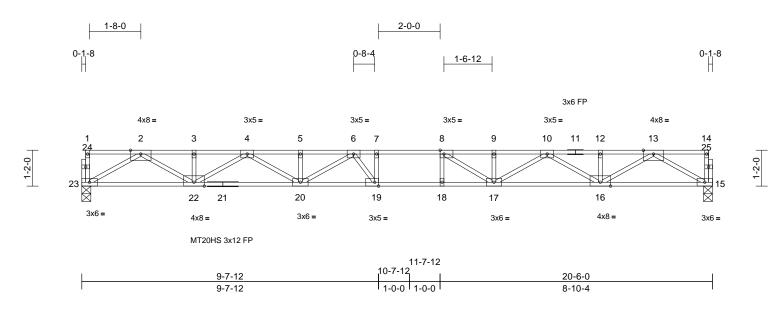
LOAD CASE(S) Standard





Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F07	Floor	9	1	I73791916 Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:45 ID: N8PmWdIZBThO? gwLQw38EyyAP99-RfC? PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC? full fill for the control of the Page: 1



Scale = 1:37.4

Plate Offsets (X, Y):	[8:0-1-8,Edge],	[19:0-1-8,Edge]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	тс	0.57	Vert(LL)	-0.42	Ì 19	>578	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.58	19	>420	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.09	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 104 lb	FT = 20%F, 11%E

LUMBER

BOT CHORD

TOP CHORD 2x4 SP 2400F 2.0E(flat) *Except* 11-14:2x4

SP No.2(flat)

2x4 SP No.1(flat) *Except* 21-15:2x4 SP 2400F 2.0E(flat)

2x4 SP No.3(flat) **WEBS**

2x4 SP No.3(flat) **OTHERS**

BRACING

TOP CHORD

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS 15=0-3-8, 23=0-3-8 (size)

Max Grav 15=1107 (LC 1), 23=1107 (LC 1) (lb) - Maximum Compression/Maximum

FORCES

1-23=-73/0, 14-15=-70/0, 1-2=-4/0,

2-3=-3128/0, 3-4=-3128/0, 4-5=-4899/0, 5-6=-4899/0, 6-7=-5349/0, 7-8=-5349/0,

8-9=-4882/0, 9-10=-4882/0, 10-12=-3125/0, 12-13=-3125/0, 13-14=-4/0

BOT CHORD 22-23=0/1756, 20-22=0/4156, 19-20=0/5286,

18-19=0/5349, 17-18=0/5349, 16-17=0/4158,

15-16=0/1760

WEBS 7-19=-365/145, 8-18=-86/160, 2-23=-2026/0, 2-22=0/1602, 3-22=-169/0, 4-22=-1201/0,

4-20=0/867, 5-20=-177/0, 6-20=-592/0, 6-19=-301/582, 13-15=-2030/0,

13-16=0/1594, 12-16=-166/0, 10-16=-1206/0.

10-17=0/846, 9-17=-226/86, 8-17=-931/33

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 1.5x3 MT20 unless otherwise indicated.

Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

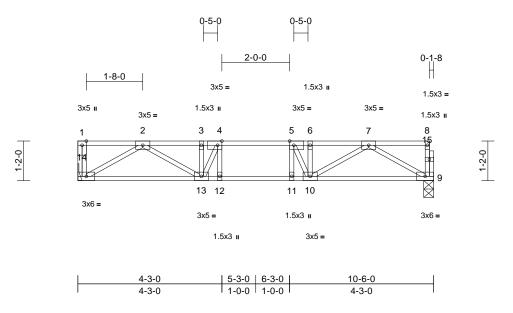
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F08	Floor	1	1	Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:45 ID:glsrYqbcYri_tMlyqzUmC?yAP8n-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:34

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.05	12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.49	Vert(CT)	-0.06	12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 56 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) BOT CHORD 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS 9=0-3-8, 14= Mechanical (size) Max Grav 9=558 (LC 1), 14=564 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-14=-72/0, 8-9=-69/0, 1-2=0/0, 2-3=-1266/0,

3-4=-1266/0, 4-5=-1353/0, 5-6=-1266/0,

6-7=-1266/0, 7-8=-4/0

BOT CHORD 13-14=0/821, 12-13=0/1353, 11-12=0/1353,

10-11=0/1353, 9-10=0/819

WEBS 4-12=-102/90, 5-11=-102/90, 2-14=-949/0, 2-13=0/519, 3-13=-133/117, 4-13=-411/36,

7-9=-943/0, 7-10=0/522, 6-10=-135/116,

5-10=-411/38

NOTES

- Unbalanced floor live loads have been considered for 1) this design.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



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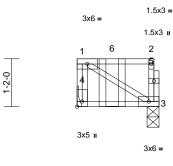


Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F09	Floor Girder	1	1	Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:45 ID:4KYzAsdVqm5ZkpUXW52TqeyAP8k-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

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2-0-0 2-0-0

Scale = 1:28.1

Plate Offsets (X, Y): [4:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.65	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	0.00	3-4	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%F, 11%E

LUMBER

2x4 SP 2400F 2.0E(flat) TOP CHORD **BOT CHORD** 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or

2-0-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS 3=0-3-8, 4= Mechanical (size) Max Grav 3=290 (LC 1), 4=376 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-4=-367/0, 2-3=-292/0, 1-2=-17/0 **BOT CHORD** 3-4=0/0

WFBS 1-3=0/20

NOTES

- 1) Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.
- Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 0-10-4 from the left end to connect truss (es) to back face of top chord.
- Fill all nail holes where hanger is in contact with lumber.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 3-4=-10, 1-2=-100

Concentrated Loads (lb) Vert: 6=-479 (B)

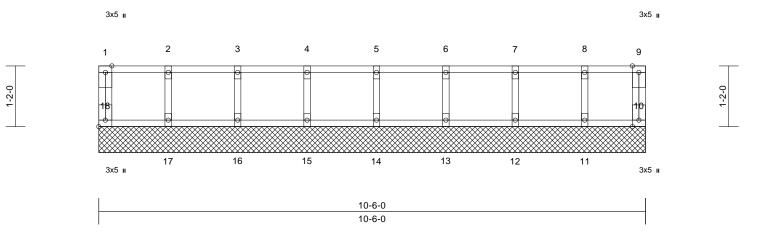


May 29,2025

Job	Truss Type		Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor		
25100037	FW10	Floor Supported Gable	1	1	Job Reference (optional)		

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:45 ID:z6nU0Dg?u?b?DRnJlx6P_UyAP8g-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:22.1

Plate Offsets	(X,	Y):	[18:Edge,0-1-8]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 46 lb	FT = 20%F, 11%E

LOAD CASE(S) Standard

LUMBER TOP CHORD 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 10=10-6-0, 11=10-6-0, 12=10-6-0,

13=10-6-0, 14=10-6-0, 15=10-6-0, 16=10-6-0, 17=10-6-0, 18=10-6-0

Max Grav 10=53 (LC 1), 11=132 (LC 1),

12=150 (LC 1), 13=146 (LC 1),

14=147 (LC 1), 15=146 (LC 1),

16=147 (LC 1), 17=145 (LC 1),

18=61 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

TOP CHORD

1-18=-56/0, 9-10=-47/0, 1-2=-9/0, 2-3=-9/0,

3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0,

7-8=-9/0, 8-9=-9/0

BOT CHORD 17-18=0/9, 16-17=0/9, 15-16=0/9, 14-15=0/9, 13-14=0/9, 12-13=0/9, 11-12=0/9, 10-11=0/9

WEBS 2-17=-131/0, 3-16=-134/0, 4-15=-133/0,

5-14=-134/0, 6-13=-133/0, 7-12=-136/0,

8-11=-121/0

NOTES

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



May 29,2025

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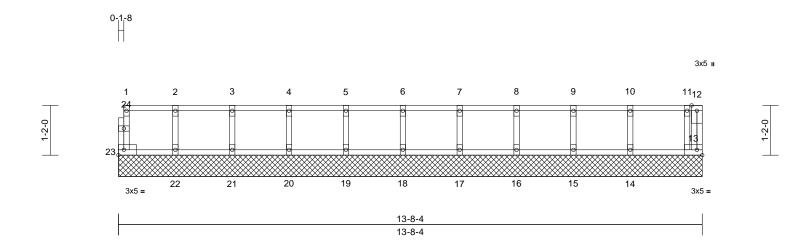
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Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor		
25100037	FW11	Floor Supported Gable	1	1	Job Reference (optional)		

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:45 ID:vUvERviGQcrjSkxhsM9t3vyAP8e-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 59 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size)

13=13-8-4, 14=13-8-4, 15=13-8-4, 16=13-8-4, 17=13-8-4, 18=13-8-4, 19=13-8-4, 20=13-8-4, 21=13-8-4, 22=13-8-4, 23=13-8-4

13=88 (LC 1), 14=160 (LC 1), Max Grav 15=143 (LC 1), 16=148 (LC 1), 17=146 (LC 1), 18=147 (LC 1), 19=147 (LC 1), 20=146 (LC 1),

21=150 (LC 1), 22=136 (LC 1), 23=62 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-23=-54/0, 12-13=0/11, 1-2=-15/0,

2-3=-15/0, 3-4=-15/0, 4-5=-15/0, 5-6=-15/0, 6-7=-15/0, 7-8=-15/0, 8-9=-15/0, 9-10=-15/0,

10-11=-15/0, 11-12=-2/0

BOT CHORD 22-23=0/15, 21-22=0/15, 20-21=0/15,

19-20=0/15, 18-19=0/15, 17-18=0/15, 16-17=0/15, 15-16=0/15, 14-15=0/15,

13-14=0/15

WEBS 2-22=-127/0. 3-21=-135/0. 4-20=-133/0.

5-19=-133/0, 6-18=-133/0, 7-17=-133/0, 8-16=-134/0, 9-15=-131/0, 10-14=-142/0,

11-13=-94/0

NOTES

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.

Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 29,2025



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818 Soundside Road Edenton, NC 27932

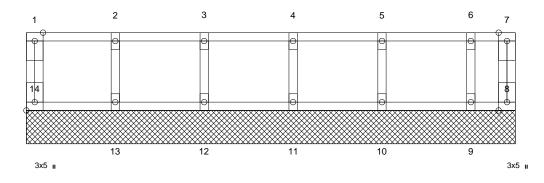
Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	FW12	Floor Supported Gable	1	1	Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:45

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3x5 II 3x5 II





7-4-0 7-4-0

Scale = 1:17.3

Plate Offsets (X, Y): [14:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 34 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) BOT CHORD 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 8=7-4-0, 9=7-4-0, 10=7-4-0,

11=7-4-0, 12=7-4-0, 13=7-4-0,

14=7-4-0

Max Grav 8=23 (LC 1), 9=105 (LC 1), 10=153

(LC 1), 11=145 (LC 1), 12=147 (LC 1), 13=147 (LC 1), 14=59 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-14=-55/0, 7-8=-14/0, 1-2=-7/0, 2-3=-7/0,

3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0 **BOT CHORD** 13-14=0/7, 12-13=0/7, 11-12=0/7, 10-11=0/7,

9-10=0/7, 8-9=0/7

WEBS 2-13=-132/0, 3-12=-134/0, 4-11=-132/0,

5-10=-139/0, 6-9=-102/0

NOTES

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall

building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Ply Job Truss Truss Type Qty 27 Hidden Lakes North - Plan 17 - 2nd Floor 173791922 25100037 FW13 Floor Supported Gable Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

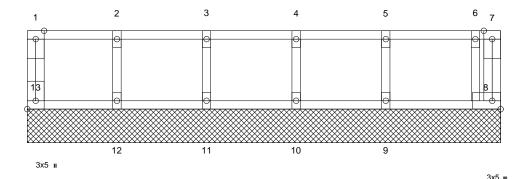
Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:45 ID:K3bN3xk8jXDHJCgGXUiahXyAP8b-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

3x5 II

3x5 II

1-2-0



7-0-8 7-0-8

Scale = 1:17.1

Plate Offsets (X, Y): [13:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 33 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) BOT CHORD 2x4 SP No.2(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 8=7-0-8, 9=7-0-8, 10=7-0-8,

11=7-0-8, 12=7-0-8, 13=7-0-8 8=90 (LC 1), 9=159 (LC 1), 10=142 Max Grav

(LC 1), 11=151 (LC 1), 12=134 (LC

1), 13=69 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-13=-60/0, 7-8=0/11, 1-2=-16/0, 2-3=-16/0,

3-4=-16/0, 4-5=-16/0, 5-6=-16/0, 6-7=-2/0

BOT CHORD 12-13=0/16, 11-12=0/16, 10-11=0/16,

9-10=0/16, 8-9=0/16

2-12=-126/0, 3-11=-136/0, 4-10=-130/0,

5-9=-142/0, 6-8=-97/0

WEBS NOTES

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



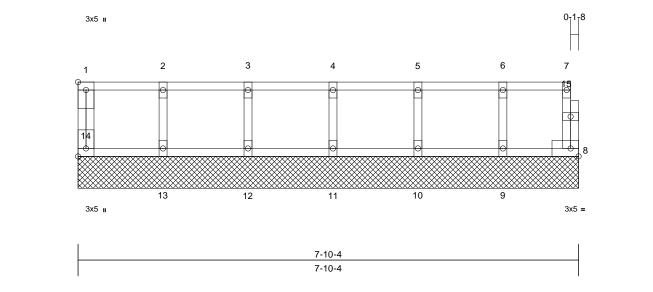
May 29,2025



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	FW14	Floor Supported Gable	1	1	Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:11:45 ID:GSi7UcmOF9T?YWqffvk2myyAP8Z-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:18.1

1-2-0

Plate Offsets	(X, Y):	[1:Edge,0-1-8],	[14:Edge,0-1-8]	ı
---------------	-------	----	-----------------	-----------------	---

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 35 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) 2x4 SP No.2(flat) **BOT CHORD** 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=7-10-4, 9=7-10-4, 10=7-10-4, 11=7-10-4, 12=7-10-4, 13=7-10-4,

14=7-10-4

Max Grav 8=49 (LC 1), 9=133 (LC 1), 10=150

(LC 1), 11=146 (LC 1), 12=148 (LC 1), 13=144 (LC 1), 14=61 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-14=-56/0, 7-8=-43/0, 1-2=-9/0, 2-3=-9/0,

3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0

BOT CHORD 13-14=0/9, 12-13=0/9, 11-12=0/9, 10-11=0/9,

9-10=0/9, 8-9=0/9

WEBS 2-13=-131/0, 3-12=-134/0, 4-11=-132/0,

5-10=-136/0, 6-9=-122/0

NOTES

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 5) 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



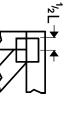
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

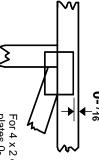


Symbols

PLATE LOCATION AND ORIENTATION



offsets are indicated and fully embed teeth Center plate on joint unless x, y Apply plates to both sides of truss Dimensions are in ft-in-sixteenths



edge of truss. plates 0- 1/16" from outside For 4 x 2 orientation, locate

connector plates. required direction of slots in This symbol indicates the

* Plate location details available in MiTek software or upon request

PLATE SIZE

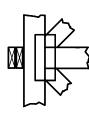
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

LATERAL BRACING LOCATION



by text in the bracing section of the output. Use T or I bracing if indicated. ndicated by symbol shown and/or

BEARING



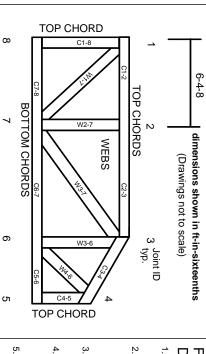
Min size shown is for crushing only number/letter where bearings occur reaction section indicates joint (supports) occur. Icons vary but Indicates location where bearings

Industry Standards:

National Design Specification for Metal Plate Connected Wood Trusses Installing, Restraining & Bracing of Metal Guide to Good Practice for Handling, Building Component Safety Information, Design Standard for Bracing. Plate Connected Wood Truss Construction.

DSB-22: ANSI/TPI1:

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282 ESR-4722, ESL-1388

Design General Notes

truss unless otherwise shown Trusses are designed for wind loads in the plane of the

established by others section 6.3 These truss designs rely on lumber values Lumber design values are in accordance with ANSI/TPI 1

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MiTek



MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Ņ Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other

'n

- joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1. Place plates on each face of truss at each
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

œ

- 9 Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- 11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- 15. Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- 19. Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.



Customer Ph.

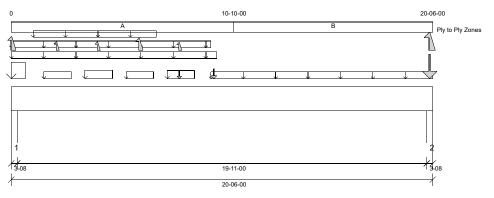
Job Name: A

Level: 1st FLOOR
Label: FB1-2 - i49
Type: Beam

2 Ply Member 2.0 RigidLam DF 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 Report Version: 2023.09.18 10/08/2025 15:56 8.7.3.303.Update13.26



DESIGN INFORMATION a

Building Code: IRC 2021 Design Methodology: ASD

Risk Category: II (General Construction)

Residential

Service Condition: Dry System Spacing: -

LL Deflection Limit: L/360, 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: 0'

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 20'- 3 1/2"

ANALYSIS RESULTS											
Design Criteria	Location	Load Combination	LDF	Design	Limit	Result					
Max Pos. Moment:	9'- 10 1/4"	D + L	1.00	6741 lb ft	28972 lb ft	Passed - 23%					
Max Shear:	1'- 5 1/2"	D + L	1.00	1289 lb	9473 lb	Passed - 14%					
Live Load (LL) Pos. Defl.:	10'- 1/4"	0.75(L + Lr + 0.6W)		0.139"	L/360	Passed - L/999					
Total Load (TL) Pos. Defl.: 9'- 10 5/16" D + 0.75(L + Lr + 0.6W) 0.312" L/240 Passed - L/765											
SUPPORT AND REACTION INFORMATION											

	Input Bearing ∟ength	Controlling Combina			nward action I			Resistance of Support	Result
1	3-08	D + 0.75(I	L + Lr) 1.1	5 20	77 lb		9187 lb	5206 lb	Passed - 40%
2	3-08	D+1	L 1.0	0 15	49 lb		9188 lb	5206 lb	Passed - 30%
LOADI	NG								
Туре	Start Loc	End Loc	Source	Face	Dead (D)	Live (L) Snow (S) Roof Live (L	r) Wind (W)
Self Weight	0'	20'- 6"	Self Weight	Тор	13 lb/ft	-	-	-	-
Uniform	-0'	10'	E17(i25)	Тор	65 lb/ft	-	-	-	-
Uniform	-0'	9'- 8 1/2"	FC1 Floor Decking (Plan View Fill)	Тор	9 lb/ft	35 lb/fi	t -	-	-
Uniform	-0'	0'- 8 1/4"	E17(i25)	Top	391 lb/ft	-	259 lb/ft	374 lb/ft	138 lb/ft
Uniform	1'- 3/4"	7'- 3/4"	Smoothed Load	Front	18 lb/ft	-	11 lb/ft	20 lb/ft	8 lb/ft
Uniform	1'- 7"	2'- 11"	E17(i25)	Тор	32 lb/ft	-	19 lb/ft	36 lb/ft	20 lb/ft
Uniform	3'- 7"	4'- 11"	E17(i25)	Тор	94 lb/ft	-	58 lb/ft	105 lb/ft	17 lb/ft
Uniform	5'- 7"	6'- 11"	E17(i25)	Тор	-	-	-	54 lb/ft	29 lb/ft
Uniform	7'- 7"	8'- 11"	E17(i25)	Тор	-	-	-	32 lb/ft	184 lb/ft
Uniform	9'- 8 1/2"	20'- 6"	FC1 Floor Decking (Plan View Fill)	Тор	13 lb/ft	52 lb/f	t -	-	-
Point	2'- 2 7/16"	2'- 2 7/16"	- ′	Front	-	-	-	-27 lb	-166 lb
Point	4'- 2 3/8"	4'- 2 3/8"	-	Front	-	-	-	-8 lb	-175 lb
Point	6'- 2 3/4"	6'- 2 3/4"	-	Front	-32 lb	-	-18 lb	-105 lb	-272 lb
Point	8'- 2 1/16"	8'- 2 1/16"	-	Front	-	-	-	51/-53 lb	59/-82 lb
Point	9'- 10 1/4"	9'- 10 1/4"	F09(c01)	Front	126 lb	119 lb	-	-	-
Point	0'- 1/4"	0'- 1/4"	E17(i25)	Top	-	-	-	-	-540 lb
Point	20'- 4 1/4"	20'- 4 1/4"	E14(i26)	Тор	479 lb	-	257 lb	371 lb	129/-825 lb
UNFAC	TORED R	EACTIONS							
ID	Start Loc	End Loc	Source		Dead (D)	Live (L	.) Snow (S) Roof Live (L	r) Wind (W)
1	0'	0'- 3 1/2"	E9(i5)		1273 lb	465 lb	305 lb	612/-137 lb	137 lb/ -930 lb
2	20'- 2 1/2"	20'- 6"	E7(i2)		997 lb	548 lb	285 lb	488/-56 lb	137 lb/ -930 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

PLY TO PLY CONNECTION



Customer Ph...

Job Name: A

Level: 1st FLOOR Label: FB1-2 - i49 Type: Beam 2 Ply Member

2.0 RigidLam DF LVL 1-3/4 x 14 Status:

Design
Passed

PLY TO PLY CONNECTION

Zone A: Factored load = 129 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 33. Row = 3, Spacing = 12"
 Zone B: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 30. Row = 3, Spacing = 12"
 12d (0.148"x3.25") nails properties: D = 0.148", L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25", Y1 = 0.75", Y2 = 1.5" Install fasteners from one face.

X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)

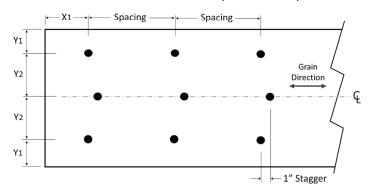




Illustration Not to Scale. Pitch: 0/12

Customer Ph.

Job Name: A

Level: 1st FLOOR
Label: FB2-2 - i47
Type: Beam

2 Ply Member 2.0 RigidLam DF LVL 1-3/4 x 14

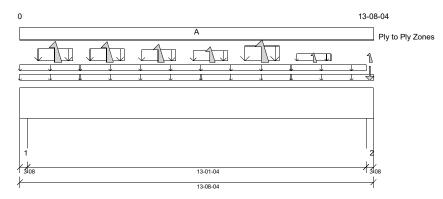
Report Version: 2023.09.18

Status: Design

/L 1-3/4 Design Passed

10/08/2025 15:56

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



SUPPORT AND REACTION INFORMATION

Controlling Load

Input

Bearing

DESIGN INFORMATION a

Building Code: IRC 2021 Design Methodology: ASD

Risk Category: II (General Construction)

Residential

Service Condition: Dry System Spacing: -

LL Deflection Limit: L/360, 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: 0'

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 13'- 5 3/4"

ANALYSIS RESULTS						
Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 11 15/16"	D + Lr	1.15	10642 lb ft	33318 lb ft	Passed - 32%
Max Neg. Moment:	3'- 4 1/2"	0.6D + 0.6W	1.60	858 lb ft	46355 lb ft	Passed - 2%
Max Shear:	1'- 5 1/2"	D + Lr	1.15	2644 lb	10894 lb	Passed - 24%
Live Load (LL) Pos. Defl.:	6'- 9 5/8"	0.75(L + Lr + 0.6W)		0.089"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 9 7/8"	D + 0.75(L + Lr + 0.6W)		0.216"	L/240	Passed - L/726

Uplift

Resistance

Resistance

Result

Downward

l		_ength	Combina	tion	Rea	action	Reaction	of Member	of Support		Nesuit
,	1	3-08	D + L	r 1.1	5 32	95 lb		9188 lb	5206 lb	Pa	ssed - 63%
	1	3-08	0.6D + 0.	.6W 1.6	0		-346 lb	-	-		
l	2	3-08	D+L	r 1.1	5 28	89 lb		9188 lb	5206 lb	Pa	ssed - 55%
l	LOADI	NG									
l	Туре	Start Loc	End Loc	Source	Face	Dead (D) Live	(L) Snow	(S) Roof I	Live (Lr)	Wind (W)
l	Self Weight	0'	13'- 8 1/4"	Self Weight	Тор	13 lb/ft	-	-		-	-
	Uniform	0'	13'- 8 1/4"	FC1 Floor Decking (Plan View Fill)	Тор	11 lb/ft	43	b/ft -		-	-
l	Uniform	-0'	13'- 4 3/4"	E18(i27)	Тор	65 lb/ft	-	-		-	-
l	Uniform	0'- 8 1/2"	2'- 1/2"	E18(i27)	Тор	322 lb/f	t -	236	lb/ft 34	1 lb/ft	112 lb/ft
ı	Uniform	2'- 8 1/2"	4'- 1/2"	E18(i27)	Top	320 lb/f	t -	233	lb/ft 33	7 lb/ft	110 lb/ft
ı	Uniform	4'- 8 1/2"	6'- 1/2"	E18(i27)	Top	290 lb/f	t -	191	lb/ft 278	8 lb/ft	91 lb/ft
ı	Uniform	6'- 8 1/2"	8'- 1/2"	E18(i27)	Top	260 lb/f	t -	150	lb/ft 21	7 lb/ft	71 lb/ft
ı	Uniform	8'- 8 1/2"	10'- 1/2"	E18(i27)	Top	537 lb/f	t -	309	lb/ft 46	7 lb/ft	150 lb/ft
ı	Uniform	10'- 8 1/2"	12'- 1/2"	E18(i27)	Top	49 lb/ft	-	47 I	b/ft 68	lb/ft	25 lb/ft
ı	Point	1'- 4 1/2"	1'- 4 1/2"	E18(i27)	Top	-	-	-		-	-787 lb
ı	Point	3'- 4 1/2"	3'- 4 1/2"	E18(i27)	Top	-	-	-		-	-767 lb
ı	Point	5'- 4 1/2"	5'- 4 1/2"	E18(i27)	Top	-	-	-		-	-639 lb
ı	Point	7'- 4 1/2"	7'- 4 1/2"	E18(i27)	Top	-	-	-		-	-508 lb
ı	Point	9'- 4 1/2"	9'- 4 1/2"	E18(i27)	Top	-	-	-	-2	23 lb	-837 lb
ı	Point	11'- 4 1/2"	11'- 4 1/2"	E18(i27)	Top	-	-	-		-	-203 lb
ı	Point	13'- 6 1/2"	13'- 6 1/2"	E19(i29)	Тор	198 lb	-	80	lb 123	/-10 lb	37/-179 lb
1	UNFAC	CTORED RI	EACTIONS								
I	ID	Start Loc	End Loc	Source		Dead (E)) Live	(L) Snov	v (S) Roof I	Live (Lr)	Wind (W)
1	1	0'	0'- 3 1/2"	1(i18)		1961 lb	294	lb 917	7 lb 133	5/-7 lb	572 lb/ -2538 lb
1	2	13'- 4 3/4"	13'- 8 1/4"	E6(i3)		1811 lb	294	l lb 727	7 lb 107	7/-26 lb	572 lb/ -2538 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

PLY TO PLY CONNECTION



Customer: Street 1: City: Customer Ph.. Job Name: A

Level: 1st FLOOR Label: FB2-2 - i47 Type: Beam

2 Ply Member

2.0 RigidLam DF LVL 1-3/4 x 14

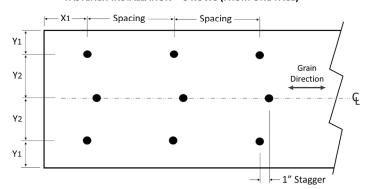
Status: Design Passed

PLY TO PLY CONNECTION

• Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 42. Row = 3, Spacing = 12" 12d (0.148"x3.25") nails properties: D = 0.148", L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25", Y1 = 0.75", Y2 = 1.5" Install fasteners from one face.

X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION - 3 ROWS (FROM ONE FACE)





Customer Ph.

Job Name: A

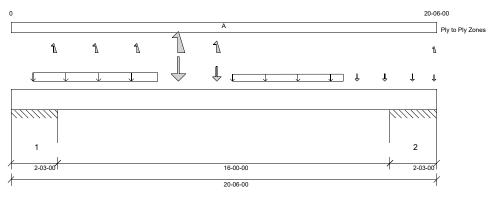
Level: 1st FLOOR Label: DB1-2 - i51 Type: **Beam**

2 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 Report Version: 2023.09.18 10/08/2025 15:56 8.7.3.303.Update13.26



DESIGN INFORMATION a

Building Code: IRC 2021 Design Methodology: ASD

Risk Category: II (General Construction)

Residential

Service Condition: Drv System Spacing:

LL Deflection Limit: L/360, 0.75" (absolute) L/240, 1.00" (absolute) TL Deflection Limit:

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: 10'- 6" Bottom: 20'- 6"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 1/2"
- 725 psi Wall @ 2'- 1 1/2" • 725 psi Wall @ 18'- 4 1/2"
- 725 psi Wall @ 20'- 4 1/2"

ANALYSIS RESULTS						
Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	9'- 10 1/4"	D + 0.75(L + Lr)	1.15	1658 lb ft	22719 lb ft	Passed - 7%
Max Neg. Moment: Max Shear:	2'- 1 1/2"	D + 0.75(L + Lr + 0.6W)	1.60	2549 lb ft	18716 lb ft	Passed - 14%
Max Shear:	3'- 2 7/8"	D + Lr	1.15	809 lb	9241 lb	Passed - 9%
Live Load (LL) Pos. Defl.:	9'- 8 7/8"	0.75(L + Lr + 0.6W)		0.028"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	9'- 9 7/8"	D + 0.75(L + Lr + 0.6W)		0.053"	L/240	Passed - L/999

SUP	PORT AN	D REACTION INFORM	NOITA					
ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	9-08	0.6D + 0.6W	1.60	451 lb		24938 lb	24106 lb	Passed - 2%
1	9-08	D + 0.75(L + Lr + 0.6W)	1.60		-1259 lb	-	-	
1	1-05-08	D + 0.75(L + Lr + 0.6W)	1.60	2323 lb		45938 lb	44406 lb	Passed - 5%
1	1-05-08	0.6D + 0.6W	1.60		-811 lb	-	-	
2	1-04-00	D + L	1.00	1435 lb		42000 lb	40600 lb	Passed - 4%
2	1-04-00	0.6D + 0.6W	1.60		-201 lb	-	-	
2	11-00	0.6D + 0.6W	1.60	200 lb		28875 lb	27913 lb	Passed - 1%
2	11-00	D + 0.75(L + Lr + 0.6W)	1.60		-972 lb	-	-	

LOADI	ING								
Туре	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	20'- 6"	Self Weight	Тор	11 lb/ft	-	-	-	-
Uniform	1'- 3/4"	7'- 3/4"	Smoothed Load	Top	29 lb/ft	-	28 lb/ft	41 lb/ft	18 lb/ft
Tapered	10'- 8"	16'	Smoothed Load	Top	16 lb/ft	25 To 28 lb/ft	-	-	-
Point	2'- 3/4"	2'- 3/4"	D02(c02)	Top	-	-	-	-	-146 lb
Point	4'- 3/4"	4'- 3/4"	D02(c01)	Top	-	-	-	-	-146 lb
Point	6'- 3/4"	6'- 3/4"	D02(c03)	Top	-	-	-	-	-146 lb
Point	8'- 3/4"	8'- 3/4"	D02(c04)	Top	180 lb	-	224 lb	323 lb	141/-706 lb
Point	9'- 10 15/16"	9'- 10 15/16"	-	Top	177 lb	139/-1 lb	28 lb	41 lb	14/-259 lb
Point	16'- 8"	16'- 8"	FW10(c01)	Top	21 lb	35 lb	-	-	-
Point	18'	18'	FW10(c01)	Top	21 lb	35 lb	-	-	-
Point	19'- 4"	19'- 4"	FW10(c01)	Top	19 lb	30 lb	-	-	-
Point	20'- 4 1/2"	20'- 4 1/2"	FW10(c01)	Top	8 lb	12/-1 lb	-	-	-

UNFAC	CTORED RI	EACTIONS						
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'- 3"	E20(i48)	1118/-606 lb	320/-212 lb	683/-360 lb	987/-520 lb	261 lb/ -1112 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E20(i48)	-606 lb	1/-211 lb	-360 lb	-520 lb	-
==>	2'- 1 1/2"	2'- 1 1/2"	E20(i48)	1118 lb	319/-1 lb	683 lb	987 lb	-
2	18'- 3"	20'- 6"	E8(i12)	897/-497 lb	579/-297 lb	301/-204 lb	435/-295 lb	261 lb/ -1112 lb
==>	18'- 4 1/2"	18'- 4 1/2"	E8(i12)	897 lb	553/-1 lb	301 lb	435 lb	-
==>	20'- 4 1/2"	20'- 4 1/2"	E8(i12)	-497 lb	26/-296 lb	-204 lb	-295 lb	-

DESIGN NOTES

- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- 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.



Customer: Street 1: City: Customer Ph.. Job Name: A

Level: 1st FLOOR Label: DB1-2 - i51 Type: Beam 2 Ply Member 2.1 RigidLam SP LVL 1-3/4

x 11-7/8

Status:

Design
Passed

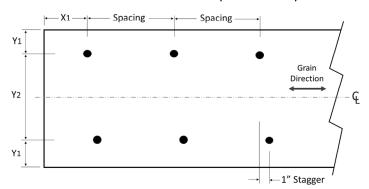
• Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.85

PLY TO PLY CONNECTION

Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 42. Row = 2, Spacing = 12"
 12d (0.148"x3.25") nails properties: D = 0.148", L = 3.25". Fastener capacity = 128 lbs. X1 = 2.25", Y1 = 0.75", Y2 = 1.5"
 Install fasteners from one face.

X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)





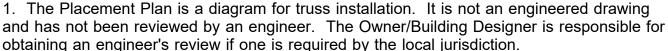
Carter Sanford Component Plant 298 Harvey Faulk Rd Sanford, NC 27332

Phone #:919-775-1450



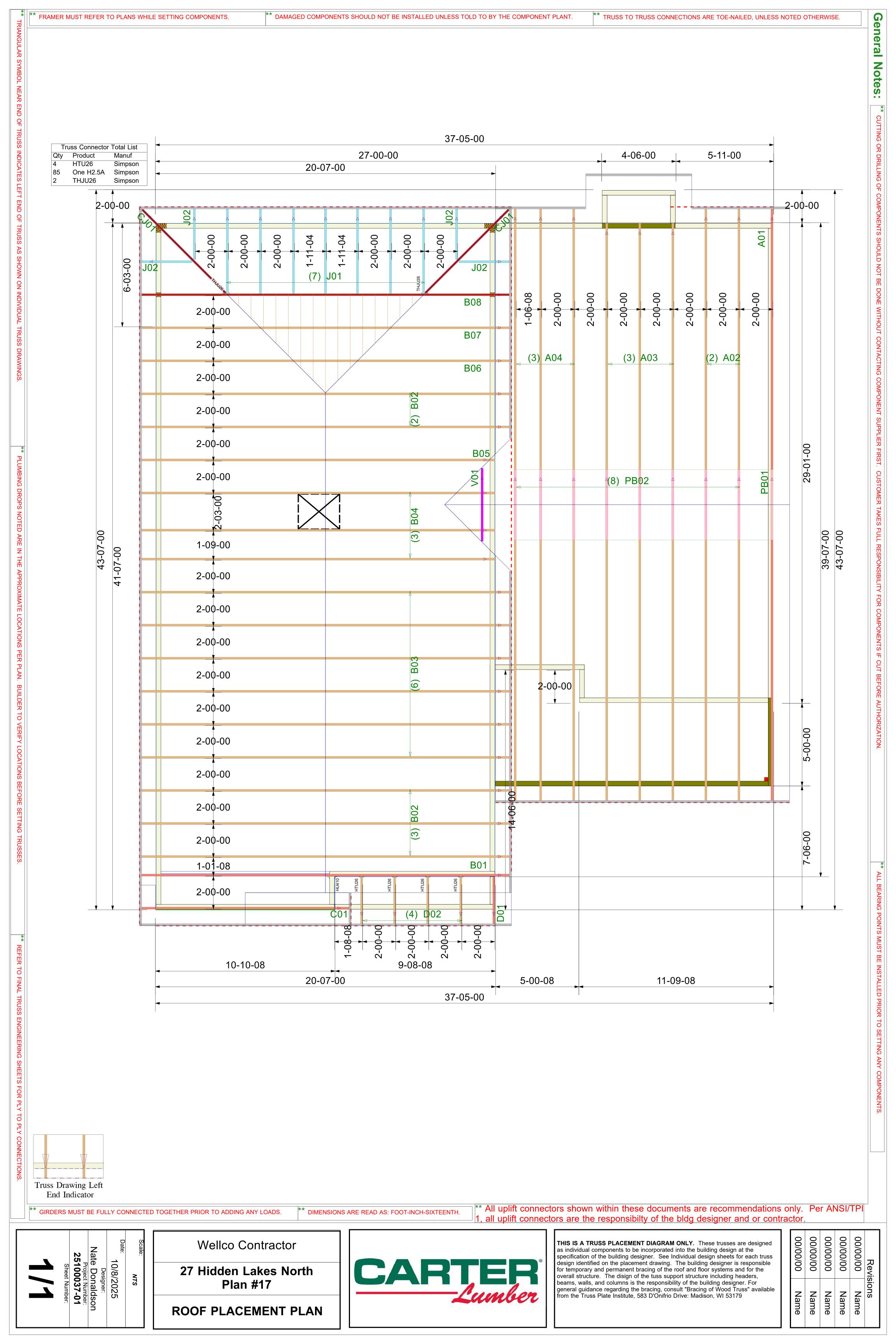
Model: 27 Hidden Lakes North Plan #17

THE PLACEMENT PLAN NOTES:



- 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.
- 9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By:	Date:
--------------	-------





RE: 25100037

27 Hidden Lakes North - Plan 17 - Roof

Trenco 818 Soundside Rd Edenton, NC 27932

Site Information:

Customer: Wellco Contractor Project Name: 25100037 Lot/Block: 27 Model:

Address: Subdivision: Hidden Lakes North

City: State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special **Loading Conditions):**

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 8.7

Wind Code: ASCE 7-16 Wind Speed: 130 mph Floor Load: N/A psf Roof Load: 40.0 psf

This package includes 21 individual, dated Truss Design Drawings and 0 Additional Drawings.

No. 1 2 3 4 5	Seal# 173793912 173793913 173793914 173793915 173793916	Truss Name A01 A02 A03 A04 B01	Date 5/29/2025 5/29/2025 5/29/2025 5/29/2025 5/29/2025	No. 21	Seal# I73793932	Truss Name V01	Date 5/29/2025
6	173793917	B02	5/29/2025				
7	173793918	B03	5/29/2025				
8	173793919	B04	5/29/2025				
9	173793920	B05	5/29/2025				
10	173793921	B06	5/29/2025				
11	173793922	B07	5/29/2025				
12	173793923	B08	5/29/2025				
13	173793924	C01	5/29/2025				
14	173793925	CJ01	5/29/2025				
15	173793926	D01	5/29/2025				
16	173793927	D02	5/29/2025				
17	173793928	J01	5/29/2025				
18	173793929	J02	5/29/2025				
19	173793930	PB01	5/29/2025				
20	173793931	PB02	5/29/2025				

The truss drawing(s) referenced above have been prepared by

Truss Engineering Co. under my direct supervision

based on the parameters provided by Carter Components (Sanford, NC)).

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2025

North Carolina COA: C-0844

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



May 29, 2025

Job Truss Truss Type Qtv Ply 27 Hidden Lakes North - Plan 17 - Roof 173793912 25100037 A01 Piggyback Base Supported Gable Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:43 ID:kLm?uy?84EsghLJJ7FyE_KyAQ7W-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

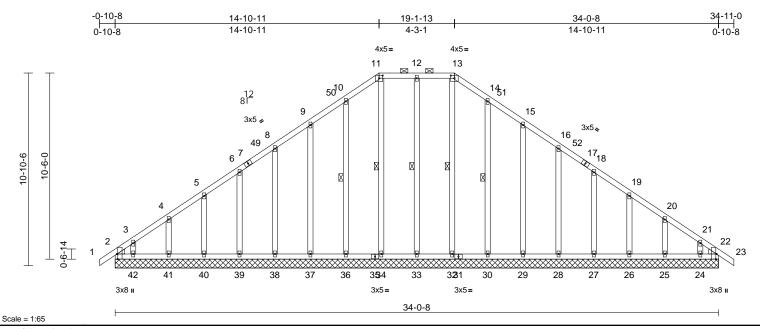


Plate Offsets (X, Y): [2:0-3-8,Edge], [11:0-2-8,0-1-13], [13:0-2-8,0-1-13], [22:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	22	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 257 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 **OTHERS** 2x4 SP No.3 WEDGE Left: 2x4 SP No.3

Right: 2x4 SP No.3 BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 11-13.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

WEBS 12-33, 11-34, 10-36, 1 Row at midpt

13-32, 14-30

REACTIONS (size) 2=34-0-8, 22=34-0-8, 24=34-0-8, 25=34-0-8, 26=34-0-8, 27=34-0-8,

> 28=34-0-8, 29=34-0-8, 30=34-0-8, 32=34-0-8, 33=34-0-8, 34=34-0-8, 36=34-0-8, 37=34-0-8, 38=34-0-8 39=34-0-8, 40=34-0-8, 41=34-0-8,

42=34-0-8 Max Horiz 2=247 (LC 13)

Max Uplift 2=-109 (LC 10), 22=-33 (LC 11), 24=-83 (LC 15), 25=-58 (LC 15), 26=-58 (LC 15), 27=-58 (LC 15),

28=-57 (LC 15), 29=-61 (LC 15), 30=-53 (LC 15), 33=-35 (LC 11), 34=-3 (LC 11), 36=-55 (LC 14),

37=-61 (LC 14), 38=-57 (LC 14), 39=-58 (LC 14), 40=-58 (LC 14), 41=-57 (LC 14), 42=-99 (LC 14)

Max Grav 2=181 (LC 26), 22=135 (LC 28), 24=134 (LC 26), 25=175 (LC 53), 26=167 (LC 26), 27=183 (LC 53), 28=226 (LC 41), 29=226 (LC 41), 30=229 (LC 41), 32=190 (LC 22),

33=263 (LC 40), 34=190 (LC 21), 36=229 (LC 41), 37=226 (LC 41), 38=226 (LC 41), 39=183 (LC 51),

40=167 (LC 25), 41=174 (LC 51),

42=152 (LC 25)

(lb) - Maximum Compression/Maximum Tension TOP CHORD

1-2=0/29, 2-3=-253/207, 3-4=-202/187, 4-5=-164/165, 5-6=-146/147, 6-8=-134/144, 8-9=-129/177, 9-10=-134/211,

10-11=-159/251, 11-12=-129/227, 12-13=-129/227, 13-14=-159/251,

14-15=-134/199 15-16=-109/141 16-18=-78/86, 18-19=-64/50, 19-20=-83/64

20-21=-134/86, 21-22=-182/101, 22-23=0/29 2-42=-115/173, 41-42=-84/173,

40-41=-84/173, 39-40=-84/173,

38-39=-84/173, 37-38=-84/173, 36-37=-84/173, 34-36=-84/173, 33-34=-84/172, 32-33=-84/172, 30-32=-84/173, 29-30=-84/173,

28-29=-84/173, 27-28=-84/173, 26-27=-84/173, 25-26=-84/173, 24-25=-84/173, 22-24=-84/173

12-33=-223/59, 11-34=-150/33, 10-36=-193/79, 9-37=-194/85, 8-38=-193/81,

6-39=-158/82, 5-40=-142/82, 4-41=-149/84, 3-42=-116/87, 13-32=-150/6, 14-30=-193/77, 15-29=-194/85. 16-28=-193/81.

18-27=-158/82, 19-26=-142/81,

20-25=-149/84, 21-24=-116/80

NOTES

WEBS

FORCES

BOT CHORD

- 1) Unbalanced roof live loads have been considered for this design
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-6-6, Exterior(2N) 2-6-6 to 11-5-14, Corner(3R) 11-5-14 to 22-6-10, Exterior(2N) 22-6-10 to 31-6-2, Corner(3E) 31-6-2 to 34-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.



Continued on page 2

Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	A01	Piggyback Base Supported Gable	1	1	Job Reference (optional)	173793912

ID:kLm?uy?84EsghLJJ7FyE_KyAQ7W-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 2, 33 lb uplift at joint 22, 35 lb uplift at joint 33, 3 lb uplift at joint 34, 55 lb uplift at joint 36, 61 lb uplift at joint 37, 57 lb uplift at joint 38, 58 lb uplift at joint 39, 58 lb uplift at joint 40, 57 lb uplift at joint 41, 99 lb uplift at joint 42, 53 lb uplift at joint 30, 61 lb uplift at joint 29, 57 lb uplift at joint 28, 58 lb uplift at joint 27, 58 lb uplift at joint 26, 58 Ib uplift at joint 25, 83 lb uplift at joint 24, 109 lb uplift at joint 2 and 33 lb uplift at joint 22.
- 14) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 43.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



Page: 2



818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	A02	Piggyback Base	2	1	Job Reference (optional)	173793913

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:45 ID:gjtmJe1Pcs6OweThFg_i3lyAQ7U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1

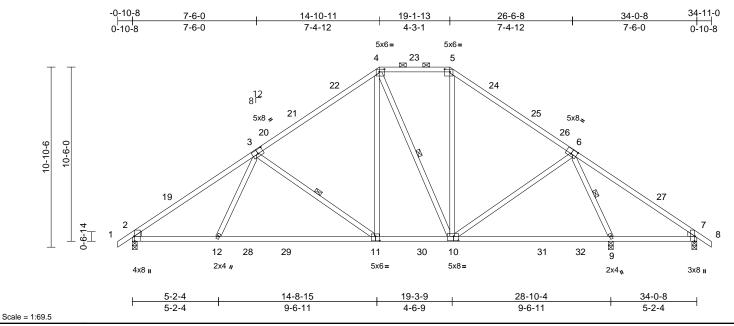


Plate Offsets (X, Y): [2:0-3-8,Edge], [3:0-4-0,0-3-0], [4:0-3-12,0-2-0], [5:0-3-12,0-2-0], [6:0-4-0,0-3-4], [7:0-3-8,Edge], [10:0-3-8,0-3-0], [11:0-3-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.21	11-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.38	11-12	>917	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 203 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E 2x4 SP 2400F 2.0E **BOT CHORD**

WEBS 2x4 SP No.3 *Except* 10-4:2x4 SP No.2

WEDGE Left: 2x4 SP No.3

Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-4-6 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-5.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing, Except: 6-0-0 oc bracing: 7-9

WEBS 1 Row at midpt 3-11, 4-10, 6-9 REACTIONS (size) 2=0-3-8, 7=0-3-8, 9=0-3-8

Max Horiz 2=-247 (LC 12)

Max Uplift 2=-144 (LC 14), 7=-171 (LC 15) Max Grav 2=1449 (LC 51), 7=333 (LC 59),

9=1770 (LC 47)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/29, 2-4=-2322/212, 4-5=-1063/242,

5-7=-1432/275, 7-8=0/29

BOT CHORD 2-12=-193/1838, 9-12=-226/1701,

7-9=-89/129

WEBS 3-12=0/394, 3-11=-733/256, 4-11=-62/730,

4-10=-403/98, 5-10=-57/366, 6-10=-57/511,

6-9=-1670/94

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-6-6, Interior (1) 2-6-6 to 10-0-15, Exterior(2R) 10-0-15 to 23-11-9, Interior (1) 23-11-9 to 31-6-2, Exterior(2E) 31-6-2 to 34-11-0 zone; cantilever left and right exposed; end vertical left and right exposed:C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	A03	Piggyback Base	3	1	Job Reference (optional)	173793914

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:45 ID:c6?WkK2f8TM6Ayd4M51A8AyAQ7S-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

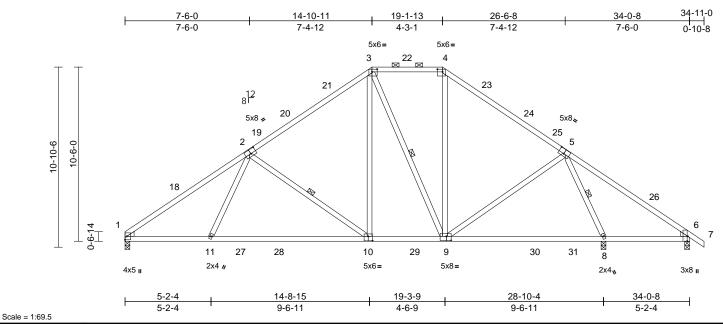


Plate Offsets (X, Y): [2:0-4-0,0-3-0], [3:0-3-12,0-2-0], [4:0-3-12,0-2-0], [5:0-4-0,0-3-4], [6:0-3-8,Edge], [9:0-3-8,0-3-0], [10:0-3-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.21	10-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.38	10-11	>918	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 201 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E **BOT CHORD** 2x4 SP 2400F 2.0E

WEBS 2x4 SP No.3 *Except* 9-3:2x4 SP No.2

WEDGE Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-4-6 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing, Except: 6-0-0 oc bracing: 6-8

WEBS 1 Row at midpt 2-10, 3-9, 5-8 REACTIONS (size) 1=0-3-8, 6=0-3-8, 8=0-3-8

Max Horiz 1=-243 (LC 12)

Max Uplift 1=-127 (LC 14), 6=-171 (LC 15) Max Grav 1=1400 (LC 51), 6=333 (LC 59),

8=1769 (LC 47)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-3=-2327/215, 3-4=-1064/242,

4-6=-1433/274, 6-7=0/29

BOT CHORD 1-11=-195/1842, 8-11=-227/1704,

WEBS 2-11=0/395, 2-10=-736/257, 3-10=-63/731,

3-9=-403/98, 4-9=-57/367, 5-9=-57/511,

5-8=-1670/94

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-4-14, Interior (1) 3-4-14 to 10-0-15, Exterior(2R) 10-0-15 to 23-11-9, Interior (1) 23-11-9 to 31-6-2, Exterior(2E) 31-6-2 to 34-11-0 zone; cantilever left and right exposed; end vertical left and right exposed:C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 6. This connection is for uplift only and does not consider lateral forces.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	A04	Piggyback Base	3	1	Job Reference (optional)	173793915

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:45 ID:ZU7G904vg4dqPGmTUW3eDbyAQ7Q-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1

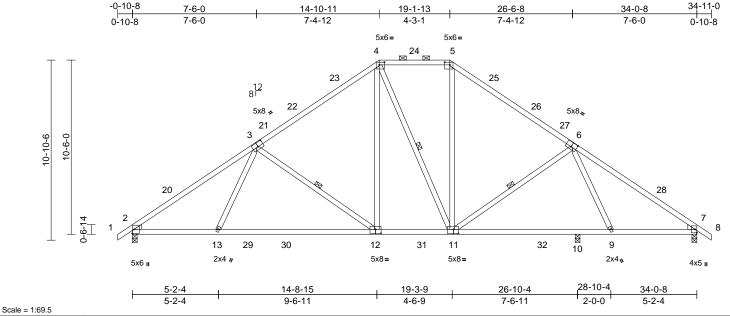


Plate Offsets (X, Y): [3:0-4-0,0-3-0], [4:0-3-12,0-2-0], [5:0-3-12,0-2-0], [6:0-4-0,0-3-4], [11:0-3-8,0-3-0], [12:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.21	12-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.39	12-13	>821	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.06	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 203 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E **BOT CHORD** 2x4 SP 2400F 2.0E

WEBS 2x4 SP No.3 *Except* 11-4:2x4 SP No.2

WEDGE Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-0-1 oc purlins, except

2-0-0 oc purlins (6-0-0 max.): 4-5. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

WEBS 3-12, 4-11, 6-11 1 Row at midpt REACTIONS (size) 2=0-3-8, 7=0-3-8, 10=0-3-8

Max Horiz 2=-247 (LC 12)

Max Uplift 2=-157 (LC 14), 7=-209 (LC 15)

2=1615 (LC 51), 7=1359 (LC 53), Max Grav

10=455 (LC 51)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/29, 2-4=-2634/235, 4-5=-1406/270,

5-7=-2036/315, 7-8=0/29 **BOT CHORD**

2-13=-210/2096, 10-13=-243/1968, 9-10=-130/1688, 7-9=-135/1608

WEBS 3-13=0/380, 3-12=-720/256, 4-12=-54/767,

4-11=-295/106, 5-11=-74/572, 6-11=-478/302,

6-9=-204/27

NOTES

Unbalanced roof live loads have been considered for

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-6-6, Interior (1) 2-6-6 to 10-0-15, Exterior(2R) 10-0-15 to 23-11-9, Interior (1) 23-11-9 to 31-6-2, Exterior(2E) 31-6-2 to 34-11-0 zone; cantilever left and right exposed; end vertical left and right exposed C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

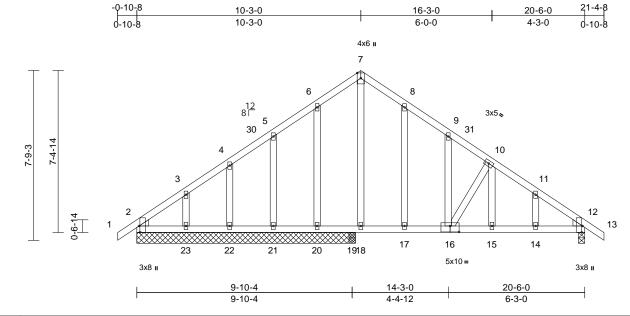
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Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	B01	Common Supported Gable	1	1	Job Reference (optional)	173793916

Run: 8.73 S Nov 16 2023 Print: 8.730 S Nov 16 2023 MiTek Industries, Inc. Thu May 29 09:16:26 ID:CGoyXUp6rKrxmt5EBugUKyyAQ7m-laTZ4ZYbLNplMo1Qt1nu2_5u?BcPZi9TKqOr04zBrk5

Page: 1



Scale = 1:52.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.20	16-17	>627	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.34	16-17	>381	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	19	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 129 lb	FT = 20%

LUMBER

2x4 SP 2400F 2.0E TOP CHORD BOT CHORD 2x4 SP 2400F 2.0E **WEBS** 2x4 SP No.3 **OTHERS** 2x4 SP No.3 Left: 2x4 SP No.3 WEDGE Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

REACTIONS All bearings 10-0-0. except 12=0-3-8, 19=0-3-8

(lb) - Max Horiz 2=174 (LC 13), 24=174 (LC 13) Max Uplift All uplift 100 (lb) or less at joint(s) 2, 21, 22, 23, 24 except 12=-139 (LC 15), 20=-481 (LC 22)

All reactions 250 (lb) or less at joint Max Grav (s) 20, 22, 23 except 2=475 (LC 22), 12=780 (LC 22), 19=509 (LC 22), 21=276 (LC 21), 24=475 (LC

22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250

(lb) or less except when shown

TOP CHORD 2-3=-615/149, 3-4=-599/177, 4-30=-606/199, 5-30=-574/211, 5-6=-612/253, 6-7=-535/289,

7-8=-549/283, 8-9=-570/223, 9-31=-682/233, 10-31=-751/229, 10-11=-981/261,

11-12=-1018/216

BOT CHORD 2-23=-33/489, 22-23=0/489, 21-22=0/489,

20-21=0/489, 19-20=0/489, 18-19=0/489, 17-18=0/489, 16-17=0/489, 15-16=-94/807,

14-15=-94/807, 12-14=-94/807

10-15=-88/332, 10-16=-619/229

WFBS

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-3-0, Exterior(2N) 2-3-0 to 7-3-0. Corner(3R) 7-3-0 to 13-3-0. Exterior(2N) 13-3-0 to 18-3-0. Corner(3E) 18-3-0 to 21-4-8 zone: cantilever left and right exposed; end vertical left and right exposed C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live 6) load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom 9) chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 2, 21, 22, 23, 2 except (jt=lb) 12=139, 20=480.



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

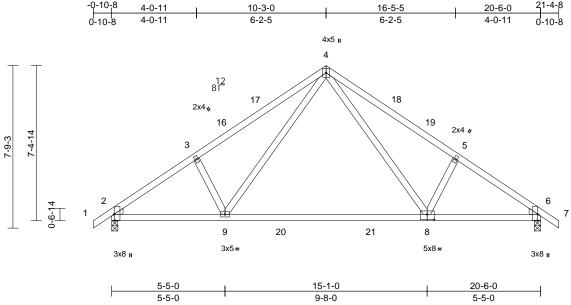
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Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	B02	Common	5	1	Job Reference (optional)	173793917

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:45 ID:gSMKkqpkcdzoO1gQlbBjt9yAQ7I-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:55.1

Plate Offsets (X, Y): [2:0-3-8,Edge], [3:0-0-0,0-0-0], [6:0-3-8,Edge], [8:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.25	8-9	>990	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.41	8-9	>599	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 106 lb	FT = 20%

LUMBER

2x4 SP 2400F 2.0E TOP CHORD **BOT CHORD** 2x4 SP 2400F 2.0E **WEBS** 2x4 SP No.3 WEDGE Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 2=0-3-8. 6=0-3-8

Max Horiz 2=-174 (LC 12)

Max Uplift 2=-87 (LC 14), 6=-87 (LC 15)

Max Grav 2=988 (LC 25), 6=988 (LC 26)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=0/29, 2-3=-1573/124, 3-4=-1516/186,

4-5=-1516/186, 5-6=-1573/124, 6-7=0/29 2-9=-149/1253, 6-9=-35/1254

BOT CHORD 4-8=-99/713, 5-8=-347/209, 4-9=-99/713,

3-9=-347/208

WEBS NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 7-3-0, Exterior(2R) 7-3-0 to 13-3-0, Interior (1) 13-3-0 to 18-4-8, Exterior(2E) 18-4-8 to 21-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

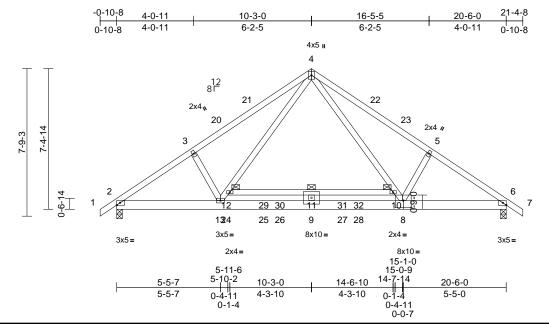
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	B03	Common	6	1	Job Reference (optional)	173793918

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:43:46 ID:gSMKkqpkcdzoO1gQlbBjt9yAQ7I-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:60.6

Plate Offsets (X, Y): [8:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.14	11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.30	11	>832	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 134 lb	FT = 20%

LUMBER

2x4 SP 2400F 2 0F TOP CHORD

2x6 SP 2400F 2.0E *Except* 12-10:2x4 SP **BOT CHORD** No.2

WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-4-13 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc

bracing.

REACTIONS (size) 2=0-3-8, 6=0-3-8

Max Horiz 2=174 (LC 13)

Max Grav 2=1262 (LC 25), 6=1262 (LC 26)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/29, 2-3=-2152/0, 3-4=-2084/0,

4-5=-2091/0, 5-6=-2155/0, 6-7=0/29 BOT CHORD 2-13=-3/1738, 9-13=0/1169, 6-9=0/1741,

11-12=-208/0. 10-11=-208/0

WFBS 12-13=0/920, 4-12=0/1106, 3-13=-363/222,

4-10=0/1111, 8-10=0/925, 5-8=-364/223,

9-11=-220/0

NOTES

- Unbalanced roof live loads have been considered for this design
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 7-3-0, Exterior(2R) 7-3-0 to 13-3-0, Interior (1) 13-3-0 to 18-4-8, Exterior(2E) 18-4-8 to 21-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 10-3-0 from left end, supported at two points, 5-0-0 apart.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

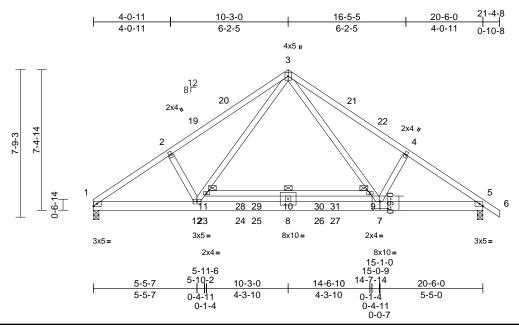
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	B04	Common	3	1	Job Reference (optional)	173793919

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:46 ID:8ewiyAqMNx5f0BFdJJiyPNyAQ7k-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:60.6

Plate Offsets (X, Y): [7:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.14	10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.30	10	>833	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 133 lb	FT = 20%

LUMBER

2x4 SP 2400F 2 0F TOP CHORD

2x6 SP 2400F 2.0E *Except* 11-9:2x4 SP **BOT CHORD** No.2

WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-4-12 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc

bracing.

REACTIONS (size) 1=0-3-8, 5=0-3-8

Max Horiz 1=-170 (LC 10)

Max Grav 1=1212 (LC 25), 5=1263 (LC 26) (lb) - Maximum Compression/Maximum

FORCES Tension

1-2=-2156/0, 2-3=-2088/0, 3-4=-2092/0,

TOP CHORD 4-5=-2156/0, 5-6=0/29

BOT CHORD 1-12=-15/1742, 8-12=0/1170, 5-8=0/1742,

10-11=-208/0. 9-10=-208/0 WFBS 2-12=-365/223, 11-12=0/924, 3-11=0/1110,

3-9=0/1111, 7-9=0/924, 4-7=-364/223,

8-10=-220/0

NOTES

- Unbalanced roof live loads have been considered for this design
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 7-3-0, Exterior(2R) 7-3-0 to 13-3-0, Interior (1) 13-3-0 to 18-4-8, Exterior(2E) 18-4-8 to 21-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 10-3-0 from left end, supported at two points, 5-0-0 apart.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

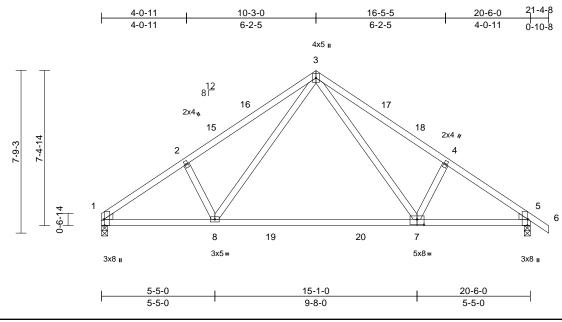
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	B05	Common	1	1	Job Reference (optional)	173793920

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:43:46 ID:1hhfMM4XQOlh1PLf2DatmoyAQ7P-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:55.1

Plate Offsets (X, Y): [1:0-3-8,Edge], [5:0-3-8,Edge], [7:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.25	7-8	>990	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.41	7-8	>600	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 104 lb	FT = 20%

LUMBER

2x4 SP 2400F 2.0E TOP CHORD 2x4 SP 2400F 2.0E **BOT CHORD WEBS** 2x4 SP No.3 WEDGE Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 1=0-3-8, 5=0-3-8

Max Horiz 1=-170 (LC 10)

Max Uplift 1=-70 (LC 14), 5=-87 (LC 15)

Max Grav 1=938 (LC 25), 5=988 (LC 26)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-1577/128, 2-3=-1520/190, 3-4=-1517/187, 4-5=-1574/125, 5-6=0/29

BOT CHORD 1-8=-151/1258, 5-8=-35/1254

WEBS 3-7=-99/713, 4-7=-347/209, 3-8=-101/717,

2-8=-350/210

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 7-3-0, Exterior(2R) 7-3-0 to 13-3-0, Interior (1) 13-3-0 to 18-4-8. Exterior(2E) 18-4-8 to 21-4-8 zone: cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

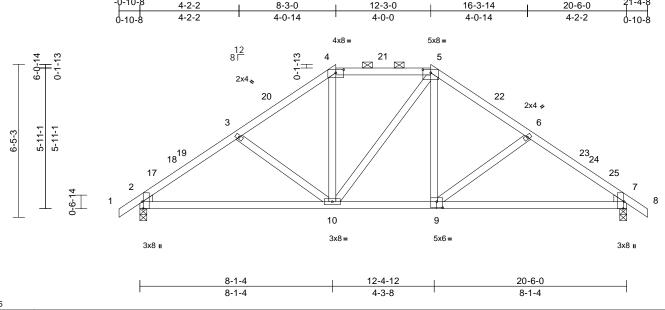
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Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	B06	Hip	1	1	Job Reference (optional)	173793921

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:46 ID:8E_B_qrnVa65Cre0yiQe9cyAOct-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:48.5

Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-4-0,0-1-9], [5:0-4-0,0-1-9], [7:0-3-8,Edge], [9:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.08	10-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.17	10-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.03	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 111 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 **WEBS** 2x4 SP No.3 WEDGE Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

4-10-13 oc purlins, except

2-0-0 oc purlins (5-11-9 max.): 4-5. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 2=0-3-8, 7=0-3-8

Max Horiz 2=141 (LC 13)

Max Uplift 2=-94 (LC 14), 7=-94 (LC 15)

Max Grav 2=1058 (LC 41), 7=1058 (LC 41)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/29, 2-3=-1418/165, 3-4=-1126/157,

4-5=-848/167, 5-6=-1131/158,

6-7=-1419/164, 7-8=0/29 **BOT CHORD** 2-10=-130/1118, 7-10=-53/1118

WEBS 3-10=-337/143, 4-10=-6/309, 5-10=-119/125,

5-9=-17/315, 6-9=-335/143

NOTES

- 1) Unbalanced roof live loads have been considered for this design
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 4-0-1, Exterior(2R) 4-0-1 to 16-5-6, Interior (1) 16-5-6 to 18-4-8, Exterior(2E) 18-4-8 to 21-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

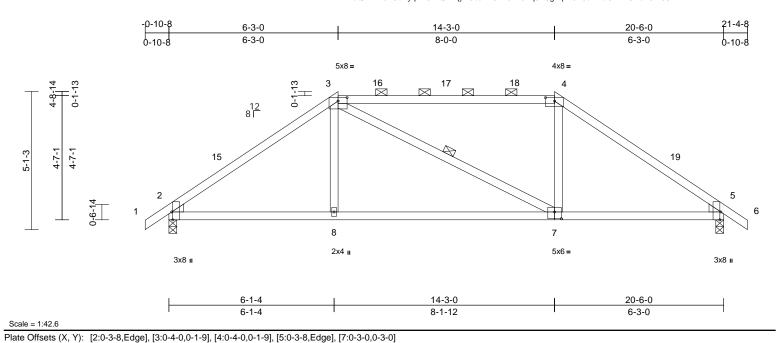
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Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	B07	Hip	1	1	Job Reference (optional)	173793922

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:46 ID:cQYZBAsPGuEyq?DCWQxthqyAOcs-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Snow (Pf) **BCLL** BCDL

Loading

TCDL

TCLL (roof)

LUMBER 2x4 SP 2400F 2.0E TOP CHORD 2x4 SP 2400F 2.0E **BOT CHORD WEBS** 2x4 SP No.3 WEDGE Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

(psf)

20.0

20.0

10.0

0.0

10.0

Spacing

Code

Plate Grip DOL

Rep Stress Incr

Lumber DOL

6-0-0 oc purlins, except 2-0-0 oc purlins (4-8-2 max.): 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

WEBS 1 Row at midpt 3-7 REACTIONS (size) 2=0-3-8, 5=0-3-8

Max Horiz 2=110 (LC 13) Max Uplift 2=-99 (LC 14), 5=-99 (LC 15) Max Grav 2=994 (LC 41), 5=994 (LC 41)

(lb) - Maximum Compression/Maximum

Tension TOP CHORD 1-2=0/45, 2-3=-1254/158, 3-4=-978/182,

4-5=-1252/159, 5-6=0/45 **BOT CHORD** 2-8=-80/980, 5-8=-68/978

WEBS 3-8=0/298, 3-7=-136/144, 4-7=0/298

NOTES

FORCES

- Unbalanced roof live loads have been considered for 1) this design
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 18-4-8, Exterior(2E) 18-4-8 to 21-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10

DEFL

Vert(LL)

Vert(CT)

Horz(CT)

0.82

0.24

0.11

I/defI

>999

>999

n/a

(loc)

7-8

7-8

-0.07

-0.14

0.02

L/d

240

180

PLATES

Weight: 95 lb

MT20

GRIP

244/190

FT = 20%

CSI

TC

BC

WB

Matrix-MSH

- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



2-0-0

1.15

1.15

YES

IRC2021/TPI2014

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	B08	Hip Girder	1	1	Job Reference (optional)	173793923

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:47 ID:UBn41XvwK7kOJcX_IG0psgyAOco-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

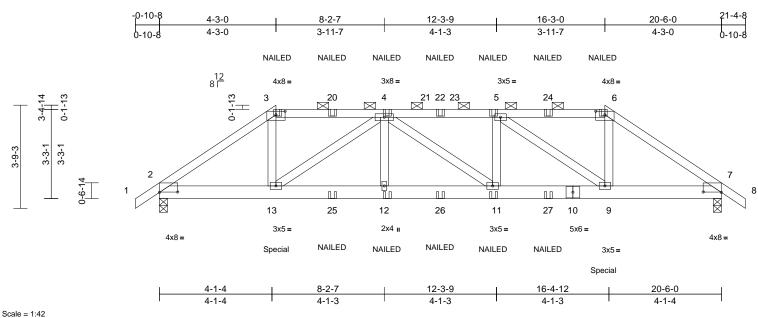


Plate Offsets (X, Y): [2:0-8-0,0-0-3], [3:0-4-0,0-1-9], [6:0-4-0,0-1-9], [7:0-8-0,0-0-3]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.12	11-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.18	11-12	>999	180	1	
TCDL	10.0	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.04	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 120 lb	FT = 20%

LUMBER

2x4 SP No.2 TOP CHORD **BOT CHORD** 2x6 SP 2400F 2.0E **WEBS** 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

3-4-2 oc purlins, except

2-0-0 oc purlins (2-10-5 max.): 3-6. Rigid ceiling directly applied or 10-0-0 oc

BOT CHORD bracing

REACTIONS (size) 2=0-3-8, 7=0-3-8

Max Horiz 2=78 (LC 11)

Max Uplift 2=-307 (LC 12), 7=-307 (LC 13)

Max Grav 2=1830 (LC 37), 7=1830 (LC 37)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/45, 2-3=-2740/470, 3-4=-2217/421,

4-5=-3363/558, 5-6=-2220/422,

6-7=-2745/471, 7-8=0/45 2-13=-381/2270, 12-13=-542/3381,

11-12=-542/3381, 9-11=-522/3363,

7-9=-318/2274

WEBS 3-13=-116/1136, 4-13=-1427/263,

4-12=0/260, 4-11=-68/44, 5-11=0/251, 5-9=-1400/256, 6-9=-116/1136

NOTES

BOT CHORD

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 354 lb down and 65 lb up at 4-3-0, and 354 lb down and 65 lb up at 16-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (lb/ft)

Vert: 1-3=-60, 3-6=-60, 6-8=-60, 14-17=-20

Concentrated Loads (lb)

Vert: 3=-116 (B), 6=-116 (B), 13=-354 (B), 4=-116 (B), 12=-51 (B), 11=-51 (B), 5=-116 (B), 9=-354 (B), 20=-116 (B), 22=-116 (B), 24=-116 (B), 25=-51 (B), 26=-51 (B), 27=-51 (B)



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall

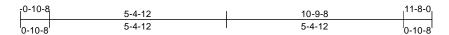
building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

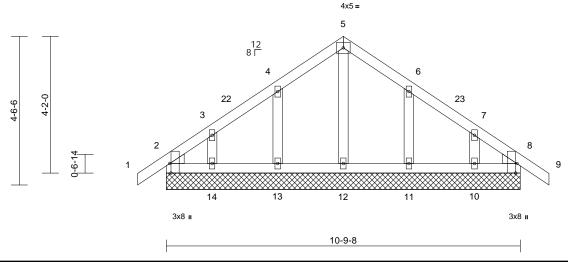


Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	C01	Common Supported Gable	1	1	Job Reference (optional)	173793924

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:43:47 ID:YDbraCsFgsTEtezB_RGf1?yAQ7h-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:35.1

Plate Offsets (X, Y): [2:0-3-8,Edge], [8:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	19	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 55 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No 2 **OTHERS** 2x4 SP No.3 WEDGE Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size)

2=10-9-8, 8=10-9-8, 10=10-9-8, 11=10-9-8, 12=10-9-8, 13=10-9-8, 14=10-9-8

Max Horiz 2=98 (LC 13)

Max Uplift 2=-20 (LC 10), 10=-59 (LC 15),

11=-62 (LC 15), 13=-62 (LC 14),

14=-63 (LC 14)

Max Grav 2=130 (LC 21), 8=130 (LC 22),

10=192 (LC 22), 11=266 (LC 22), 12=135 (LC 22), 13=266 (LC 21),

14=192 (LC 21)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=0/29, 2-3=-73/66, 3-4=-75/53, 4-5=-85/128, 5-6=-85/128, 6-7=-72/42,

7-8=-49/32. 8-9=0/29

2-14=-44/110, 13-14=-30/110, 12-13=-30/110,

BOT CHORD 11-12=-30/110, 10-11=-30/110, 8-10=-30/110 **WEBS**

5-12=-95/0, 4-13=-225/131, 3-14=-160/120,

6-11=-225/131, 7-10=-160/120

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Corner(3R) 2-1-8 to 8-8-0, Corner(3E) 8-8-0 to 11-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 2, 62 lb uplift at joint 13, 63 lb uplift at joint 14, 62 lb uplift at joint 11, 59 lb uplift at joint 10 and 20 lb uplift at joint 2.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

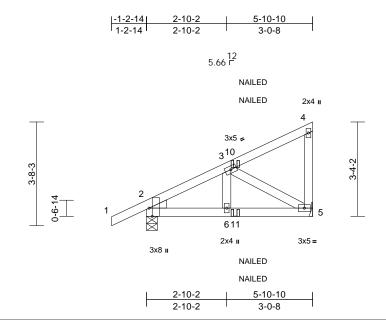
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	CJ01	Diagonal Hip Girder	2	1	Job Reference (optional)	173793925

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Page: 1



Scale = 1:40.8

Plate Offsets (X, Y): [2:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	0.00	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 32 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.2 **WEBS** 2x4 SP No.3 WEDGE Left: 2x4 SP No.3

BRACING

BOT CHORD

TOP CHORD Structural wood sheathing directly applied or

5-10-10 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc

REACTIONS (size) 2=0-4-9, 5= Mechanical

Max Horiz 2=120 (LC 11)

Max Uplift 2=-60 (LC 12), 5=-62 (LC 12)

Max Grav 2=420 (LC 19), 5=332 (LC 19)

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-410/50, 3-4=-94/37,

4-5=-114/31

BOT CHORD 2-6=-82/340, 5-6=-82/340 WEBS 3-6=0/118, 3-5=-388/98

NOTES

FORCES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint
- 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-4=-60, 5-7=-20

Concentrated Loads (lb)

Vert: 11=-21 (F=-10, B=-10)



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

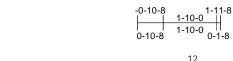
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

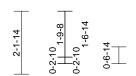


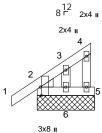
Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	D01	Monopitch Supported Gable	1	1	Job Reference (optional)	173793926

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Page: 1







2x4 II 2x4 II

1-8-4

Scale = 1:39.4

Plate Offsets (X, Y): [2:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 11 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 2x4 SP No.2 **BOT CHORD WEBS** 2x4 SP No.3 **OTHERS** 2x4 SP No.3 WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

1-11-8 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 2=1-11-8, 5=1-11-8, 6=1-11-8

Max Horiz 2=56 (LC 13)

Max Uplift 2=-12 (LC 14), 5=-7 (LC 11), 6=-27

Max Grav 2=164 (LC 21), 5=35 (LC 21), 6=65

(LC 21)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/43, 2-3=-54/65, 3-4=-28/39, 4-5=-37/17

BOT CHORD 2-6=-26/47, 5-6=-18/32

WEBS 3-6=-65/72

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 2, 7 lb uplift at joint 5, 27 lb uplift at joint 6 and 12 lb uplift at joint 2.

LOAD CASE(S) Standard

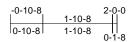


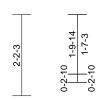
May 29,2025

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	D02	Monopitch	4	1	Job Reference (optional)	173793927

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Wed May 28 10:43:47 ID:0P9DoYttRAc5UoYOY8nuaDyAQ7g-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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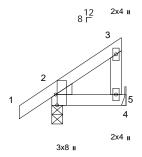




Plate Offsets (X, Y): [2:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	5-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 11 lb	FT = 20%

LUMBER

2x4 SP No.2 TOP CHORD BOT CHORD 2x4 SP No.2 **WEBS** 2x4 SP No.3 WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

REACTIONS (size) 2=0-3-8, 4= Mechanical

Max Horiz 2=57 (LC 13)

Max Uplift 2=-25 (LC 14), 4=-11 (LC 11)

Max Grav 2=204 (LC 21), 4=70 (LC 21) (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/44, 2-3=-32/53, 3-5=-73/25

BOT CHORD 2-5=-24/59, 4-5=0/0

NOTES

FORCES

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

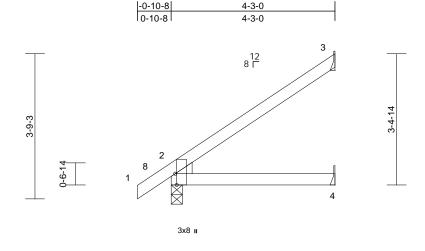


May 29,2025

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	J01	Jack-Open	7	1	Job Reference (optional)	173793928

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Page: 1



Scale = 1:29.9

Plate Offsets (X, Y): [2:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	4-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.05	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 16 lb	FT = 20%

4-3-0

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.2 WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

4-3-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4=

Mechanical

Max Horiz 2=121 (LC 14)

Max Uplift 2=-5 (LC 14), 3=-68 (LC 14)

Max Grav 2=330 (LC 21), 3=176 (LC 21),

4=78 (LC 7)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/39. 2-3=-106/77

BOT CHORD 2-4=-86/81

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this 3) design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint
- 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

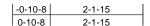
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

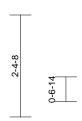


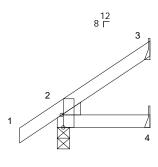
Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	J02	Jack-Open	4	1	Job Reference (optional)	173793929

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3x8 II

2-1-15

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	le =	le = 1:26

Plate Offsets (X, Y): [2:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 10 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.2 WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

2-1-15 oc purlins. **BOT CHORD**

Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4=

Mechanical

Max Horiz 2=70 (LC 14)

Max Uplift 2=-11 (LC 14), 3=-32 (LC 14), 4=-1 (LC 14)

2=215 (LC 21), 3=71 (LC 21), 4=37

(LC 7)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/45, 2-3=-51/34

BOT CHORD 2-4=-34/40

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 3 and 1 lb uplift at joint 4.
- 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



May 29,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

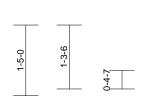


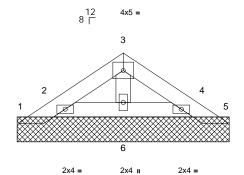
Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	PB01	Piggyback	1	1	Job Reference (optional)	173793930

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Page: 1

-0-8-12	1-4-7	2-8-13	3-5-9
0-8-12	1-4-7	1-4-7	0-8-12





2-8-13

Scale = 1:23.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 13 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x4 SP No.3 OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or

4-3-1 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 1=4-3-1, 2=4-3-1, 4=4-3-1, 5=4-3-1, 6=4-3-1

Max Horiz 1=-29 (LC 10)

Max Uplift 1=-18 (LC 10), 2=-23 (LC 14),

4=-21 (LC 15), 5=-1 (LC 7)

Max Grav 1=19 (LC 13), 2=143 (LC 21), 4=133 (LC 22), 5=3 (LC 21), 6=95

(LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-34/46, 2-3=-35/33, 3-4=-35/32,

4-5=-1/28

BOT CHORD 2-6=-10/29, 4-6=-10/29

WFBS 3-6=-42/8

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

 * This truss has been designed for a live load of 20.0psf
- on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 2, 21 lb uplift at joint 4, 18 lb uplift at joint 1, 1 lb uplift at
- joint 5, 23 lb uplift at joint 2 and 21 lb uplift at joint 4. 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 29,2025

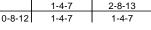


Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
25100037	PB02	Piggyback	8	1	Job Reference (optional)	173793931

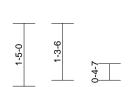
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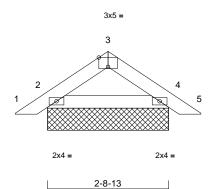
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-0-8	8-12			
		1-4-7	2-8-13	3-5-9
0-8	3-12	1-4-7	1-4-7	0-8-12



8 T





Scale = 1:26

Plate Offsets (X, Y): [3:0-2-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or

4-3-1 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 2=2-8-13, 4=2-8-13

Max Horiz 2=-29 (LC 12)

Max Uplift 2=-19 (LC 14), 4=-15 (LC 15) Max Grav 2=170 (LC 21), 4=176 (LC 22)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/23, 2-3=-97/43, 3-4=-97/41, 4-5=0/23

BOT CHORD 2-4=-1/72

NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) N/A
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

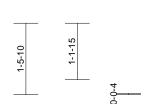
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

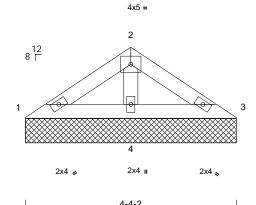


Γ,	Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - Roof	
	25100037	V01	Valley	1	1	Job Reference (optional)	173793932

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2-2-1 3-10-15 2-2-1 1-8-14





Scale = 1:23.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 14 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x4 SP No.3 **OTHERS**

BRACING

Structural wood sheathing directly applied or TOP CHORD

4-4-2 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc

bracing.

REACTIONS (size) 1=4-4-2, 3=4-4-2, 4=4-4-2 Max Horiz 1=-30 (LC 10)

Max Uplift

1=-6 (LC 14), 3=-11 (LC 15), 4=-21 (IC 14)

1=80 (LC 20), 3=80 (LC 21), 4=248 Max Grav

(LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-75/85, 2-3=-75/85

1-4=-73/62, 3-4=-73/62 **BOT CHORD**

WEBS 2-4=-165/67

NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable. or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 5) Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 11 lb uplift at joint 3 and 21 lb uplift at joint 4.

LOAD CASE(S) Standard



May 29,2025

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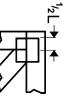
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

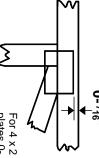


Symbols

PLATE LOCATION AND ORIENTATION



offsets are indicated and fully embed teeth Center plate on joint unless x, y Apply plates to both sides of truss Dimensions are in ft-in-sixteenths



edge of truss. plates 0- 1/16" from outside For 4 x 2 orientation, locate

connector plates. required direction of slots in This symbol indicates the

* Plate location details available in MiTek software or upon request

PLATE SIZE

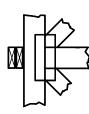
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

LATERAL BRACING LOCATION



by text in the bracing section of the output. Use T or I bracing if indicated. ndicated by symbol shown and/or

BEARING



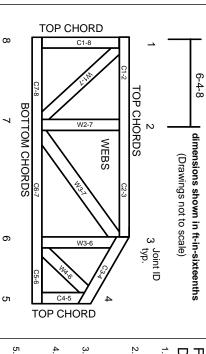
Min size shown is for crushing only number/letter where bearings occur reaction section indicates joint (supports) occur. Icons vary but Indicates location where bearings

Industry Standards:

National Design Specification for Metal Plate Connected Wood Trusses Installing, Restraining & Bracing of Metal Guide to Good Practice for Handling, Building Component Safety Information, Design Standard for Bracing. Plate Connected Wood Truss Construction.

DSB-22: ANSI/TPI1:

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282 ESR-4722, ESL-1388

Design General Notes

truss unless otherwise shown Trusses are designed for wind loads in the plane of the

established by others section 6.3 These truss designs rely on lumber values Lumber design values are in accordance with ANSI/TPI 1

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MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Ņ Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other

'n

- joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1. Place plates on each face of truss at each
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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- 9 Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- 11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- 15. Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- 19. Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.