Mark Morris, P.E.

#126, 1317-M, Summerville, SC 29483
843 209-5784, Fax (866)-213-4614

Mark Morris

Digitally signed by Mark Morris
Date: 2025-04-16 10:50:48

The truss drawing(s) listed below have been prepared by **Atlantic Building Components** under my direct supervision based on the parameters provided by the truss designers.

AST #: 58535
JOB: 25-3294-R01
JOB NAME: LOT 155 PROVIDENCE CREEK
Wind Code: ASCE7-16
Wind Speed: Vult= 120mph
Exposure Category: B
Mean Roof Height (feet): 35
These truss designs comply with IRC 2015 as well as IRC 2018.
22 Truss Design(s)

Trusses:
P01, R01, R02, R02A, R02B, R02C, R03, R04, R05, R06, R07, R08, R09, R10, R11, R12, R13, V01, V02, V03, V04, V05

4/16/2025
Mark Morris

My license renewal date for the state of North Carolina is 12/31/2025

Warning !—Verify design parameters and read notes before use.

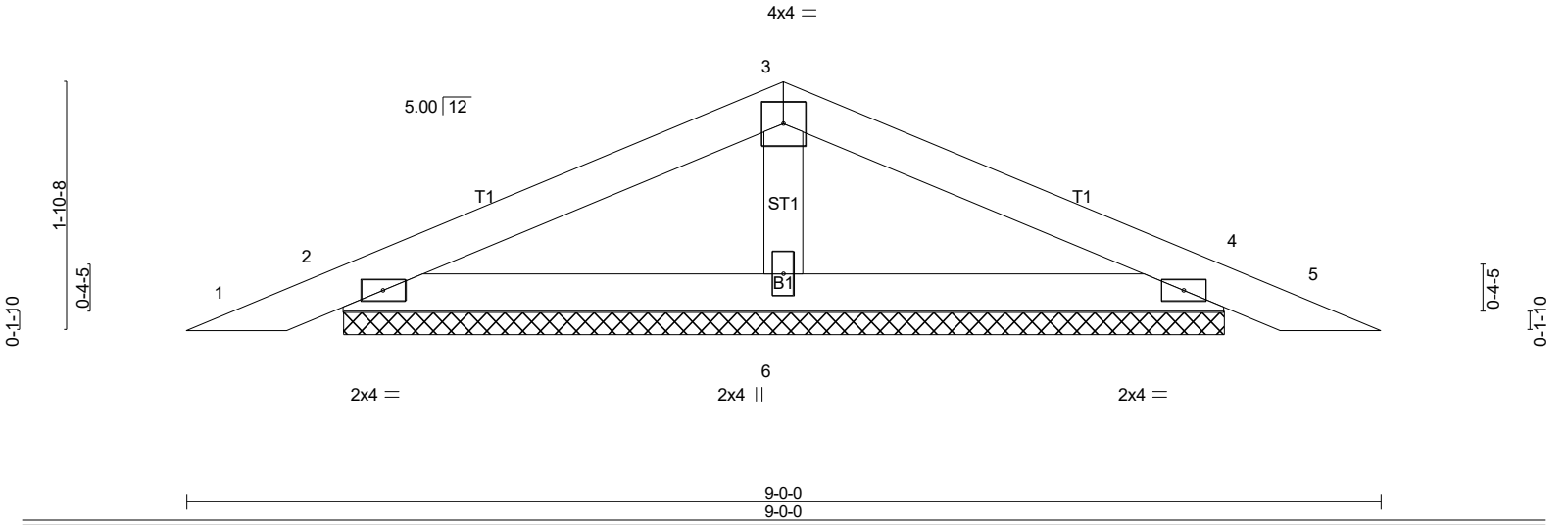
This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	P01	Piggyback	21	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:04:52 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-LLAtilsBofCK56j4m?SPpjtqZM?Qz5D0SJbuIlzQBTv

4-6-0 9-0-0
4-6-0 4-6-0

Scale = 1:17.0



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	0.26	Vert(LL)	0.01	5	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL 1.15	BC	0.19	Vert(CT)	0.01	5	n/r	80		
TCDL	10.0	Rep Stress Incr YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%
BCDL	10.0										

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=184/6-7-10 (min. 0-1-8), 4=184/6-7-10 (min. 0-1-8), 6=258/6-7-10 (min. 0-1-8)
Max Horz 2=26(LC 14)
Max Uplift 2=-48(LC 14), 4=-52(LC 15), 6=-4(LC 14)
Max Grav 2=256(LC 21), 4=256(LC 22), 6=258(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 2, 52 lb uplift at joint 4 and 4 lb uplift at joint 6.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

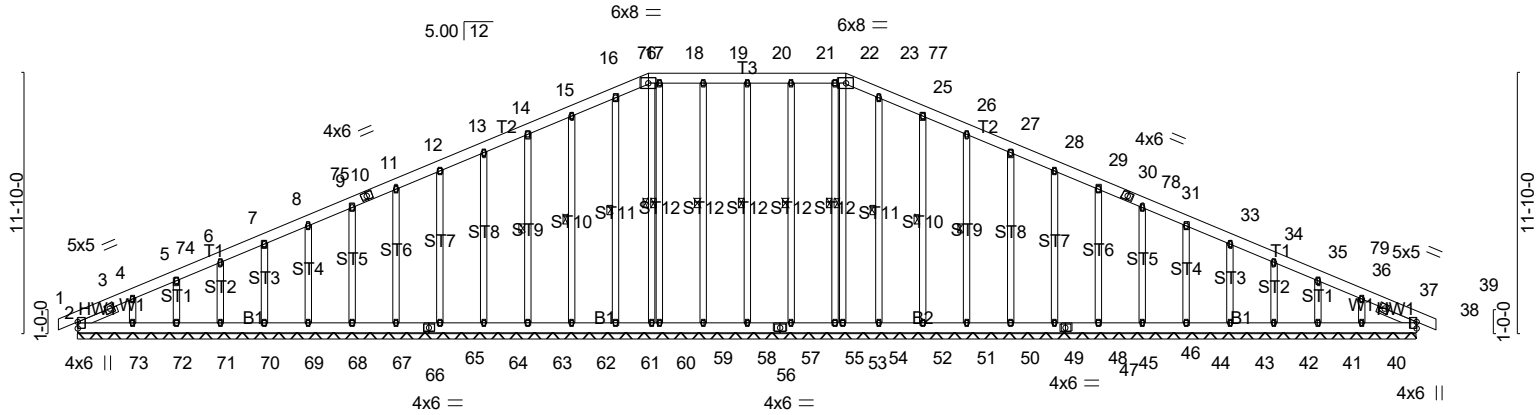
4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R01	GABLE	1	1	# 58535
					Job Reference (optional)

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:04:55 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-lwr?Lmv35abuyaSfR7?6RLVP3Z2ZAPhT8HpYv4zQBTs

-0-10-8 0-10-8 | 26-0-0 26-0-0 | 35-0-0 9-0-0 | 61-0-0 26-0-0 | 61-10-8 0-10-8

Scale = 1:105.0



61-0-0
61-0-0

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	0.05	Vert(LL)	-0.00	38	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	38	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.01	38	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 624 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-11-0, Right 2x4 SP No.3 1-11-0

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.
WEBS	1 Row at midpt 20-57, 19-58, 18-59, 16-61, 15-62, 14-63, 17-60, 21-55, 22-54, 24-52, 25-51, 26-50, 23-53

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 61-0-0.
(lb) - Max Horz 2=-167(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 2, 57, 58, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 55, 52, 51, 50, 49, 48, 46, 45, 44, 43, 42, 41, 40 except 73=-105(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 2, 38, 59, 69, 70, 71, 72, 60, 54, 44, 43, 42, 41, 53, 73, 40 except 57=291(LC 44), 58=292(LC 44), 61=254(LC 45), 62=294(LC 45), 63=287(LC 45), 64=286(LC 45), 65=287(LC 45), 67=289(LC 45), 68=266(LC 45), 55=292(LC 44), 52=254(LC 45), 51=294(LC 45), 50=287(LC 45), 49=286(LC 45), 48=287(LC 45), 46=289(LC 45), 45=266(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-15=-111/263, 15-16=-127/299, 16-76=-135/317, 17-76=-130/320, 17-18=-130/312, 18-19=-130/312, 19-20=-130/312, 20-21=-130/312, 21-22=-130/312, 22-23=-130/312, 23-77=-130/320, 24-77=-135/317, 24-25=-127/299, 25-26=-111/263

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 5-2-11, Exterior(2N) 5-2-11 to 19-10-13, Corner(3R) 19-10-13 to 41-1-3, Exterior(2N) 41-1-3 to 55-9-5, Corner(3E) 55-9-5 to 61-10-8 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) 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.
4) 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) 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 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

Continued on page 2

4/16/2025

NOTES-

7) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
8) Provide adequate drainage to prevent water ponding.
9) All plates are 2x4 MT20 unless otherwise indicated.
10) Gable requires continuous bottom chord bearing.
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 57, 58, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 55, 52, 51, 50, 49, 48, 46, 45, 44, 43, 42, 41, 40 except (jt=lb) 73=105.

LOAD CASE(S) Standard

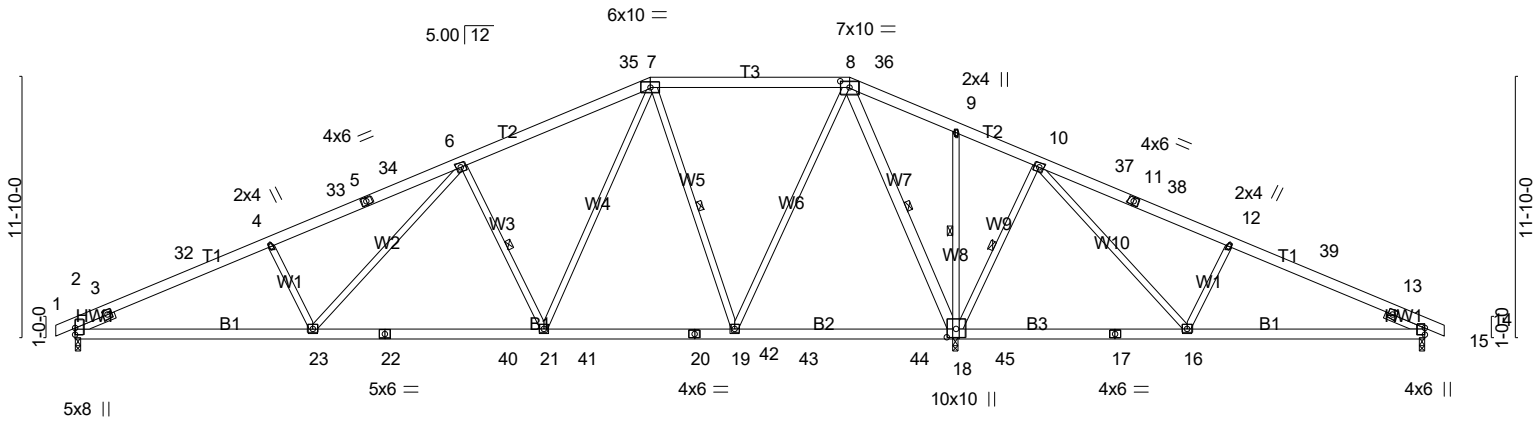
4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R02	Piggyback Base	1	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:04:57 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-iJzmmSwJdCrcBtc1ZY1aWmbYENYce8UmcbIfzyzQBTq

-0-10-8	8-10-5	17-5-3	26-0-0	35-0-0	39-9-12	43-6-13	52-1-11	61-0-0	61-10-8
0-10-8	8-10-5	8-6-13	8-6-13	9-0-0	4-9-12	3-9-1	8-6-13	8-10-5	0-10-8

Scale = 1:104.1



10-8-14	21-2-4	29-9-12	39-9-12	50-3-2	61-0-0
10-8-14	10-5-6	8-7-8	10-0-0	10-5-6	10-8-14

Plate Offsets (X,Y)-- [8:0-5-0,0-3-7], [18:0-4-8,0-5-0]

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	0.84	Vert(LL)	-0.31	21-23	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.47	21-23	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.05	18	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MSH							Weight: 466 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
W7: 2x6 SP DSS
SLIDER Left 2x4 SP No.3 1-11-0, Right 2x4 SP No.3 1-11-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-10-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-21, 7-19, 8-18, 10-18, 9-18

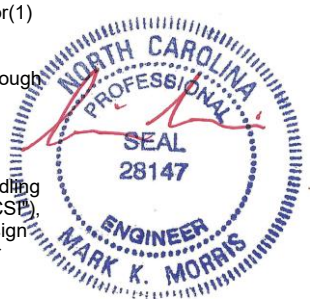
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1412/0-3-8 (min. 0-1-14), 14=461/0-3-8 (min. 0-1-8), 18=3112/0-3-8 (min. 0-2-13)
Max Horz 2=-167(LC 15)
Max Uplift2=-222(LC 14), 14=-145(LC 15), 18=-232(LC 11)
Max Grav 2=1577(LC 39), 14=583(LC 55), 18=4124(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-975/1, 3-32=-2865/374, 4-32=-2774/390, 4-33=-2709/391, 5-33=-2628/394, 5-34=-2613/395, 6-34=-2510/412, 6-35=-1782/341, 7-35=-1533/343, 7-8=-646/242, 8-36=0/1500, 9-36=0/1429, 9-10=-26/1462, 10-37=-256/493, 11-37=-280/374, 11-38=-286/363, 12-38=-388/332, 12-39=-432/315, 13-39=-582/270, 13-14=-402/2
BOT CHORD 2-23=-433/2561, 22-23=-250/1951, 22-40=-250/1951, 21-40=-250/1951, 21-41=-26/1001, 20-41=-26/1001, 20-42=-26/1001, 19-42=-26/1001, 19-43=-256/220, 43-44=-256/220, 18-44=-256/220, 18-45=-905/158, 17-45=-905/158, 16-17=-905/158, 14-16=-249/483
WEBS 4-23=-421/229, 6-23=-131/727, 6-21=-1190/324, 7-21=-217/1520, 7-19=-1292/235, 8-19=-138/1835, 8-18=-2747/243, 10-18=-1061/267, 10-16=-158/1081, 12-16=-599/251, 9-18=-347/97

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 5-2-11, Interior(1) 5-2-11 to 17-4-8, Exterior(2R) 17-4-8 to 43-6-6, Interior(1) 43-6-6 to 55-9-5, Exterior(2E) 55-9-5 to 61-10-8 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
7) Provide adequate drainage to prevent water ponding.

Continued on page 2



4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R02	Piggyback Base	1	1	Job Reference (optional) # 58535

NOTES-

8) All plates are 5x5 MT20 unless otherwise indicated.
9) 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide metal plate or equivalent at bearing(s) 18 to support reaction shown.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=222, 14=145, 18=232.

LOAD CASE(S) Standard

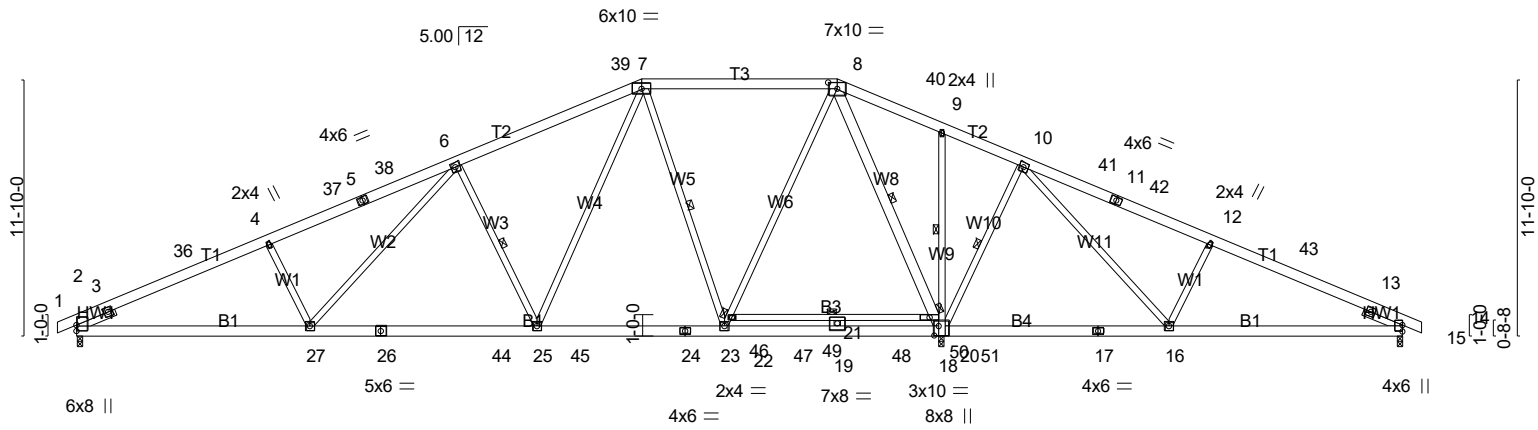
4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R02A	Piggyback Base	4	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:04:58 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-AVX8zoxxOVzTp1BE7FZp3_7iuntBNbgvqF2CVPzQBTp

-0-10-8 8-10-5 17-5-3 26-0-0 35-0-0 39-9-12 43-6-13 52-1-11 61-0-0 61-10-8
0-10-8 8-10-5 8-6-13 8-6-13 9-0-0 4-9-12 3-9-1 8-6-13 8-10-5 0-10-8

Scale = 1:106.0



10-8-14 21-2-4 29-9-12 35-0-0 39-9-12 50-3-2 61-0-0
10-8-14 10-5-6 8-7-8 5-2-4 4-9-12 10-5-6 10-8-14

Plate Offsets (X,Y)-- [8:0-5-0,0-3-7], [18:0-5-4,0-2-8]

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	0.85	Vert(LL)	-0.33	25-27	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.50	25-27	>957	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.06	18	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MSH							Weight: 480 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
B3: 2x4 SP No.2, B2: 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
W8: 2x6 SP DSS
SLIDER Left 2x4 SP No.3 1-11-0, Right 2x4 SP No.3 1-11-0

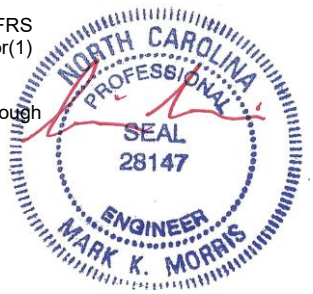
BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
6-0-0 oc bracing: 20-22
WEBS 1 Row at midpt 6-25, 7-23, 8-20, 10-18, 9-18

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1429/0-3-8 (min. 0-1-14), 14=448/0-3-8 (min. 0-1-8), 18=3298/0-3-8 (min. 0-3-2)
Max Horz 2=-167(LC 15)
Max Uplift2=-212(LC 14), 14=-148(LC 15), 18=-144(LC 11)
Max Grav 2=1593(LC 39), 14=572(LC 55), 18=4541(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-984/0, 3-36=-2959/350, 4-36=-2867/366, 4-37=-2803/367, 5-37=-2723/371, 5-38=-2707/372, 6-38=-2604/388, 6-39=-1877/316, 7-39=-1631/318, 7-8=-774/211, 8-40=0/1545, 9-40=0/1475, 9-10=-21/1508, 10-41=-228/556, 11-41=-252/438, 11-42=-258/426, 12-42=-360/394, 12-43=-404/377, 13-43=-554/330, 13-14=-402/0
BOT CHORD 2-27=-412/2646, 26-27=-227/2039, 26-44=-227/2039, 25-44=-227/2039, 25-45=-1/1105, 24-45=-1/1105, 24-46=-1/1105, 23-46=-1/1105, 23-47=-24/423, 19-47=-24/423, 19-48=-24/423, 18-48=-24/423, 22-49=-326/9, 21-49=-326/9, 21-50=-326/9, 20-50=-326/9, 18-51=-953/153, 17-51=-953/153, 16-17=-953/153, 14-16=-304/457
WEBS 4-27=-418/230, 6-27=-131/726, 6-25=-1190/323, 7-25=-224/1483, 7-23=-1264/251, 22-23=-117/1831, 8-22=-96/2043, 8-20=-2957/200, 18-20=-3174/181, 10-18=-1056/270, 10-16=-162/1061, 12-16=-602/250, 19-21=-323/0, 9-18=-348/96

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 5-2-11, Interior(1) 5-2-11 to 17-4-8, Exterior(2R) 17-4-8 to 43-6-6, Interior(1) 43-6-6 to 55-9-5, Exterior(2E) 55-9-5 to 61-10-8 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.



Continued on page 2

4/16/2025

NOTES-

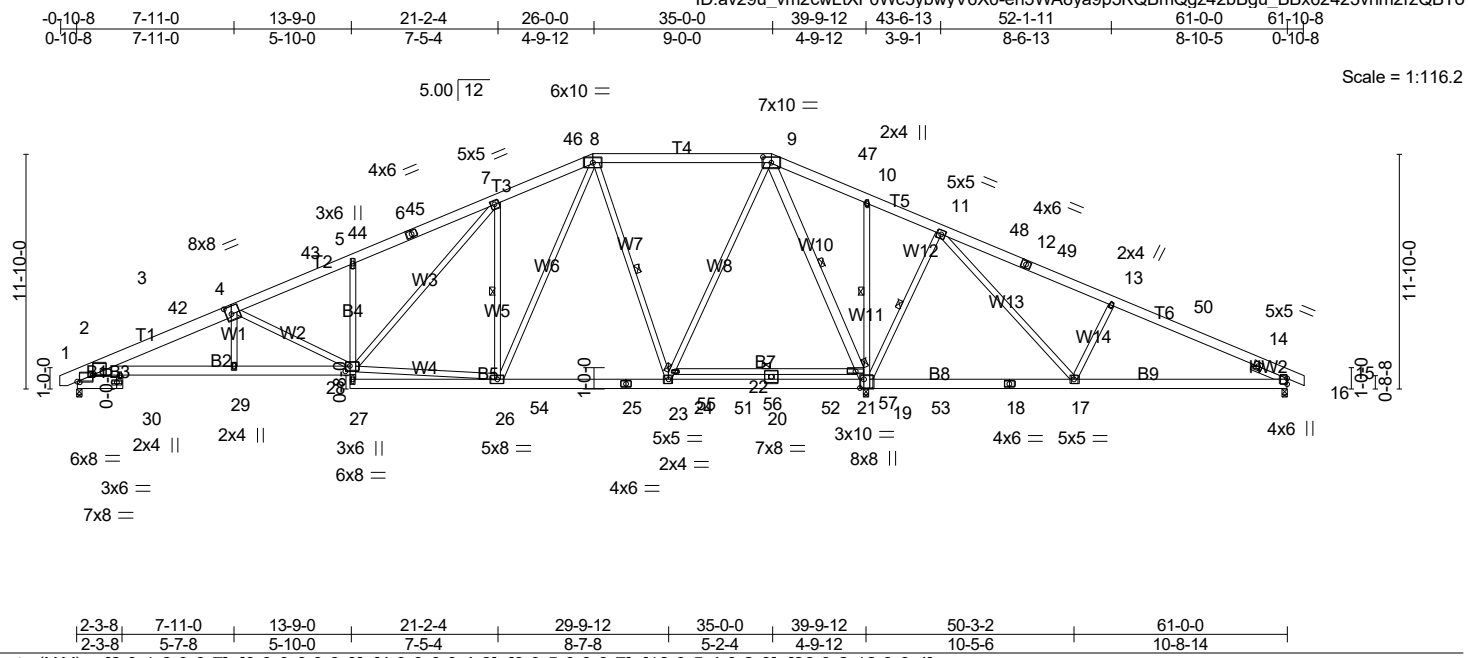
6) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 5x5 MT20 unless otherwise indicated.
9) 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide metal plate or equivalent at bearing(s) 18 to support reaction shown.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=212, 14=148, 18=144.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R02B	Piggyback Base	2	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:04:59 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-eh5WA8ya9p5KQBmQgz42bBgu_BBx62423vnm2rzQBTo



2-3-8 7-11-0 13-9-0 21-2-4 29-9-12 35-0-0 39-9-12 50-3-2 61-0-0
2-3-8 5-7-8 5-10-0 7-5-4 8-7-8 5-2-4 4-9-12 10-5-6 10-8-14

Plate Offsets (X,Y)-- [2:0-1-8,0-0-7], [3:0-0-6,0-0-0], [4:0-3-0,0-4-8], [9:0-5-0,0-3-7], [19:0-5-4,0-2-8], [28:0-2-12,0-3-4]

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	0.83	Vert(LL)	-0.27	22-23	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.42	22-23	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.12	19	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MSH							Weight: 519 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x6 SP No.2 *Except*
	T1: 2x8 SP No.2
BOT CHORD	2x6 SP No.2 *Except*
	B1: 2x8 SP No.2, B7,B4,B3: 2x4 SP No.2, B6: 2x6 SP No.1
WEBS	2x4 SP No.3 *Except*
	W10: 2x6 SP DSS
SLIDER	Right 2x4 SP No.3 1-11-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-10-7 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
	6-0-0 oc bracing: 21-23
WEBS	1 Row at midpt 8-24, 9-21, 11-19, 10-19, 7-26

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1399/0-3-8 (min. 0-1-13), 15=369/0-3-8 (min. 0-1-8), 19=3420/0-3-8 (min. 0-3-1)
Max Horz 2=-167(LC 19)
Max Uplift2=-184(LC 14), 15=-155(LC 15), 19=-152(LC 10)
Max Grav 2=1562(LC 39), 15=530(LC 55), 19=4475(LC 45)

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

TOP CHORD 2-3=-555/163, 3-42=-3363/397, 4-42=-3293/413, 4-43=-2609/299, 5-43=-2467/320, 5-44=-2659/395, 6-44=-2634/407, 6-45=-2525/409, 7-45=-2522/424, 7-46=-1592/326, 8-46=-1460/343, 8-9=-660/191, 9-47=-35/1650, 10-47=-52/1560, 10-11=-80/1601, 11-48=-133/603, 12-48=-157/503, 12-49=-164/496, 13-49=-265/469, 13-50=-310/452, 14-50=-460/401, 14-15=-357/16

BOT CHORD 23-51=-313/11, 22-51=-313/11, 22-52=-313/11, 21-52=-313/11, 19-53=-1005/200, 18-53=-1005/200, 17-18=-1005/200, 15-17=-370/372, 26-27=-28/396, 26-54=0/948, 25-54=0/948, 25-55=0/948, 24-55=0/948, 24-56=-120/368, 20-56=-120/368, 20-57=-120/368, 19-57=-120/368, 5-28=-603/204, 3-29=-469/3088, 28-29=-467/3100

WEBS 8-26=-295/1571, 8-24=-1284/262, 23-24=-125/1739, 9-23=-105/1943, 9-21=-2898/222, 19-21=-3108/203, 11-19=-1062/269, 11-17=-160/1068, 13-17=-612/249, 20-22=-328/0, 10-19=-345/95, 7-26=-1407/353, 26-28=-57/1054, 7-28=-308/1523, 4-29=0/343, 4-28=-848/203

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-8-4 to 5-5-0, Interior(1) 5-5-0 to 17-4-8, Exterior(2R) 17-4-8 to 43-6-6, Interior(1) 43-6-6 to 55-9-5, Exterior(2E) 55-9-5 to 61-10-8 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

Continued on page 2

4/16/2025

NOTES-

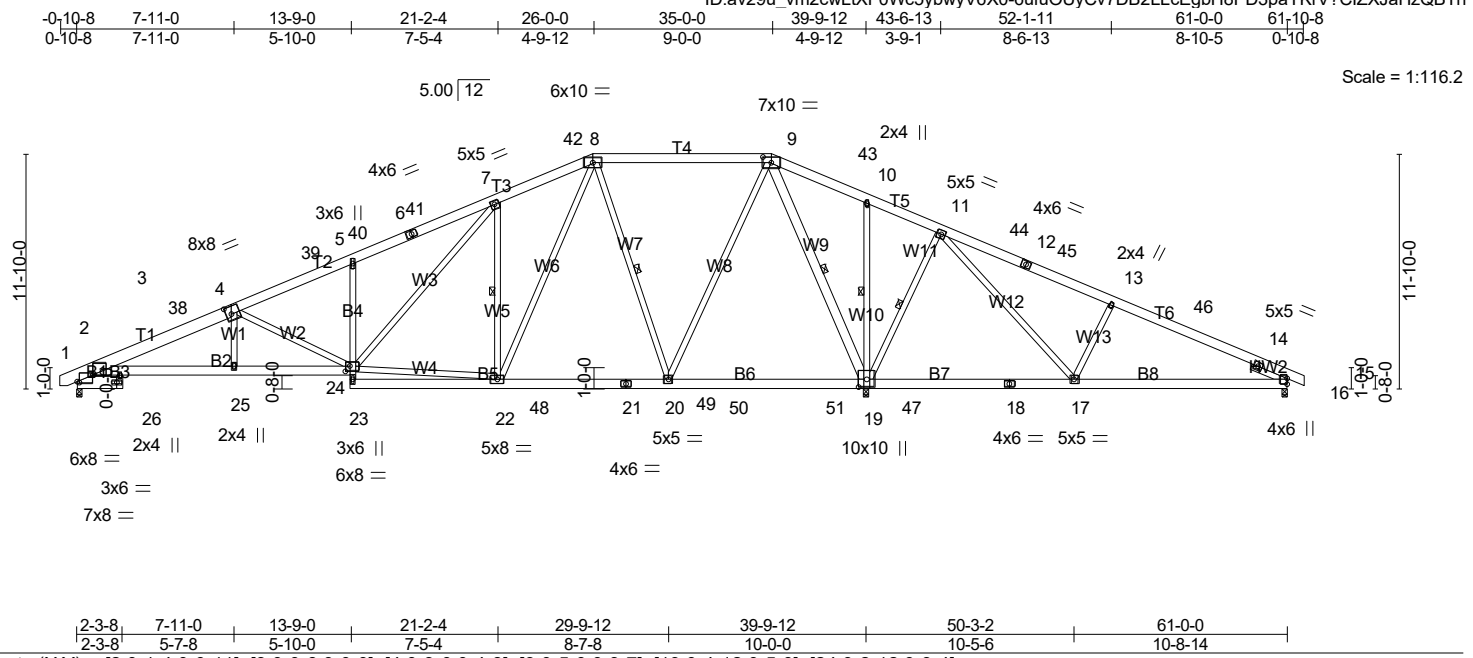
6) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
7) Provide adequate drainage to prevent water ponding.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide metal plate or equivalent at bearing(s) 19 to support reaction shown.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=184, 15=155, 19=152.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R02C	Piggyback Base	2	1	# 58535
					Job Reference (optional)

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:00 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-6ufuOUyCv7DB2LLcEgbH8PD3paYKrV?CIZXJaHzQBTn



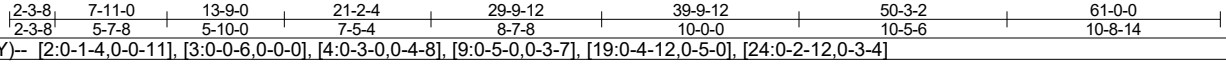


Plate Offsets (X,Y)-- [2:0-1-4,0-0-11], [3:0-0-6,0-0-0], [4:0-3-0,0-4-8], [9:0-5-0,0-3-7], [19:0-4-12,0-5-0], [24:0-2-12,0-3-4]

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	0.82	Vert(LL)	-0.20	17-19	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.33	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.12	19	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MSH							Weight: 505 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x6 SP No.2 *Except*
	T1: 2x8 SP No.2
BOT CHORD	2x6 SP No.2 *Except*
	B1: 2x8 SP No.2, B4,B3: 2x4 SP No.2
WEBS	2x4 SP No.3 *Except*
	W9: 2x6 SP DSS
SLIDER	Right 2x4 SP No.3 1-11-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-10-14 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 8-20, 9-19, 11-19, 10-19, 7-22

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1382/0-3-8 (min. 0-1-13), 15=383/0-3-8 (min. 0-1-8), 19=3233/0-3-8 (min. 0-2-12)
Max Horz 2=-167(LC 19)
Max Uplift2=-194(LC 14), 15=-152(LC 15), 19=-239(LC 10)
Max Grav 2=1546(LC 39), 15=541(LC 55), 19=4060(LC 45)

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

TOP CHORD	2-3=-549/167, 3-38=-3320/426, 4-38=-3250/442, 4-39=-2567/327, 5-39=-2425/348, 5-40=-2617/423, 6-40=-2592/435, 6-41=-2483/437, 7-41=-2481/451, 7-42=-1523/351, 8-42=-1365/368, 8-9=-530/223, 9-43=-38/1619, 10-43=-55/1528, 10-11=-84/1569, 11-44=-162/541, 12-44=-186/471, 12-45=-193/464, 13-45=-294/437, 13-46=-339/420, 14-46=-488/370, 14-15=-357/18
BOT CHORD	19-47=-959/204, 18-47=-959/204, 17-18=-959/204, 15-17=-341/398, 22-23=-36/383, 22-48=0/843, 21-48=0/843, 21-49=0/843, 20-49=0/843, 20-50=-385/209, 50-51=-385/209, 19-51=-385/209, 5-24=-604/204, 3-25=-496/3048, 24-25=-494/3059
WEBS	8-22=-287/1585, 8-20=-1314/245, 9-20=-147/1735, 9-19=-2687/265, 11-19=-1066/267, 11-17=-156/1089, 13-17=-609/250, 10-19=-343/96, 7-22=-1403/355, 22-24=-72/1000, 7-24=-313/1516, 4-25=0/341, 4-24=-846/204

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-8-4 to 5-5-0, Interior(1) 5-5-0 to 17-4-8, Exterior(2R) 17-4-8 to 43-6-6, Interior(1) 43-6-6 to 55-9-5, Exterior(2E) 55-9-5 to 61-10-8 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

Continued on page 2

4/16/2025

NOTES-

6) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
7) Provide adequate drainage to prevent water ponding.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide metal plate or equivalent at bearing(s) 19 to support reaction shown.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=194, 15=152, 19=239.

LOAD CASE(S) Standard

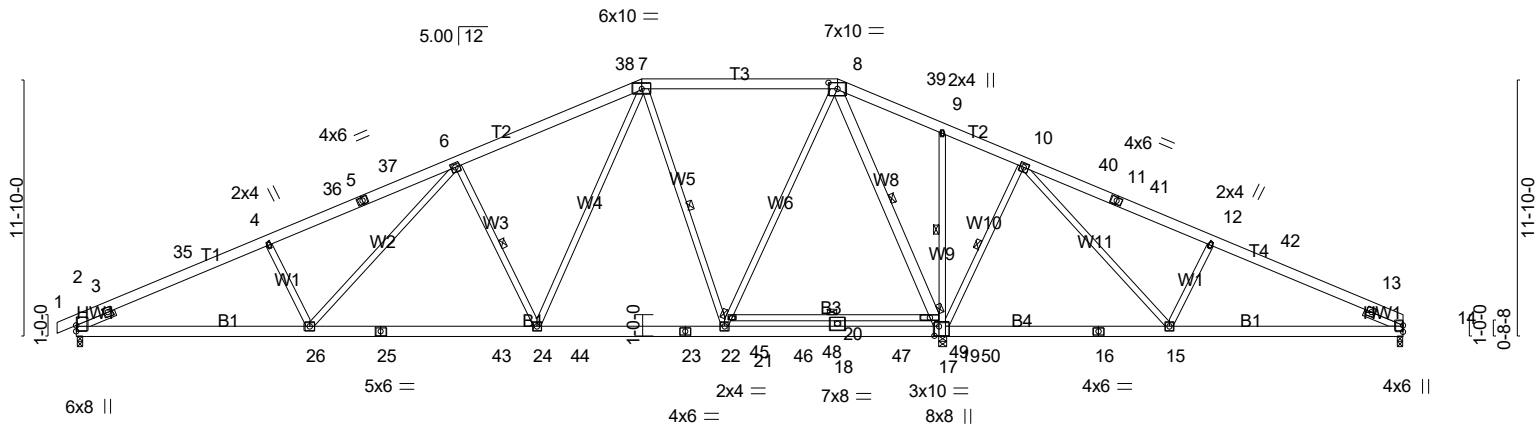
4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R03	PIGGYBACK BASE	1	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:01 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-a4CGbqzqgQL2gVvooO6WhclD8_utayQLWCGt6kzQBTm

-0-10-8	8-10-5	17-5-3	26-0-0	35-0-0	39-9-12	43-6-13	52-1-11	61-0-0
0-10-8	8-10-5	8-6-13	8-6-13	9-0-0	4-9-12	3-9-1	8-6-13	8-10-5

Scale = 1:105.9



10-8-14	21-2-4	29-9-12	35-0-0	39-9-12	50-3-2	61-0-0
10-8-14	10-5-6	8-7-8	5-2-4	4-9-12	10-5-6	10-8-14

Plate Offsets (X,Y)-- [8:0-5-0,0-3-7], [17:0-5-4,0-2-8]

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	0.85	Vert(LL)	-0.33	24-26	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.50	24-26	>956	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.06	17	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MSH							Weight: 478 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
B3: 2x4 SP No.2, B2: 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
W8: 2x6 SP DSS
SLIDER Left 2x4 SP No.3 1-11-0, Right 2x4 SP No.3 1-11-0

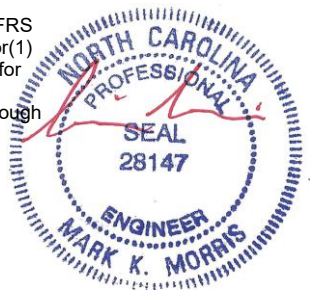
BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
6-0-0 oc bracing: 19-21
WEBS 1 Row at midpt 6-24, 7-22, 8-19, 10-17, 9-17

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1430/0-3-8 (min. 0-1-14), 14=397/0-3-8 (min. 0-1-8), 17=3295/0-3-8 (min. 0-3-2)
Max Horz 2=172(LC 14)
Max Uplift2=-211(LC 14), 14=-129(LC 15), 17=-147(LC 11)
Max Grav 2=1594(LC 39), 14=520(LC 55), 17=4539(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-985/0, 3-35=-2961/349, 4-35=-2869/365, 4-36=-2806/366, 5-36=-2725/369, 5-37=-2709/370, 6-37=-2606/387, 6-38=-1879/314, 7-38=-1629/316, 7-8=-773/208, 8-39=0/1540, 9-39=0/1470, 9-10=-24/1504, 10-40=-237/547, 11-40=-261/430, 11-41=-267/418, 12-41=-369/391, 12-42=-413/374, 13-42=-563/326, 13-14=-411/0
BOT CHORD 2-26=-416/2648, 25-26=-231/2042, 25-43=-231/2042, 24-43=-231/2042, 24-44=-5/1102, 23-44=-5/1102, 23-45=-5/1102, 22-45=-5/1102, 22-46=-28/418, 18-46=-28/418, 18-47=-28/418, 17-47=-28/418, 21-48=-326/9, 20-48=-326/9, 20-49=-326/9, 19-49=-326/9, 17-50=-948/143, 16-50=-948/143, 15-16=-948/143, 14-15=-301/466
WEBS 4-26=-418/230, 6-26=-132/726, 6-24=-1190/323, 7-24=-224/1483, 7-22=-1262/252, 21-22=-118/1830, 8-21=-97/2041, 8-19=-2954/203, 17-19=-3171/184, 10-17=-1057/270, 10-15=-163/1064, 12-15=-604/251, 18-20=-323/0, 9-17=-348/97

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 5-2-11, Interior(1) 5-2-11 to 17-4-8, Exterior(2R) 17-4-8 to 43-6-6, Interior(1) 43-6-6 to 54-10-13, Exterior(2E) 54-10-13 to 61-0-0 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) 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.



Continued on page 2

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R03	PIGGYBACK BASE	1	1	Job Reference (optional) # 58535

NOTES-

6) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 5x5 MT20 unless otherwise indicated.
9) 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide metal plate or equivalent at bearing(s) 17 to support reaction shown.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=211, 14=129, 17=147.

LOAD CASE(S) Standard

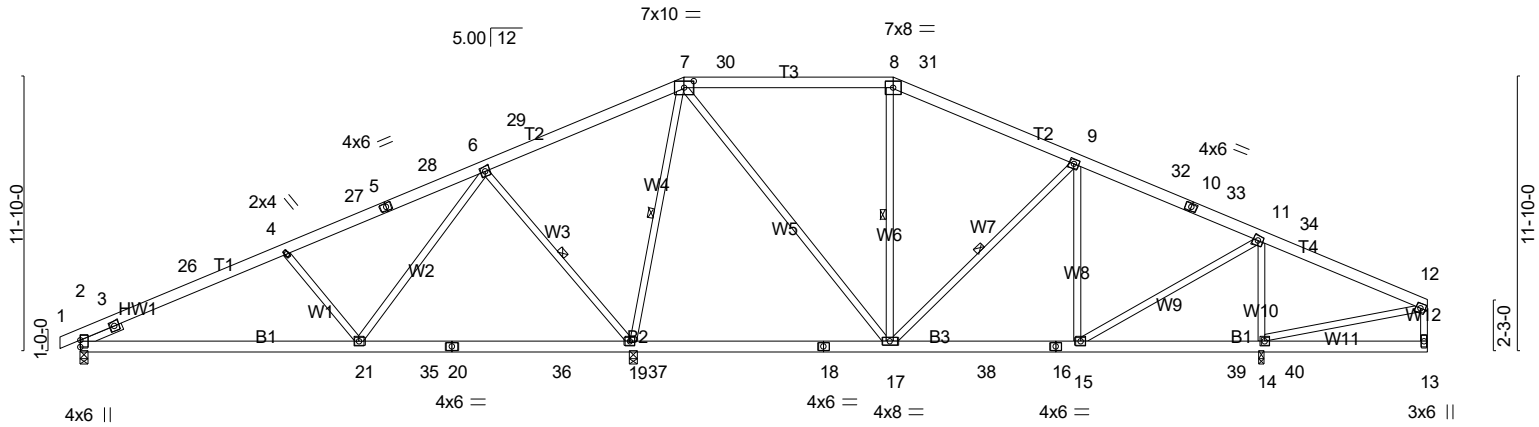
4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R04	Piggyback Base	3	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:01 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-a4CGbqzqgQL2gVvooO6WhclGN__eayGLWCGt6kzQBTm

-0-10-8	8-10-10	17-5-3	26-0-0	35-0-0	42-11-2	50-10-4	58-0-0
0-10-8	8-10-10	8-6-8	8-6-13	9-0-0	7-11-2	7-11-2	7-1-12

Scale = 1:99.2



12-0-0	23-9-12	35-0-0	42-11-2	50-10-4	58-0-0
12-0-0	11-9-12	11-2-4	7-11-2	7-11-2	7-1-12

Plate Offsets (X,Y)-- [7:0-5-0,0-3-7]

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	0.64	Vert(LL)	-0.17	19-21	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.22	19-21	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.02	13	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 435 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2 *Except*
	B2: 2x6 SP DSS
WEBS	2x4 SP No.3 *Except*
	W4: 2x4 SP No.2
SLIDER	Left 2x4 SP No.3 1-11-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-19, 7-19, 8-17, 9-17

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 0-3-8 except (jt=length) 13=Mechanical.
(lb) - Max Horz 2=172(LC 18)
Max Uplift All uplift 100 lb or less at joint(s) 13 except 2=-126(LC 14), 19=-276(LC 14), 14=-217(LC 15)
Max Grav All reactions 250 lb or less at joint(s) 13 except 2=882(LC 39), 19=3049(LC 45), 14=1599(LC 39)

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

TOP CHORD	2-3=-707/0, 3-26=-1232/168, 4-26=-1107/184, 4-27=-923/141, 5-27=-813/153, 5-28=-805/155, 6-28=-697/171, 6-29=-24/436, 7-29=-22/714, 7-30=-611/251, 8-30=-611/251, 8-31=-574/232, 9-31=-756/229, 9-32=-800/190, 10-32=-881/174, 10-33=-905/171, 11-33=-975/162
BOT CHORD	2-21=-246/1075, 21-35=-38/311, 20-35=-38/311, 20-36=-38/311, 19-36=-38/311, 17-38=-17/813, 16-38=-17/813, 15-16=-17/813
WEBS	4-21=-527/246, 6-21=-97/840, 6-19=-1309/325, 7-19=-1600/236, 7-17=-98/1109, 8-17=-401/111, 9-17=-483/154, 9-15=-350/115, 11-15=-49/993, 11-14=-1397/286

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 4-11-2, Interior(1) 4-11-2 to 17-9-9, Exterior(2R) 17-9-9 to 42-11-2, Interior(1) 42-11-2 to 52-0-10, Exterior(2E) 52-0-10 to 57-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed; porch 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 5x5 MT20 unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 28147 ENGINEER MARK K. MORRIS

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R04	Piggyback Base	3	1	Job Reference (optional) # 58535

NOTES-

11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 2=126, 19=276, 14=217.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

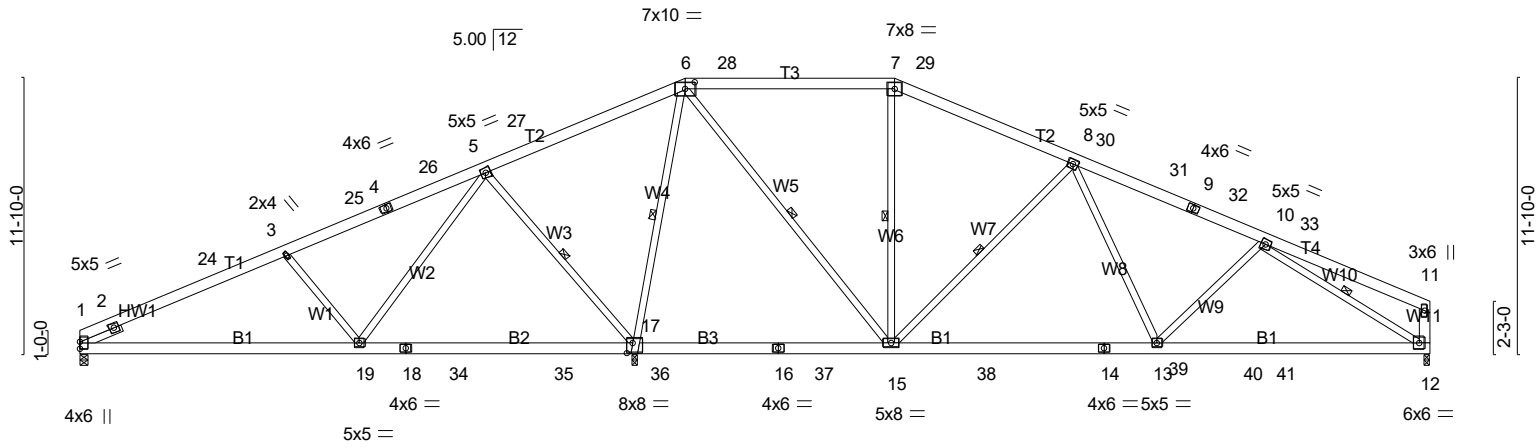
4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R05	PIGGYBACK BASE	6	1	# 58535
					Job Reference (optional)

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:03 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-WTK10W?4C2bmvo3Bvp8_m1qcpocD2roe_WlzBczQBTk

8-10-10	17-5-3	26-0-0	35-0-0	42-8-0	50-9-9	58-0-0
8-10-10	8-6-8	8-6-13	9-0-0	7-8-0	8-1-9	7-2-7

Scale = 1:99.0



12-0-0	23-9-12	35-0-0	46-3-4	58-0-0
12-0-0	11-9-12	11-2-4	11-3-4	11-8-12

Plate Offsets (X,Y)-- [6:0-5-0,0-3-7], [17:0-3-0,0-5-4]

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	0.65	Vert(LL)	-0.28	17-19	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.37	17-19	>769	180		
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.04	12	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 427 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
W4: 2x4 SP SS, W11: 2x6 SP No.2
SLIDER Left 2x4 SP No.3 1-11-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-17, 6-17, 6-15, 7-15, 8-15, 10-12

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=674/0-3-8 (min. 0-1-8), 17=2787/0-3-8 (min. 0-1-8), 12=1160/0-3-8 (min. 0-1-9)
Max Horz 1=161(LC 18)
Max Uplift1=-110(LC 14), 17=-272(LC 14), 12=-188(LC 15)
Max Grav 1=743(LC 40), 17=3632(LC 44), 12=1332(LC 38)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-639/0, 2-24=-1036/167, 3-24=-936/184, 3-25=-738/121, 4-25=-644/134, 4-26=-635/135, 5-26=-543/151, 5-27=-19/790, 6-27=-17/1058, 6-28=-735/265, 7-28=-735/265, 7-29=-721/248, 8-29=-873/247, 8-30=-1555/279, 30-31=-1659/277, 9-31=-1674/263, 9-32=-1697/260, 10-32=-1767/251, 11-33=-308/82, 11-12=-288/102
BOT CHORD 1-19=-247/896, 17-36=-453/178, 16-36=-453/178, 16-37=-453/178, 15-37=-453/178, 15-38=-108/1349, 14-38=-108/1349, 14-39=-108/1349, 13-39=-108/1349, 13-40=-234/1579, 40-41=-234/1579, 12-41=-234/1579
WEBS 3-19=-546/248, 5-19=-91/914, 5-17=-1329/321, 6-17=-2201/287, 6-15=-160/1725, 7-15=-338/105, 8-15=-1122/261, 8-13=-4/510, 10-12=-1674/266

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 5-9-10, Interior(1) 5-9-10 to 17-9-9, Exterior(2R) 17-9-9 to 43-2-7, Interior(1) 43-2-7 to 51-11-10, Exterior(2E) 51-11-10 to 57-9-4 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=110, 17=272, 12=188.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 17.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 28147 ENGINEER MARK K. MORRIS

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R05	PIGGYBACK BASE	6	1	Job Reference (optional) # 58535

NOTES-

11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

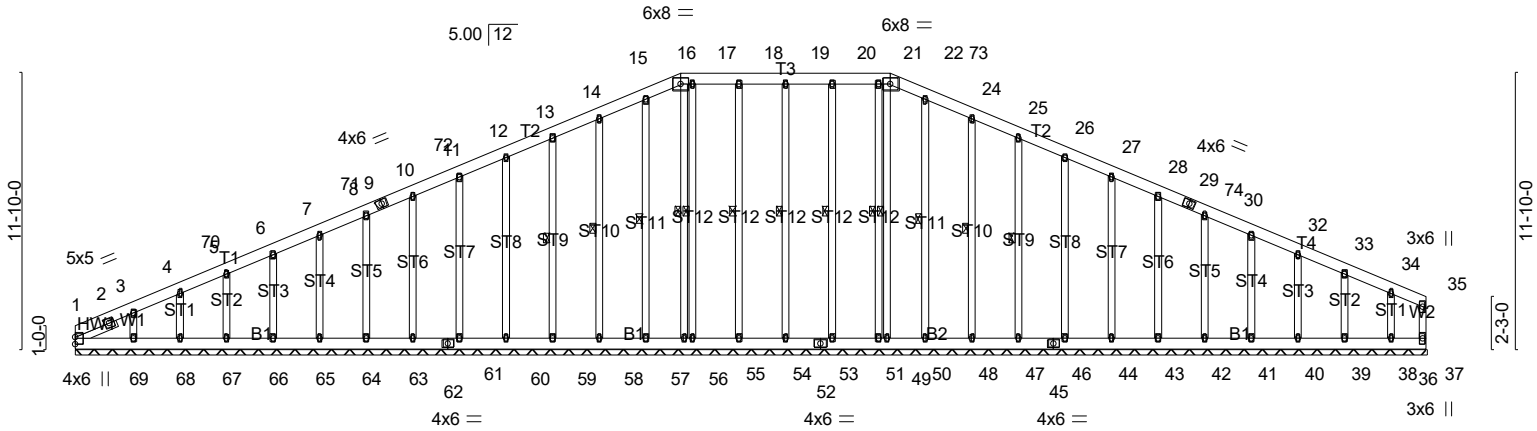
4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R06	GABLE	1	1	# 58535
					Job Reference (optional)

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:05 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-TrSnRB0KkfrU96Da1DBSrSw5lbTrWx9xRqE4FVzQBTi

26-0-0 | 35-0-0 | 58-0-0
26-0-0 | 9-0-0 | 23-0-0

Scale = 1:98.9



58-0-0
58-0-0

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	0.10	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	0.25	Horz(CT)	0.00	36	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 603 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-11-0

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.
WEBS	1 Row at midpt 19-53, 18-54, 17-55, 15-57, 14-58, 13-59, 16-56, 20-51, 21-50, 23-48, 24-47, 25-46, 22-49

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 58-0-0.
(lb) - Max Horz 1=174(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 53, 54, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 51, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37 except 69=-103(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 1, 55, 65, 66, 67, 68, 56, 50, 40, 39, 38, 37, 49, 36, 69 except 53=291(LC 43), 54=292(LC 43), 57=255(LC 44), 58=294(LC 44), 59=287(LC 44), 60=286(LC 44), 61=287(LC 44), 63=289(LC 44), 64=266(LC 44), 51=292(LC 43), 48=255(LC 44), 47=294(LC 44), 46=287(LC 44), 44=286(LC 44), 43=287(LC 44), 42=289(LC 44), 41=266(LC 44)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-72=-68/259, 11-72=-64/266, 11-12=-82/300, 12-13=-97/335, 13-14=-112/369, 14-15=-128/405, 15-16=-136/424, 16-17=-131/411, 17-18=-131/410, 18-19=-131/410, 19-20=-131/410, 20-21=-131/410, 21-22=-131/411, 22-73=-130/423, 23-73=-135/422, 23-24=-128/406, 24-25=-112/370, 25-26=-97/335, 26-27=-82/301, 27-28=-68/266

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 5-9-10, Exterior(2N) 5-9-10 to 20-2-6, Corner(3R) 20-2-6 to 40-6-0, Exterior(2N) 40-6-0 to 52-0-10, Corner(3E) 52-0-10 to 57-10-4 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.
4) 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.

Continued on page 2

4/16/2025

NOTES-

10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 53, 54, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 51, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37 except (jt=lb) 69=103.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R07	Common Structural Gable	1	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:06 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-x209eX1zVzzLmGombxihOgSDK?lUFKl4gU_enxzQBTh

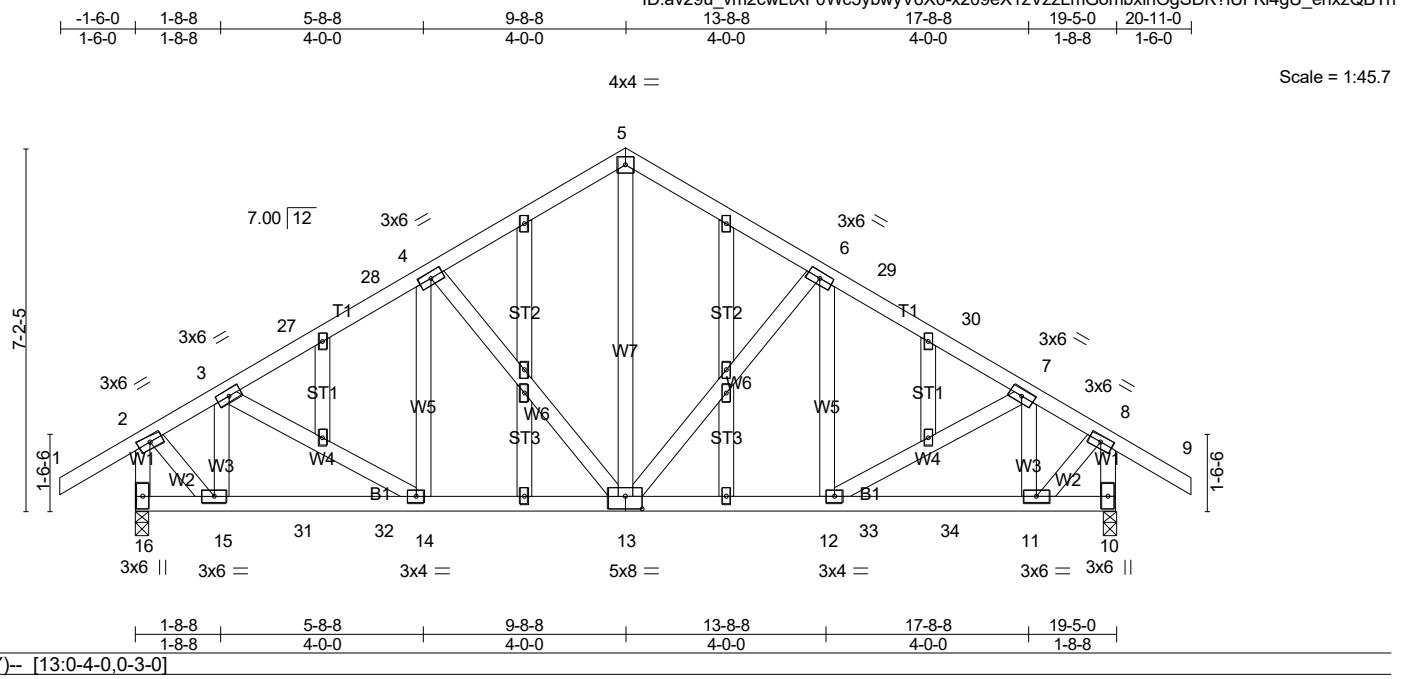


Plate Offsets (X,Y)-- [13:0-4-0,0-3-0]

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	0.31	Vert(LL)	0.03	12-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.04	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.01	10	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 156 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

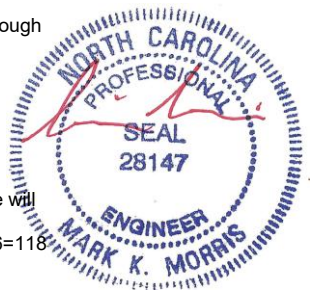
BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 16=864/0-3-0 (min. 0-1-8), 10=864/0-3-0 (min. 0-1-8)
Max Horz 16=-186(LC 12)
Max Uplift16=-118(LC 14), 10=-118(LC 15)
Max Grav 16=906(LC 21), 10=906(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-620/439, 3-27=-892/606, 27-28=-842/607, 4-28=-777/618, 4-5=-721/555, 5-6=-721/555, 6-29=-777/624, 29-30=-842/612, 7-30=-892/611, 7-8=-620/461, 2-16=-894/590, 8-10=-894/587
BOT CHORD 15-31=-268/509, 31-32=-268/509, 14-32=-268/509, 13-14=-384/728, 12-13=-388/728, 12-33=-286/509, 33-34=-286/509, 11-34=-286/509
WEBS 5-13=-461/395, 6-13=-295/203, 7-11=-380/163, 4-13=-295/196, 3-15=-380/181, 2-15=-450/682, 8-11=-426/682

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-3-10, Interior(1) 3-3-10 to 4-10-14, Exterior(2R) 4-10-14 to 14-6-2, Interior(1) 14-6-2 to 16-1-6, Exterior(2E) 16-1-6 to 20-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch 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.
4) 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) 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 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable studs spaced at 2-0-0 oc.
9) 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) except (jt=lb) 16=118, 10=118.



Continued on page 2

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R07	Common Structural Gable	1	1	Job Reference (optional) # 58535

NOTES-

12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R08	Common	1	1	# 58535
					Job Reference (optional)

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:06 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-x209eX1zVzzLmGombxihOgS8L?cgFHf4gU_enxzQBTh

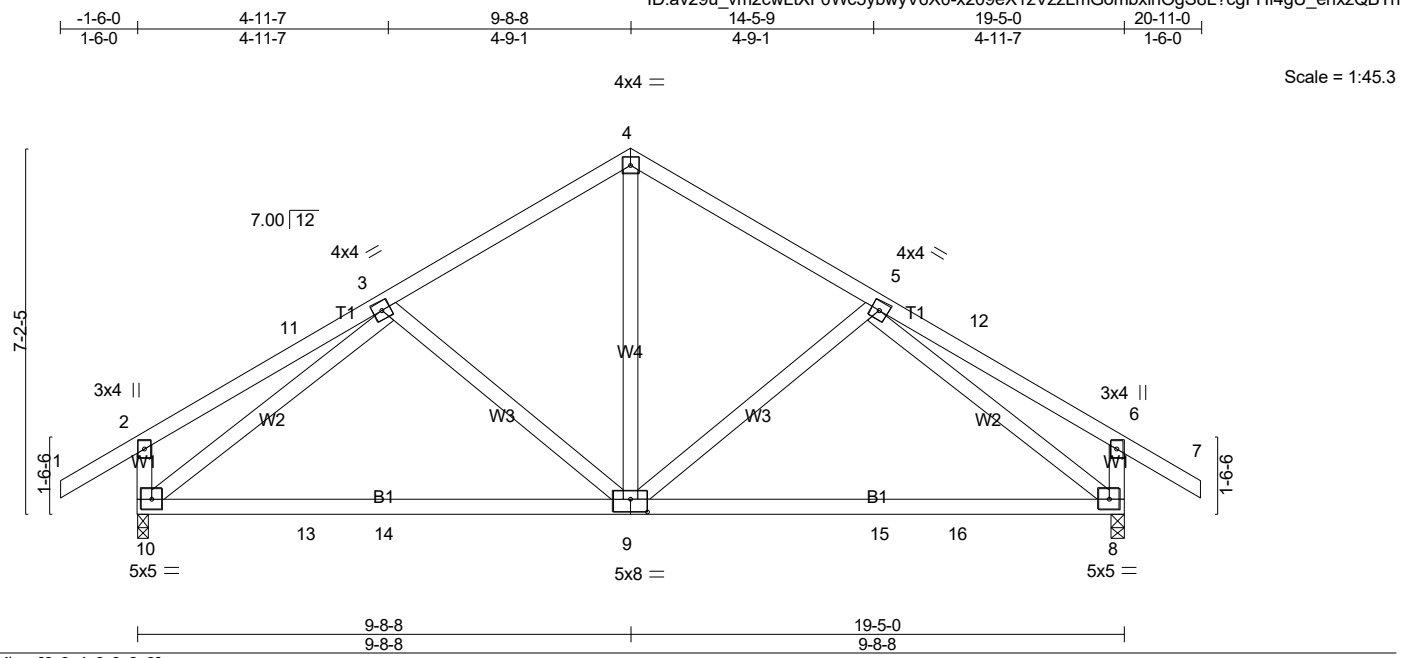


Plate Offsets (X,Y)-- [9:0-4-0,0-3-0]

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	0.63	Vert(LL)	0.25	8-9	>928	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.30	8-9	>766	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 116 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 10=864/0-3-0 (min. 0-1-8), 8=864/0-3-0 (min. 0-1-8)
Max Horz 10=-186(LC 12)
Max Uplift10=-118(LC 14), 8=-118(LC 15)
Max Grav 10=909(LC 21), 8=909(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-773/599, 4-5=-773/599, 5-12=-181/286, 6-12=-223/265, 2-10=-308/217, 6-8=-308/239
BOT CHORD 10-13=-342/720, 13-14=-342/720, 9-14=-342/720, 9-15=-348/720, 15-16=-348/720, 8-16=-348/720
WEBS 4-9=-478/427, 3-10=-820/356, 5-8=-820/315

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-3-10, Interior(1) 3-3-10 to 4-10-1, Exterior(2R) 4-10-1 to 14-6-15, Interior(1) 14-6-15 to 16-1-6, Exterior(2E) 16-1-6 to 20-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=118, 8=118.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R09	Common	1	1	# 58535
					Job Reference (optional)

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:07 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-PEaYst2bGG5COQNy8eDwwt?ImPyR_kEEv8jBKNzQBTg

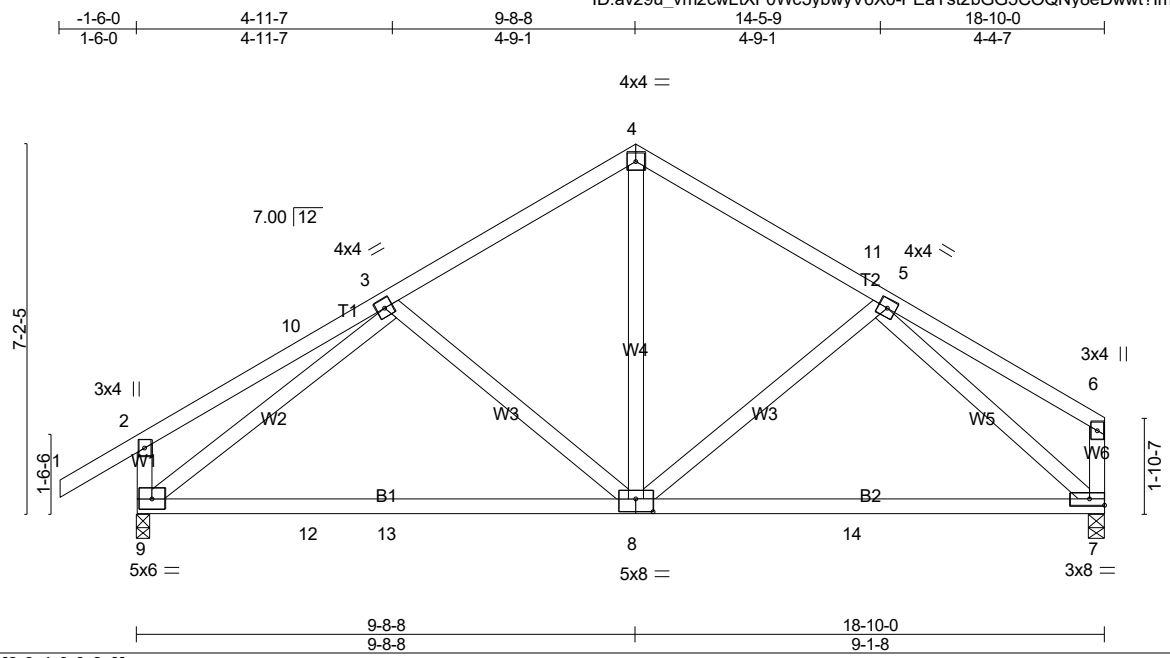


Plate Offsets (X,Y)-- [8:0-4-0,0-3-0]

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	0.65	Vert(LL)	0.26	8-9	>856	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.31	8-9	>707	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 112 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 9=845/0-3-0 (min. 0-1-8), 7=737/0-3-8 (min. 0-1-8)
Max Horz 9=183(LC 13)
Max Uplift 9=-116(LC 14), 7=-81(LC 15)
Max Grav 9=892(LC 21), 7=784(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-10=-186/250, 3-4=-745/569, 4-11=-615/569, 5-11=-739/547, 2-9=-309/222
BOT CHORD 9-12=-362/700, 12-13=-362/700, 8-13=-362/700, 8-14=-335/651, 7-14=-335/651
WEBS 4-8=-449/398, 3-9=-791/321, 5-7=-805/365

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-3-10, Interior(1) 3-3-10 to 4-10-1, Exterior(2R) 4-10-1 to 13-10-10, Exterior(2E) 13-10-10 to 18-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed; porch 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 9=116.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R10	Common Girder	1	1	# 58535
					Job Reference (optional)

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:07 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-PEaYst2bGG5COQNy8eDwwt?LhP3R_nsEv8jBKNzQBTg

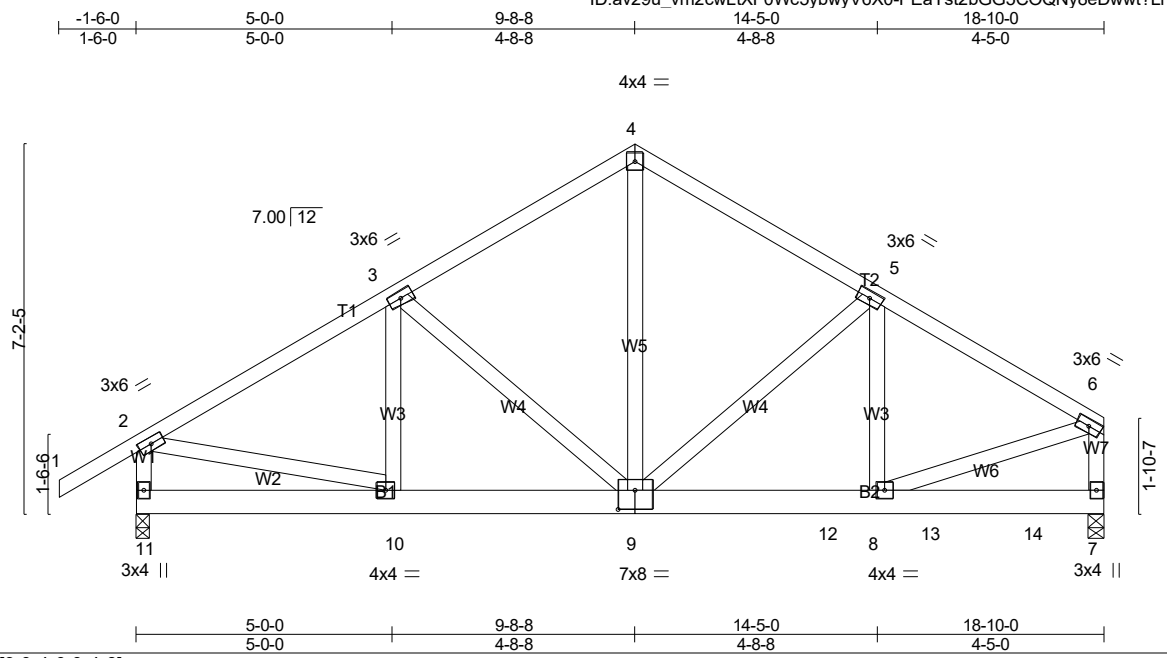


Plate Offsets (X,Y)-- [9:0-4-0,0-4-8]

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	0.46	Vert(LL)	-0.02	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.05	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MSH							Weight: 134 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 10-11.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 11=945/0-3-0 (min. 0-1-8), 7=1207/0-3-8 (min. 0-1-8)
Max Horz 11=180(LC 9)
Max Uplift 11=-153(LC 12), 7=-251(LC 13)
Max Grav 11=987(LC 19), 7=1249(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1056/156, 3-4=-887/194, 4-5=-882/196, 5-6=-1238/239, 2-11=-931/171, 6-7=-1047/210
BOT CHORD 9-10=-213/854, 9-12=-179/1027, 8-12=-179/1027
WEBS 3-9=-258/134, 4-9=-111/513, 5-9=-492/207, 2-10=-79/832, 6-8=-155/1025

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; porch 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=153, 7=251.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 197 lb down and 79 lb up at 13-5-4, and 197 lb down and 79 lb up at 15-5-4, and 197 lb down and 79 lb up at 17-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) 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

Continued on page 2

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R10	Common Girder	1	1	Job Reference (optional) **# 58535**

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-4=-60, 4-6=-60, 7-11=-20
Concentrated Loads (lb)
Vert: 12=-190(B) 13=-190(B) 14=-190(B)

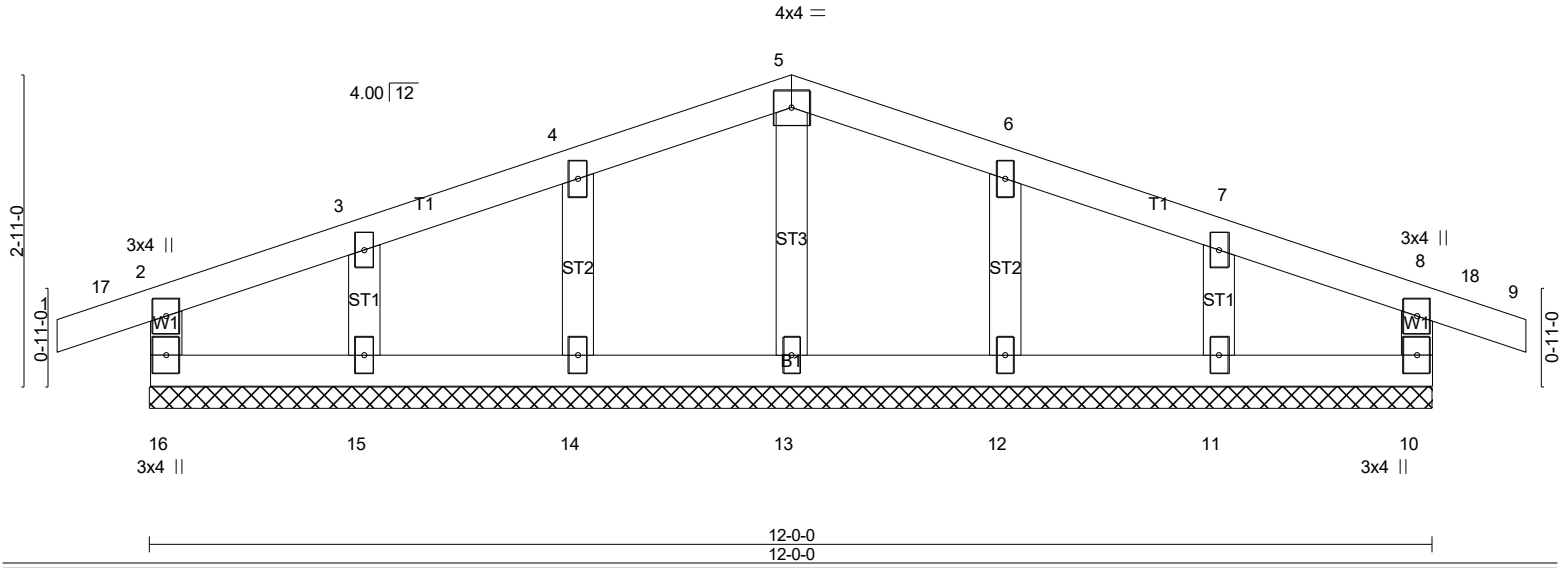
4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R11	Common Supported Gable	1	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:08 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-tQ8w3D3D1aD20ay9iMk9T5YcqpUJjK6N7oTksqzQBTf

-0-10-8 / 0-10-8 | 6-0-0 / 6-0-0 | 12-0-0 / 6-0-0 | 12-10-8 / 0-10-8

Scale = 1:21.6



12-0-0 / 12-0-0

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 0.12	Vert(LL) -0.00 9 n/r 180	MT20 244/190
Snow (Pf)	20.0	Lumber DOL 1.15	BC 0.05	Vert(CT) -0.00 9 n/r 80	
TCDL	10.0	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00 10 n/a n/a	
BCLL	0.0 *	Code IRC2021/TPI2014	Matrix-R		Weight: 52 lb FT = 20%
BCDL	10.0				

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 12-0-0.
(lb) - Max Horz 16=15(LC 18)
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 4-0-0, Corner(3R) 4-0-0 to 8-0-0, Corner(3E) 8-0-0 to 12-10-8 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) 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.
4) 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) 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 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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.
12) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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 100 lb uplift at joint(s) 16, 10, 14, 15, 12, 11.

LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 28147 ENGINEER MARK K. MORRIS

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R12	Common	4	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:09 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-LdhIHZ3rouLvdjXLG3FO?I4izDlCSmhXMSClOGzQBTe

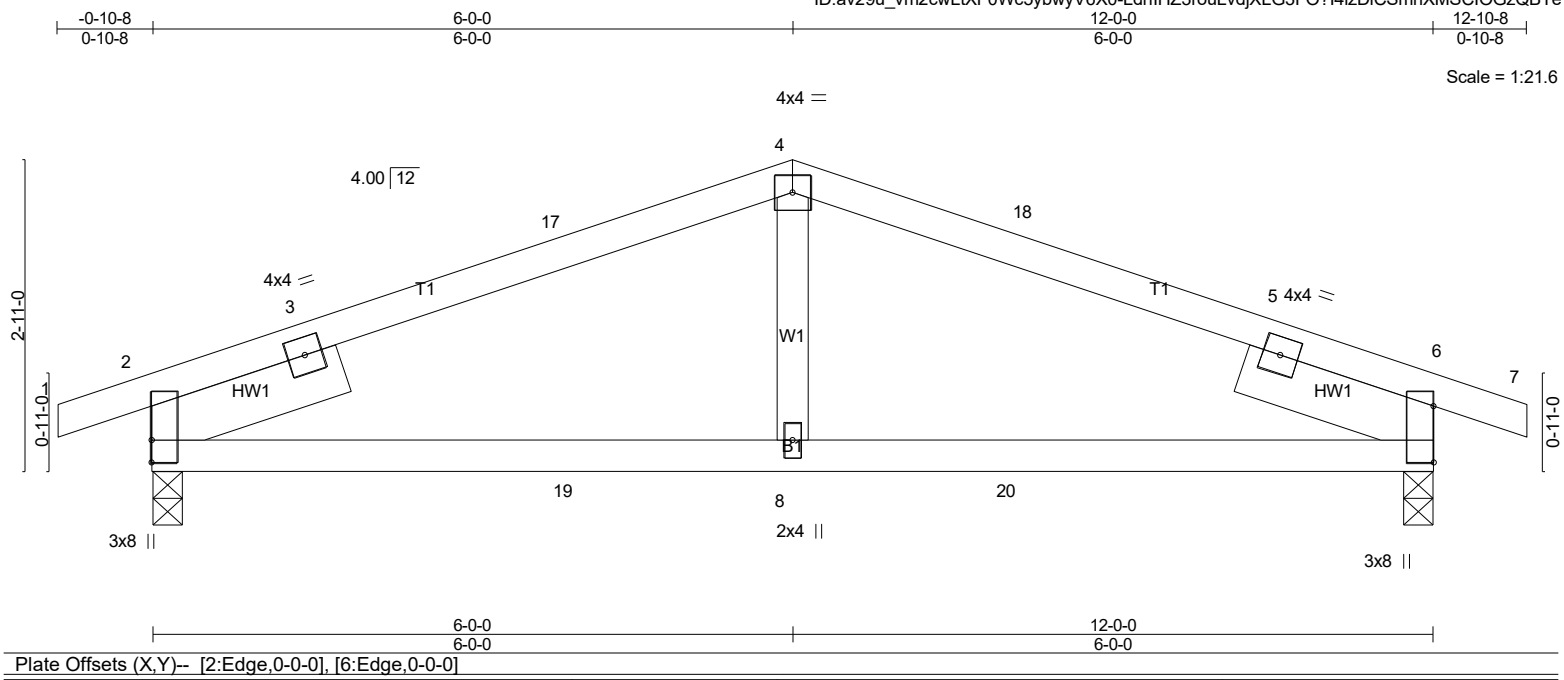


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [6:Edge,0-0-0]

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	0.41	Vert(LL)	0.05	8-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.06	8-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 52 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 1-11-0, Right 2x6 SP No.2 1-11-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=532/0-3-8 (min. 0-1-8), 6=533/0-3-8 (min. 0-1-8)
Max Horz 2=-34(LC 19)
Max Uplift 2=-197(LC 10), 6=-197(LC 11)
Max Grav 2=614(LC 21), 6=614(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-187/278, 3-17=-648/918, 4-17=-620/925, 4-18=-620/925, 5-18=-648/918, 5-6=-187/278
BOT CHORD 2-19=-783/593, 8-19=-783/593, 8-20=-783/593, 6-20=-783/593
WEBS 4-8=-359/219

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Exterior(2R) 3-11-2 to 8-0-14, Exterior(2E) 8-0-14 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=197, 6=197.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	R13	Common	1	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:09 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-LdhIHZ3rouLvdjXLG3FO?l4irDlFSmhXMSClOGzQBTe

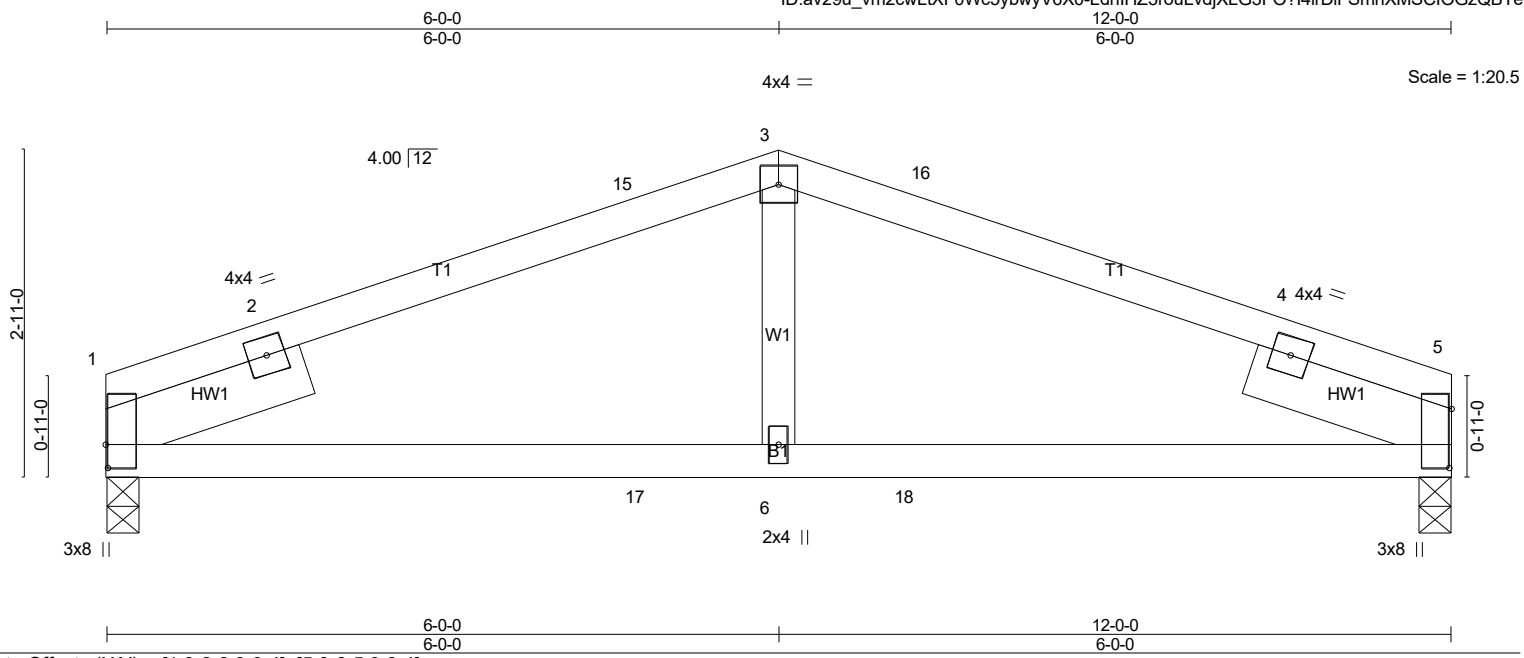


Plate Offsets (X,Y)-- [1:0-2-8,0-0-4], [5:0-6-5,0-0-4]

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	0.42	Vert(LL)	0.05	6-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.06	6-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.02	1	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 49 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 1-11-0, Right 2x6 SP No.2 1-11-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

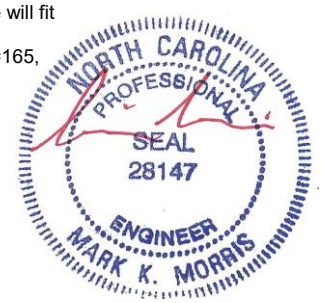
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=480/0-3-8 (min. 0-1-8), 5=480/0-3-8 (min. 0-1-8)
Max Horz 1=-30(LC 15)
Max Uplift1=-165(LC 10), 5=-165(LC 11)
Max Grav 1=561(LC 20), 5=561(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-200/301, 2-15=-657/901, 3-15=-618/908, 3-16=-618/908, 4-16=-657/901, 4-5=-200/301
BOT CHORD 1-17=-788/604, 6-17=-788/604, 6-18=-788/604, 5-18=-788/604
WEBS 3-6=-353/220

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 4-9-10, Exterior(2R) 4-9-10 to 7-2-6, Exterior(2E) 7-2-6 to 12-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=165, 5=165.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

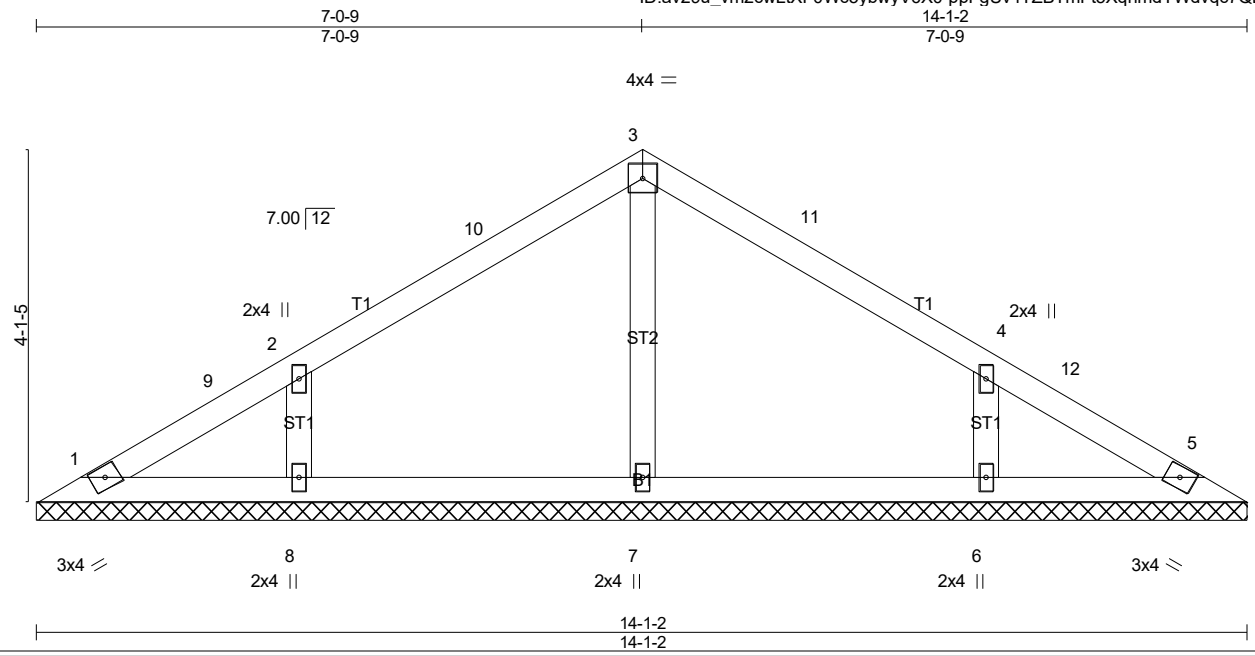
LOAD CASE(S) Standard



4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	V01	Valley	1	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:10 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-ppFgUv4TZBTmFt5XqnmdYWdvqc7QBD5gb6yrxizQBTd



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 0.28	Vert(LL) n/a - n/a 999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL 1.15	BC 0.20	Vert(CT) n/a - n/a 999		
TCDL	10.0	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00 5 n/a n/a		
BCLL	0.0 *	Code IRC2021/TPI2014	Matrix-S		Weight: 52 lb	FT = 20%
BCDL	10.0					

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 14-1-2.
(lb) - Max Horz 1=84(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-108(LC 14), 6=-108(LC 15)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=290(LC 21), 8=429(LC 20), 6=429(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-359/143, 4-6=-359/143

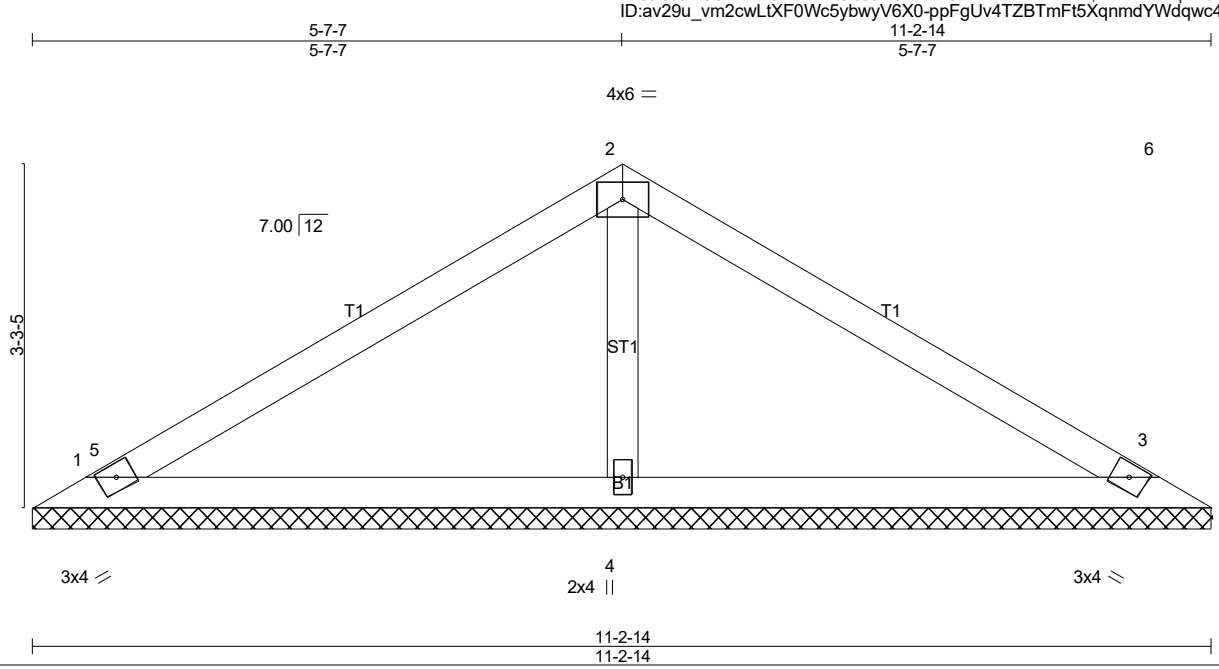
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 8-9-1, Exterior(2E) 8-9-1 to 13-6-11 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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=108, 6=108.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	V02	Valley	1	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:10 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-ppFgUv4TZBTmFt5XqnmdYWdqwc4oBD4gb6yrxizQBTd



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) n/a - n/a 999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL 1.15	BC 0.43	Vert(CT) n/a - n/a 999		
TCDL	10.0	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00 3 n/a n/a		
BCLL	0.0 *	Code IRC2021/TPI2014	Matrix-S		Weight: 38 lb	FT = 20%
BCDL	10.0					

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=192/11-2-14 (min. 0-1-8), 3=192/11-2-14 (min. 0-1-8), 4=429/11-2-14 (min. 0-1-8)
Max Horz 1=-65(LC 10)
Max Uplift1=-37(LC 14), 3=-46(LC 15), 4=-23(LC 14)
Max Grav 1=272(LC 20), 3=272(LC 21), 4=449(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-299/105

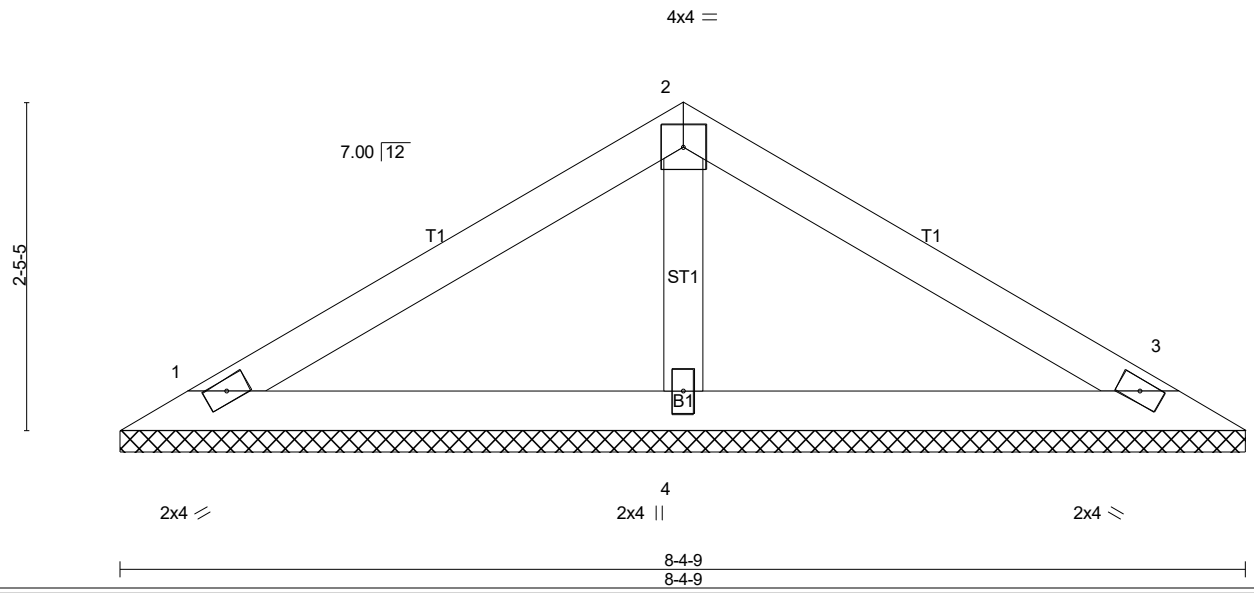
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	V03	Valley	1	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:10 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-ppFgUv4TZBTmFt5XqnmdYWdu9c7?BEagb6yrxizQBTd



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) n/a - n/a 999	MT20 244/190
Snow (Pf)	20.0	Lumber DOL 1.15	BC 0.23	Vert(CT) n/a - n/a 999	
TCDL	10.0	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00 3 n/a n/a	
BCLL	0.0 *	Code IRC2021/TPI2014	Matrix-P		Weight: 28 lb FT = 20%
BCDL	10.0				

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=152/8-4-9 (min. 0-1-8), 3=152/8-4-9 (min. 0-1-8), 4=280/8-4-9 (min. 0-1-8)
Max Horz 1=47(LC 13)
Max Uplift1=-33(LC 14), 3=-40(LC 15), 4=-2(LC 14)
Max Grav 1=209(LC 20), 3=209(LC 21), 4=284(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	V04	Valley	1	1	# 58535
					Job Reference (optional)

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:10 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-ppFgUv4TZBTmFt5XqnmdYWdyFc4zBEDgb6yrxizQBTd

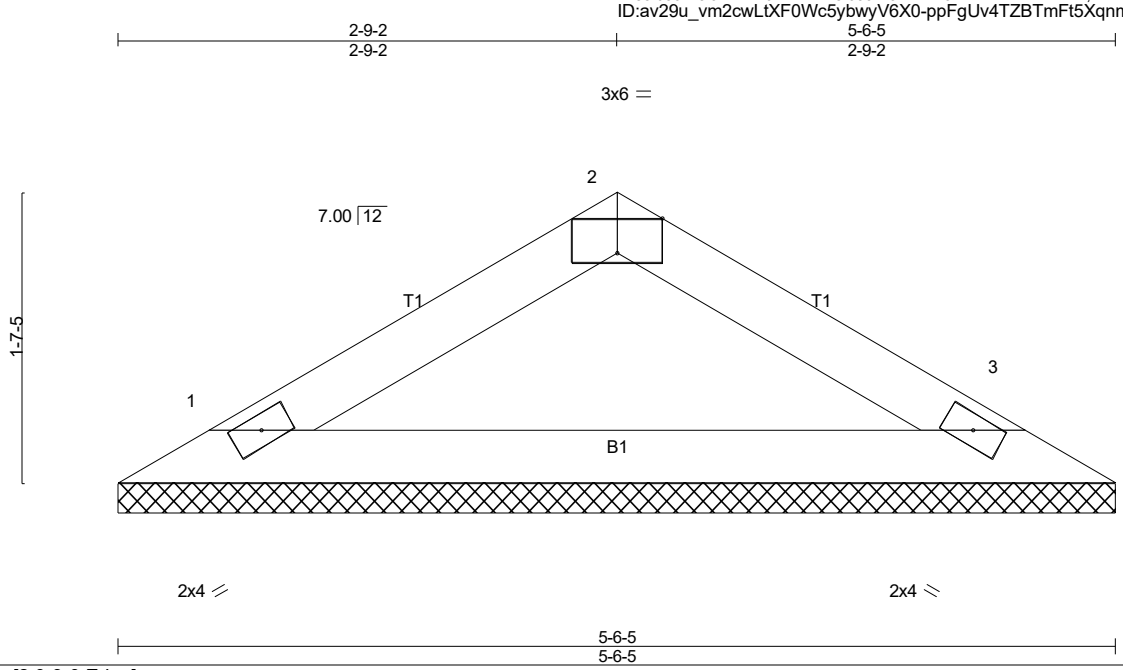


Plate Offsets (X,Y)-- [2:0-3-0,Edge]

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	n/a	-	n/a	999		
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-P							Weight: 16 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-6-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=178/5-6-5 (min. 0-1-8), 3=178/5-6-5 (min. 0-1-8)
Max Horz 1=29(LC 13)
Max Uplift1=-21(LC 14), 3=-21(LC 15)
Max Grav 1=203(LC 20), 3=203(LC 21)

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

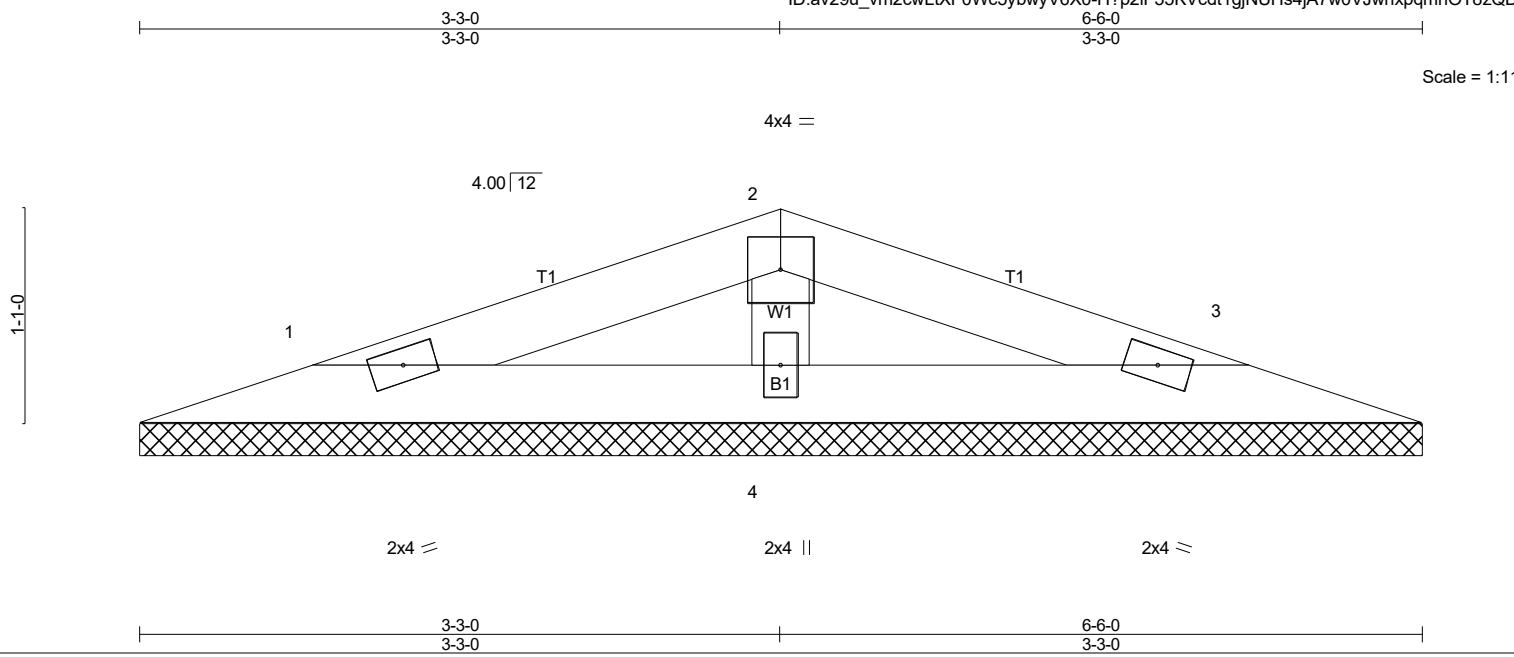
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

LOAD CASE(S) Standard

4/16/2025

Job	Truss	Truss Type	Qty	Ply	LOT 155 PROVIDENCE CREEK | FUQUAY-VARINA, NC
25-3294-R01	V05	Valley	1	1	Job Reference (optional) **# 58535**

Run: 85.630 s 3 Jul 12 2024 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Wed Apr 16 10:05:11 2025 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-H?p2iF55KVcdt1gjNUHs4jA7w0VJwhxpqmhOT8zQBTc



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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 18 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
WEBS 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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=91/6-6-0 (min. 0-1-8), 3=91/6-6-0 (min. 0-1-8), 4=195/6-6-0 (min. 0-1-8)
Max Horz 1=12(LC 14)
Max Uplift1=-21(LC 10), 3=-22(LC 11), 4=-11(LC 10)
Max Grav 1=113(LC 20), 3=113(LC 21), 4=195(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
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; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

LOAD CASE(S) Standard

4/16/2025