Mark Morris, P.E.

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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 #: 45442
JOB: 24-1269-R01
JOB NAME: LOT 36 PROVIDENCE CREEK
Wind Code: 37
Wind Speed: Vult= 120mph
Exposure Category: B
Mean Roof Height (feet): 35
These truss designs comply with IRC 2015 as well as IRC 2018.
28 Truss Design(s)

Trusses:
J01, J02, J03, P01, R01, R02, R03, R04, R05, R05A, R06, R07, R08, R09, R10, R11, R12, R13, SP01, SP02, SP03, V01, V02, V03, V04, V05, V06, VSP01

2/16/2024
Mark Morris

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*

Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	J01	Jack-Open	8	1	Job Reference (optional) **# 45442**

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:14:46 2024 Page 1
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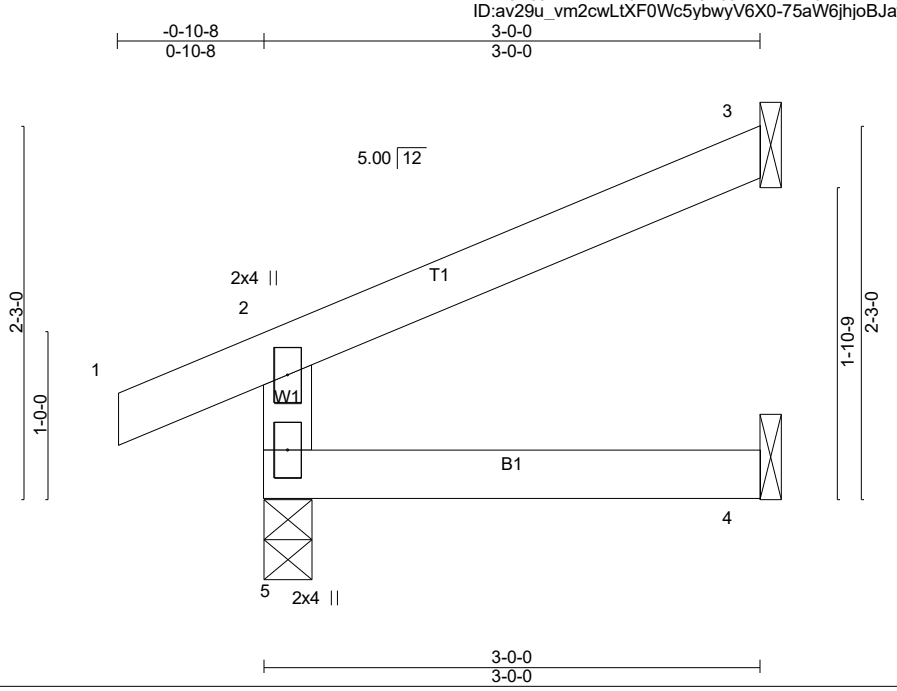

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MR							Weight: 12 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 or 3-0-0 oc purlins, except end verticals.
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) 5=184/0-3-8 (min. 0-1-8), 3=71/Mechanical, 4=29/Mechanical
Max Horz 5=48(LC 11)
Max Uplift5=-23(LC 14), 3=-41(LC 14)
Max Grav 5=254(LC 21), 3=102(LC 21), 4=52(LC 7)

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

NOTES-
1) 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.

LOAD CASE(S) Standard

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	J02	Jack-Open	1	1	Job Reference (optional) **# 45442**

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:14:47 2024 Page 1
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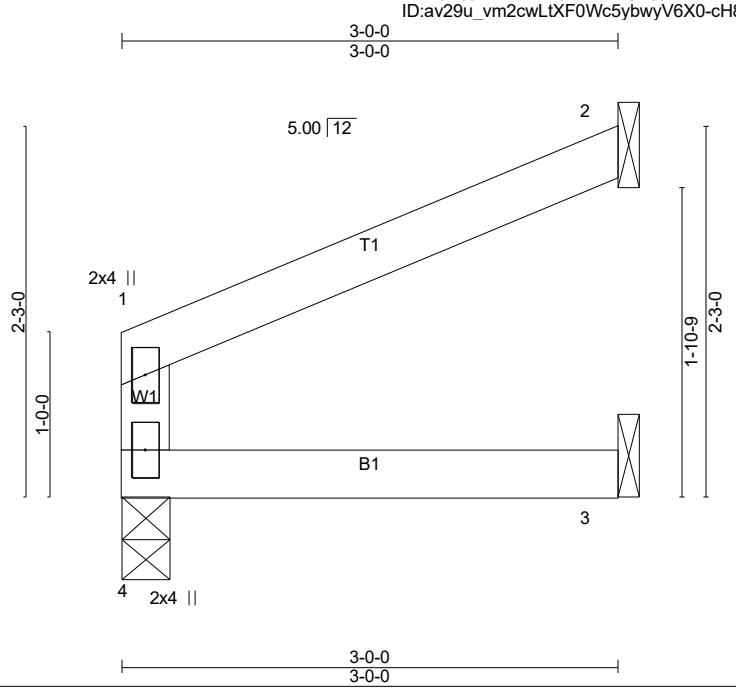

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	-0.00	3-4	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MR							Weight: 10 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 or 3-0-0 oc purlins, except end verticals.
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) 4=112/0-3-8 (min. 0-1-8), 2=78/Mechanical, 3=33/Mechanical
Max Horz 4=40(LC 11)
Max Uplift4=-2(LC 14), 2=-42(LC 14)
Max Grav 4=144(LC 20), 2=108(LC 20), 3=54(LC 7)

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

NOTES-
1) 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.

LOAD CASE(S) Standard

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	J03	Jack-Open	3	1	Job Reference (optional) **# 45442**

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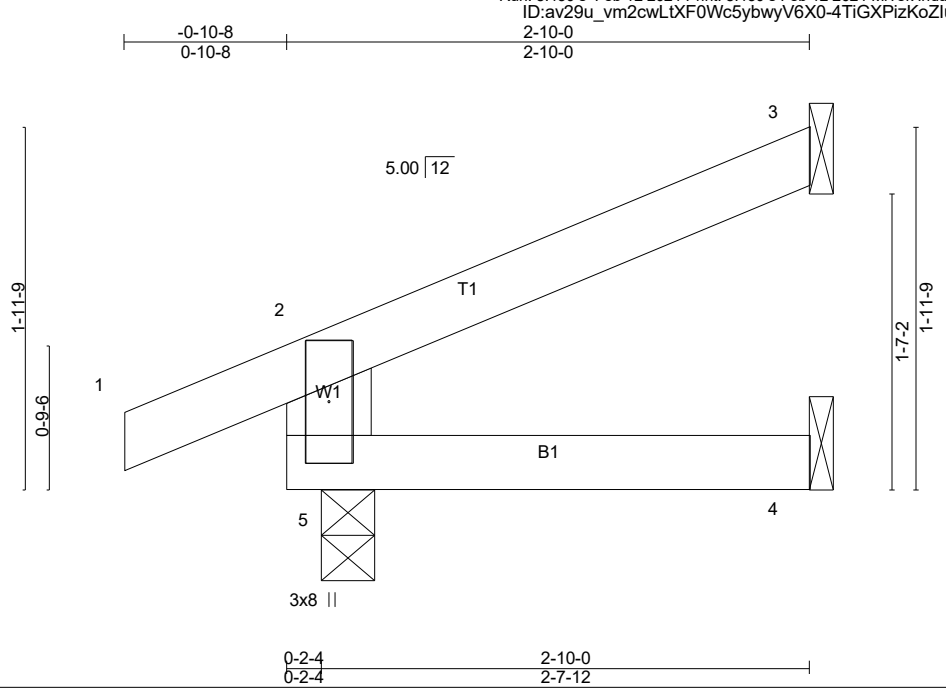

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MR							Weight: 11 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins, except end verticals.
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) 5=182/0-3-8 (min. 0-1-8), 3=62/Mechanical, 4=25/Mechanical
Max Horz 5=43(LC 14)
Max Uplift5=-49(LC 10), 3=-35(LC 14), 4=-13(LC 11)
Max Grav 5=251(LC 21), 3=89(LC 21), 4=46(LC 7)

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

NOTES-
1) 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; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.

LOAD CASE(S) Standard

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	P01	Piggyback	21	1	Job Reference (optional) **# 45442**

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:14:49 2024 Page 1
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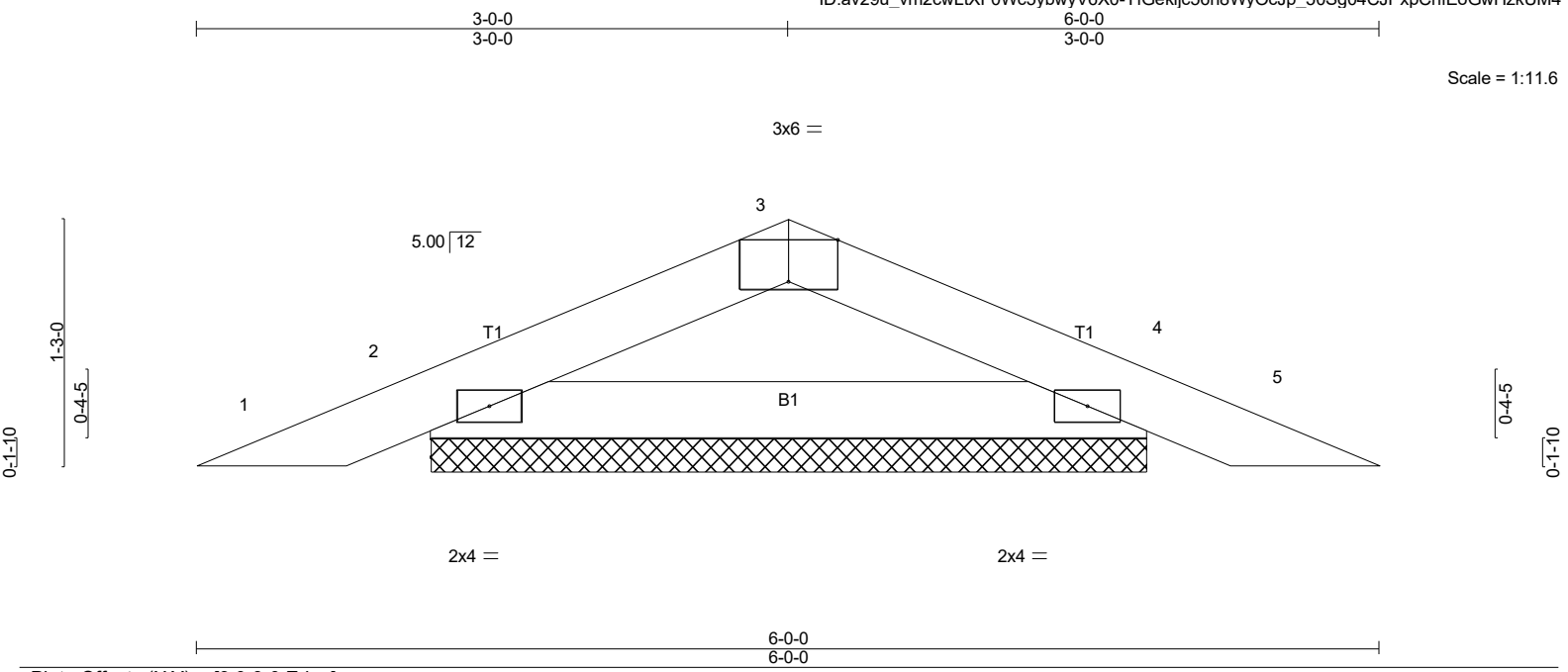

Plate Offsets (X,Y)-- [3:0-3-0,Edge]

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	0.07	Vert(LL)	0.00	4	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	0.00	4	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 15 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 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=194/3-7-10 (min. 0-1-8), 4=194/3-7-10 (min. 0-1-8)
Max Horz 2=16(LC 14)
Max Uplift2=-35(LC 14), 4=-35(LC 15)
Max Grav 2=233(LC 21), 4=233(LC 22)

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 100 lb uplift at joint(s) 2, 4.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R01	PIGGYBACK BASE SUPPO	1	1	# 45442
					Job Reference (optional)

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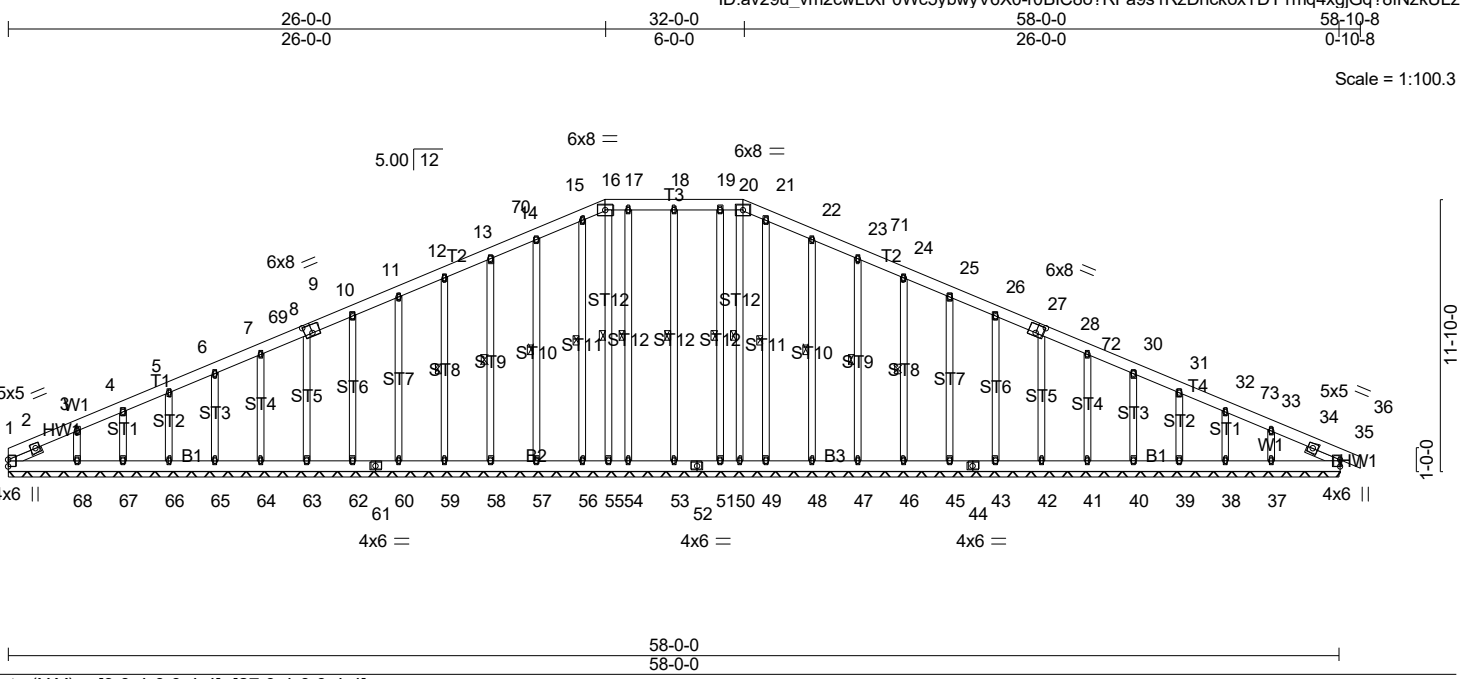


Plate Offsets (X,Y)-- [9:0-4-0,0-4-4], [27:0-4-0,0-4-4]

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	0.06	Vert(LL)	0.00	35	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	35	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	35	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-S							Weight: 582 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 -° 1-6-12, Right 2x4 SP No.3 -° 1-6-12

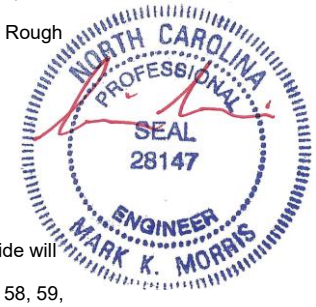
BRACING-

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 18-53, 17-54, 15-56, 14-57, 13-58, 12-59, 16-55, 19-51, 21-49, 22-48, 23-47, 24-46, 20-50

REACTIONS. All bearings 58-0-0.
(lb) - Max Horz 1=171(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 53, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 55, 48, 47, 46, 45, 43, 42, 41, 40, 39, 38, 50, 37 except 68=-117(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 1, 54, 56, 64, 65, 66, 67, 55, 51, 49, 41, 40, 39, 38, 50, 35, 68, 37 except 53=305(LC 44), 57=297(LC 45), 58=287(LC 45), 59=287(LC 45), 60=286(LC 45), 62=289(LC 45), 63=276(LC 45), 48=297(LC 45), 47=287(LC 45), 46=287(LC 45), 45=286(LC 45), 43=289(LC 45), 42=276(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-70=-122/278, 14-70=-117/281, 14-15=-138/316, 15-16=-140/327, 16-17=-136/320, 17-18=-136/320, 18-19=-136/320, 19-20=-136/320, 20-21=-140/327, 21-22=-138/316, 22-71=-115/281, 23-71=-122/278

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 5-0-0, Exterior(2N) 5-0-0 to 21-0-0, Corner(3R) 21-0-0 to 37-0-0, Exterior(2N) 37-0-0 to 54-0-14, Corner(3E) 54-0-14 to 58-10-8 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) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 53, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 55, 48, 47, 46, 45, 43, 42, 41, 40, 39, 38, 50, 37 except (jt=lb) 68=117.



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LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R02	PIGGYBACK BASE	5	1	Job Reference (optional) **# 45442**

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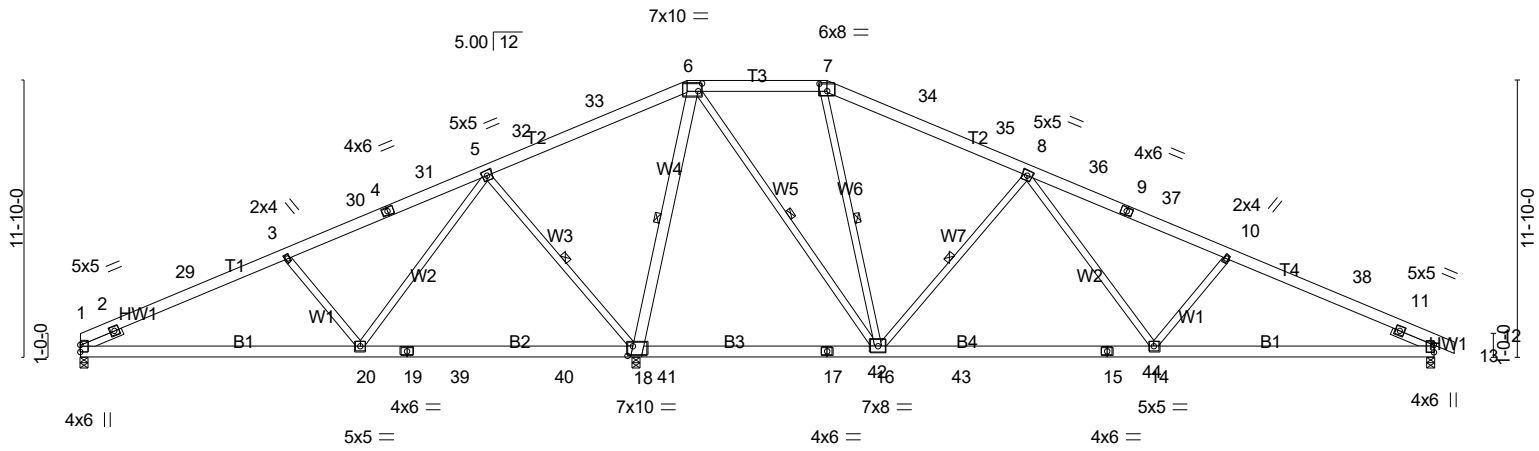
8-10-10 | 17-5-3 | 26-0-0 | 32-0-0 | 40-6-13 | 49-1-6 | 58-0-0 | 58-10-8
8-10-10 | 8-6-8 | 8-6-13 | 6-0-0 | 8-6-13 | 8-6-8 | 8-10-10 | 0-10-8

Scale = 1:98.7



12-0-0 | 23-9-12 | 34-2-4 | 46-0-0 | 58-0-0
12-0-0 | 11-9-12 | 10-4-8 | 11-9-12 | 12-0-0

Plate Offsets (X,Y)-- [6:0-2-0,0-4-0], [7:0-4-0,0-3-13], [18:0-2-12,0-5-0]

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	0.68	Vert(LL)	-0.29	14-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.42	14-16	>964	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.04	12	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS								
BCDL	10.0										Weight: 423 lb	FT = 20%

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: 2x6 SP No.2
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.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-18, 6-18, 6-16, 7-16, 8-16

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

REACTIONS. (lb/size) 1=595/0-3-8 (min. 0-1-8), 18=2930/0-3-8 (min. 0-1-12), 12=1167/0-3-8 (min. 0-1-9)
Max Horz 1=-172(LC 15)
Max Uplift1=-111(LC 14), 18=-271(LC 14), 12=-216(LC 15)
Max Grav 1=701(LC 41), 18=3875(LC 45), 12=1300(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-616/0, 2-29=-941/169, 3-29=-864/186, 3-30=-641/123, 4-30=-546/136, 4-31=-539/137, 5-31=-452/153, 5-32=-17/1084, 32-33=0/1203, 6-33=0/1318, 6-7=-620/262, 7-34=-604/231, 34-35=-605/216, 8-35=-737/201, 8-36=-1668/354, 9-36=-1766/338, 9-37=-1780/337, 10-37=-1884/334, 10-38=-2041/383, 11-38=-2176/355, 11-12=-852/0
BOT CHORD 1-20=-248/810, 19-20=-433/235, 19-39=-433/235, 39-40=-433/235, 18-40=-433/235, 18-41=-652/252, 41-42=-652/252, 17-42=-652/252, 16-17=-652/252, 16-43=-71/1244, 43-44=-71/1244, 15-44=-71/1244, 14-15=-71/1244, 12-14=-260/1929
WEBS 3-20=-560/247, 5-20=-91/932, 5-18=-1340/323, 6-18=-2477/282, 6-16=-220/1940, 7-16=-342/79, 8-16=-1300/321, 8-14=-78/779, 10-14=-464/233

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, Interior(1) 4-9-10 to 19-2-9, Exterior(2R) 19-2-9 to 38-9-7, Interior(1) 38-9-7 to 54-0-14, Exterior(2E) 54-0-14 to 58-10-8 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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=111, 18=271, 12=216.

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Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R02	PIGGYBACK BASE	5	1	Job Reference (optional) # 45442

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

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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 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R03	PIGGYBACK BASE	1	1	# 45442
					Job Reference (optional)

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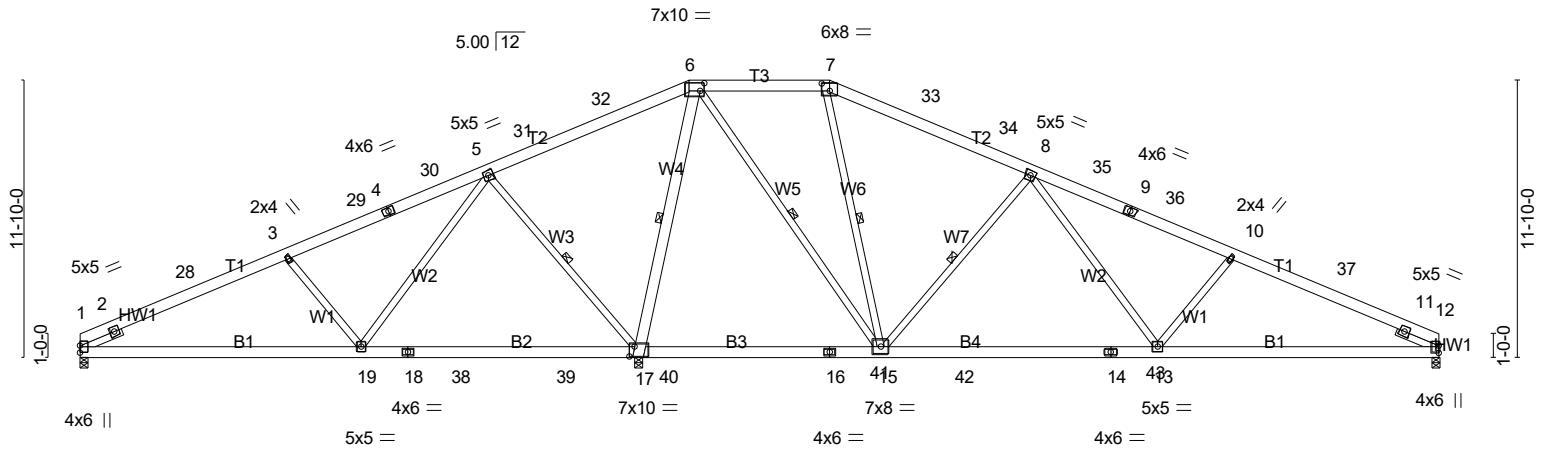
8-10-10	17-5-3	26-0-0	32-0-0	40-6-13	49-1-6	58-0-0
8-10-10	8-6-8	8-6-13	6-0-0	8-6-13	8-6-8	8-10-10

Scale = 1:98.3



12-0-0	23-9-12	34-2-4	46-0-0	58-0-0
12-0-0	11-9-12	10-4-8	11-9-12	12-0-0

Plate Offsets (X,Y)-- [6:0-2-0,0-4-0], [7:0-4-0,0-3-13], [17:0-2-12,0-5-0]

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	0.68	Vert(LL)	-0.29	13-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.42	13-15	>966	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.03	12	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 421 lb	FT = 20%

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: 2x6 SP No.2
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.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-17, 6-17, 6-15, 7-15, 8-15

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

REACTIONS. (lb/size) 1=596/0-3-8 (min. 0-1-8), 17=2929/0-3-8 (min. 0-1-12), 12=1115/0-3-8 (min. 0-1-8)
Max Horz 1=-161(LC 15)
Max Uplift1=-110(LC 14), 17=-272(LC 14), 12=-197(LC 15)
Max Grav 1=700(LC 40), 17=3874(LC 44), 12=1248(LC 38)

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

TOP CHORD	1-2=-616/0, 2-28=-939/167, 3-28=-862/184, 3-29=-639/121, 4-29=-545/134, 4-30=-537/135, 5-30=-453/151, 5-31=-19/1082, 31-32=-1/1200, 6-32=0/1315, 6-7=-622/259, 7-33=-606/228, 33-34=-608/214, 8-34=-740/198, 8-35=-1673/352, 9-35=-1772/336, 9-36=-1785/335, 10-36=-1889/332, 10-37=-2048/381, 11-37=-2182/353, 11-12=-862/0
BOT CHORD	1-19=-252/808, 18-19=-430/228, 18-38=-430/228, 38-39=-430/228, 17-39=-430/228, 17-40=-650/244, 40-41=-650/244, 16-41=-650/244, 15-16=-650/244, 15-42=-80/1247, 42-43=-80/1247, 14-43=-80/1247, 13-14=-80/1247, 12-13=-269/1936
WEBS	3-19=-560/247, 5-19=-91/932, 5-17=-1340/323, 6-17=-2476/287, 6-15=-222/1940, 7-15=-341/80, 8-15=-1301/321, 8-13=-79/782, 10-13=-466/234

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, Interior(1) 4-9-10 to 19-2-9, Exterior(2R) 19-2-9 to 38-9-7, Interior(1) 38-9-7 to 53-2-6, Exterior(2E) 53-2-6 to 58-0-0 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) 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=197.
10) 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.

NORTH CAROLINA PROFESSIONAL SEAL 28147 ENGINEER MARK K. MORRIS

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Continued on page 2

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LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R04	PIGGYBACK BASE	3	1	Job Reference (optional) **# 45442**

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-0-10-8	8-10-10	17-5-3	26-0-0	32-0-0	41-4-4	50-8-8
0-10-8	8-10-10	8-6-8	8-6-13	6-0-0	9-4-4	9-4-4

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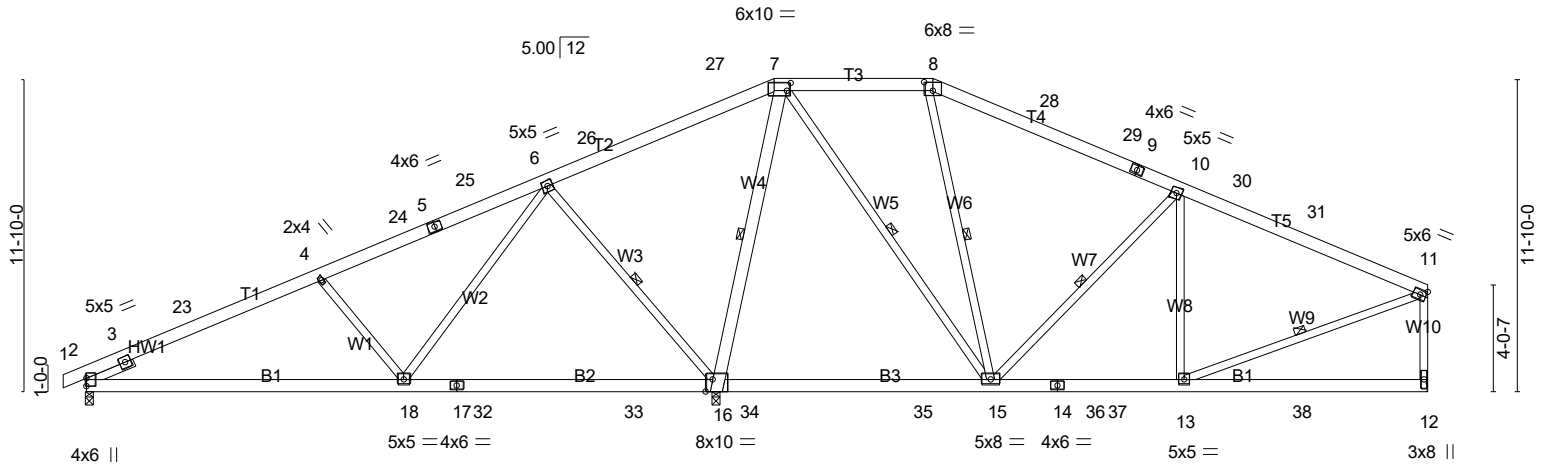

12-0-0	23-9-12	34-2-4	41-4-4	50-8-8
12-0-0	11-9-12	10-4-8	7-2-0	9-4-4

Plate Offsets (X,Y)-- [7:0-1-12,0-3-8], [8:0-4-0,0-3-13], [16:0-3-4,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 0.65	Vert(LL) -0.23 16-18 >999 240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL 1.15	BC 0.56	Vert(CT) -0.30 16-18 >950 180		
TCDL	10.0	Rep Stress Incr YES	WB 0.71	Horz(CT) 0.02 12 n/a n/a		
BCLL	0.0 *	Code IRC2021/TPI2014	Matrix-AS		Weight: 394 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: 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 6-16, 7-16, 7-15, 8-15, 10-15, 11-13

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

REACTIONS. (lb/size) 2=804/0-3-8 (min. 0-1-8), 16=2407/0-3-8 (min. 0-1-8), 12=886/Mechanical
Max Horz 2=177(LC 18)
Max Uplift2=-126(LC 14), 16=-419(LC 11), 12=-267(LC 11)
Max Grav 2=845(LC 39), 16=3193(LC 45), 12=1088(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-676/0, 3-23=-1152/161, 4-23=-1086/180, 4-24=-842/127, 5-24=-732/130, 5-25=-636/145, 6-25=-611/148, 6-26=-24/567, 26-27=-5/686, 7-27=0/826, 7-8=-618/653, 8-28=-587/685, 28-29=-591/669, 9-29=-681/658, 9-10=-740/652, 10-30=-929/818, 30-31=-1027/801, 11-31=-1137/797, 11-12=-997/622
BOT CHORD 2-18=-248/1002, 16-34=-317/137, 34-35=-317/137, 15-35=-317/137, 14-15=-586/965, 14-36=-586/965, 36-37=-586/965, 13-37=-586/965
WEBS 4-18=-530/246, 6-18=-91/882, 6-16=-1327/324, 7-16=-1824/744, 7-15=-727/1337, 8-15=-380/70, 10-15=-797/357, 11-13=-625/983

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, Interior(1) 3-11-2 to 19-2-9, Exterior(2R) 19-2-9 to 38-9-7, Interior(1) 38-9-7 to 45-9-2, Exterior(2E) 45-9-2 to 50-6-12 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) 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, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=126, 16=419, 12=267.

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Continued on page 2
Continued from page 1

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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

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R05	Piggyback Base	3	1	**# 45442** Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:15:11 2024 Page 1
ID:av29u_vm2cwLtXF0Wc5ybwyV6X0-vubzMG_PvsT19K4rcQNFv5aef4go5Yhwif8Rh0zkULk

-0-10-8	8-10-5	17-5-3	26-0-0	32-0-0	39-9-12	45-11-5	50-8-8
0-10-8	8-10-5	8-6-13	8-6-13	6-0-0	7-9-12	6-1-9	4-9-3

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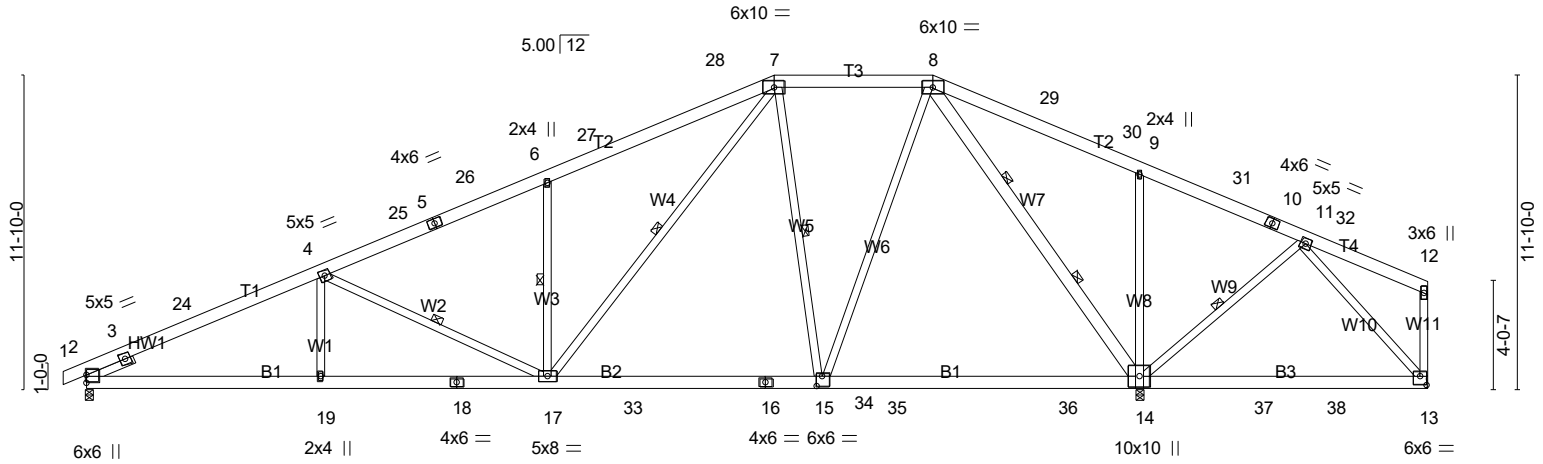


8-10-5	17-5-3	27-9-12	39-9-12	50-8-8
8-10-5	8-6-13	10-4-9	12-0-0	10-10-12

Plate Offsets (X,Y)-- [13:0-3-0,0-4-0], [15:0-2-8,0-4-8]

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	0.64	Vert(LL)	-0.31	14-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.43	14-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.06	14	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS							Weight: 405 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 No.1
SLIDER Left 2x4 SP No.3 -° 1-11-0

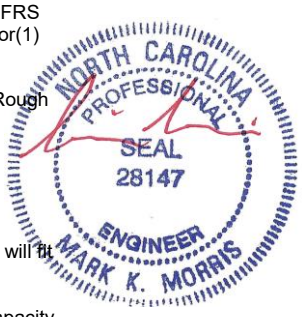
BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-17, 6-17, 7-17, 7-15, 11-14
2 Rows at 1/3 pts 8-14

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

REACTIONS. (lb/size) 2=1462/0-3-8 (min. 0-2-0), 13=-248/Mechanical, 14=2883/0-3-8 (min. 0-2-9)
Max Horz 2=177(LC 18)
Max Uplift 2=-220(LC 14), 13=-408(LC 54), 14=-253(LC 14)
Max Grav 2=1670(LC 39), 13=92(LC 14), 14=3786(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1067/34, 3-24=-3013/353, 4-24=-2912/372, 4-25=-2370/276, 5-25=-2288/283, 5-26=-2276/299, 6-26=-2147/301, 6-27=-2452/408, 27-28=-2290/423, 7-28=-2235/438, 7-8=-1041/264, 8-29=-11/1265, 29-30=-11/1127, 9-30=-27/1000, 9-31=-69/1273, 10-31=-81/1134, 10-32=-90/1062, 11-32=-91/1043
BOT CHORD 2-19=-422/2688, 18-19=-422/2688, 17-18=-422/2688, 17-33=-31/1156, 16-33=-31/1156, 16-34=-31/1156, 15-34=-31/1156, 15-35=-7/523, 35-36=-7/523, 14-36=-7/523, 14-37=-463/102, 37-38=-463/102, 13-38=-463/102
WEBS 4-19=0/295, 4-17=-671/211, 6-17=-928/279, 7-17=-351/1776, 7-15=-1020/251, 8-15=-139/1531, 8-14=-2686/228, 9-14=-786/237, 11-14=-804/164, 11-13=-97/782

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, Interior(1) 3-11-2 to 19-2-9, Exterior(2R) 19-2-9 to 38-9-7, Interior(1) 38-9-7 to 45-9-2, Exterior(2E) 45-9-2 to 50-6-12 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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.



2/16/2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R05	Piggyback Base	3	1	Job Reference (optional) # 45442

NOTES-

11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=220, 13=408, 14=253.
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

2/16/2024

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 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R05A	Piggyback Base	7	1	# 45442
					Job Reference (optional)

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-0-10-8	8-10-5	17-5-3	26-0-0	32-0-0	39-9-12	45-11-5	50-8-8
0-10-8	8-10-5	8-6-13	8-6-13	6-0-0	7-9-12	6-1-9	4-9-3

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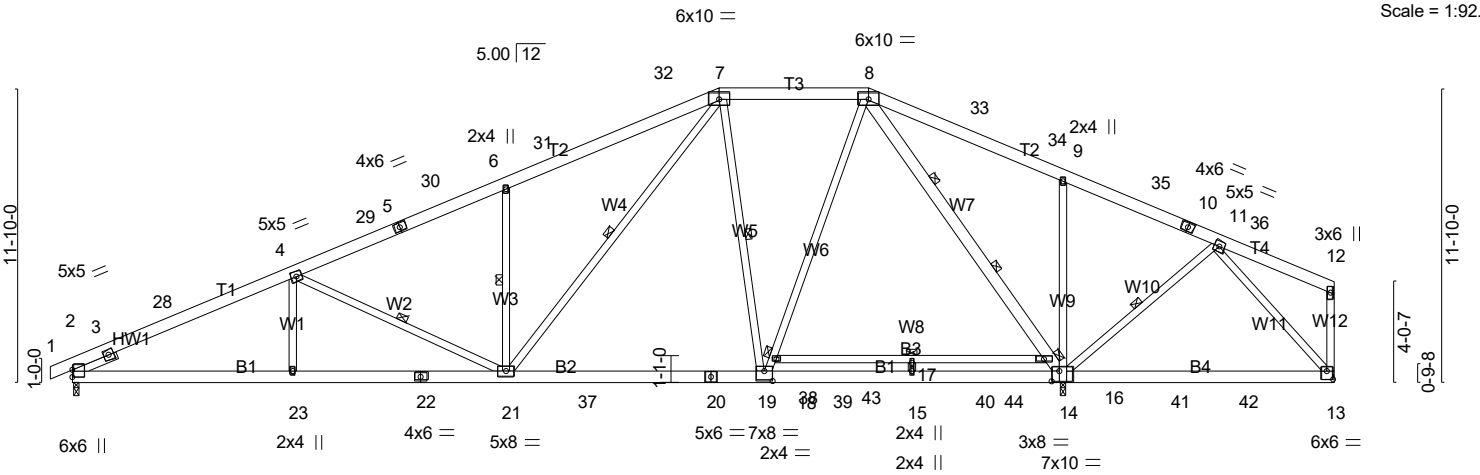


8-10-5	17-5-3	27-9-12	33-8-14	39-9-12	50-8-8
8-10-5	8-6-13	10-4-9	5-11-2	6-0-14	10-10-12

Plate Offsets (X,Y)-- [13:0-3-0,0-4-0], [14:0-3-12,0-5-0], [19:0-4-0,0-4-12]

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)	-0.48	17-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.69	17-18	>697	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.06	14	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS							Weight: 422 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2 *Except* B1: 2x6 SP DSS, B3: 2x4 SP No.2
WEBS	2x4 SP No.3 *Except* W7: 2x6 SP DSS
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. Except: 10-0-0 oc bracing: 16-18
WEBS	1 Row at midpt 4-21, 6-21, 7-21, 7-19, 11-14 2 Rows at 1/3 pts 8-16

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

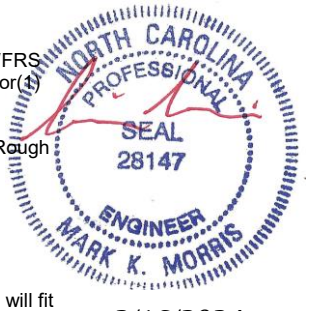
REACTIONS. (lb/size) 2=1501/0-3-8 (min. 0-1-12), 13=-231/Mechanical, 14=3052/0-3-8 (min. 0-2-14)
Max Horz 2=177(LC 18)
Max Uplift2=-208(LC 14), 13=-411(LC 56), 14=-133(LC 14)
Max Grav 2=1712(LC 39), 13=72(LC 14), 14=4222(LC 45)

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

TOP CHORD	2-3=-1171/22, 3-28=-3104/326, 4-28=-3004/345, 4-29=-2551/251, 5-29=-2469/254, 5-30=-2457/269, 6-30=-2328/271, 6-31=-2617/382, 31-32=-2471/397, 7-32=-2417/412, 7-8=-1264/226, 8-33=0/1214, 33-34=0/1090, 9-34=-5/988, 9-35=-46/1221, 10-35=-57/1095, 10-36=-67/1037, 11-36=-68/1021
BOT CHORD	2-23=-398/2773, 22-23=-398/2773, 21-22=-398/2773, 21-37=0/1360, 20-37=0/1360, 20-38=0/1360, 19-38=0/1360, 19-39=0/475, 15-39=0/475, 15-40=0/475, 14-40=0/475, 14-41=-461/88, 41-42=-461/88, 13-42=-461/88, 18-43=-33/275, 17-43=-33/275, 17-44=-33/275, 16-44=-33/275
WEBS	4-23=0/297, 4-21=-668/210, 6-21=-927/279, 7-21=-362/1751, 7-19=-960/270, 18-19=-129/1738, 8-18=-90/1737, 8-16=-2940/163, 14-16=-2857/130, 9-14=-783/237, 11-14=-779/158, 11-13=-79/756, 15-17=-389/0

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, Interior(1) 3-11-2 to 19-2-9, Exterior(2R) 19-2-9 to 38-9-7, Interior(1) 38-9-7 to 45-9-2, Exterior(2E) 45-9-2 to 50-6-12 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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.



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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R05A	Piggyback Base	7	1	Job Reference (optional) # 45442

NOTES-

10) Bearing at joint(s) 14 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) 14 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=208, 13=411, 14=133.
13) 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

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R06	Piggyback Base Supported Gable	1	1	Job Reference (optional) **# 45442**

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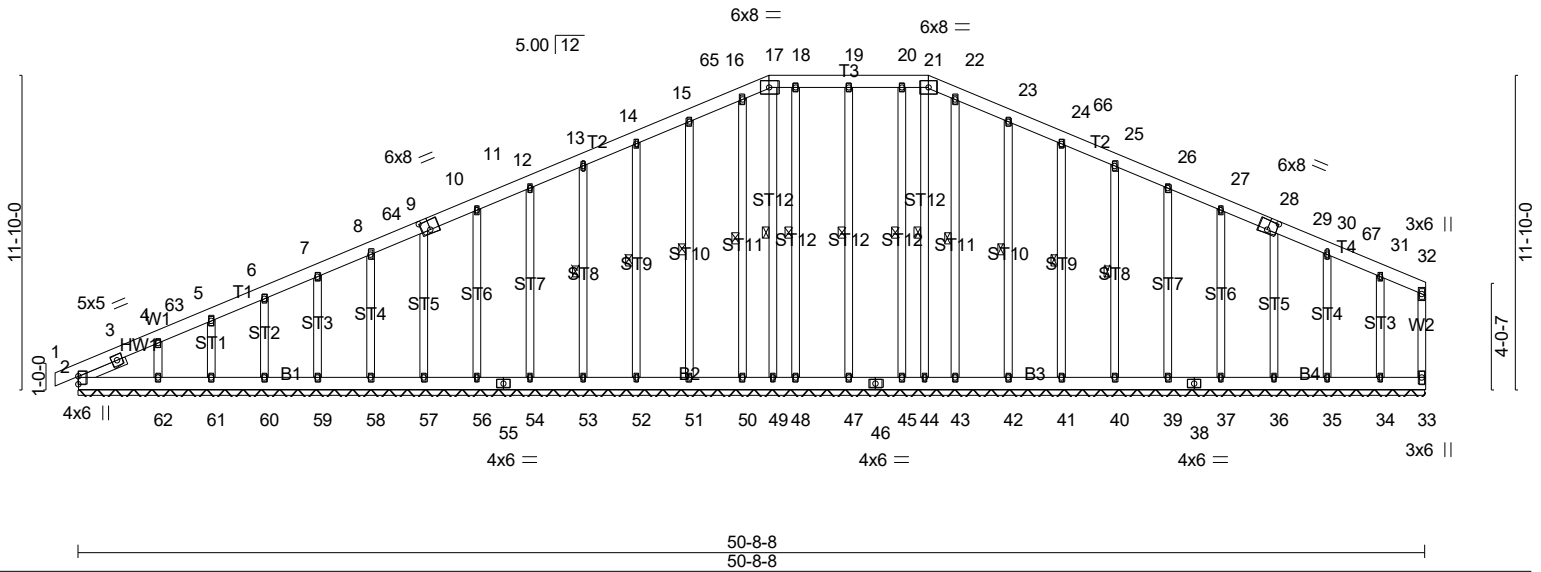
-0-10-8 0-10-8 | 26-0-0 26-0-0 | 32-0-0 6-0-0 | 50-8-8 18-8-8

Scale = 1:86.7



50-8-8
50-8-8

Plate Offsets (X,Y)-- [10:0-4-0,0-4-4], [28:0-4-0,0-4-4]

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	0.11	Vert(LL)	0.00	1	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	1	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	-0.00	33	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-S							Weight: 540 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, Except:
6-0-0 oc bracing: 48-49,47-48,45-47,44-45.
WEBS 1 Row at midpt 19-47, 18-48, 16-50, 15-51, 14-52, 13-53, 17-49, 20-45, 22-43, 23-42, 24-41, 25-40, 21-44

REACTIONS. All bearings 50-8-8.
(lb) - Max Horz 2=174(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 33, 2, 47, 48, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 49, 42, 41, 40, 39, 37, 36, 35, 34, 44 except 62=-107(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 33, 2, 48, 50, 58, 59, 60, 61, 49, 45, 43, 35, 34, 44, 62 except 47=305(LC 44), 51=297(LC 45), 52=287(LC 45), 53=287(LC 45), 54=286(LC 45), 56=289(LC 45), 57=276(LC 45), 42=297(LC 45), 41=287(LC 45), 40=287(LC 45), 39=286(LC 45), 37=289(LC 45), 36=273(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-117/270, 13-14=-129/304, 14-15=-142/339, 15-65=-158/371, 16-65=-154/374, 16-17=-160/383, 17-18=-155/374, 18-19=-155/373, 19-20=-155/373, 20-21=-155/374, 21-22=-159/382, 22-23=-158/374, 23-66=-137/339, 24-66=-142/335, 24-25=-129/304, 25-26=-117/270

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 3-11-2, Exterior(2N) 3-11-2 to 21-0-0, Corner(3R) 21-0-0 to 37-0-0, Exterior(2N) 37-0-0 to 45-9-2, Corner(3E) 45-9-2 to 50-6-12 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) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.

NORTH CAROLINA PROFESSIONAL SEAL 28147 ENGINEER MARK K. MORRIS

2/16/2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R06	Piggyback Base Supported Gable	1	1	Job Reference (optional) # 45442

NOTES-

13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 2, 47, 48, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 49, 42, 41, 40, 39, 37, 36, 35, 34, 44 except (jt=lb) 62=107.

LOAD CASE(S) Standard

2/16/2024

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 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R07	Hip Girder	1	1	# 45442
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:15:28 2024 Page 1
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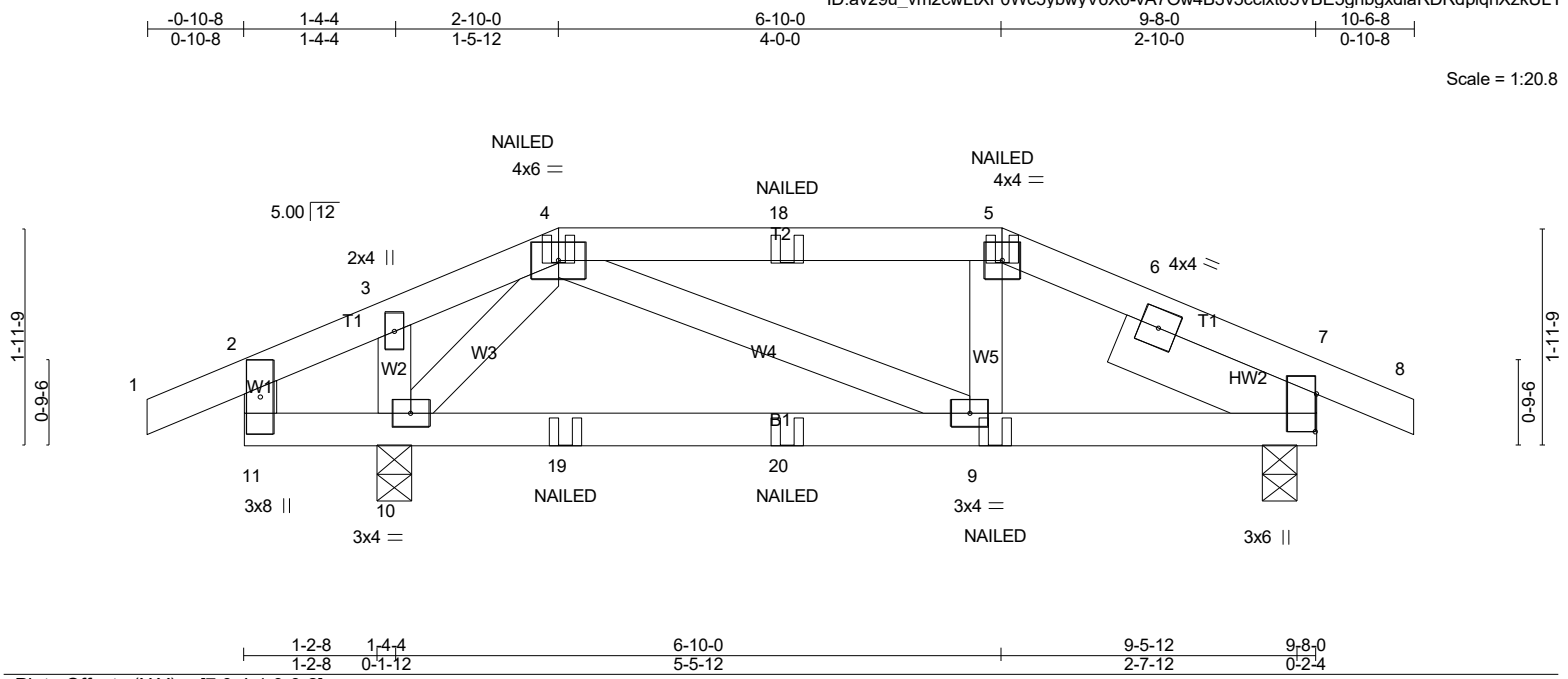

Plate Offsets (X,Y)-- [7:0-4-1,0-0-2]

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	0.43	Vert(LL)	-0.02	9-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.04	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MSH							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 Right 2x6 SP No.2 -° 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 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. (lb/size) 10=550/0-3-8 (min. 0-1-8), 7=428/0-3-8 (min. 0-1-8)
Max Horz 10=-19(LC 17)
Max Uplift 10=-160(LC 8), 7=-157(LC 9)
Max Grav 10=657(LC 37), 7=512(LC 37)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-18=-426/172, 5-18=-426/172, 5-6=-494/186
BOT CHORD 10-19=-84/297, 19-20=-84/297, 9-20=-84/297, 7-9=-128/426
WEBS 4-10=-492/151

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 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) Provide adequate drainage to prevent water ponding.
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 100 lb uplift at joint(s) except (jt=lb) 10=160, 7=157.
10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) 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
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-4=-60, 4-5=-60, 5-8=-60, 11-12=-20

2/16/2024

Continued on page 2

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 53719.

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 4=-29(F) 5=-29(F) 9=-6(F) 18=-29(F) 19=-6(F) 20=-6(F)

2/16/2024

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 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R08	Common	1	1	# 45442
					Job Reference (optional)

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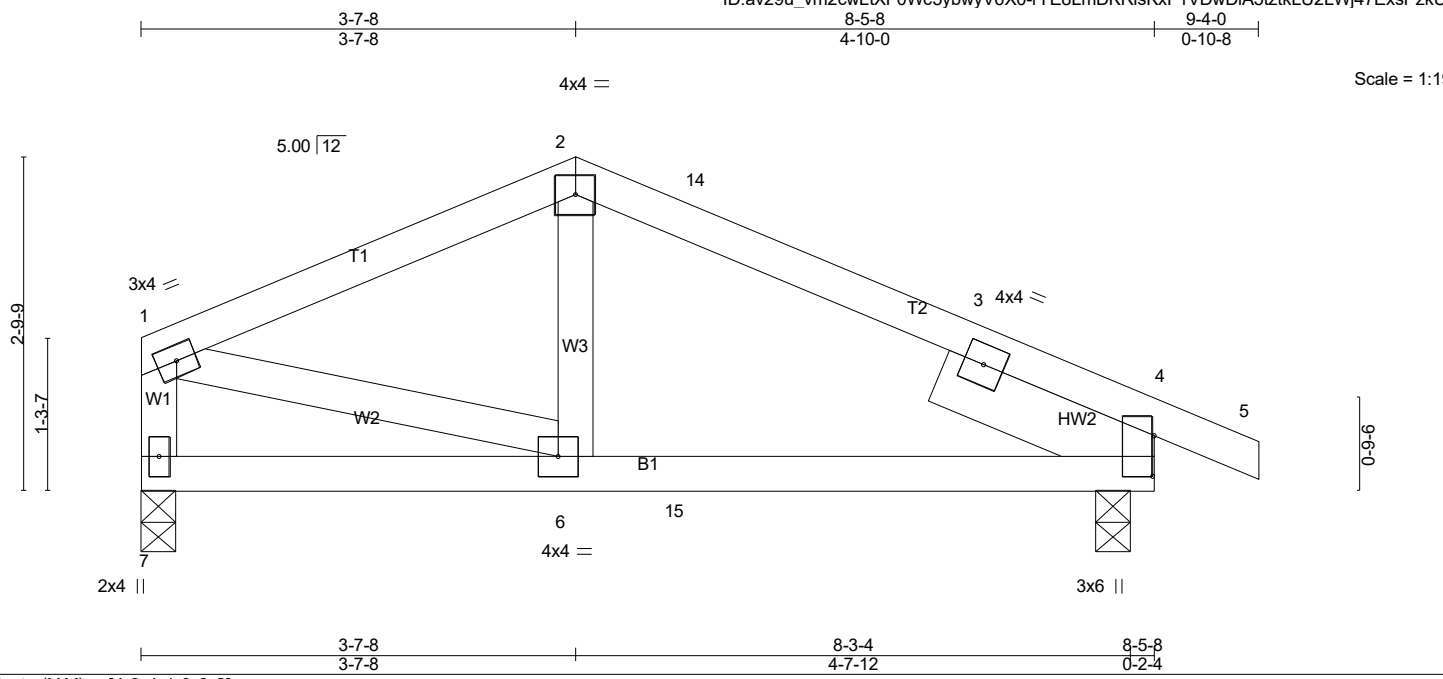

Plate Offsets (X,Y)-- [4:0-4-1,0-0-2]

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	0.32	Vert(LL)	0.02	6-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	6-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.01	4	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 42 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 Right 2x6 SP No.2 -° 1-11-0

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) 7=314/0-3-8 (min. 0-1-8), 4=404/0-3-8 (min. 0-1-8)
Max Horz 7=-39(LC 19)
Max Uplift7=-78(LC 11), 4=-114(LC 11)
Max Grav 7=363(LC 21), 4=474(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-318/411, 2-14=-270/410, 3-14=-294/405, 1-7=-335/325
BOT CHORD 6-15=-280/271, 4-15=-280/271
WEBS 1-6=-333/283

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) 0-1-12 to 3-7-8, Exterior(2R) 3-7-8 to 4-6-6, Exterior(2E) 4-6-6 to 9-4-0 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) 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) 4=114.
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

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R09	Half Hip Girder	1	1	# 45442
					Job Reference (optional)

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3-0-0	8-7-9	14-4-15	20-2-4	23-7-0	27-1-8
3-0-0	5-7-9	5-9-5	5-9-5	3-4-12	3-6-8

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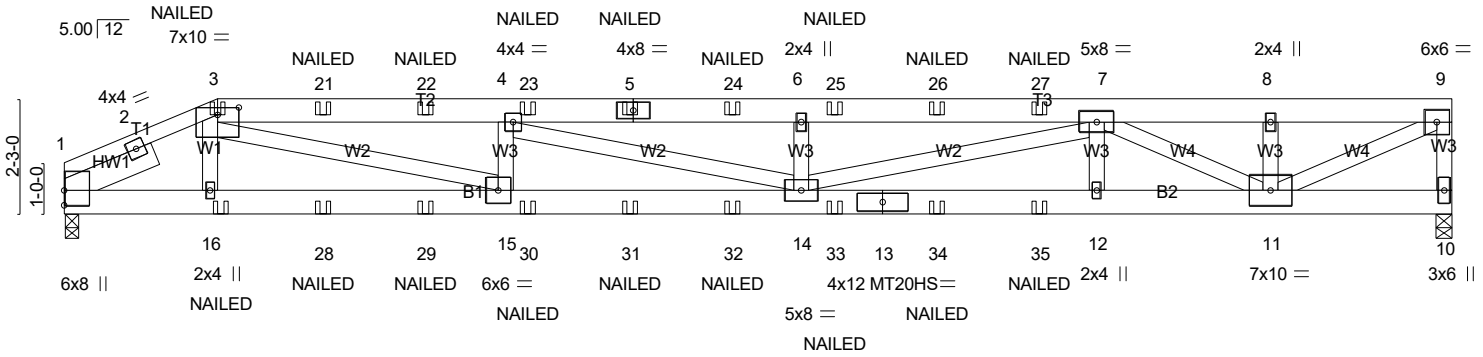


3-0-0	8-7-9	14-4-15	20-2-4	23-7-0	27-1-8
3-0-0	5-7-9	5-9-5	5-9-5	3-4-12	3-6-8

Plate Offsets (X,Y)-- [3:0-5-0,0-1-11]

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	0.79	Vert(LL)	-0.44	14-15	>737	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.69	14-15	>467	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.09	10	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MSH							Weight: 177 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SP No.2 *Except*
T1: 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
W2,W4: 2x4 SP No.2
SLIDER Left 2x6 SP No.2 -° 1-11-0

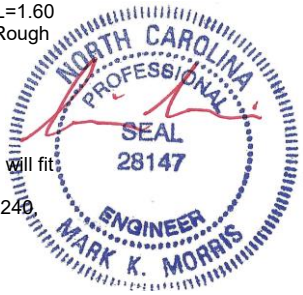
BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-2-7 oc bracing.

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

REACTIONS. (lb/size) 1=1363/0-3-8 (min. 0-1-13), 10=1282/0-3-8 (min. 0-1-15)
Max Horz 1=57(LC 53)
Max Uplift1=-240(LC 8), 10=-244(LC 9)
Max Grav 1=1517(LC 32), 10=1647(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-952/161, 2-3=-2527/410, 3-21=-5498/911, 21-22=-5499/911, 4-22=-5503/911, 4-23=-6234/1015, 5-23=-6234/1015, 5-24=-6234/1015, 6-24=-6234/1015, 6-25=-6234/1015, 25-26=-6234/1015, 26-27=-6234/1015, 7-27=-6234/1015, 7-8=-2660/412, 8-9=-2660/412, 9-10=-1559/250
BOT CHORD 1-16=-393/2264, 16-28=-400/2279, 28-29=-400/2279, 15-29=-400/2279, 15-30=-921/5498, 30-31=-921/5498, 31-32=-921/5498, 14-32=-921/5498, 14-33=-755/4763, 13-33=-755/4763, 13-34=-755/4763, 34-35=-755/4763, 12-35=-755/4763, 11-12=-759/4745
WEBS 3-15=-554/3391, 4-15=-912/244, 4-14=-111/770, 6-14=-565/190, 7-14=-281/1536, 7-11=-2388/397, 9-11=-440/2922

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; 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) All plates are MT20 plates unless otherwise indicated.
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 100 lb uplift at joint(s) except (jt=lb) 1=240, 10=244.
10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) 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

2/16/24

Continued on page 2

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LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
      Vert: 1-3=-60, 3-9=-60, 10-17=-20
   Concentrated Loads (lb)
      Vert: 3=-42(F) 5=-42(F) 16=-11(F) 21=-42(F) 22=-42(F) 23=-42(F) 24=-42(F) 25=-42(F) 26=-42(F) 27=-48(F) 28=-11(F) 29=-11(F) 30=-11(F) 31=-11(F) 32=-11(F) 33=-11(F) 34=-11(F) 35=-16(F)

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R10	Roof Special	1	1	Job Reference (optional) **# 45442**

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4-2-0	12-1-12	20-1-8	23-8-0	27-1-8	29-4-8
4-2-0	7-11-12	7-11-12	3-6-8	3-5-8	2-3-0

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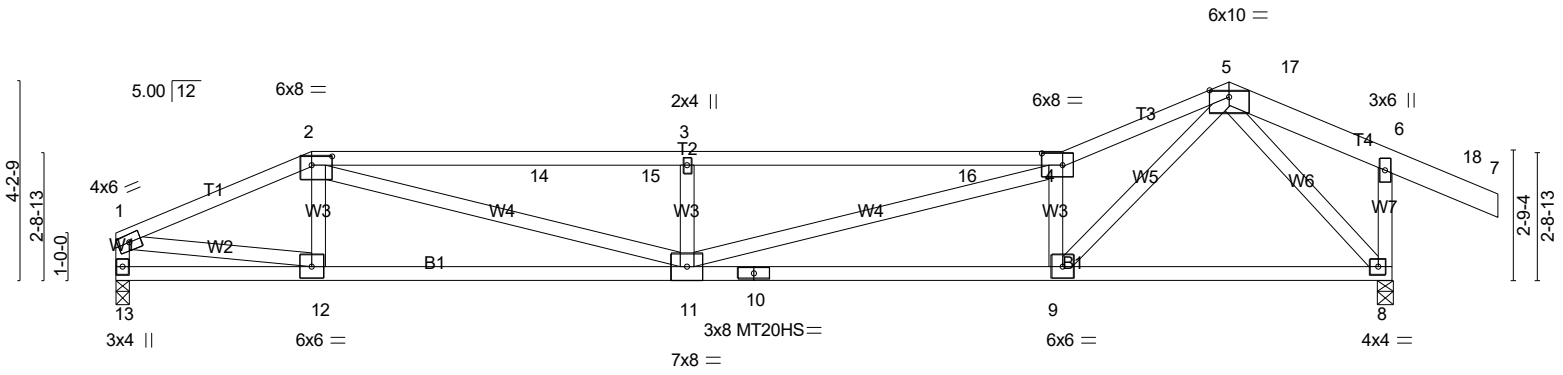

4-2-0	12-1-12	20-1-8	27-1-8
4-2-0	7-11-12	7-11-12	7-0-0

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

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	0.92	Vert(LL)	-0.32	9-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.54	9-11	>601	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.07	8	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 149 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
T2: 2x4 SP SS, T4: 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
W5: 2x4 SP No.2

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) 13=1067/0-3-8 (min. 0-1-8), 8=1224/0-3-8 (min. 0-1-8)
Max Horz 13=64(LC 13)
Max Uplift13=-187(LC 14), 8=-162(LC 14)
Max Grav 13=1274(LC 41), 8=1292(LC 46)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2237/309, 2-14=-4143/568, 14-15=-4143/568, 3-15=-4143/568, 3-16=-4143/568, 4-16=-4143/568, 4-5=-3259/480, 6-8=-461/223, 1-13=-1240/197
BOT CHORD 11-12=-270/2042, 10-11=-352/2852, 9-10=-352/2852, 8-9=-95/881
WEBS 2-11=-281/2197, 3-11=-885/220, 4-11=-191/1350, 4-9=-2069/375, 5-9=-407/3051, 5-8=-1308/190, 1-12=-225/2004

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) 0-1-12 to 4-2-0, Exterior(2R) 4-2-0 to 8-11-10, Interior(1) 8-11-10 to 20-1-8, Exterior(2R) 20-1-8 to 24-6-14, Exterior(2E) 24-6-14 to 29-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; 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 MT20 plates 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=187 , 8=162.
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

2/16/2024

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 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R11	Roof Special	1	1	# 45442
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:15:38 2024 Page 1
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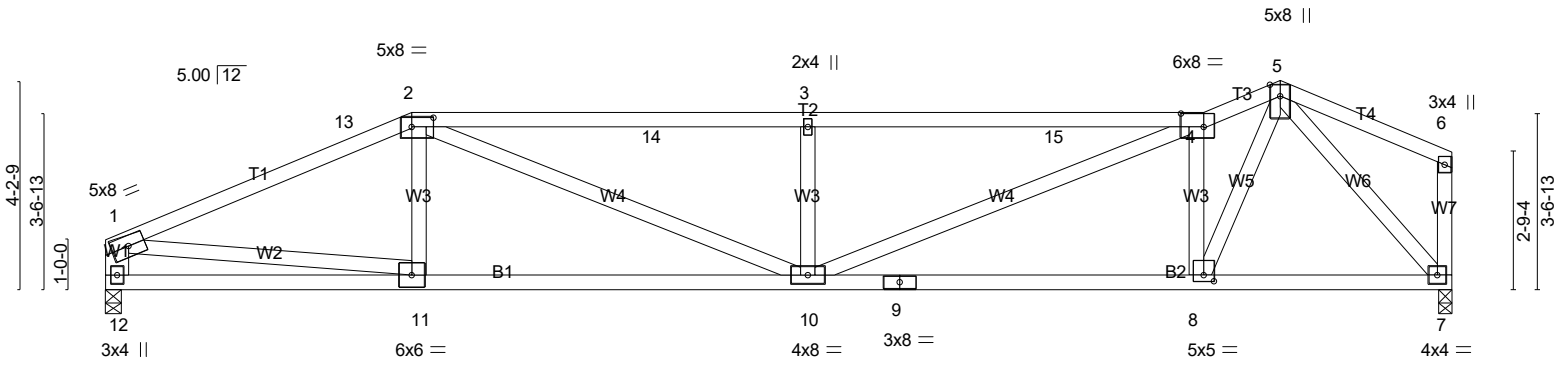
6-2-0	14-1-12	22-1-8	23-8-0	27-1-8
6-2-0	7-11-12	7-11-12	1-6-8	3-5-8

Scale = 1:46.4



6-2-0	14-1-12	22-1-8	27-1-8
6-2-0	7-11-12	7-11-12	5-0-0

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

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	0.67	Vert(LL)	-0.19	10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.33	10-11	>960	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.06	7	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS							Weight: 146 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
T2: 2x4 SP SS
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
W1: 2x6 SP No.2

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

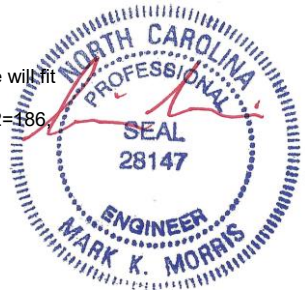
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 12=1070/0-3-8 (min. 0-1-8), 7=1070/0-3-8 (min. 0-1-8)
Max Horz 12=87(LC 11)
Max Uplift12=-186(LC 14), 7=-151(LC 14)
Max Grav 12=1199(LC 40), 7=1241(LC 40)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-13=-2175/303, 2-13=-2109/315, 2-14=-3134/443, 3-14=-3134/443, 3-15=-3134/443, 4-15=-3134/443, 4-5=-2028/305, 1-12=-1137/211
BOT CHORD 11-12=-103/402, 10-11=-271/1975, 9-10=-195/1743, 8-9=-195/1743, 7-8=-96/984
WEBS 2-10=-162/1254, 3-10=-887/219, 4-10=-217/1504, 4-8=-1811/332, 5-8=-286/2119, 5-7=-1484/178, 1-11=-177/1804

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) 0-2-12 to 5-0-6, Exterior(2R) 5-0-6 to 10-11-10, Interior(1) 10-11-10 to 22-1-8, Exterior(2R) 22-1-8 to 23-8-0, Exterior(2E) 23-8-0 to 26-11-12 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=186, 7=151.
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



2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R12	Hip	1	1	# 45442
					Job Reference (optional)

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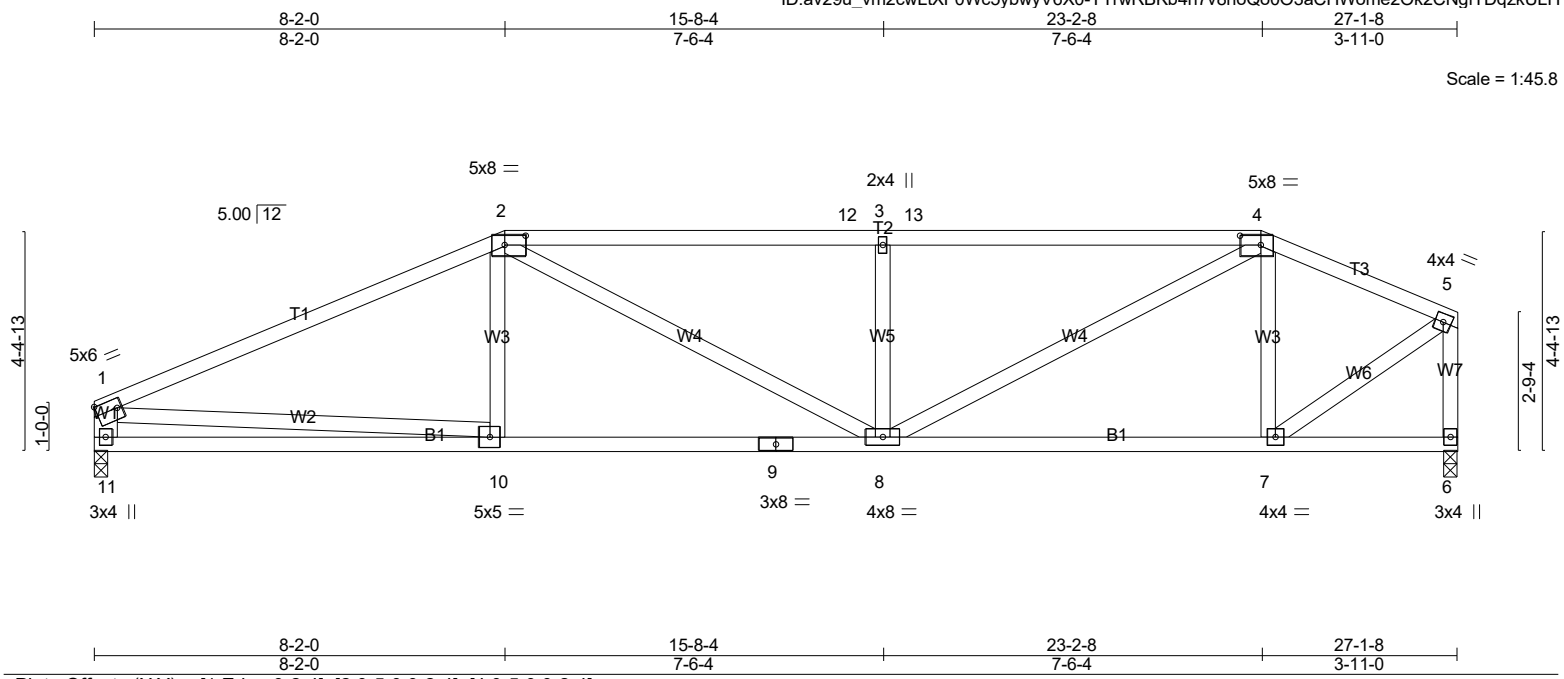

Plate Offsets (X,Y)-- [1:Edge,0-2-4], [2:0-5-0,0-2-4], [4:0-5-0,0-2-4]

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	0.99	Vert(LL)	-0.13	8-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.25	8-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 146 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
T1: 2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
W1: 2x6 SP No.2

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) 11=1070/0-3-8 (min. 0-1-8), 6=1070/0-3-8 (min. 0-1-8)
Max Horz 11=86(LC 13)
Max Uplift 11=-124(LC 10), 6=-149(LC 11)
Max Grav 11=1157(LC 38), 6=1267(LC 37)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2019/278, 2-12=-2378/334, 3-12=-2378/334, 3-13=-2378/334, 4-13=-2378/334, 4-5=-1210/185, 5-6=-1250/172, 1-11=-1081/200
BOT CHORD 10-11=-157/695, 9-10=-236/1821, 8-9=-236/1821, 7-8=-152/1138
WEBS 1-10=-118/1514, 2-8=-81/635, 3-8=-828/202, 4-8=-177/1413, 4-7=-648/155, 5-7=-153/1362

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) 0-2-12 to 5-0-6, Exterior(2R) 5-0-6 to 14-11-7, Interior(1) 14-11-7 to 16-5-1, Exterior(2R) 16-5-1 to 23-2-8, Exterior(2E) 23-2-8 to 26-11-12 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=124, 6=149.
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

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	R13	Hip Girder	1	3	Job Reference (optional) **# 45442**

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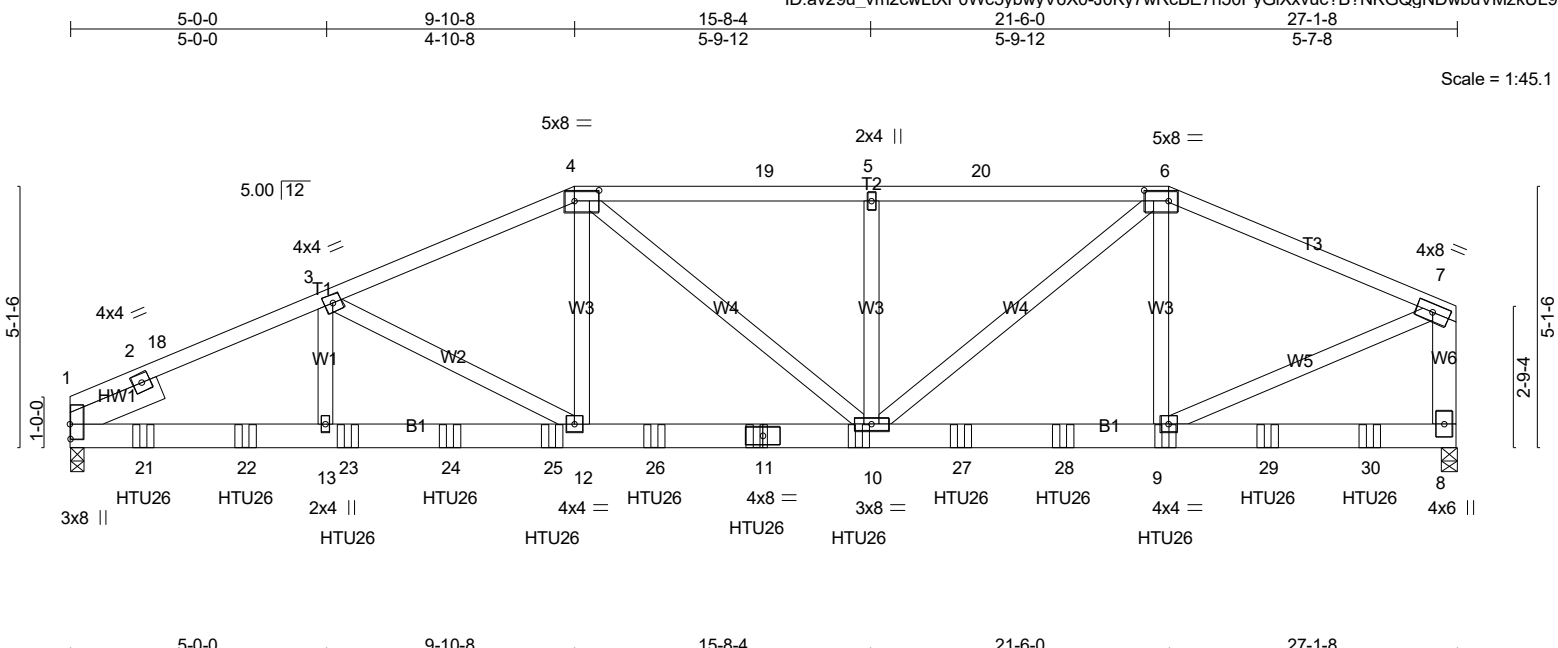


Plate Offsets (X,Y)-- [1:0-3-8,0-0-2], [4:0-5-12,0-2-8], [6:0-5-12,0-2-8]

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	0.46	Vert(LL)	0.07	12-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.10	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.33	Horz(CT)	-0.01	8	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-MSH							Weight: 526 lb	FT = 20%
BCDL	10.0											

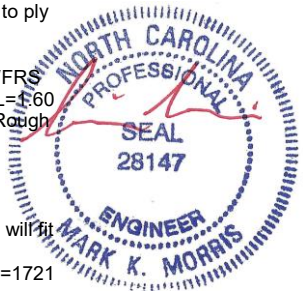
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
W6: 2x6 SP No.2
SLIDER Left 2x6 SP No.2 -° 1-11-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 8-9.

REACTIONS. (lb/size) 1=595/0-3-8 (min. 0-1-8), 8=3286/0-3-8 (min. 0-1-8)
Max Horz 1=79(LC 11)
Max Uplift1=-1721(LC 79), 8=-1380(LC 9)
Max Grav 1=1446(LC 107), 8=3355(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1067/1547, 2-18=-2359/2776, 3-18=-2346/2803, 3-4=-2274/2333, 4-19=-2579/2029, 5-19=-2579/2029, 5-20=-2579/2029, 6-20=-2579/2029, 6-7=-2743/1420, 7-8=-2119/1112
BOT CHORD 1-21=-2535/2093, 21-22=-2535/2093, 13-22=-2535/2093, 13-23=-2535/2093, 23-24=-2535/2093, 24-25=-2535/2093, 12-25=-2535/2093, 12-26=-2177/2089, 11-26=-2177/2089, 10-11=-2177/2089, 10-27=-1294/2541, 27-28=-1294/2541, 9-28=-1294/2541, 9-29=-105/366, 29-30=-105/366, 8-30=-105/366
WEBS 3-13=-703/132, 3-12=-168/568, 4-12=-1312/363, 4-10=-181/884, 5-10=-669/163, 6-10=-1972/202, 6-9=-262/1374, 7-9=-1308/2493

NOTES-
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) 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; Lumber DOL=1.60 plate grip DOL=1.60
5) 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
6) Unbalanced snow loads have been considered for this design.
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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1721 , 8=1380.



2/16/2024

Continued on page 2

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NOTES-

11) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-5-4 from the left end to 25-5-4 to connect truss(es) R05 (1 ply 2x6 SP), R05A (1 ply 2x6 SP), R04 (1 ply 2x6 SP) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
      Vert: 1-4=-60, 4-6=-60, 6-7=-60, 8-14=-20
   Concentrated Loads (lb)
      Vert: 11=149(B) 10=149(B) 9=-1068(B) 21=144(B) 22=144(B) 23=144(B) 24=149(B) 25=149(B) 26=149(B) 27=149(B) 28=149(B) 29=-1068(B) 30=-1068(B)

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	SP01	Common Structural Gable	1	1	# 45442
					Job Reference (optional)

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Scale = 1:21.6

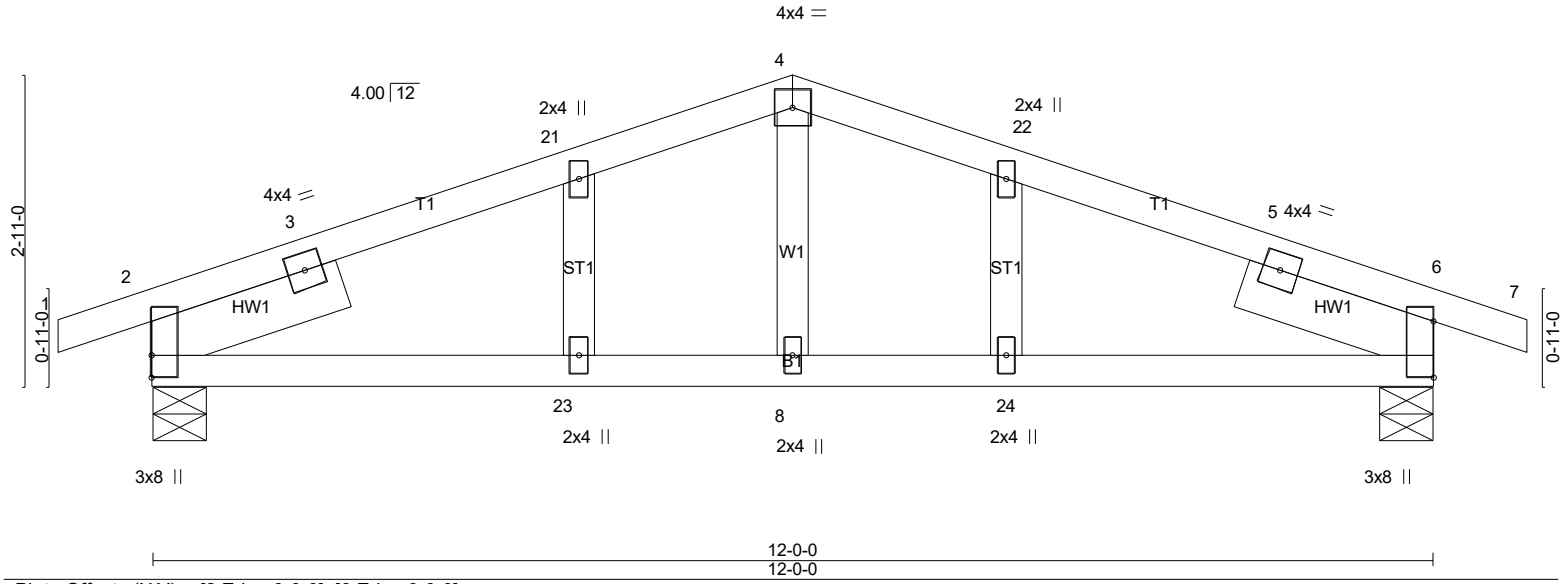


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [6:Edge,0-0-0]

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	8-19	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.06	8-19	>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: 57 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
SLIDER Left 2x6 SP No.2 -° 1-11-0, Right 2x6 SP No.2 -° 1-11-0

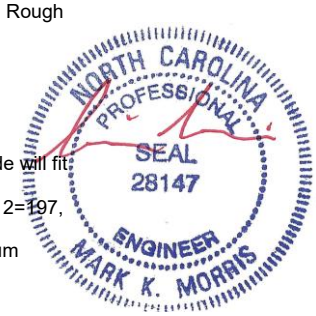
BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

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

REACTIONS. (lb/size) 2=533/0-6-0 (min. 0-1-8), 6=532/0-6-0 (min. 0-1-8)
Max Horz 2=-34(LC 15)
Max Uplift2=-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, 3-21=-648/918, 4-21=-620/925, 4-22=-620/925, 5-22=-648/918, 5-6=-187/278
BOT CHORD 2-23=-783/593, 8-23=-783/593, 8-24=-783/593, 6-24=-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) 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) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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.
10) 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.
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

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	SP02	Common	4	1	# 45442
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:15:51 2024 Page 1
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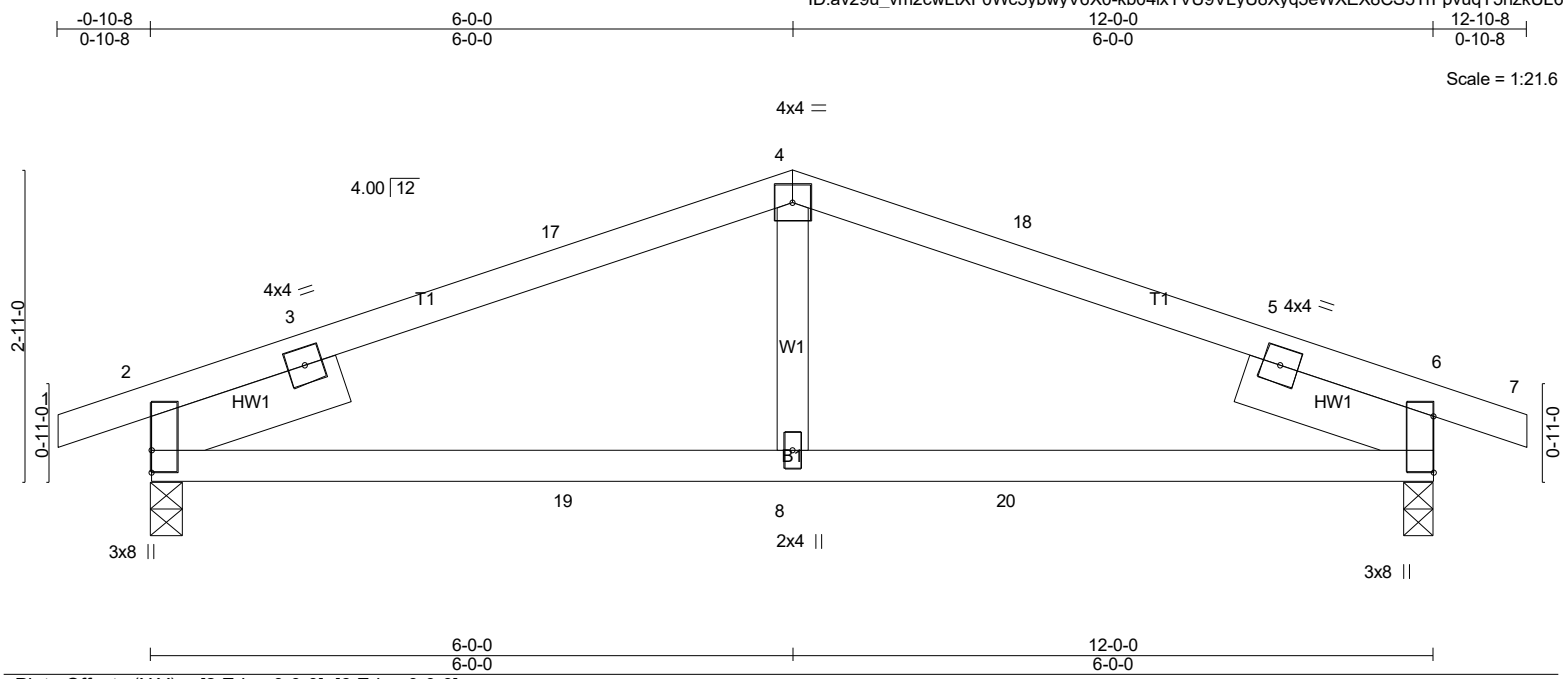

Plate Offsets (X,Y)-- [2:Edge,0-0-0], [6:Edge,0-0-0]

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=533/0-3-8 (min. 0-1-8), 6=532/0-3-8 (min. 0-1-8)
Max Horz 2=-34(LC 15)
Max Uplift2=-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

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	SP03	Common	1	1	# 45442
					Job Reference (optional)

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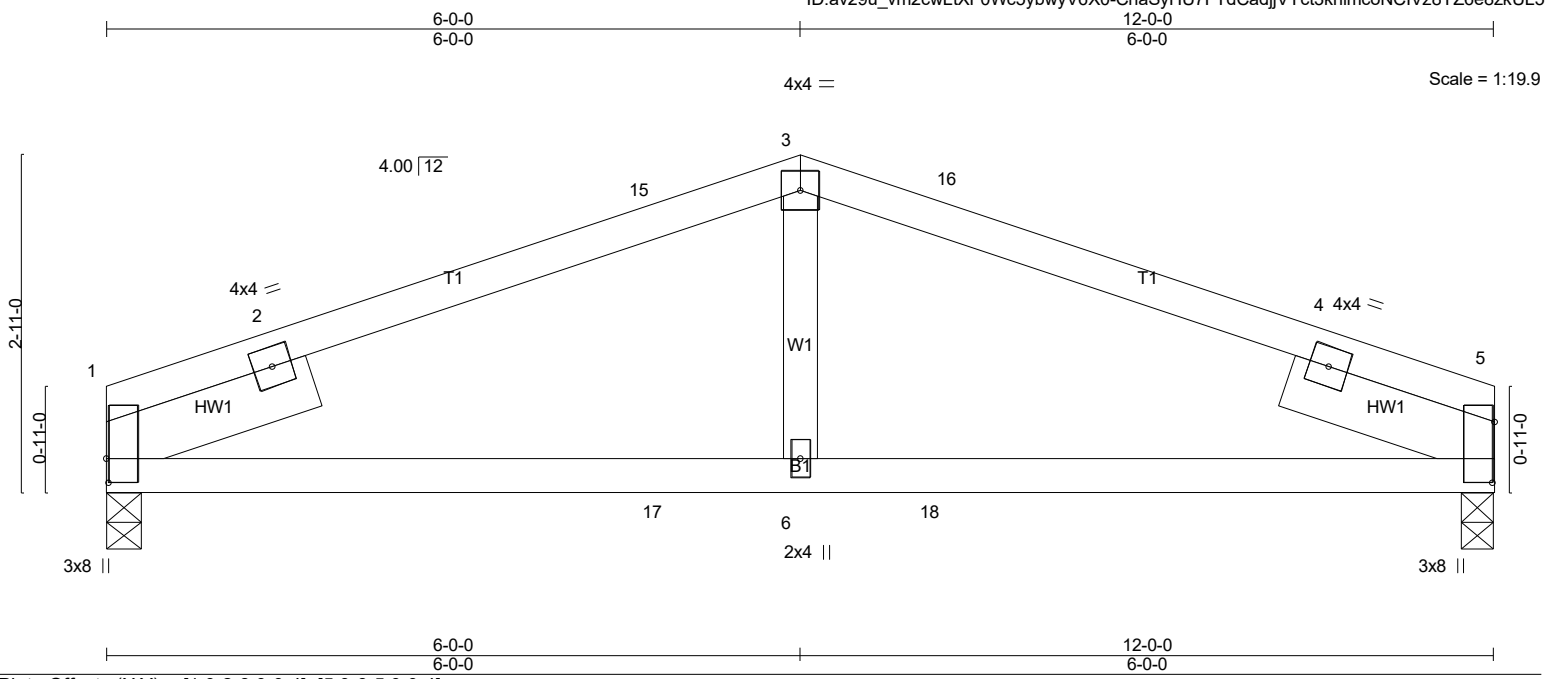

Plate Offsets (X,Y)-- [1:0-2-8,0-0-4], [5:0-6-5,0-0-4]

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 14)
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

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	V01	GABLE	1	1	# 45442
					Job Reference (optional)

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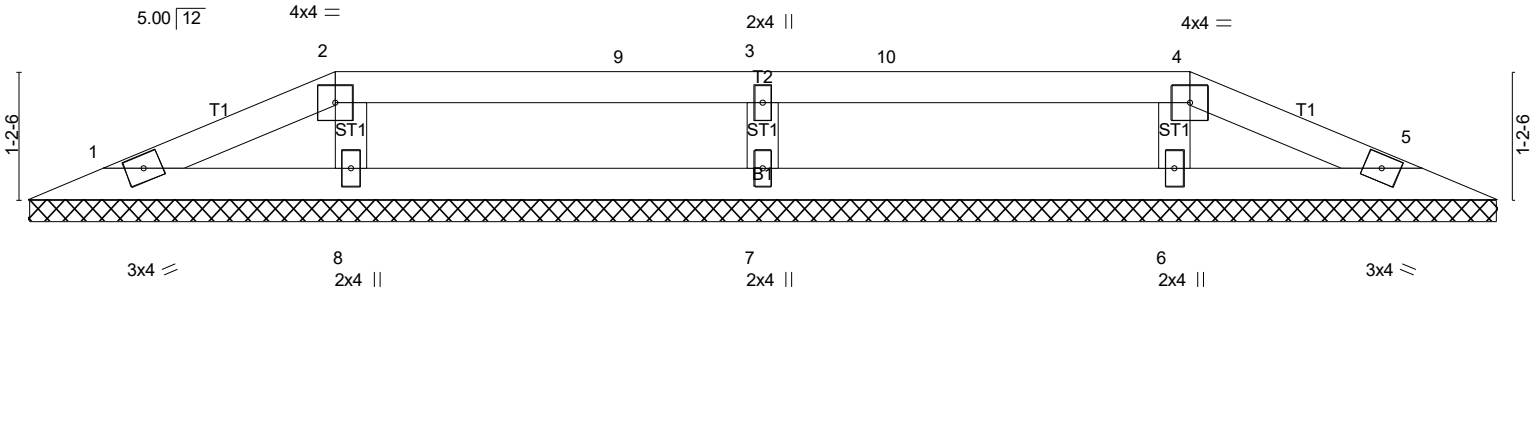
2-10-8 | 10-10-8 | 13-9-0
2-10-8 | 8-0-0 | 2-10-8

Scale = 1:21.6



13-9-0
13-9-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-S							Weight: 42 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 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 13-9-0.
(lb) - Max Horz 1=13(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=538(LC 37), 8=273(LC 37), 6=273(LC 37)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-7=-456/152

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) 0-8-12 to 2-10-8, Exterior(2R) 2-10-8 to 10-10-8, Exterior(2E) 10-10-8 to 13-0-4 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) 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 100 lb uplift at joint(s) 1, 5, 7, 8, 6.

LOAD CASE(S) Standard

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	V02	Valley	1	1	# 45442
					Job Reference (optional)

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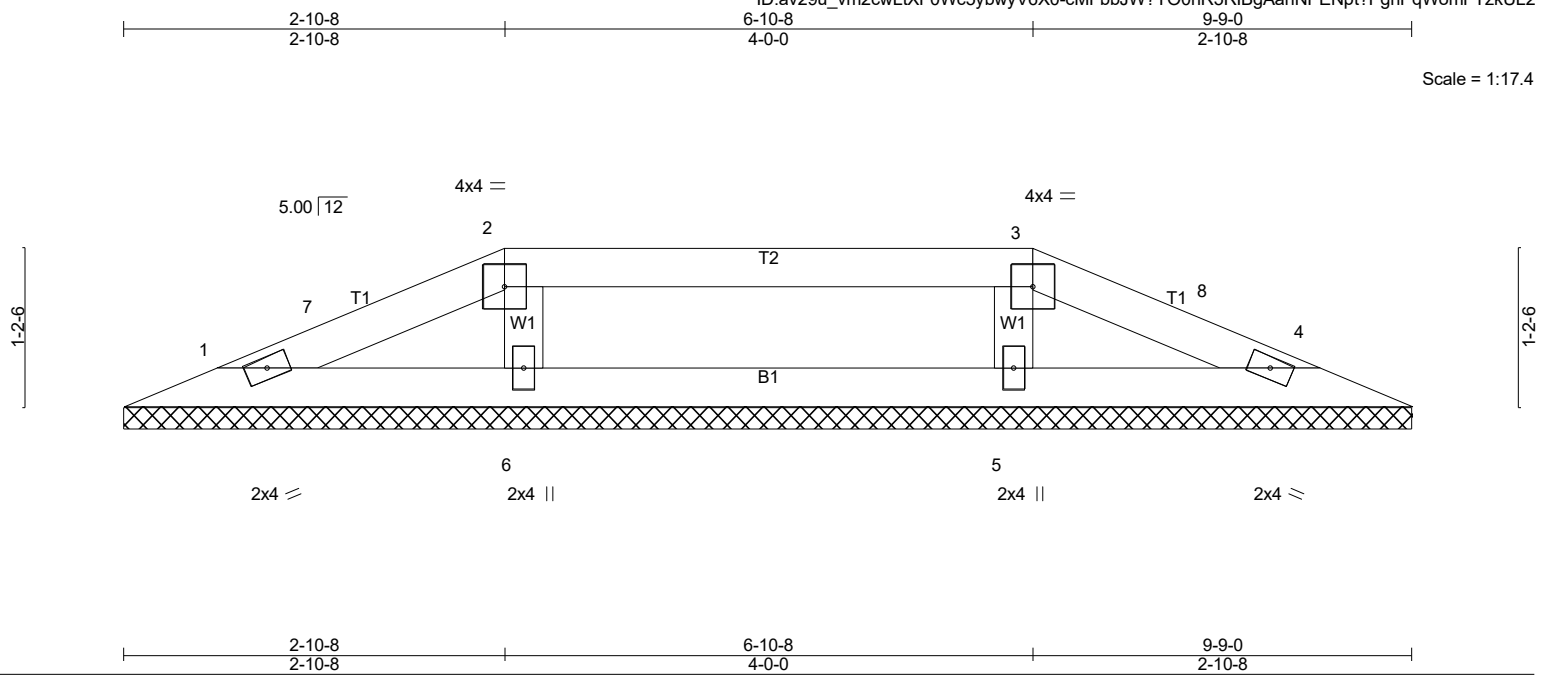

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-S							Weight: 29 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 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 9-9-0.
(lb) - Max Horz 1=13(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 4, 6, 5
Max Grav All reactions 250 lb or less at joint(s) 1, 4 except 6=314(LC 37), 5=314(LC 37)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-6=-251/125, 3-5=-251/125

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) 0-8-12 to 2-10-8, Exterior(2R) 2-10-8 to 6-10-8, Exterior(2E) 6-10-8 to 9-0-4 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) 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 100 lb uplift at joint(s) 1, 4, 6, 5.

LOAD CASE(S) Standard

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	V03	Valley	1	1	# 45442
					Job Reference (optional)

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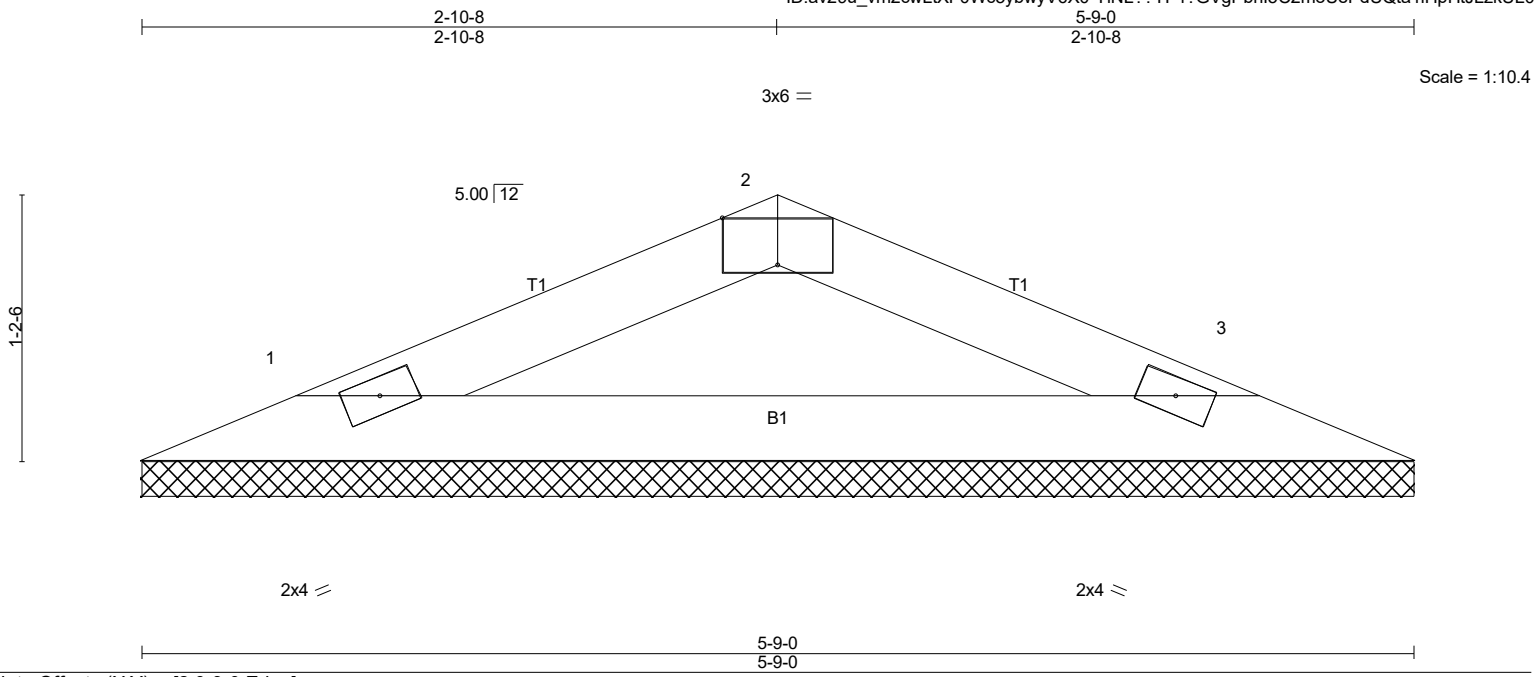

Plate Offsets (X,Y)-- [2:0-3-0,Edge]

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.40	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 5-9-0 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=172/5-9-0 (min. 0-1-8), 3=172/5-9-0 (min. 0-1-8)
Max Horz 1=13(LC 18)
Max Uplift 1=-22(LC 14), 3=-22(LC 15)
Max Grav 1=189(LC 20), 3=189(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

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	V04	GABLE	1	1	# 45442
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:15:57 2024 Page 1
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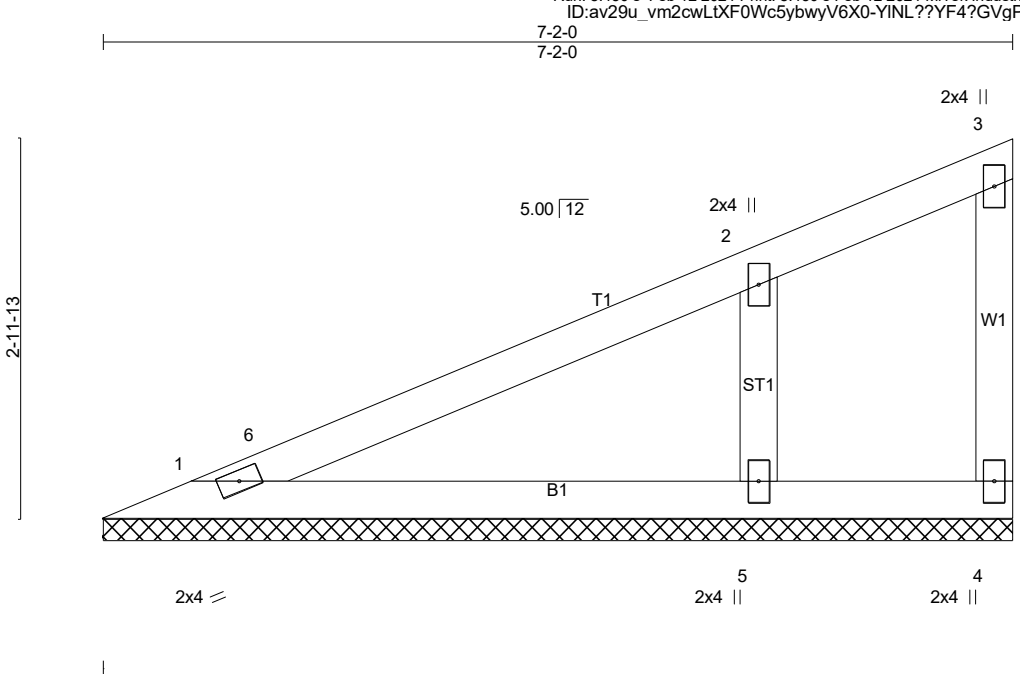

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	-0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 27 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 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=144/7-2-0 (min. 0-1-8), 4=-5/7-2-0 (min. 0-1-8), 5=365/7-2-0 (min. 0-1-8)
Max Horz 1=97(LC 11)
Max Uplift1=-8(LC 14), 4=-15(LC 13), 5=-93(LC 14)
Max Grav 1=181(LC 20), 4=10(LC 10), 5=500(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-408/249

NOTES-

1) 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) Gable requires continuous bottom chord bearing.
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) 1, 4, 5.

LOAD CASE(S) Standard

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	V05	Valley	1	1	# 45442
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:15:58 2024 Page 1
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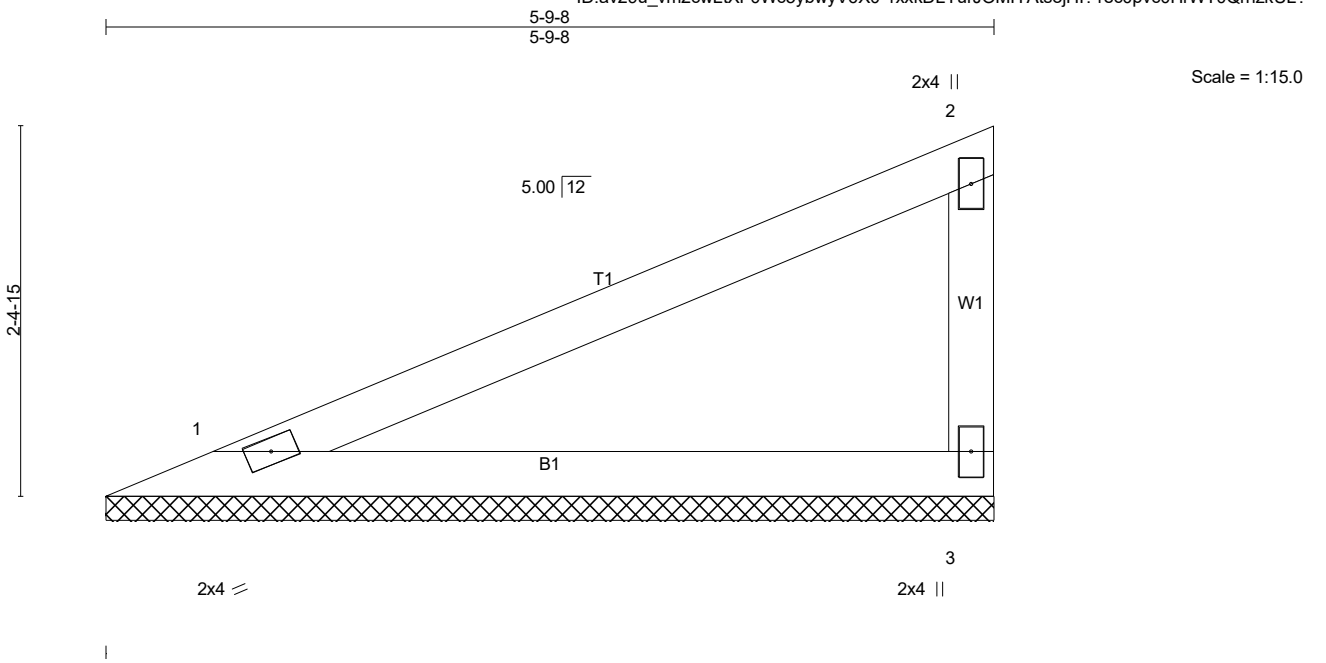

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 19 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 5-9-8 oc purlins, except end verticals.
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=197/5-9-8 (min. 0-1-8), 3=197/5-9-8 (min. 0-1-8)
Max Horz 1=75(LC 11)
Max Uplift1=-28(LC 14), 3=-43(LC 14)
Max Grav 1=271(LC 20), 3=271(LC 20)

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

NOTES-
1) 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) Gable requires continuous bottom chord bearing.
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) 1, 3.

LOAD CASE(S) Standard

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	V06	Valley	1	1	# 45442
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 16 19:15:59 2024 Page 1
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3-9-8
3-9-8

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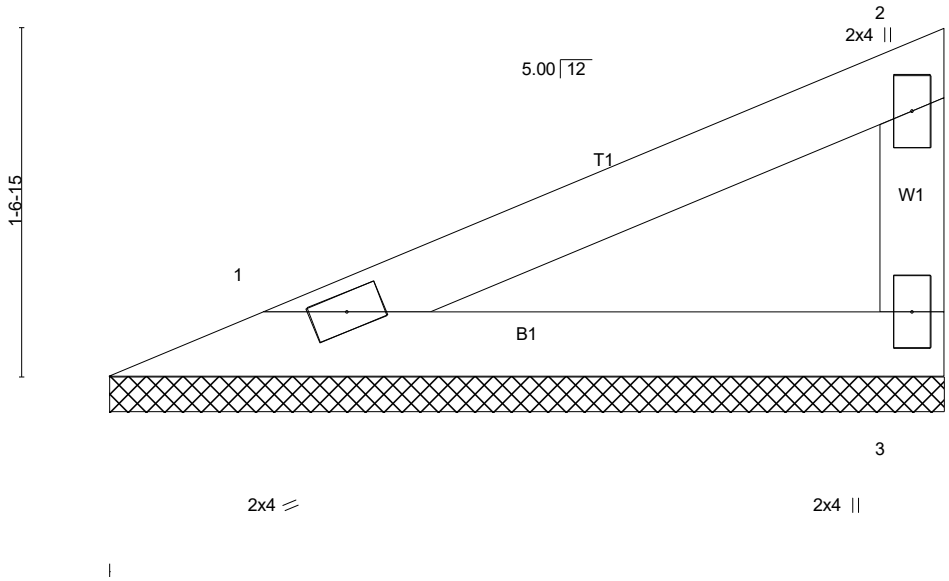

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 12 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 3-9-8 oc purlins, except end verticals.
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=117/3-9-8 (min. 0-1-8), 3=117/3-9-8 (min. 0-1-8)
Max Horz 1=45(LC 11)
Max Uplift1=-17(LC 14), 3=-25(LC 14)
Max Grav 1=151(LC 20), 3=151(LC 20)

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

NOTES-
1) 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) Gable requires continuous bottom chord bearing.
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) 1, 3.

LOAD CASE(S) Standard

2/16/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 36 PROVIDENCE CREEK | 122 PROVIDENCE CREEK DRIVE FUQUAY-VARI
24-1269-R01	VSP01	GABLE	1	1	Job Reference (optional) **# 45442**

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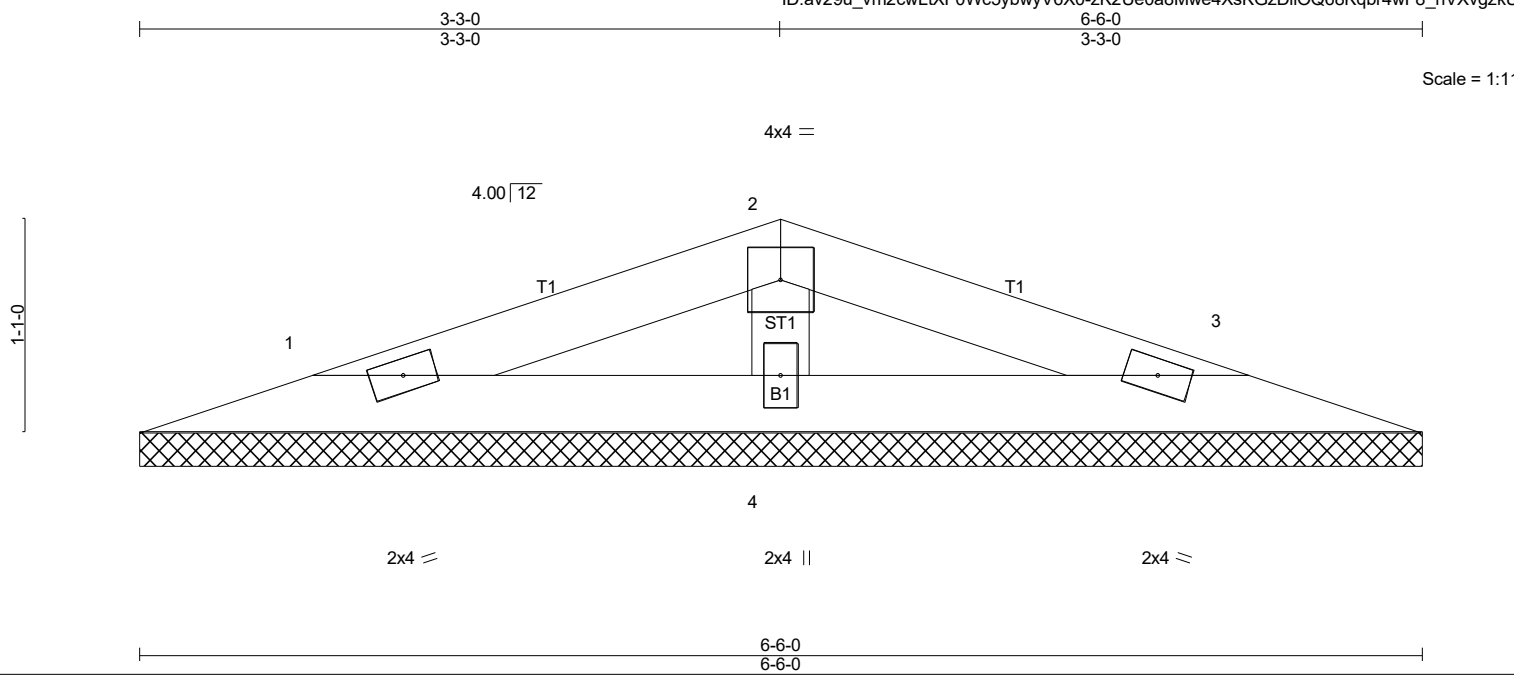

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
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
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=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 15)
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.
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LOAD CASE(S) Standard

2/16/2024

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