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 #: 50803
JOB: 24-5444-R01
JOB NAME: LOT 0.0108 BLAKE POND
Wind Code: ASCE7-16
Wind Speed: Vult= 120mph
Exposure Category: B
Mean Roof Height (feet): 23
These truss designs comply with IRC 2015 as well as IRC 2018.
42 Truss Design(s)

Trusses:
PB01, R01, R02, R03, R04, R05, R06, R07, R08, R09, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R20A, R20B, R20C, R21, R22, R23, R24, R25, VT01, VT02, VT03, VT04, VT05, VT06, VT07, VT08, VT09, VT10, VT11, VT12, VT13

7/24/2024
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 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 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	PB01	Piggyback	17	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:11 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-7T8zM5YHe9F6z7HPiiAolPt3XU1o5tdocpCnvLyuabg
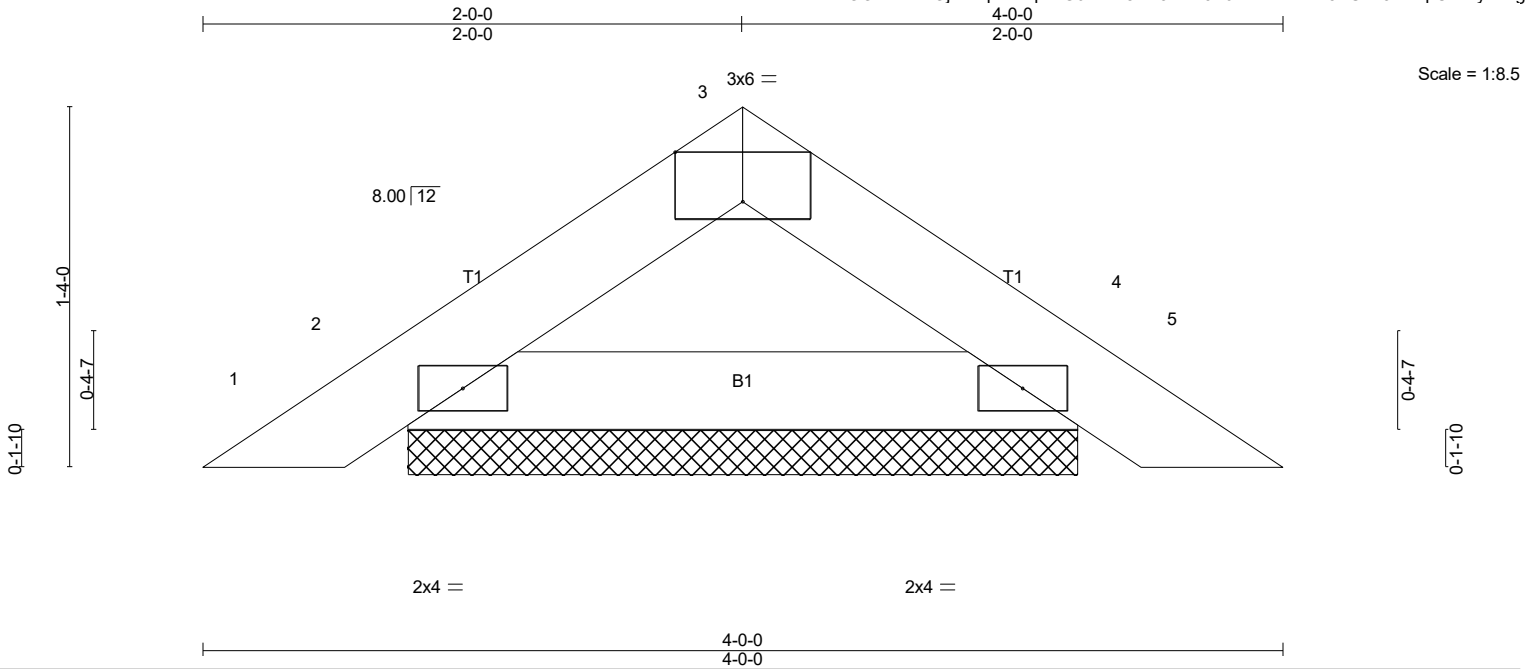
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	0.00	4	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	4	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 11 lb	FT = 20%
BCDL	10.0											

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

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 4-0-0 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.
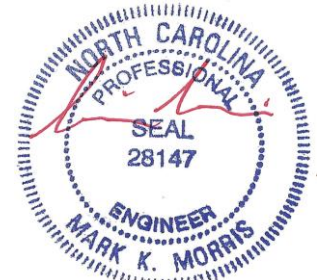
REACTIONS. (lb/size)   2=129/2-5-12 (min. 0-1-8), 4=129/2-5-12 (min. 0-1-8)
Max Horz 2=-23(LC 10)
Max Uplift2=-16(LC 12), 4=-16(LC 13)

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

NOTES-   (10)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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) 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) 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 16 lb uplift at joint 2 and 16 lb uplift at joint 4.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
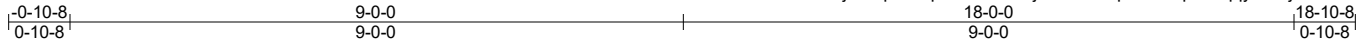
LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R01	GABLE	1	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:13 2024 Page 1
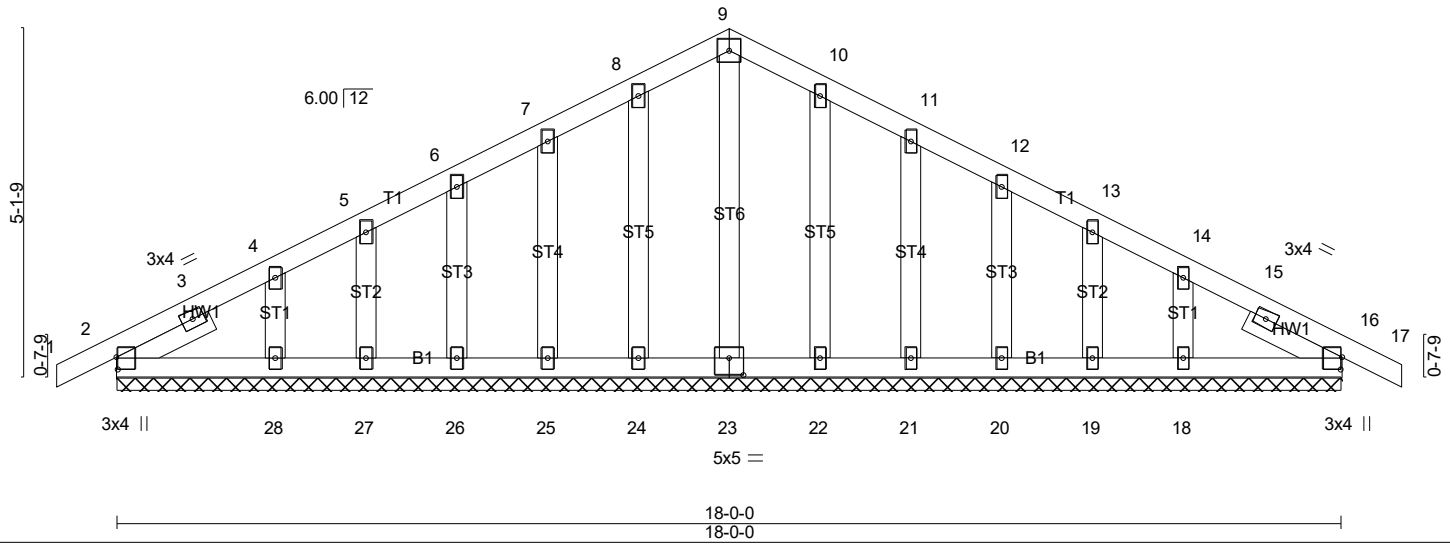ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-4sGjnmaXAnVpDQRoq6CGqqyOFHjlZnO437hu_Dyuabe

Scale = 1:33.8

Plate Offsets (X,Y)-- [2:0-2-3,0-0-4], [16:0-2-3,0-0-4], [23:0-2-8,0-3-0]

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	0.08	Vert(LL)	-0.00	16	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	16	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	16	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 110 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.3
OTHERS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -° 1-6-2, Right 2x4 SP No.3 -° 1-6-2
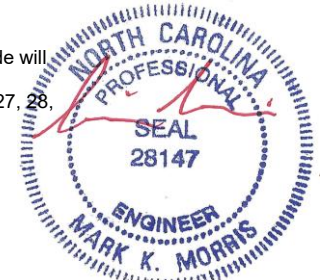
BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   All bearings 18-0-0.
(lb) -   Max Horz 2=-65(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18, 16
Max Grav All reactions 250 lb or less at joint(s) 2, 23, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18, 16

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

NOTES-   (13)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-8-0, Corner(3R) 3-8-0 to 14-4-0, Corner(3E) 14-4-0 to 18-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 1-4-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18, 16.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R02	COMMON	7	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:15 2024 Page 1
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Dimensions along top: 4-7-12 | 9-0-0 | 13-4-4 | 18-0-0 | 18-10-8
4-7-12 | 4-4-4 | 4-4-4 | 4-7-12 | 0-10-8

Scale = 1:32.5

6.00 ⌐12

Bottom dimensions: 9-0-0 | 18-0-0 / 9-0-0 | 9-0-0

Plate Offsets (X,Y)-- [1:0-2-12,0-2-12], [7:0-2-15,0-2-12], [9:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.10	1-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.20	1-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.03	7	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 87 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 2x4 SP No.3 -° 2-6-3, Right 2x4 SP No.3 -° 2-6-3

REACTIONS. (lb/size) 1=719/0-3-8 (min. 0-1-8), 7=774/0-3-8 (min. 0-1-8)
   Max Horz 1=-67(LC 15)
   Max Uplift1=-56(LC 14), 7=-71(LC 15)
   Max Grav 1=766(LC 21), 7=821(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1242/253, 2-10=-1131/270, 3-10=-1125/273, 3-11=-892/189, 4-11=-880/209,
           4-5=-891/209, 5-12=-1120/273, 6-12=-1126/270, 6-7=-1234/254
BOT CHORD 1-9=-172/1042, 7-9=-172/1036
WEBS   4-9=-57/485, 5-9=-377/151, 3-9=-383/151

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 5-3-3 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.

NOTES-   (9)
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=23ft; 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 14-0-14, Exterior(2E) 14-0-14 to 18-10-8 zone;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) 1, 7.
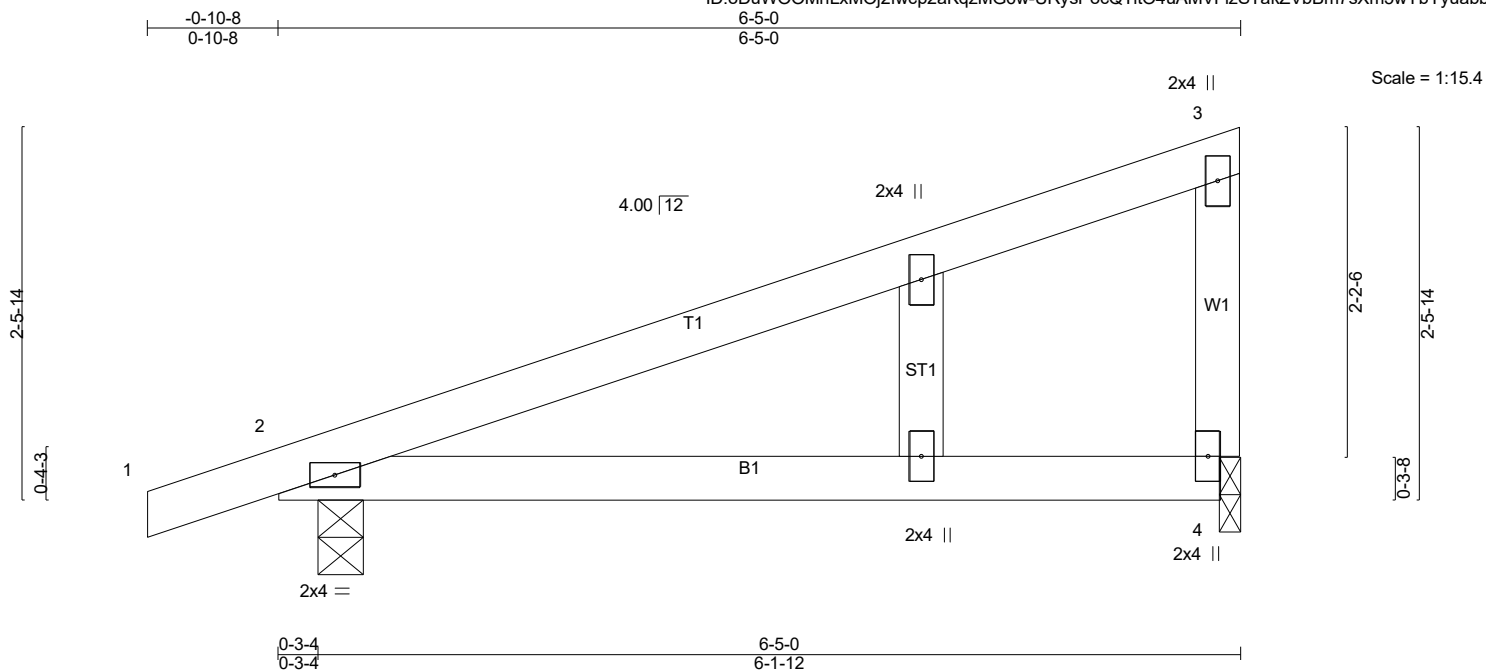
LOAD CASE(S) Standard

[North Carolina Professional Engineer seal: MARK K. MORRIS, SEAL 28147]

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R03	Monopitch Structural Gable	1	1	Job Reference (optional)	# 50803

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:16 2024 Page 1
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-0-10-8 0-10-8 | 6-5-0
6-5-0

Scale = 1:15.4

4.00 ⟌12

2x4 ||

2x4 ||

2x4 ||

2x4 =

2x4 ||

2x4 ||

T1 B1 ST1 W1

2-5-14 2-2-6 2-5-14

0-4-3 0-3-8

0-3-4 | 6-5-0
0-3-4 | 6-1-12

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	0.78	Vert(LL)	0.18	2-4	>408	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.17	2-4	>435	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 26 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.2
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)   2=311/0-3-8 (min. 0-1-8), 4=240/0-1-8 (min. 0-1-8)
Max Horz 2=75(LC 10)
Max Uplift2=-99(LC 10), 4=-85(LC 10)
Max Grav 2=395(LC 21), 4=323(LC 21)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-4=-262/148

NOTES-   (12)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left exposed ; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; 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 studs spaced at 2-0-0 oc.
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) Bearing at joint(s) 4 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 at joint(s) 4.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
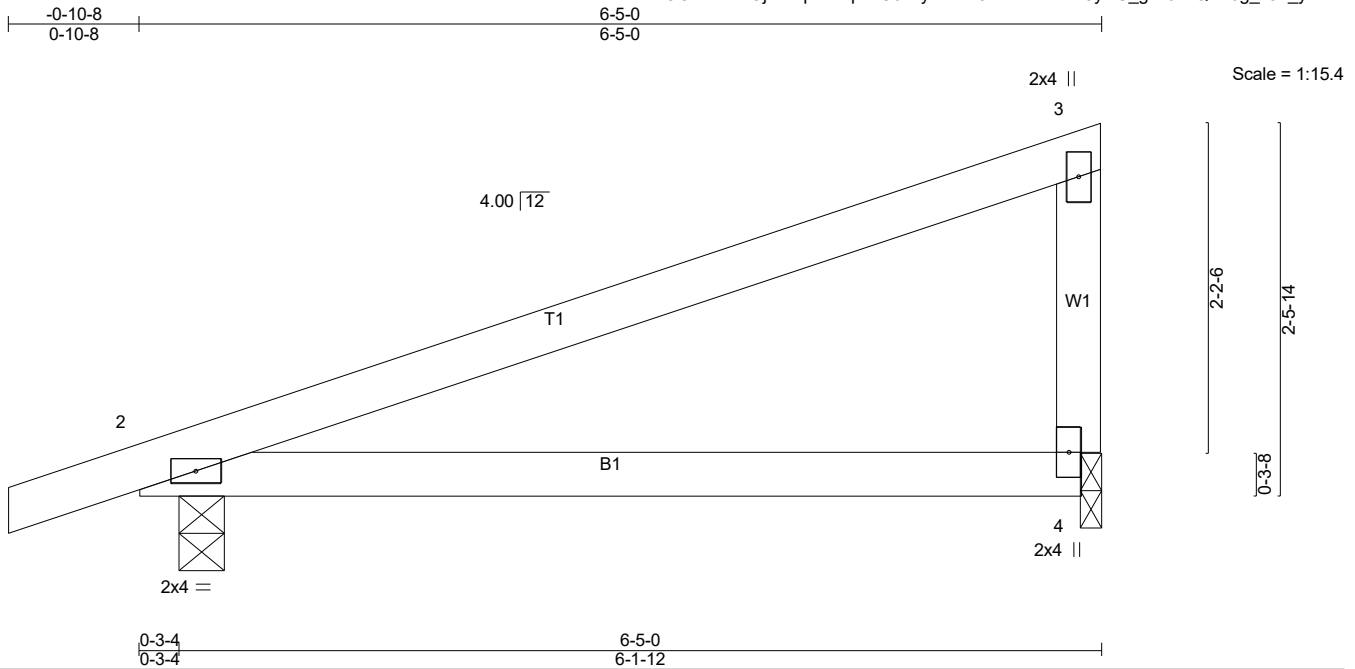
LOAD CASE(S) Standard

NORTH CAROLINA
PROFESSIONAL
SEAL
28147
ENGINEER
MARK K. MORRIS

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R04	Monopitch	5	1	**# 50803**
					Job Reference (optional)

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Scale = 1:15.4

4.00 ⌐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	0.78	Vert(LL)	0.18	2-4	>408	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.17	2-4	>435	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 24 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS   2x4 SP No.3

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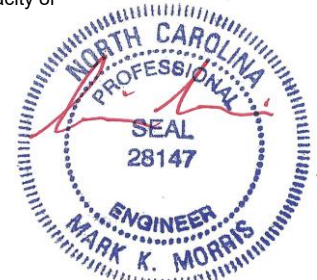BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. (lb/size) 2=311/0-3-8 (min. 0-1-8), 4=240/0-1-8 (min. 0-1-8)
Max Horz 2=75(LC 10)
Max Uplift2=-99(LC 10), 4=-85(LC 10)
Max Grav 2=395(LC 21), 4=323(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-4=-262/148

NOTES- (10)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
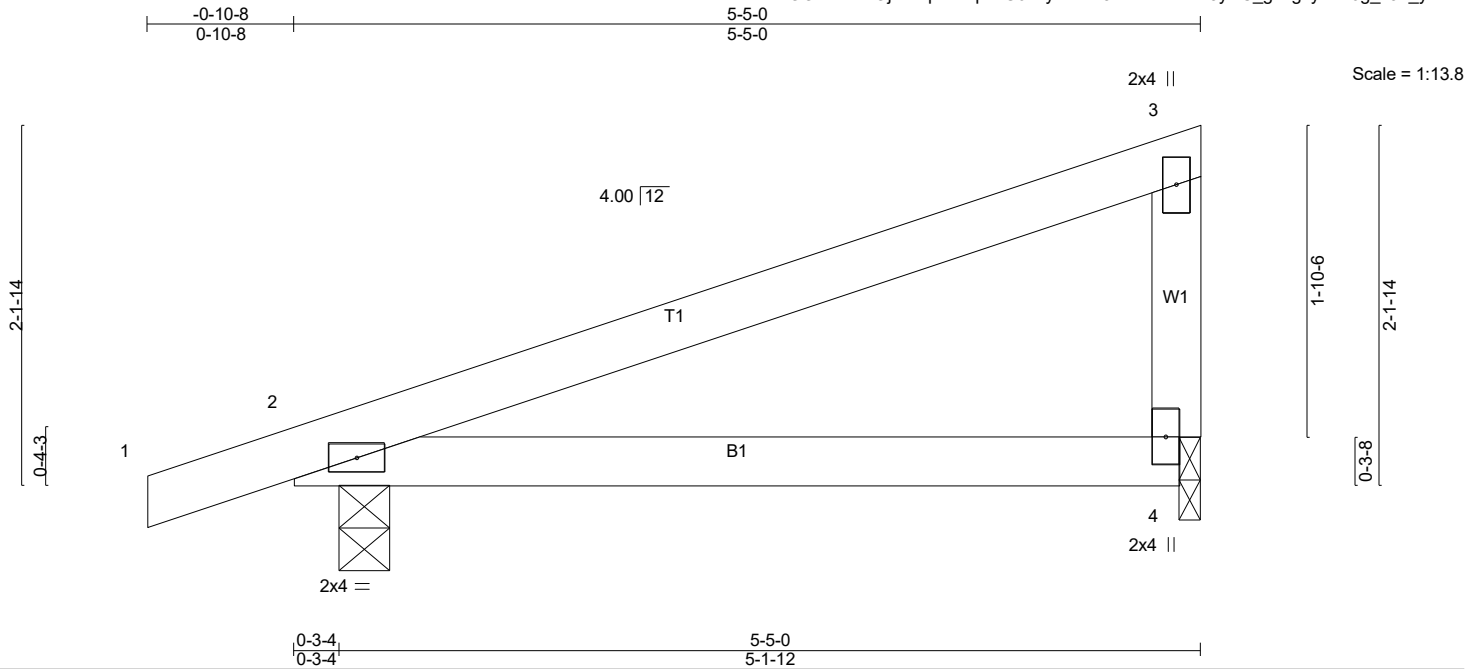
LOAD CASE(S) Standard

North Carolina Professional Seal 28147 Engineer Mark K. Morris

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R05	Monopitch	4	1	# 50803
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:17 2024 Page 1
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-0-10-8 | 5-5-0
0-10-8 | 5-5-0

2x4 ||
3

4.00 ‾12‾

2-1-14

T1

1-10-6

W1

2-1-14

2

0-4-3

1

B1

0-3-8

4

2x4 ||

2x4 =

Scale = 1:13.8

0-3-4 | 5-5-0
0-3-4 | 5-1-12

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	0.69	Vert(LL)	0.09	2-4	>696	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.08	2-4	>743	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 20 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 5-5-0 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) 2=272/0-3-8 (min. 0-1-8), 4=199/0-1-8 (min. 0-1-8)
Max Horz 2=65(LC 10)
Max Uplift2=-89(LC 10), 4=-71(LC 10)
Max Grav 2=373(LC 21), 4=266(LC 21)

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

NOTES-   (10)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
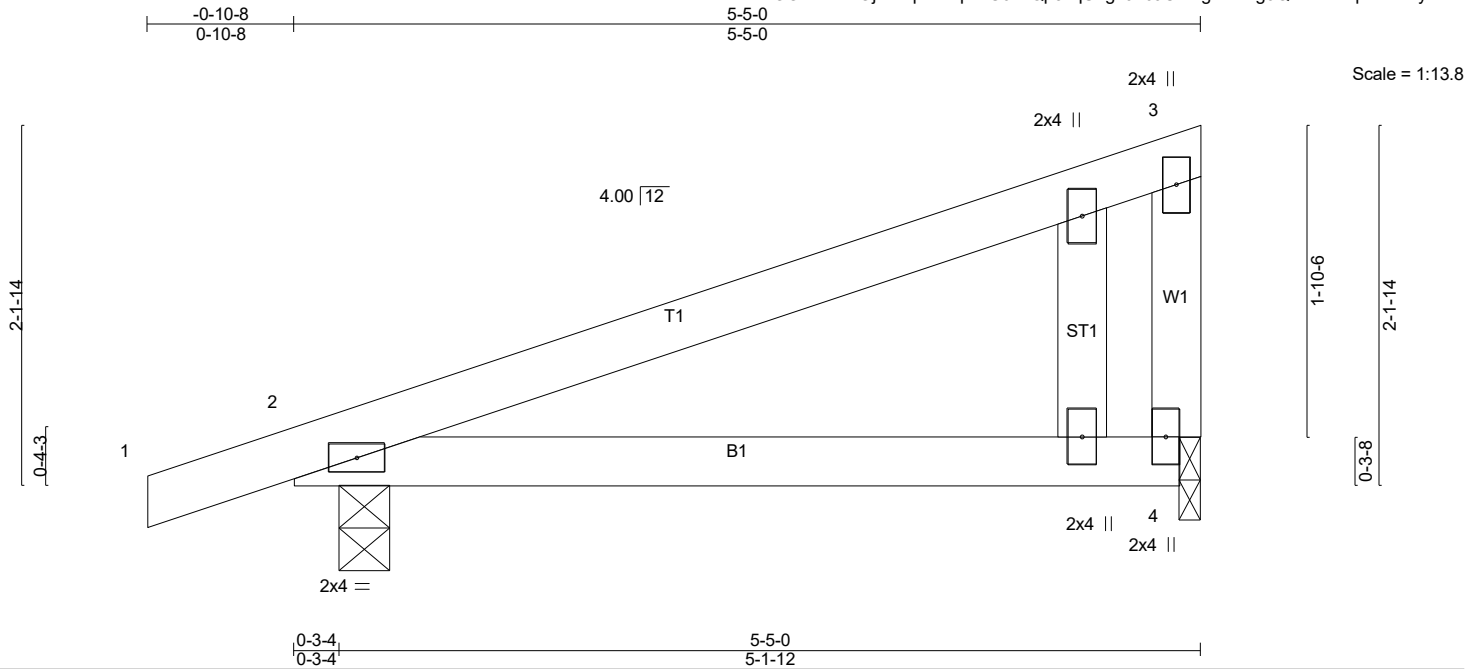
LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 28147 ENGINEER MARK K. MORRIS

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R06	Monopitch Structural Gable	1	1	**# 50803**
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:18 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-Qp3cqUeg?J76JCKldgoRXug6QlLxE1MqDPPffRyuabZ

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	0.69	Vert(LL)	-0.04	2-4	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.08	2-4	>743	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 22 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-5-0 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) 2=272/0-3-8 (min. 0-1-8), 4=199/0-1-8 (min. 0-1-8)
Max Horz 2=65(LC 10)
Max Uplift2=-52(LC 10), 4=-35(LC 14)
Max Grav 2=373(LC 21), 4=266(LC 21)

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

NOTES- (12)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; 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 studs spaced at 2-0-0 oc.
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) Bearing at joint(s) 4 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 at joint(s) 4.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R07	Monopitch Supported Gable	1	1	**# 50803**
					Job Reference (optional)

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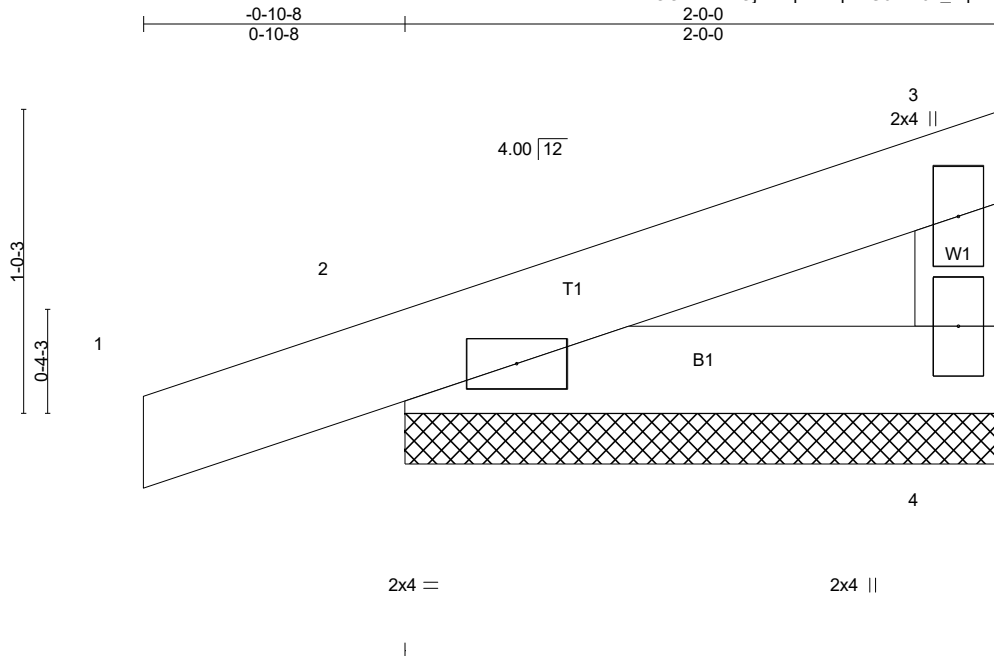
Scale = 1:7.7

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	1	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	1	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 8 lb	FT = 0%
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 2-0-0 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.
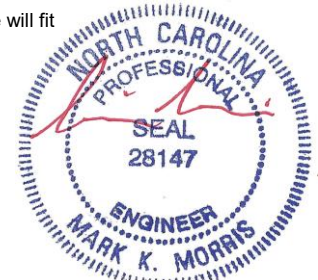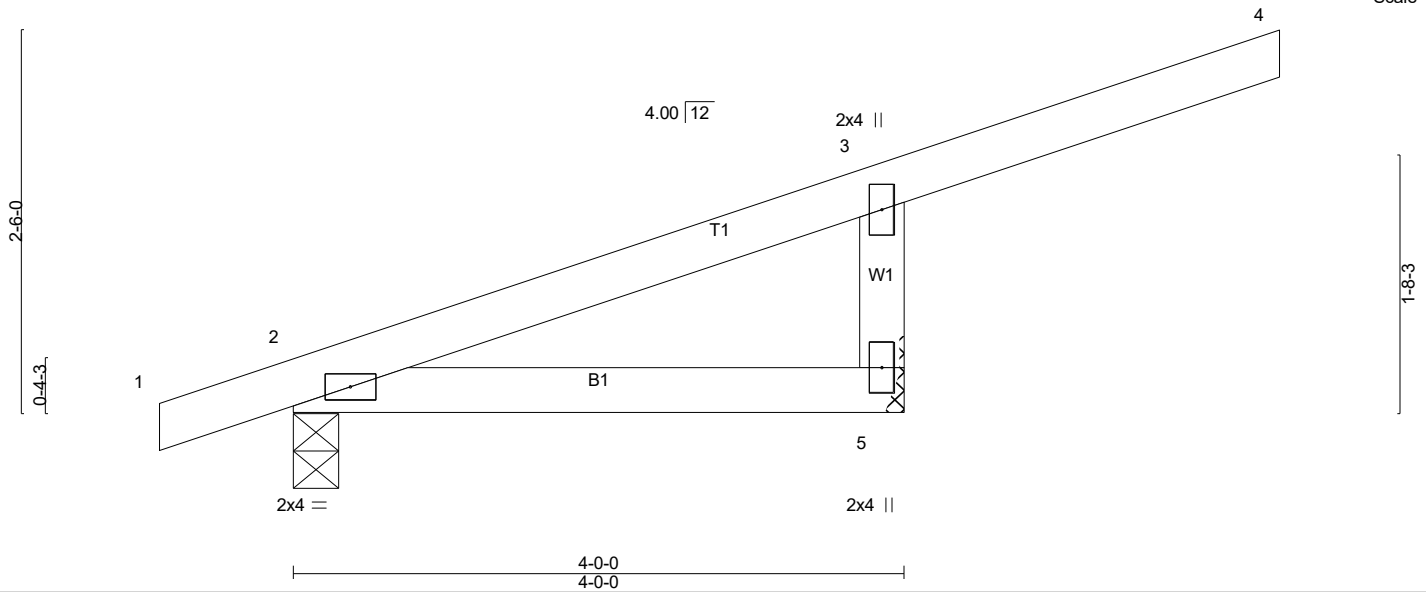
REACTIONS. (lb/size) 4=62/2-0-0 (min. 0-1-8), 2=139/2-0-0 (min. 0-1-8)
  Max Horz 2=30(LC 10)
  Max Uplift4=-10(LC 14), 2=-40(LC 10)
  Max Grav 4=76(LC 21), 2=180(LC 21)

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

NOTES- (11)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; 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) Gable studs spaced at 1-4-0 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) 4, 2.

LOAD CASE(S) Standard

North Carolina Professional Seal 28147 — Mark K. Morris, Engineer

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC	
24-5444-R01	R08	Monopitch	3	1		# 50803
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:20 2024 Page 1
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Scale = 1:15.1

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.01	2-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	2-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		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.2
WEBS   2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 4-0-0 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=351/Mechanical, 2=163/0-3-8 (min. 0-1-8)
Max Horz 2=73(LC 10)
Max Uplift5=-92(LC 11), 2=-23(LC 10)
Max Grav 5=497(LC 21), 2=189(LC 21)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-5=-460/290

NOTES-   (9)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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, 2.
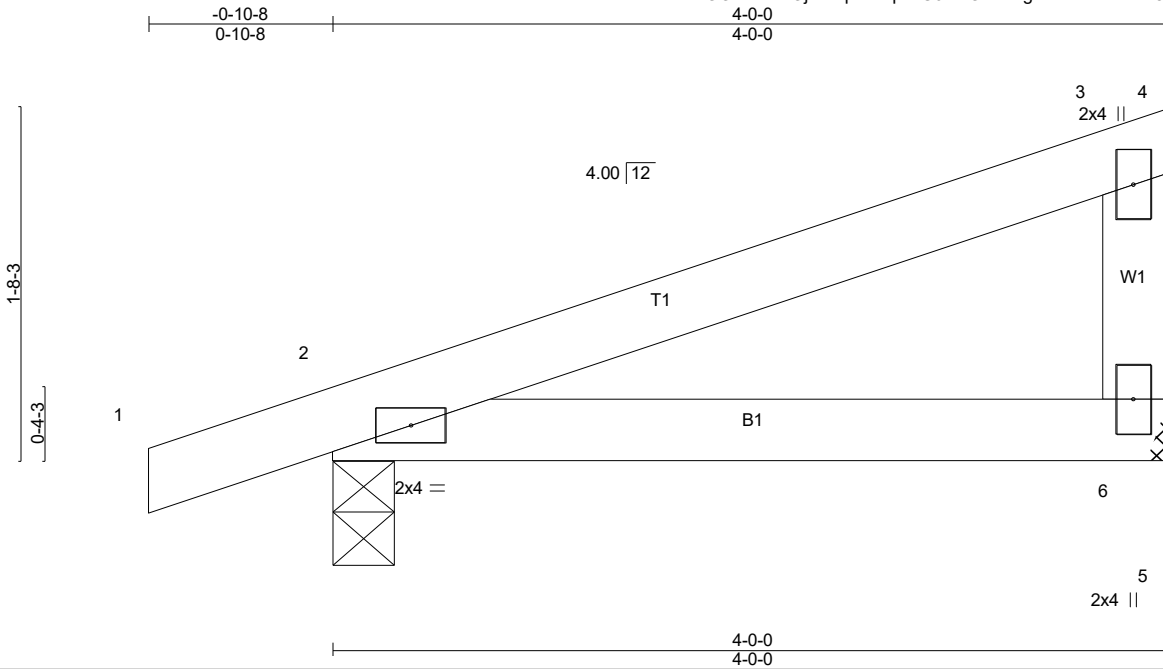
LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R09	Monopitch	6	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:21 2024 Page 1
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-0-10-8 | 0-10-8 | 4-0-0

Scale = 1:11.0

LOADING (psf)
TCLL (roof)	20.0
Snow (Pf)	20.0
TCDL	10.0
BCLL	0.0 *
BCDL	10.0

SPACING-
Spacing	2-0-0
Plate Grip DOL	1.15
Lumber DOL	1.15
Rep Stress Incr	YES
Code IRC2021/TPI2014	

CSI.
TC	0.31
BC	0.16
WB	0.00
Matrix-P	

DEFL.
	in	(loc)	l/defl	L/d
Vert(LL)	-0.01	2-6	>999	240
Vert(CT)	-0.02	2-6	>999	180
Horz(CT)	0.00		n/a	n/a

PLATES | **GRIP**
MT20 | 244/190

Weight: 15 lb | FT = 20%

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 4-0-0 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.
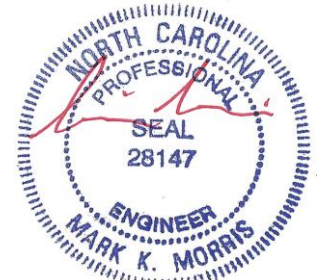
REACTIONS. (lb/size)   6=154/Mechanical, 2=216/0-3-8 (min. 0-1-8)
Max Horz 2=52(LC 10)
Max Uplift6=-26(LC 14), 2=-47(LC 10)
Max Grav 6=205(LC 21), 2=297(LC 21)

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

NOTES- (9)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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) 6, 2.
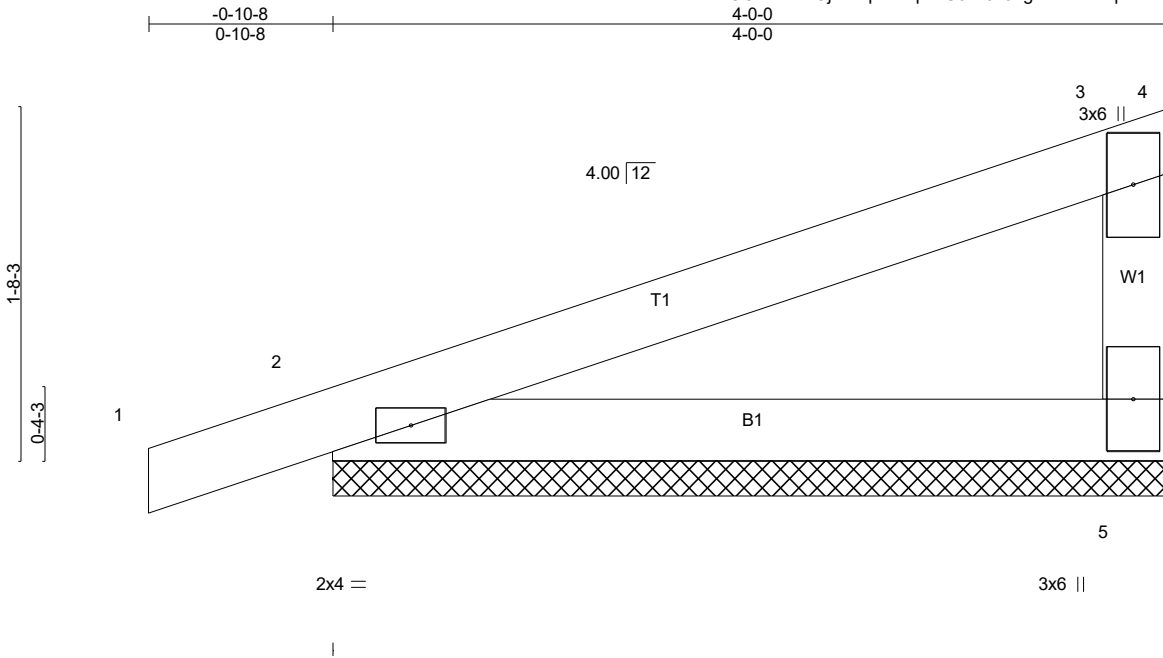
LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R10	Monopitch Supported Gable	1	1	# 50803
					Job Reference (optional)	

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Scale = 1:11.0

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	0.24	Vert(LL)	-0.00	1	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	0.00	1	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
WEBS   2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 4-0-0 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
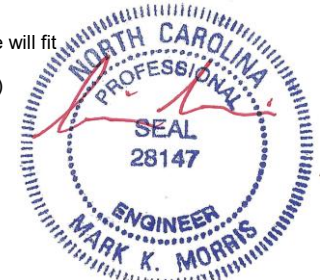Installation guide.

REACTIONS. (lb/size)   4=-379/4-0-0 (min. 0-1-8), 5=555/4-0-0 (min. 0-1-8), 2=192/4-0-0 (min. 0-1-8)
Max Horz 2=52(LC 10)
Max Uplift4=-550(LC 21), 5=-195(LC 14), 2=-35(LC 10)
Max Grav 4=157(LC 14), 5=789(LC 21), 2=262(LC 21)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-5=-751/644

NOTES-   (11)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS
   (envelope) gable end zone and C-C Corner(3E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60
   plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough
   Cat B; 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) 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) 2 except (jt=lb)
   4=550, 5=195.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R11	Common Girder	1	**2**	**# 50803**
					Job Reference (optional)

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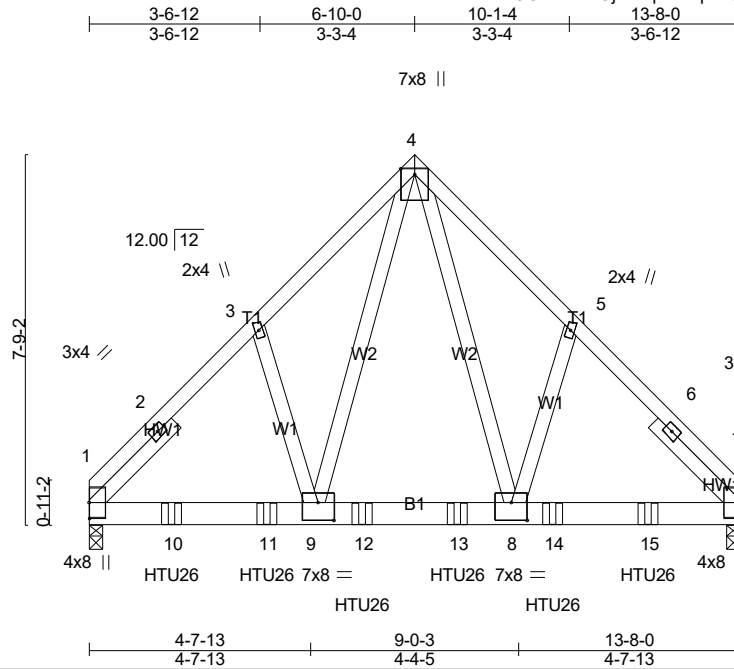
Scale: 1/4"=1'

Plate Offsets (X,Y)-- [1:0-4-0,0-0-2], [7:0-4-11,0-0-2], [8:0-4-0,0-4-8], [9:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.04	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.08	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 204 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS   2x4 SP No.3
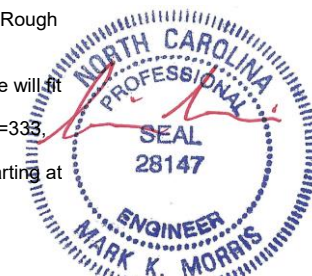SLIDER   Left 2x4 SP No.3 -° 2-5-11, Right 2x4 SP No.3 -° 2-5-11

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=4374/0-3-8 (min. 0-2-9), 7=4259/0-3-8 (min. 0-2-8)
Max Horz 1=-143(LC 33)
Max Uplift1=-333(LC 11), 7=-324(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-4456/353, 2-3=-4399/378, 3-4=-4294/440, 4-5=-4277/439, 5-6=-4387/377,
            6-7=-4445/352
BOT CHORD   1-10=-263/3015, 10-11=-263/3015, 9-11=-263/3015, 9-12=-158/2190, 12-13=-158/2190,
            8-13=-158/2190, 8-14=-211/3001, 14-15=-211/3001, 7-15=-211/3001
WEBS   4-8=-333/2974, 4-9=-336/3015

NOTES- (11)
1) 2-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.
   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=23ft; Cat. II; Exp B; Enclosed; MWFRS
   (envelope) gable end zone; 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=333,
   7=324.
9) 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
   1-8-12 from the left end to 11-8-12 to connect truss(es) R22 (1 ply 2x6 SP) to back face of bottom chord.
10) 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

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R11	Common Girder	1	**2**	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:25 2024 Page 2
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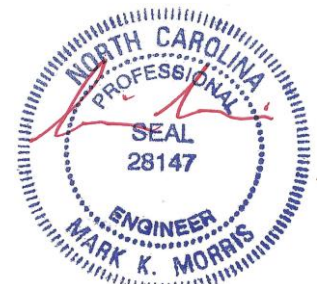
LOAD CASE(S) Standard
  Uniform Loads (plf)
        Vert: 1-4=-60, 4-7=-60, 1-7=-20
  Concentrated Loads (lb)
        Vert: 10=-1257(B) 11=-1257(B) 12=-1257(B) 13=-1257(B) 14=-1257(B) 15=-1257(B)

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R12	GABLE	1	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:27 2024 Page 1
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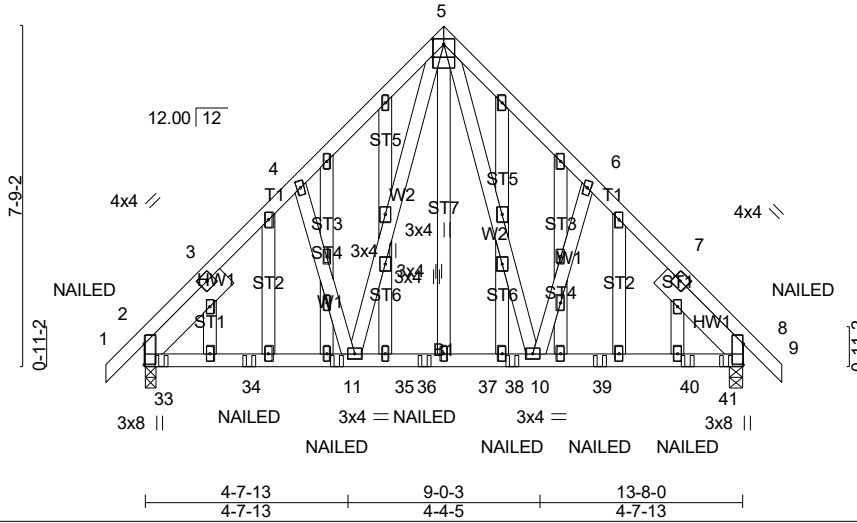
Scale = 1:52.6

Plate Offsets (X,Y)-- [2:0-5-11,0-0-1], [5:0-3-0,0-3-8], [5:0-3-0,0-1-8], [8:0-5-11,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.02	10-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.04	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 154 lb	FT = 0%
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 -° 2-7-2, Right 2x6 SP No.2 -° 2-7-2

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=591/0-3-8 (min. 0-1-8), 8=590/0-3-8 (min. 0-1-8)
Max Horz 2=151(LC 9)
Max Uplift2=-79(LC 10), 8=-85(LC 11)
Max Grav 2=604(LC 42), 8=608(LC 43)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-640/89, 3-4=-575/106, 4-5=-548/176, 5-6=-549/177, 6-7=-575/107, 7-8=-640/89
BOT CHORD 2-33=-73/452, 33-34=-73/452, 11-34=-73/452, 11-35=-21/321, 35-36=-21/321,
36-37=-21/321, 37-38=-21/321, 10-38=-21/321, 10-39=-22/395, 39-40=-22/395,
40-41=-22/395, 8-41=-22/395
WEBS   5-10=-144/319, 5-11=-142/317

NOTES- (13)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS
   (envelope) gable end zone; 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) 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) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable studs spaced at 1-4-0 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, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
11) "NAILED" indicates 3-10d (0.148"x3) or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

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Continued on page 2

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R12	GABLE	1	1	
					Job Reference (optional) # 50803

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:27 2024 Page 2
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-fY60jZlJt4GquaWUe3SYOnXmjxSgr4D8HJ4dUPyuabQ

LOAD CASE(S) Standard
   Uniform Loads (plf)
       Vert: 1-5=-60, 5-9=-60, 2-8=-20
   Concentrated Loads (lb)
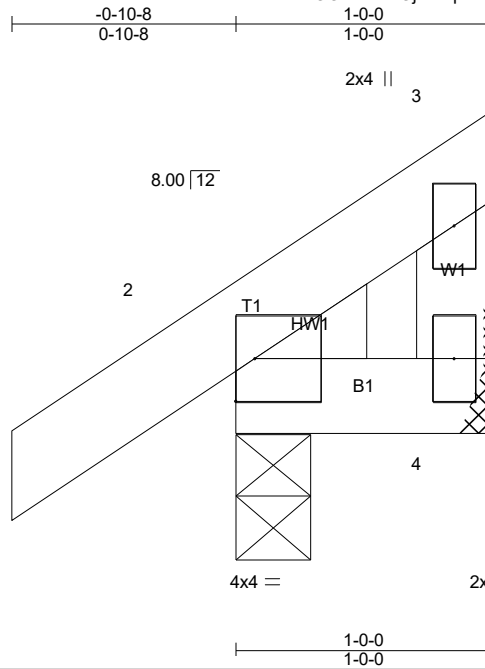   Vert: 11=2(F) 33=1(F) 34=2(F) 36=2(F) 38=2(F) 39=2(F) 40=2(F) 41=1(F)

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R13	Monopitch	8	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:28 2024 Page 1
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-0-10-8 | 1-0-0
0-10-8 | 1-0-0

2x4 ||
3

Scale = 1:9.0

8.00 [12]

1-3-2

0-7-2

2

T1
HW1

W1

B1

4

1

4x4 =   2x4 ||

1-0-0
1-0-0

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	0.09	Vert(LL)	-0.00	2	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	2	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 7 lb	FT = 0%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 1-0-0 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=3/Mechanical, 2=117/0-3-8 (min. 0-1-8)
Max Horz 2=34(LC 12)
Max Uplift4=-33(LC 18), 2=-15(LC 12)
Max Grav 4=15(LC 5), 2=156(LC 18)

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

NOTES-   (8)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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) 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.
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.
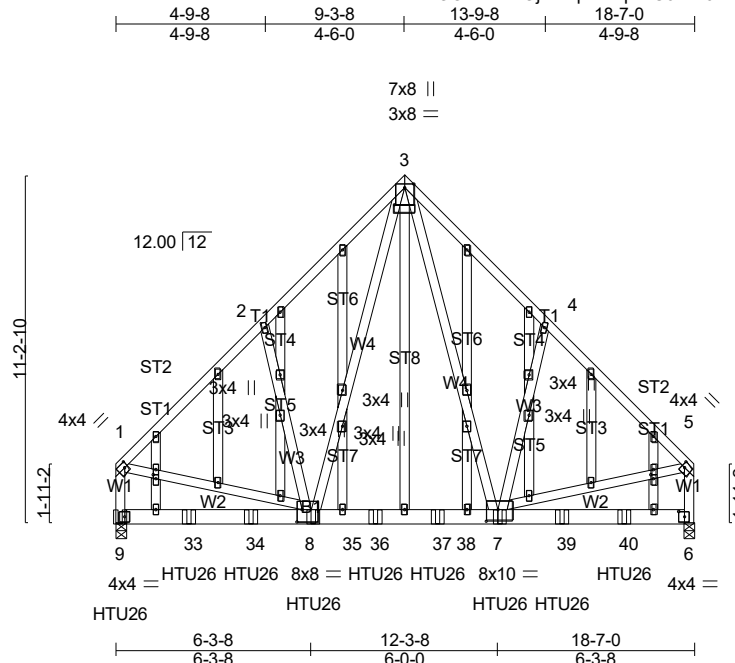
LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R14	GABLE	1	**3**	**# 50803** Job Reference (optional)

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Scale = 1:74.1

Plate Offsets (X,Y)-- [1:0-1-4,0-2-0], [3:0-4-0,0-6-9], [5:0-1-4,0-2-0], [6:0-2-4,0-2-0], [7:0-4-8,0-4-8], [8:0-1-15,0-4-12], [19:0-1-9,0-1-0], [32:0-1-9,0-1-0]
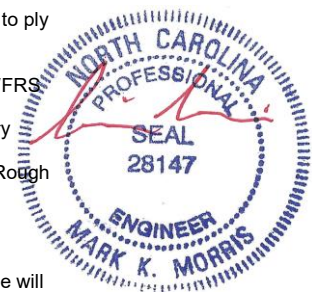
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.09	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.17	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 693 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.2
BOT CHORD   2x6 SP No.1 *Except*
  B2: 2x6 SP No.2
WEBS   2x4 SP No.3 *Except*
  W1: 2x4 SP No.2
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.

REACTIONS.   (lb/size)   9=8244/0-4-8 (min. 0-3-6), 6=6782/0-3-12 (min. 0-2-13)
  Max Horz 9=179(LC 9)
  Max Uplift9=-322(LC 11), 6=-273(LC 10)
  Max Grav 9=8618(LC 3), 6=7178(LC 3)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-6496/300, 2-3=-6399/404, 3-4=-6453/403, 4-5=-6551/300, 1-9=-5751/252,
  5-6=-5783/252
BOT CHORD   9-33=-197/558, 33-34=-197/558, 8-34=-197/558, 8-35=-118/3283, 35-36=-118/3283,
  36-37=-118/3283, 37-38=-118/3283, 7-38=-118/3283, 7-39=-36/504, 39-40=-36/504,
  6-40=-36/504
WEBS   3-7=-318/4656, 4-7=-283/250, 3-8=-317/4466, 2-8=-284/251, 1-8=-144/4207,
  5-7=-145/4201

NOTES-   (15)
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.
  Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
5) 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.
6) 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
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Bearing at joint(s) 9, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

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.

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R14	GABLE	1	**3**	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:32 2024 Page 2
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-0WwvmGpSicu7?LORRc2j5rFWty_gWDotRboO9dyuabL

NOTES- (15)

12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=322, 6=273.

13) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-2-8 oc max. starting at 0-1-12 from the left end to 16-4-4 to connect truss(es) R20B (1 ply 2x4 SP), R20A (1 ply 2x4 SP) to back face of bottom chord.

14) 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: 1-3=-60, 3-5=-60, 6-9=-20
   Concentrated Loads (lb)
      Vert: 9=-1515(B) 7=-1505(B) 8=-1507(B) 33=-1507(B) 34=-1507(B) 36=-1507(B) 37=-1505(B) 39=-1505(B) 40=-1505(B)
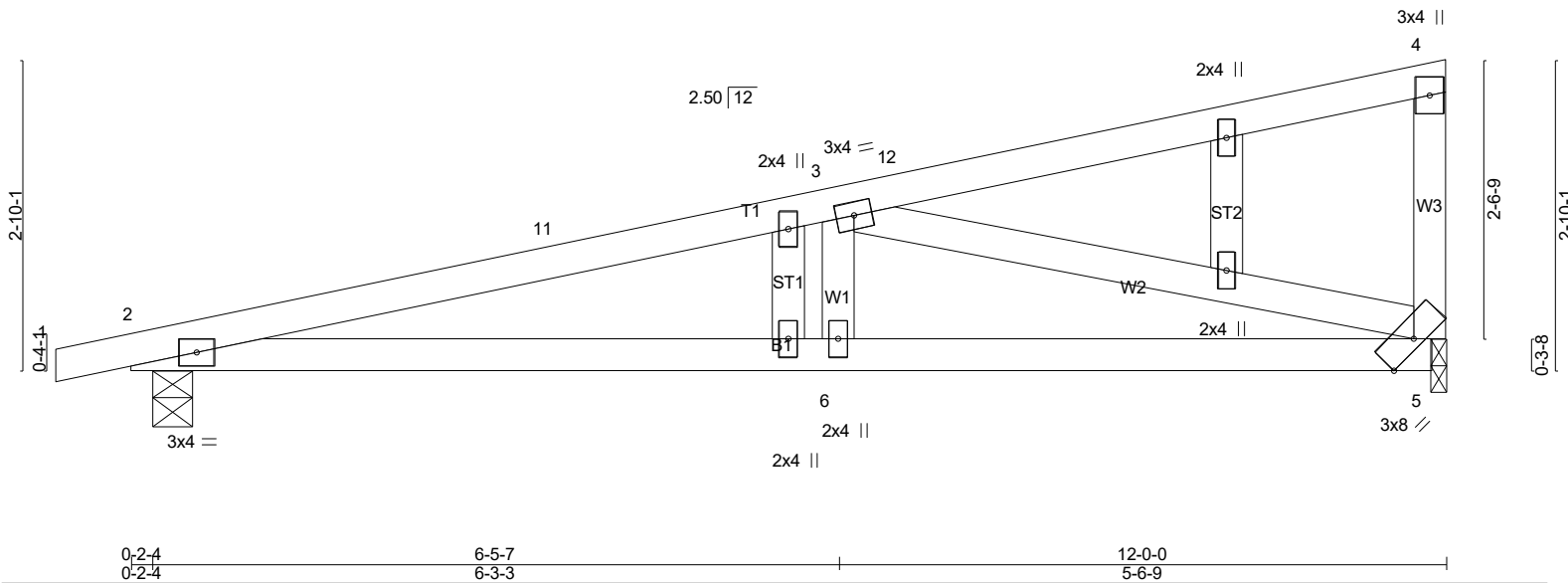
7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R15	Monopitch Structural Gable	1	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:33 2024 Page 1
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Scale = 1:20.9

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	0.53	Vert(LL)	-0.08	2-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.16	2-6	>887	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.03	5	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 53 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 4-2-0 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) 2=521/0-4-8 (min. 0-1-8), 5=465/0-1-8 (min. 0-1-8)
Max Horz 2=81(LC 10)
Max Uplift2=-81(LC 10), 5=-69(LC 14)
Max Grav 2=579(LC 21), 5=578(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-11=-1457/198, 3-11=-1409/205
BOT CHORD   2-6=-262/1386, 5-6=-262/1386
WEBS   3-6=0/264, 3-5=-1387/262

NOTES- (12-15)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-8-4 to 4-1-6, Interior(1) 4-1-6 to 7-0-10, Exterior(2E) 7-0-10 to 11-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; 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 studs spaced at 2-0-0 oc.
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) Bearing at joint(s) 5 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 at joint(s) 5.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.

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Continued on page 2

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R15	Monopitch Structural Gable	1	1	
					Job Reference (optional) # 50803

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:33 2024 Page 2
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-UiTHzcp4Tw0_cVze?JZye2ni9LPCFe51gFXxh3yuabK

12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.

13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.

15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R16	Piggyback Base Structural Gable COMMON I I	1	1	# 50803
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:35 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-Q5b1OlrL_XGisp706kbQjTtzD94tjdvK7Y02myyuabI

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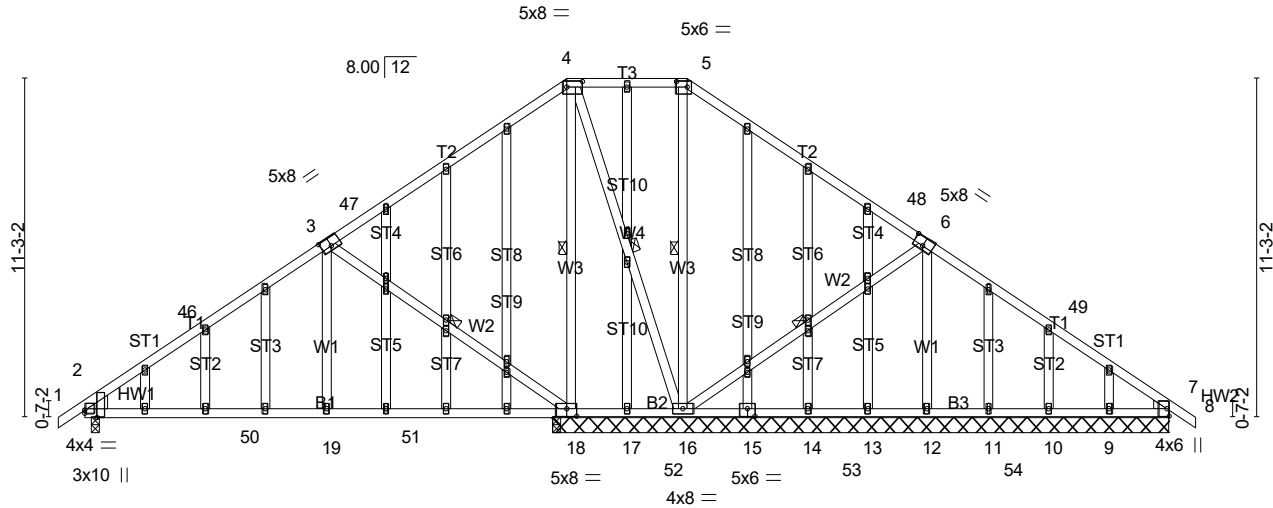
Plate Offsets (X,Y)-- [2:0-2-14,Edge], [2:0-0-0,0-1-3], [3:0-4-0,0-3-4], [4:0-6-4,0-2-4], [5:0-4-4,0-2-4], [6:0-4-0,0-3-4], [15:0-3-0,0-3-0], [18:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.09	2-19	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.21	2-19	>900	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.01	18	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 326 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS	2x4 SP No.3		10-0-0 oc bracing: 2-19,18-19.
OTHERS	2x4 SP No.3	WEBS	1 Row at midpt 3-18, 4-18, 4-16, 5-16, 6-16
WEDGE			
Left: 2x6 SP No.2 , Right: 2x4 SP No.3			

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

REACTIONS.   All bearings 20-6-0 except (jt=length) 2-0-3-8.
        (lb) - Max Horz 2=220(LC 11)
            Max Uplift All uplift 100 lb or less at joint(s) 18, 16, 7, 17, 10, 9, 2 except 12=-114(LC 13)
            Max Grav   All reactions 250 lb or less at joint(s) 7, 17, 14, 13, 11, 10, 9 except 18=1037(LC 20), 18=825(LC 1),
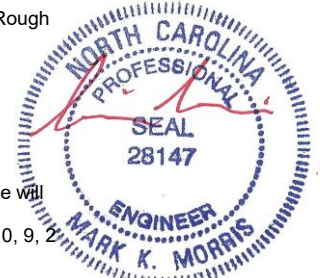   16=749(LC 1), 12=401(LC 21), 2=610(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-46=-680/55, 3-46=-570/80, 4-47=-19/375, 4-5=-0/270, 5-48=0/376
BOT CHORD   2-50=-87/569, 19-50=-87/569, 19-51=-88/564, 18-51=-88/564
WEBS   3-19=0/479, 3-18=-866/214, 4-18=-337/48, 5-16=-440/62, 6-16=-255/149, 6-12=-359/138
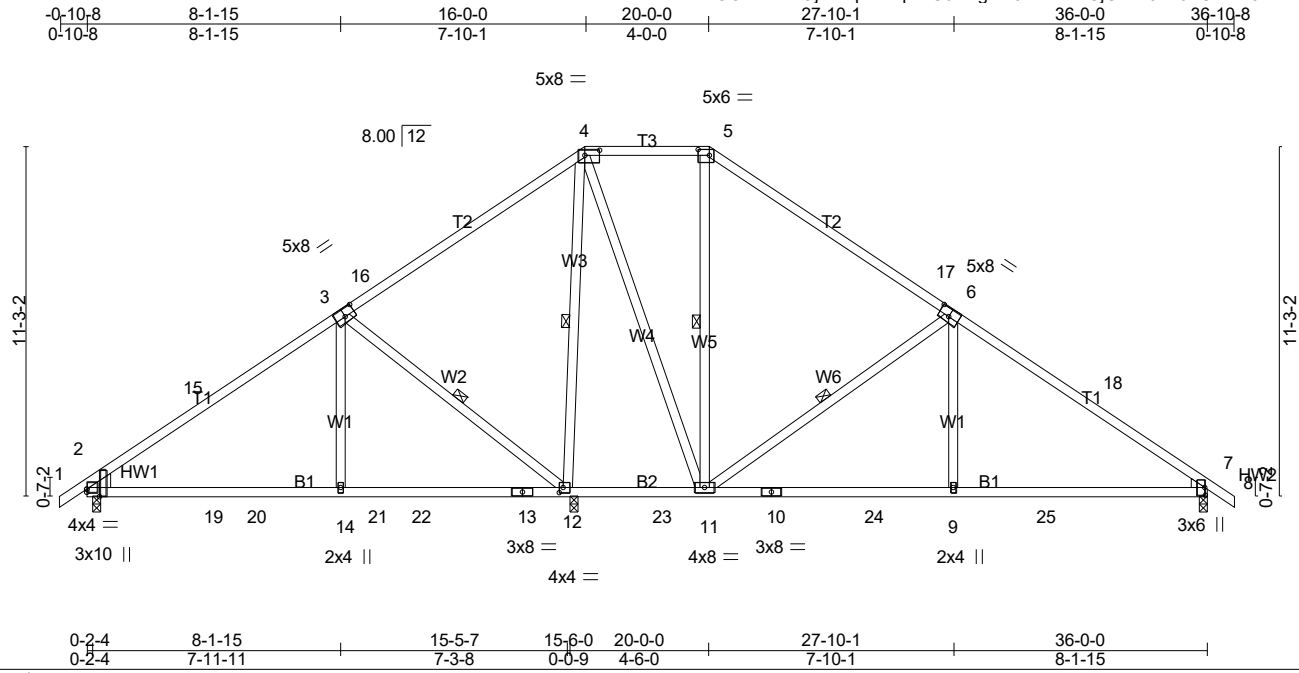
NOTES-   (12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS
   (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 9-2-9, Exterior(2R) 9-2-9 to 26-9-7, Interior(1)
   26-9-7 to 32-0-14, Exterior(2E) 32-0-14 to 36-10-8 zone;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) 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 2x4 MT20 unless otherwise indicated.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will
    fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 16, 7, 17, 10, 9, 2
    except (jt=lb) 12=114.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R17	PIGGYBACK BASE	2	1	
					Job Reference (optional)	# 50803

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:38 2024 Page 1
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Scale = 1:74.0

Plate Offsets (X,Y)-- [2:0-2-14,Edge], [2:0-0-0,0-1-3], [3:0-4-0,0-3-0], [4:0-5-12,0-2-0], [5:0-4-4,0-2-4], [6:0-4-0,0-3-0], [7:0-3-0,0-0-2], [12:0-1-8,0-2-0]

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	0.89	Vert(LL)	0.15	2-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.25	7-9	>982	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.03	7	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 215 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
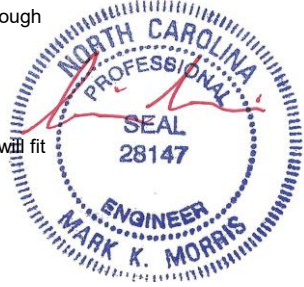Left: 2x6 SP No.2 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 11-12.
WEBS 1 Row at midpt 3-12, 4-12, 5-11, 6-11

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

REACTIONS. (lb/size) 12=1649/0-3-8 (min. 0-2-3), 7=783/0-3-8 (min. 0-1-8), 2=547/0-3-8 (min. 0-1-8)
Max Horz 2=-221(LC 10)
Max Uplift12=-117(LC 12), 7=-104(LC 13), 2=-43(LC 12)
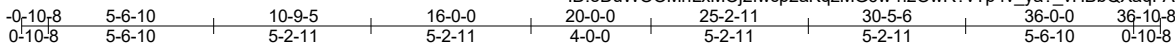Max Grav 12=1877(LC 3), 7=879(LC 21), 2=575(LC 30)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-15=-570/212, 3-15=-460/243, 4-16=-24/413, 6-17=-364/106, 6-18=-965/131,
7-18=-1075/106
BOT CHORD 2-19=-168/428, 19-20=-168/428, 14-20=-168/428, 14-21=-168/423, 21-22=-168/423,
13-22=-168/423, 12-13=-168/423, 10-11=0/767, 10-24=0/767, 9-24=0/767, 9-25=0/772,
7-25=0/772
WEBS 3-14=-245/465, 3-12=-760/398, 4-12=-1212/146, 4-11=-81/885, 6-11=-856/209, 6-9=0/488

NOTES- (9)
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=23ft; 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 9-2-9, Exterior(2R) 9-2-9 to 26-9-7, Interior(1)
26-9-7 to 32-0-14, Exterior(2E) 32-0-14 to 36-10-8 zone; porch left 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) 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb)
12=117, 7=104.

LOAD CASE(S) Standard

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Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:40 2024 Page 1
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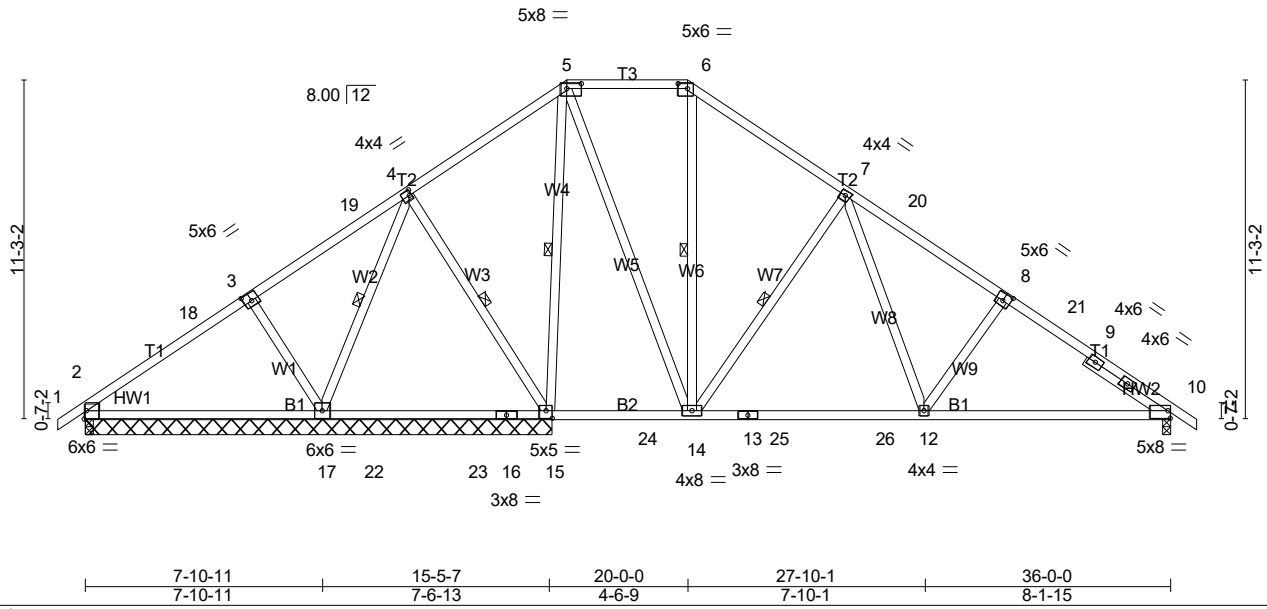
Scale = 1:76.4

Plate Offsets (X,Y)-- [2:Edge,0-3-5], [3:0-3-0,0-3-0], [4:0-1-0,0-2-0], [5:0-5-12,0-2-0], [6:0-3-12,0-2-0], [8:0-3-0,0-3-0], [10:Edge,0-3-0], [15:0-2-8,0-3-0]

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	0.80	Vert(LL)	-0.22	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.29	12-14	>841	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.03	15	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 236 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
    T1: 2x4 SP SS
BOT CHORD 2x4 SP No.1 *Except*
    B2: 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 -° 3-2-10

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 3-5-12 oc bracing.
WEBS 1 Row at midpt 4-17, 4-15, 5-15, 6-14, 7-14

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

REACTIONS. All bearings 0-3-8 except (jt=length) 17=15-6-0, 15=15-6-0.
(lb) - Max Horz 2=220(LC 38)
    Max Uplift All uplift 100 lb or less at joint(s) except 2=-1773(LC 42), 17=-1894(LC 40),
        15=-1207(LC 41), 10=-2475(LC 43)
    Max Grav All reactions 250 lb or less at joint(s) except 2=1917(LC 39), 2=348(LC 1),
        17=2200(LC 37), 15=2189(LC 30), 10=2871(LC 38)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-18=-3068/2997, 3-18=-2120/2081, 3-19=-1716/1718, 4-19=-520/602, 4-5=-1993/2060,
    5-6=-769/797, 6-7=-1691/1609, 7-20=-1933/1615, 8-20=-2991/2612, 8-21=-3512/3099,
    9-21=-3828/3393, 9-10=-4509/4028
BOT CHORD 2-17=-2484/2529, 17-22=-1692/1751, 22-23=-877/901, 16-23=-688/747, 15-16=-331/529,
    15-24=-764/866, 14-24=-371/473, 13-14=-468/958, 13-25=-646/1091, 25-26=-1349/1291,
    12-26=-1636/1966, 10-12=-3006/3572
WEBS 3-17=-347/234, 4-17=-2074/2038, 4-15=-1249/1265, 5-15=-1073/224, 5-14=-277/926,
    7-14=-657/265, 7-12=-232/639, 8-12=-375/334

NOTES- (10)
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=23ft; 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 9-2-9, Exterior(2R) 9-2-9 to 26-9-7, Interior(1) 26-9-7 to 32-0-14, Exterior(2E) 32-0-14 to 36-10-8 zone; porch left 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) 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1773 lb uplift at joint 2, 1894 lb uplift at joint

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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.
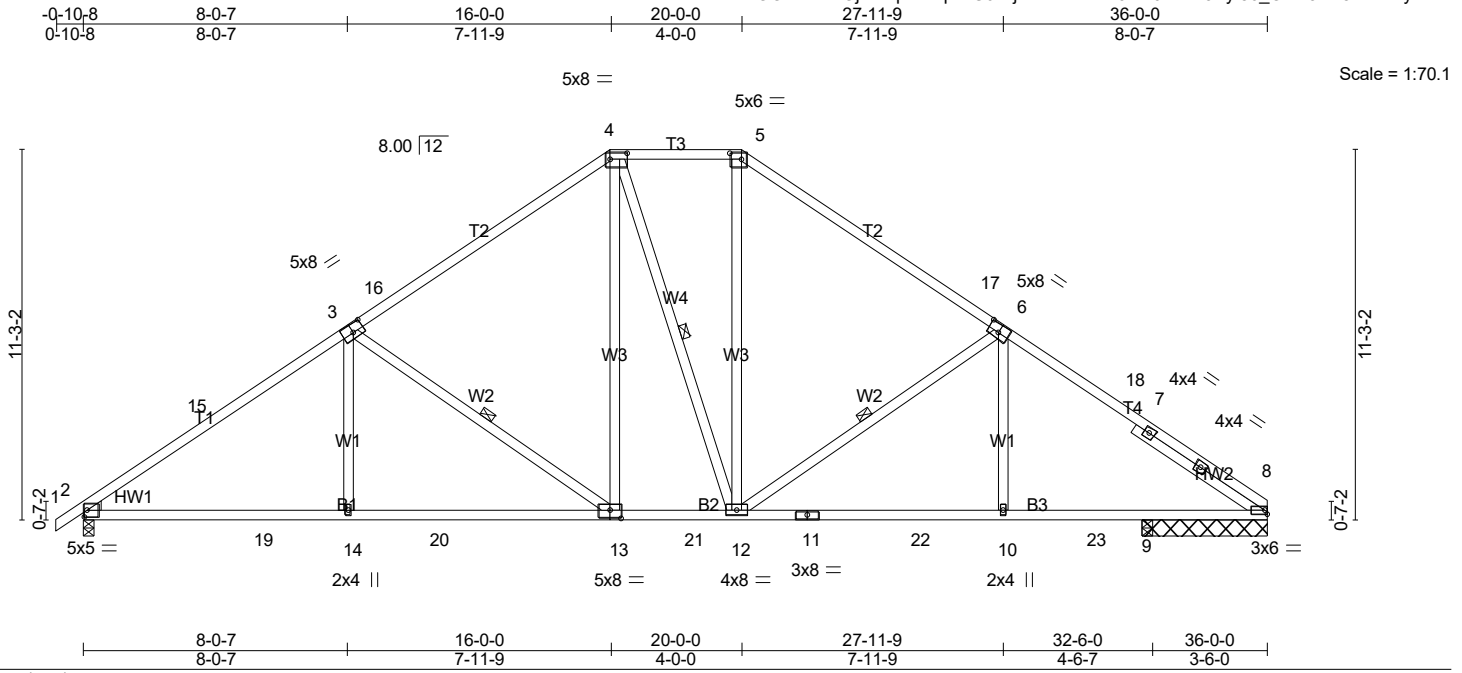
Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R18	PIGGYBACK BASE	1	1	# 50803
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:41 2024 Page 2
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-FFyIfLw5aN1rakaAT?iqzk7?_a6U7GXCWUTMzbyuabC

NOTES-   (10)

9) This truss has been designed for a total drag load of 200 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 36-0-0 for 200.0 plf.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R19	Piggyback Base	1	1	
					Job Reference (optional) **# 50803**

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:42 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-jRWhshwkLh9iBu9M1iD3Vyf86_Orso3Mk8DwW2yuabB

Scale = 1:70.1

Dimensions (top): -0-10-8 | 8-0-7 | 16-0-0 | 20-0-0 | 27-11-9 | 36-0-0
0-10-8 | 8-0-7 | 7-11-9 | 4-0-0 | 7-11-9 | 8-0-7

Dimensions (bottom): 8-0-7 | 16-0-0 | 20-0-0 | 27-11-9 | 32-6-0 | 36-0-0
8-0-7 | 7-11-9 | 4-0-0 | 7-11-9 | 4-6-7 | 3-6-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.14	10-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.32	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.10	8	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 219 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
    T2: 2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 -° 4-8-6

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
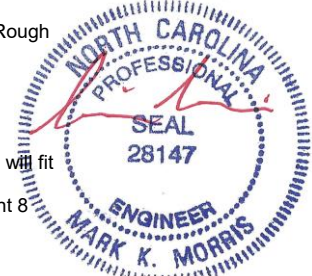WEBS 1 Row at midpt 3-13, 4-12, 6-12

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

REACTIONS. (lb/size) 2=1480/0-3-8 (min. 0-1-14), 8=1292/3-9-8 (min. 0-1-10), 9=157/0-3-8 (min. 0-1-8)
Max Horz 2=218(LC 11)
Max Uplift2=-111(LC 12), 8=-84(LC 13), 9=-11(LC 13)
Max Grav 2=1612(LC 20), 8=1397(LC 21), 9=189(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-15=-2346/136, 3-15=-2236/164, 3-16=-1627/179, 4-16=-1500/218, 4-5=-1253/234,
    5-17=-1498/219, 6-17=-1616/180, 6-18=-2031/173, 7-18=-2100/149, 7-8=-2240/144
BOT CHORD 2-19=-162/1969, 14-19=-162/1969, 14-20=-163/1964, 13-20=-163/1964, 13-21=0/1310,
    12-21=0/1310, 11-12=-62/1742, 11-22=-62/1742, 10-22=-62/1742, 10-23=-61/1745,
    9-23=-61/1745, 8-9=-61/1745
WEBS 3-14=0/481, 3-13=-811/208, 4-13=-60/638, 5-12=-48/588, 6-12=-704/202, 6-10=0/391

NOTES- (9)
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=23ft; 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 9-2-9, Exterior(2R) 9-2-9 to 26-9-7, Interior(1) 26-9-7 to 31-2-6, Exterior(2E) 31-2-6 to 36-0-0 zone;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) 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 2, 84 lb uplift at joint 8 and 11 lb uplift at joint 9.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R20	PIGGYBACK BASE	1	1		# 50803
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:44 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-fpeRHNy_tlPQRBJl87GXaNlU_n3xKaqeCSi1awyuab9

Scale = 1:70.6

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

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	0.94	Vert(LL)	0.21	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.31	2-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.10	7	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 214 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing, Except:
7-6-3 oc bracing: 11-12.
WEBS 1 Row at midpt 3-12, 4-11, 6-11

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

REACTIONS. (lb/size) 2=1490/0-3-8 (min. 0-1-14), 7=1490/0-3-8 (min. 0-1-15)
Max Horz 2=220(LC 11)
Max Uplift2=-110(LC 12), 7=-140(LC 8)
Max Grav 2=1603(LC 3), 7=1626(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-15=-2370/1142, 3-15=-2260/1173, 3-16=-1653/903, 4-16=-1528/942, 4-5=-1273/839,
5-17=-1522/942, 6-17=-1647/903, 6-18=-2253/1173, 7-18=-2363/1142
BOT CHORD 2-19=-870/1849, 19-20=-870/1849, 14-20=-870/1844, 14-21=-867/1844, 21-22=-867/1844,
13-22=-867/1844, 12-13=-867/1844, 12-23=-564/1278, 11-23=-564/1278, 10-11=-867/1838,
10-24=-867/1838, 24-25=-867/1838, 9-25=-867/1838, 9-26=-870/1843, 26-27=-870/1843,
7-27=-870/1843
WEBS 3-14=-256/488, 3-12=-732/382, 4-12=-410/603, 5-11=-411/581, 6-11=-812/380,
6-9=-254/488

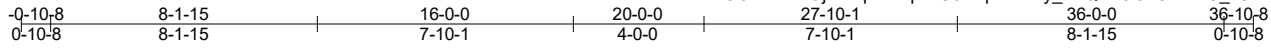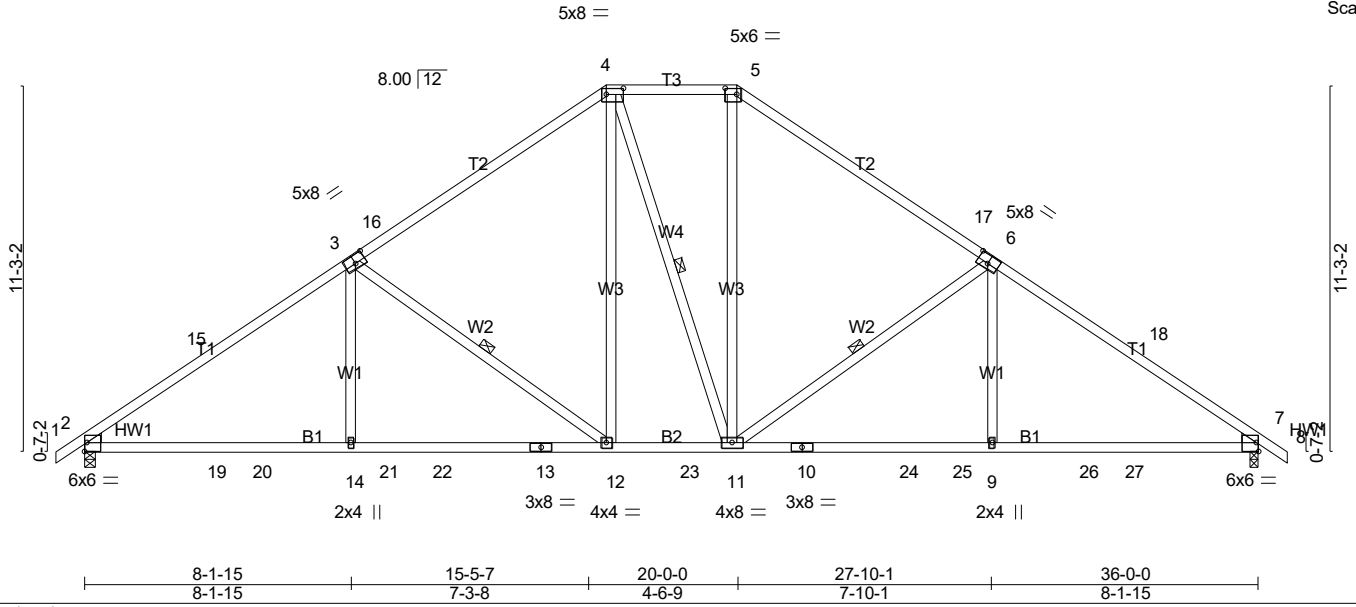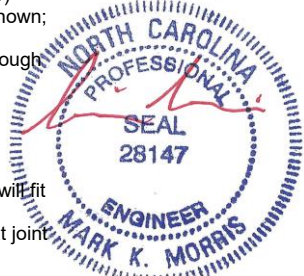**NOTES-** (9)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS
(envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 9-2-9, Exterior(2R) 9-2-9 to 26-9-7, Interior(1)
26-9-7 to 32-0-14, Exterior(2E) 32-0-14 to 36-10-8 zone; porch left 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) 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 2 and 140 lb uplift at joint
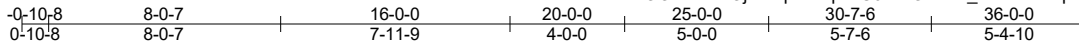7.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R20A	Piggyback Base	4	1	**# 50803**

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:47 2024 Page 1
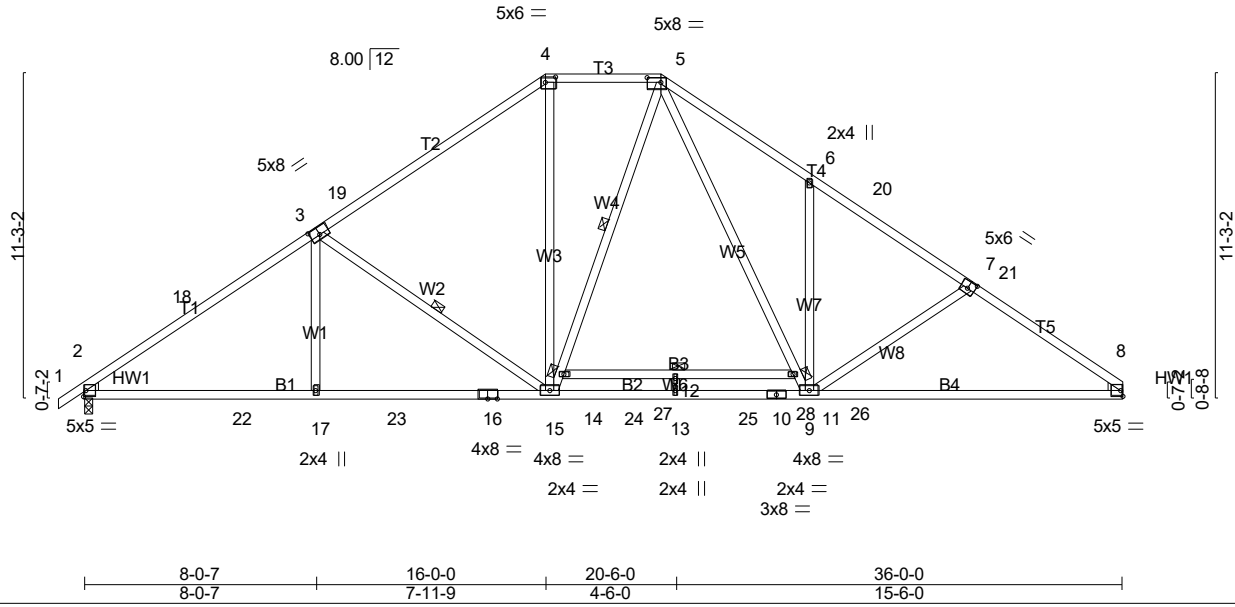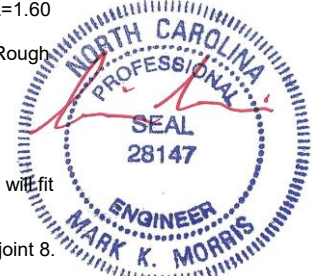ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-4OKavP_sADn?If2KpFpEC?M_Z?50X1S5uQxhBFyuab6

Scale = 1:79.8

Plate Offsets (X,Y)-- [2:Edge,0-2-9], [3:0-4-0,0-3-0], [4:0-4-4,0-2-4], [5:0-5-12,0-2-0], [7:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.54	13	>792	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.76	12	>564	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.10	8	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 225 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 *Except*
    B4: 2x4 SP No.1, B2: 2x4 SP SS
WEBS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
    6-0-0 oc bracing: 11-14
WEBS   1 Row at midpt   3-15, 5-14

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

REACTIONS. (lb/size)   2=1564/0-3-8 (min. 0-2-2), 8=1525/Mechanical
    Max Horz 2=218(LC 11)
    Max Uplift 2=-74(LC 12), 8=-46(LC 13)
    Max Grav 2=1784(LC 20), 8=1674(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-18=-2624/77, 3-18=-2515/105, 3-19=-1958/111, 4-19=-1832/151, 4-5=-1533/176,
    5-6=-2385/217, 6-20=-2219/99, 7-20=-2358/71, 7-21=-2424/97, 8-21=-2563/95
BOT CHORD   2-22=-113/2197, 17-22=-113/2197, 17-23=-114/2192, 16-23=-114/2192, 15-16=-114/2192,
    15-24=0/1489, 13-24=0/1489, 13-25=0/1489, 10-25=0/1489, 10-26=0/1489, 9-26=0/1489,
    8-9=-17/2031
WEBS   3-17=0/414, 3-15=-755/217, 4-15=-1/776, 5-14=-98/295, 5-11=-161/1107, 9-11=-191/994,
    6-9=-350/198, 7-9=-251/162

NOTES-   (10)
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=23ft; 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 9-2-9, Exterior(2R) 9-2-9 to 26-9-7, Interior(1) 26-9-7 to 31-1-10, Exterior(2E) 31-1-10 to 35-11-4 zone;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) 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) 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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 2 and 46 lb uplift at joint 8.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R20B	Piggyback Base	5	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:49 2024 Page 1
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Scale = 1:74.9

Plate Offsets (X,Y)-- [1:Edge,0-0-9], [2:0-2-8,0-2-3], [2:0-5-8,0-1-8], [5:0-5-8,0-1-12], [6:0-5-12,0-2-0], [8:0-4-0,0-3-0], [11:0-4-12,0-3-0], [18:0-2-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.45	11-12	>957	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.74	11-12	>578	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.26	9	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 274 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
 T1: 2x8 SP No.1
BOT CHORD 2x4 SP No.2 *Except*
 B2,B5: 2x4 SP SS, B4: 2x4 SP No.3, B6,B7: 2x4 SP No.1
WEBS 2x4 SP No.3
WEDGE
Left: 2x6 SP No.2 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing,   Except:
 6-0-0 oc bracing: 1-20,17-18,16-17.
 1 Row at midpt 4-18
WEBS 1 Row at midpt 5-16, 6-15

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

REACTIONS. (lb/size) 1=1514/0-3-8 (min. 0-1-13), 9=1527/Mechanical
 Max Horz 1=-214(LC 8)
 Max Uplift1=-52(LC 12), 9=-46(LC 13)
 Max Grav 1=1551(LC 23), 9=1623(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1034/117, 2-21=-2684/86, 3-21=-2588/108, 3-22=-2150/118, 4-22=-2048/148,
 4-5=-2083/240, 5-6=-1446/174, 6-7=-2296/226, 7-23=-2127/107, 8-23=-2261/80,
 8-24=-2379/80, 9-24=-2521/64
BOT CHORD 2-19=-131/2449, 18-19=-129/2455, 16-25=0/1364, 12-25=0/1364, 12-26=0/1364,
 11-26=0/1364, 10-11=-6/1976, 9-10=-5/1977
WEBS 3-19=0/295, 3-18=-843/178, 16-18=0/1617, 5-18=-221/1178, 5-16=-335/196,
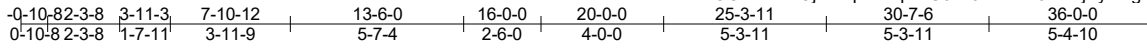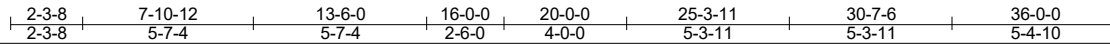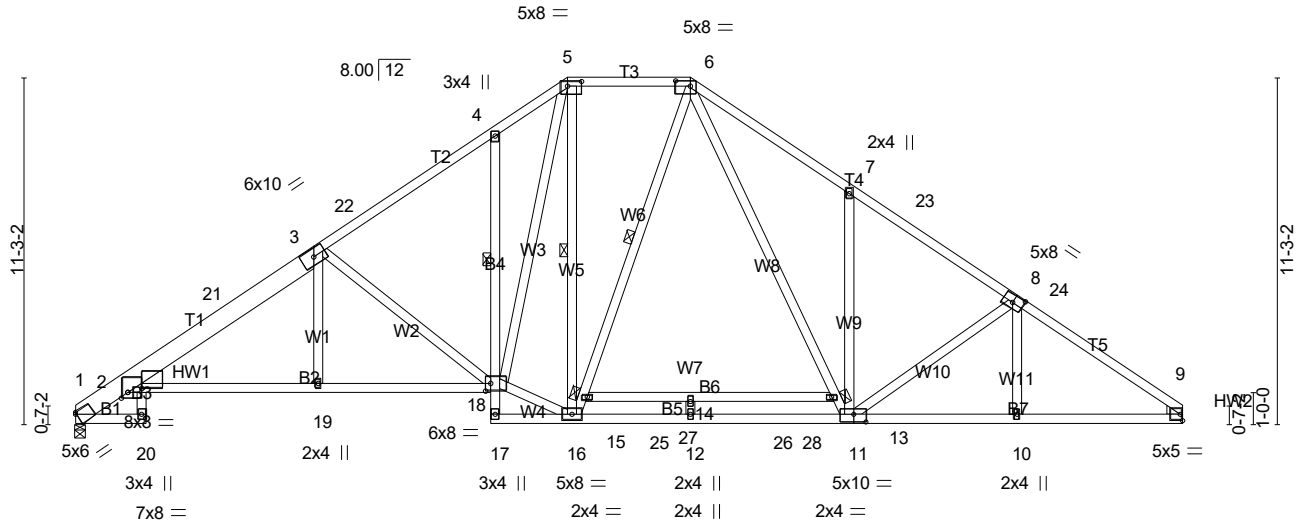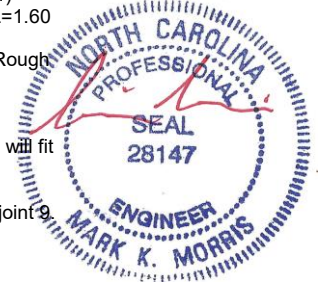 6-13=-169/1078, 11-13=-211/995, 7-11=-345/193, 8-11=-315/144

NOTES- (9-12)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS
 (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Interior(1) 4-11-6 to 9-2-9, Exterior(2R) 9-2-9 to 26-9-7, Interior(1)
 26-9-7 to 31-1-10, Exterior(2E) 31-1-10 to 35-11-4 zone;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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 1 and 46 lb uplift at joint 9.

7/24/2024

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.

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R20B	Piggyback Base	5	1	# 50803
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:50 2024 Page 2
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-Uz?iYQ1lS89Z96mvVOMxqe_WkC7gkJ?XaO9Loayuab3

9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.

10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.

12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.
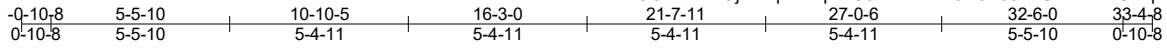
LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R20C	Piggyback Base	1	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:52 2024 Page 1
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Scale = 1:75.7

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.45	12-13	>957	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.74	12-13	>579	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.26	9	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 275 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
　　　　　 T1: 2x8 SP No.1
BOT CHORD 2x4 SP No.3 *Except*
　　　　　 B1: 2x4 SP No.2, B2,B5: 2x4 SP SS, B6,B7: 2x4 SP No.1
WEBS　　　 2x4 SP No.3
WEDGE
Left: 2x6 SP No.2 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing,   Except:
　　　　　 6-0-0 oc bracing: 1-21,18-19,17-18.
　　　　　 1 Row at midpt　　4-19
WEBS　　　 1 Row at midpt　　5-17, 6-16

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

REACTIONS. (lb/size) 1=1510/0-3-8 (min. 0-1-13), 9=1586/0-3-8 (min. 0-2-0)
　　　　　 Max Horz 1=-218(LC 8)
　　　　　 Max Uplift1=-52(LC 12), 9=-62(LC 13)
　　　　　 Max Grav 1=1546(LC 20), 9=1677(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-1032/123, 2-22=-2676/81, 3-22=-2580/103, 3-23=-2142/114, 4-23=-2040/144,
　　　　　　 4-5=-2076/236, 5-6=-1439/171, 6-7=-2278/220, 7-24=-2108/100, 8-24=-2243/73,
　　　　　　 8-25=-2345/67, 9-25=-2487/52
BOT CHORD   2-20=-126/2446, 19-20=-124/2451, 17-26=0/1361, 13-26=0/1361, 13-27=0/1361,
　　　　　　 12-27=0/1361, 11-12=0/1939, 9-11=0/1939
WEBS　　　　 3-20=0/295, 3-19=-843/178, 17-19=0/1614, 5-19=-219/1177, 5-17=-336/195,
　　　　　　 6-14=-167/1063, 12-14=-210/979, 7-12=-347/193, 8-12=-288/141

NOTES- (9-12)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Interior(1) 4-11-6 to 9-2-9, Exterior(2R) 9-2-9 to 26-9-7, Interior(1) 26-9-7 to 32-0-14, Exterior(2E) 32-0-14 to 36-10-8 zone;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) 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 1 and 62 lb uplift at joint 9.

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Continued on page 2

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R20C	Piggyback Base	1	1	
					Job Reference (optional)	# 50803

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:52 2024 Page 2
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-QM7Tz62?_IPHOQwHcpPPv34sH0pACCUq1ieSsTyuab1

9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.

10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.

12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R21	Common	3	1	**# 50803**
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:53 2024 Page 1
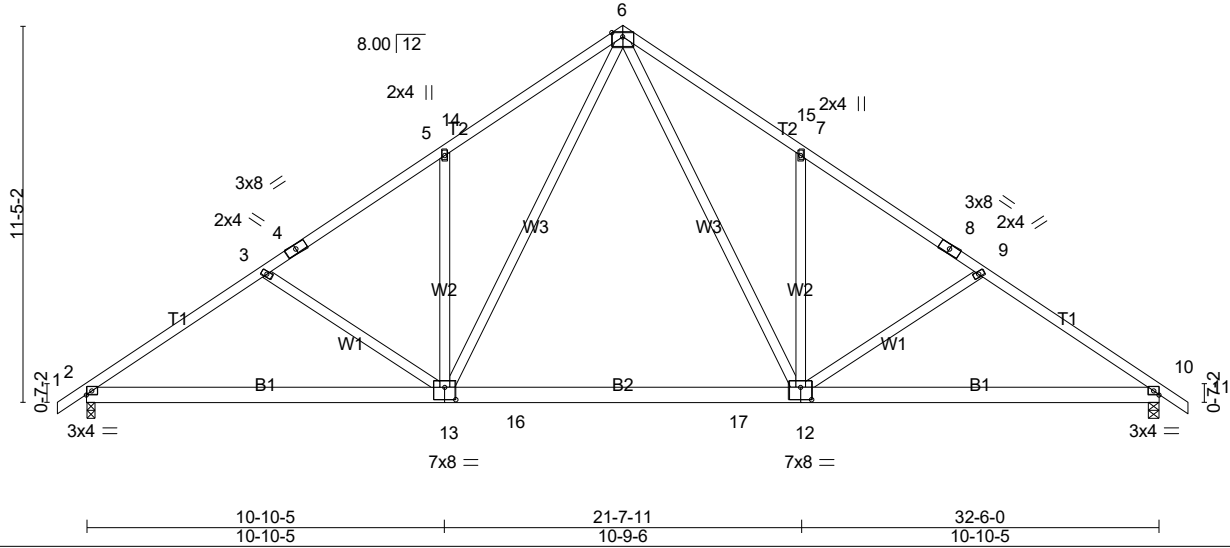ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-vYhrAS3dl3X80aVUAWweSGcApPC3xk6zGMO?Ovyuab0

Dimensions (top): -0-10-8 | 5-5-10 | 10-10-5 | 16-3-0 | 21-7-11 | 27-0-6 | 32-6-0 | 33-4-8
Dimensions: 0-10-8 | 5-5-10 | 5-4-11 | 5-4-11 | 5-4-11 | 5-4-11 | 5-5-10 | 0-10-8

Scale = 1:69.8

Plate Offsets (X,Y)-- [12:0-4-0,0-4-8], [13:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.31	12-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.40	12-13	>961	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.04	10	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 213 lb	FT = 0%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-11-2 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=1350/0-3-8 (min. 0-1-10), 10=1350/0-3-8 (min. 0-1-10)
Max Horz 2=-223(LC 10)
Max Uplift2=-108(LC 12), 10=-108(LC 13)
Max Grav 2=1382(LC 20), 10=1382(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1992/180, 3-4=-1757/145, 4-5=-1681/173, 5-14=-1801/264, 6-14=-1719/291,
             6-15=-1719/291, 7-15=-1801/264, 7-8=-1681/173, 8-9=-1757/145, 9-10=-1992/180
BOT CHORD   2-13=-205/1709, 13-16=0/1079, 16-17=0/1079, 12-17=0/1079, 10-12=-71/1542
WEBS   6-12=-199/999, 7-12=-355/201, 6-13=-199/999, 5-13=-355/201

NOTES-   (8)
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=23ft; 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 11-5-6, Exterior(2R) 11-5-6 to 21-0-10, Interior(1)
   21-0-10 to 28-6-14, Exterior(2E) 28-6-14 to 33-4-8 zone;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) This truss has been designed for the 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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 2 and 108 lb uplift at joint
   10.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R22	Common	6	1	**# 50803**
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:54 2024 Page 1
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Scale = 1:69.1

Plate Offsets (X,Y)-- [10:Edge,0-0-10], [11:0-4-0,0-4-8], [12:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.31	11-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.40	11-12	>961	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.04	10	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 211 lb	FT = 0%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. (lb/size) 2=1340/0-3-8 (min. 0-1-10), 10=1277/Mechanical
Max Horz 2=220(LC 9)
Max Uplift2=-108(LC 12), 10=-89(LC 13)
Max Grav 2=1372(LC 24), 10=1315(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1975/180, 3-4=-1740/145, 4-5=-1664/172, 5-13=-1783/264, 6-13=-1702/291,
6-14=-1683/292, 7-14=-1765/265, 7-8=-1645/173, 8-9=-1721/146, 9-10=-1931/178
BOT CHORD 2-12=-209/1692, 12-15=0/1060, 15-16=0/1060, 11-16=0/1060, 10-11=-83/1469
WEBS 6-11=-199/966, 7-11=-356/201, 6-12=-199/1000, 5-12=-355/201

NOTES- (9)
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=23ft; 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 11-5-6, Exterior(2R) 11-5-6 to 21-0-10, Interior(1) 21-0-10 to 27-2-0, Exterior(2E) 27-2-0 to 32-1-0 zone;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) 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, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 2 and 89 lb uplift at joint 10.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R23	Common Supported Gable	1	1	**# 50803**
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:18:58 2024 Page 1
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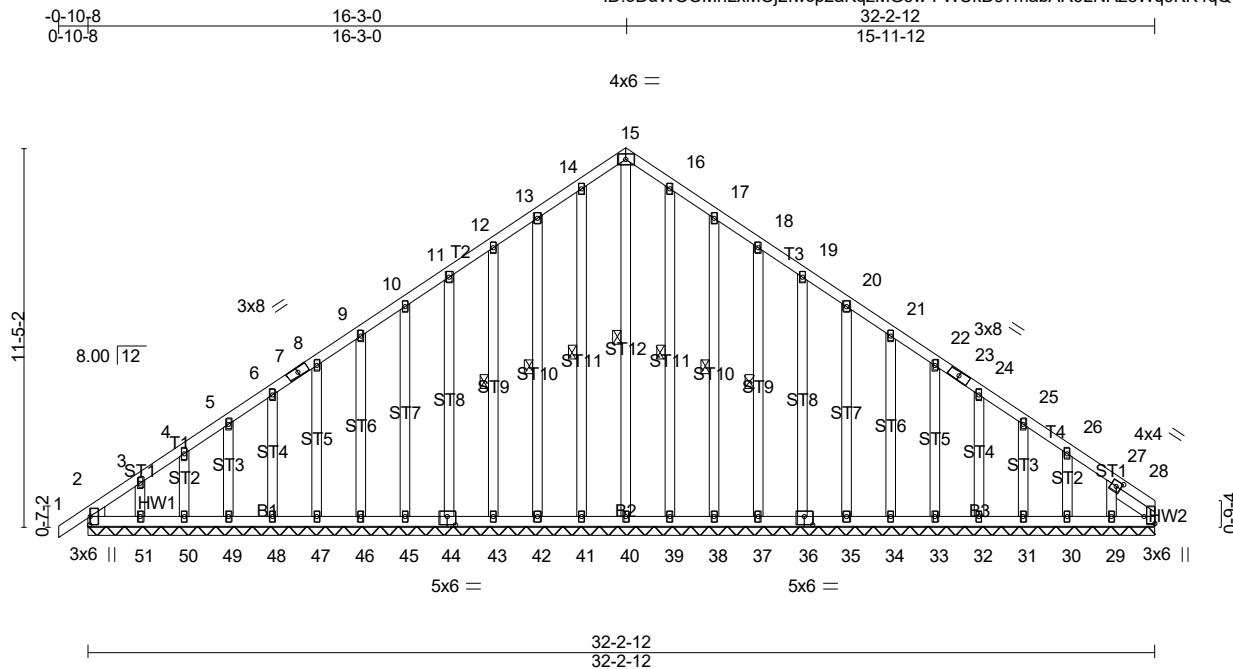
Plate Offsets (X,Y)-- [2:0-3-0,0-0-2], [27:0-1-14,0-2-0], [28:Edge,0-3-15], [36:0-3-0,0-3-0], [44:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	1	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	1	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	28	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 308 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3
SLIDER   Right 2x4 SP No.3 -° 1-5-11

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   15-40, 14-41, 13-42, 12-43, 16-39, 17-38, 18-37

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

REACTIONS.   All bearings 32-2-12.
(lb) - Max Horz 2=221(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 28, 2, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29
Max Grav All reactions 250 lb or less at joint(s) 28, 2, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29

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

NOTES- (12)
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=23ft; 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 11-5-6, Corner(3R) 11-5-6 to 21-0-10, Exterior(2N) 21-0-10 to 27-5-2, Corner(3E) 27-5-2 to 32-2-12 zone;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) 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) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 1-4-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 2, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29.

LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R24	Piggyback Base Structural Gable Gable I I Gable I Gable	1	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:02 2024 Page 1
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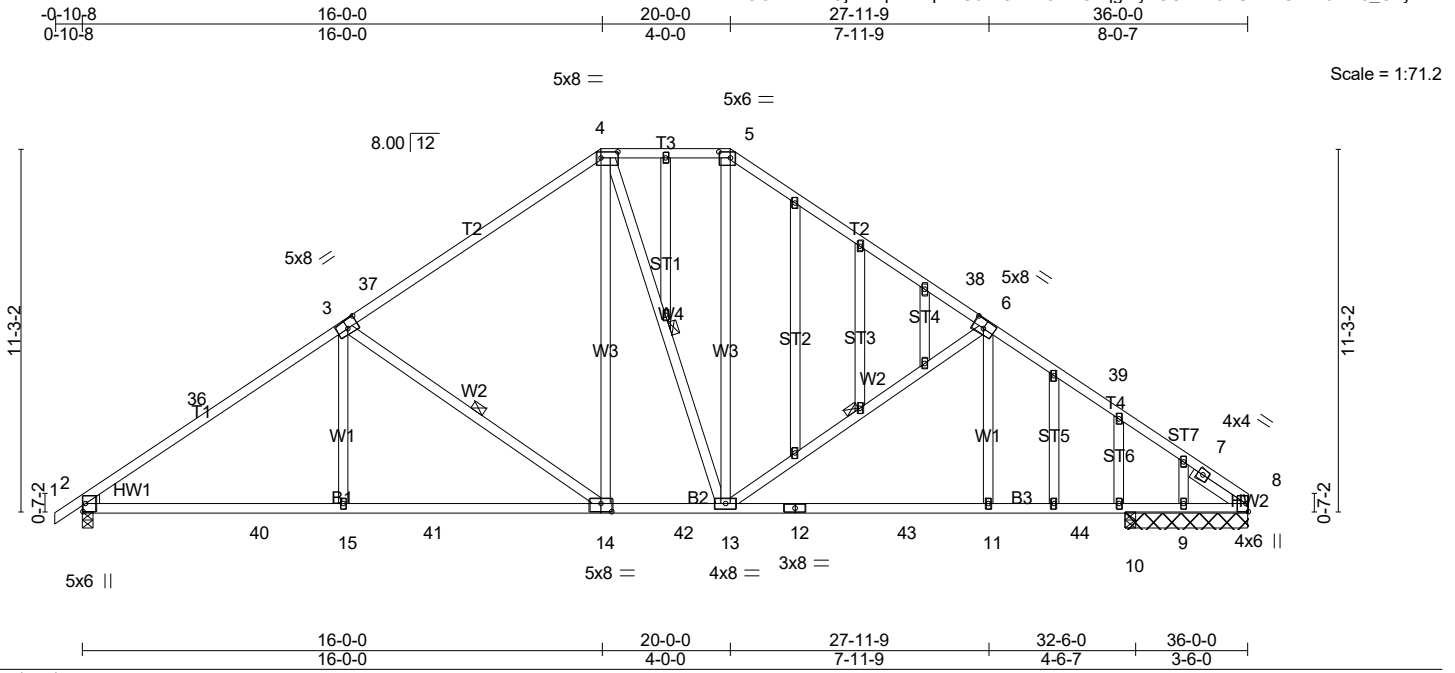
Plate Offsets (X,Y)-- [3:0-4-0,0-3-0], [4:0-6-4,0-2-4], [5:0-4-4,0-2-4], [6:0-4-0,0-3-0], [14:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.15	11-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.34	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.10	8	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS							Weight: 258 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
WEDGE
Left: 2x4 SP No.3
SLIDER   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   3-14, 4-13, 6-13

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

REACTIONS.   All bearings 3-9-8 except (jt=length) 2=0-3-8, 10=0-3-8.
   (lb) - Max Horz 2=216(LC 11)
           Max Uplift All uplift 100 lb or less at joint(s) 8 except 2=-109(LC 12), 9=-151(LC 23)
           Max Grav All reactions 250 lb or less at joint(s) 9, 10 except 2=1616(LC 24), 8=1452(LC 3), 8=1307(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-36=-2323/140, 3-36=-2134/166, 3-37=-1658/179, 4-37=-1539/219, 4-5=-1272/235,
             5-38=-1522/219, 6-38=-1638/179, 6-39=-2052/172, 7-39=-2215/147, 7-8=-889/0
BOT CHORD   2-40=-168/1985, 15-40=-168/1985, 15-41=-168/1981, 14-41=-168/1981, 14-42=-0/1332,
             13-42=-0/1332, 12-13=-65/1766, 12-43=-65/1766, 11-43=-65/1766, 11-44=-64/1770,
             10-44=-64/1770, 9-10=-64/1770, 8-9=-64/1770
WEBS   3-15=0/441, 3-14=-799/207, 4-14=-61/655, 5-13=-50/607, 6-13=-708/195, 6-11=0/383

NOTES-   (13)
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=23ft; 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 9-2-9, Exterior(2R) 9-2-9 to 26-9-7, Interior(1) 26-9-7 to 31-2-6, Exterior(2E) 31-2-6 to 36-0-0 zone;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) 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 2x4 MT20 unless otherwise indicated.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 8 except (jt=lb) 2=109, 9=151.

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R24	Piggyback Base Structural Gable Gable I I Gable I Gable	1	1	# 50803
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:03 2024 Page 2
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-cTHdGtBvO8ojD6GPld5?sN1pwRblHlMRZvpXkKyuaas

NOTES-   (13)

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

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	R25	Monopitch	5	1	Job Reference (optional) **# 50803**

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:03 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-cTHdGtBvO8ojD6GPld5?sN1qaReDHCXRZvpXkKyuaas

Scale = 1:20.9

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	0.53	Vert(LL)	-0.08	2-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.16	2-6	>887	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.03	5	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 50 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 4-2-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
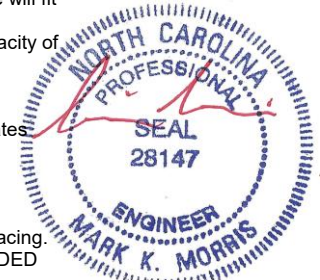
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size)   2=521/0-4-8 (min. 0-1-8), 5=465/0-1-8 (min. 0-1-8)
Max Horz 2=81(LC 10)
Max Uplift2=-81(LC 10), 5=-69(LC 14)
Max Grav 2=579(LC 21), 5=578(LC 21)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-7=-1457/198, 3-7=-1409/205
BOT CHORD   2-6=-262/1386, 5-6=-262/1386
WEBS   3-6=0/264, 3-5=-1387/262

NOTES-   (10-13)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-8-4 to 4-1-6, Interior(1) 4-1-6 to 7-0-10, Exterior(2E) 7-0-10 to 11-10-4 zone;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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.
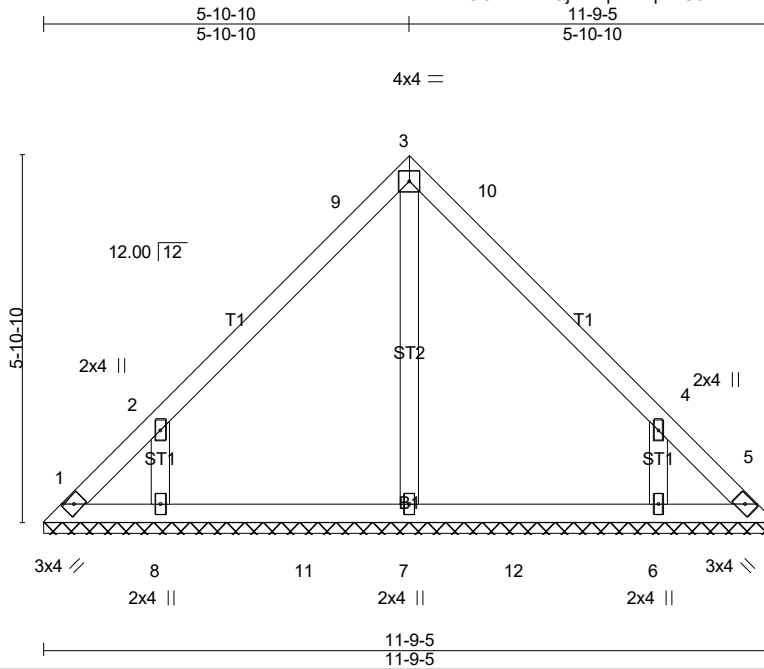
7/24/2024

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT01	Valley	1	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:05 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-YsPNhYC9wl2RSQQnt18Txo6GQFP8lHhk1DIepCyuaaq

5-10-10
5-10-10
11-9-5
5-10-10

4x4

Scale = 1:37.0

12.00 ⟌12

5-10-10

11-9-5
11-9-5

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	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	5	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 53 lb	FT = 0%
BCDL	10.0											

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

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

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

REACTIONS.   All bearings 11-9-5.
  (lb) - Max Horz 1=108(LC 11)
      Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-160(LC 12), 6=-160(LC 13)
      Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=351(LC 19), 8=331(LC 19), 6=331(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-258/208, 4-6=-258/208

NOTES-   (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 5-1-13, Exterior(2R) 5-1-13 to 6-7-7, Exterior(2E) 6-7-7 to 11-5-1 zone;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) 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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=160, 6=160.
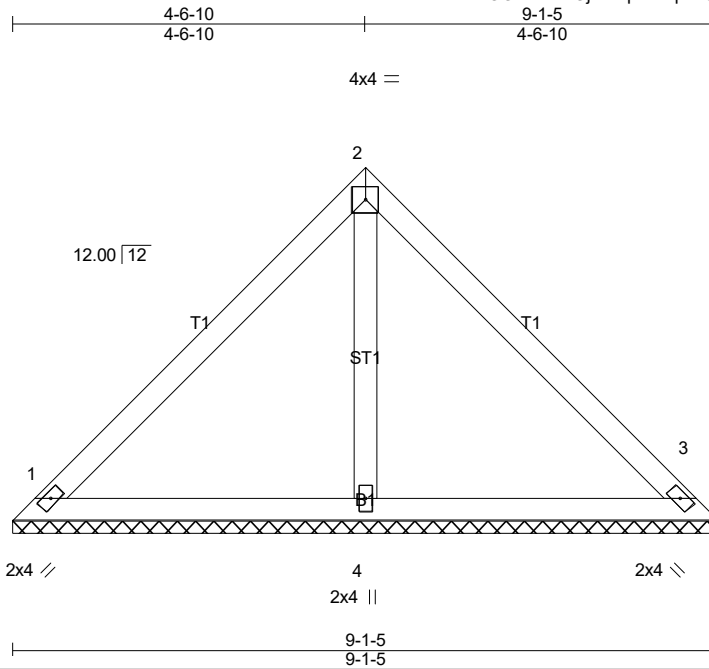
LOAD CASE(S) Standard

North Carolina Professional Seal 28147 Engineer Mark K. Morris

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT02	Valley	1	1	**# 50803**
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:06 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-02zlvuDnh3AI4a_zRlfiT?fQgflqUlJuFt1BLfyuaap

4-6-10		9-1-5
4-6-10		4-6-10

4x4 ≡

Scale = 1:29.7

12.00 ⌐12⌐

4-6-10

2 ▢
T1   T1
ST1
1   3
B1
2x4 ⫽   4   2x4 ⟍
2x4 ‖

9-1-5
9-1-5

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	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 37 lb	FT = 0%
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=182/9-1-5 (min. 0-1-8), 3=182/9-1-5 (min. 0-1-8), 4=308/9-1-5 (min. 0-1-8)
Max Horz 1=-82(LC 8)
Max Uplift1=-22(LC 13), 3=-22(LC 13), 4=-9(LC 12)

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

NOTES-   (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS
   (envelope) gable end zone and C-C Exterior(2E) zone;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) 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, 4.
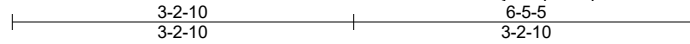
LOAD CASE(S) Standard

7/24/2024

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:07 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-UFX76EEPSMl9hkZA_SAx0DCcU37YDC41UXnlt5yuaao

3-2-10 | 6-5-5
3-2-10 | 3-2-10

4x4 ═

Scale = 1:21.6

12.00 ⌐12

3-2-10

T1   T1

ST1

1   3

B1

2x4 ∥

4

2x4 ∕∕   2x4 ∥   2x4 ∖∖

6-5-5
6-5-5

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	0.15	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	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 26 lb	FT = 0%
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=138/6-5-5 (min. 0-1-8), 3=138/6-5-5 (min. 0-1-8), 4=183/6-5-5 (min. 0-1-8)
Max Horz 1=56(LC 11)
Max Uplift1=-26(LC 13), 3=-26(LC 13)

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

NOTES- (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS
   (envelope) gable end zone and C-C Exterior(2E) zone;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) 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.
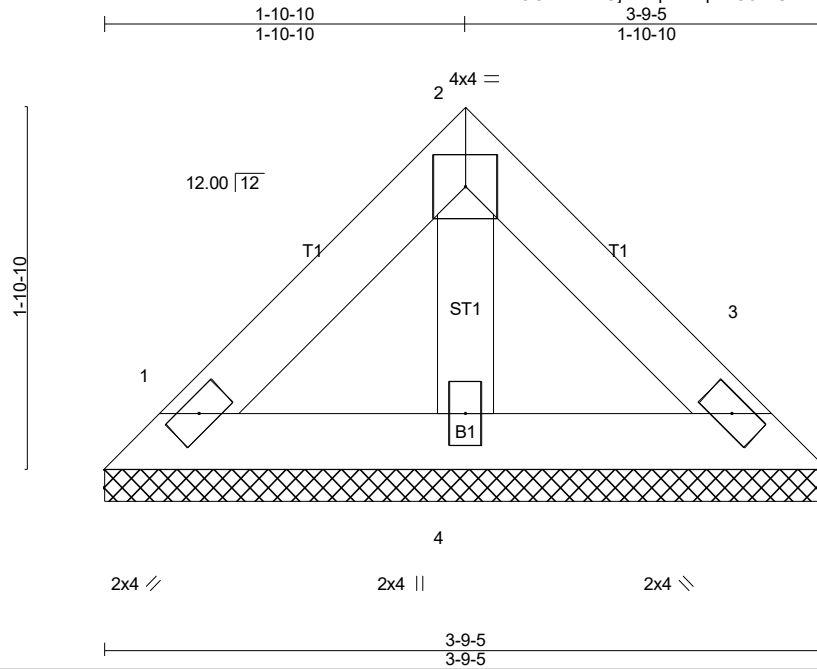
LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT04	Valley	1	1	# 50803
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:07 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-UFX76EEPSMI9hkZA_SAx0DCe6397DCJ1UXnlt5yuaao

Scale: 1"=1'

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 14 lb	FT = 0%
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 3-9-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. (lb/size) 1=74/3-9-5 (min. 0-1-8), 3=74/3-9-5 (min. 0-1-8), 4=98/3-9-5 (min. 0-1-8)
Max Horz 1=-30(LC 8)
Max Uplift1=-14(LC 13), 3=-14(LC 13)

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

NOTES- (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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) 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.
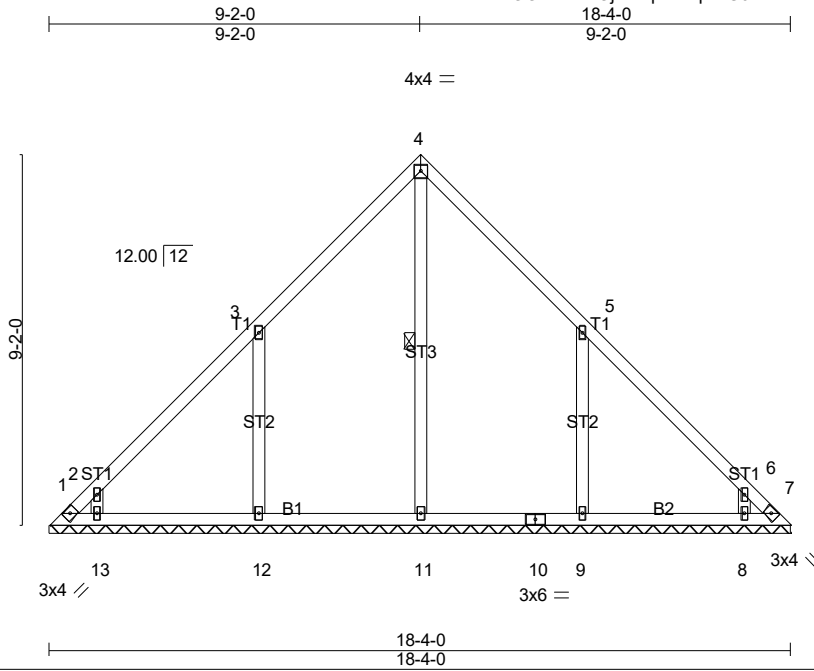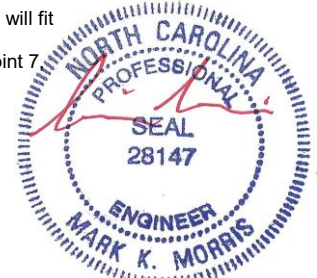
LOAD CASE(S) Standard

7/24/2024

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 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT05	Valley	1	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:09 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-RdfuXwFf__Ytx1jY6tCP5eHxFskVh4_KyrGry_yuaam

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 93 lb	FT = 0%
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.
WEBS   1 Row at midpt   4-11

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

REACTIONS.   All bearings 18-4-0.
(lb) - Max Horz 1=-172(LC 8)
        Max Uplift All uplift 100 lb or less at joint(s) except 1=-146(LC 10), 7=-115(LC 11), 12=-184(LC 12), 13=-142(LC 12), 9=-183(LC 13), 8=-143(LC 13)
        Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=441(LC 22), 12=464(LC 19), 13=286(LC 1), 9=464(LC 20), 8=286(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-276/170
WEBS   3-12=-293/224, 5-9=-293/224

NOTES-   (9)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 5-2-0, Exterior(2R) 5-2-0 to 13-2-0, Exterior(2E) 13-2-0 to 17-11-12 zone;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) All plates are 2x4 MT20 unless otherwise indicated.
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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 1, 115 lb uplift at joint 7, 184 lb uplift at joint 12, 142 lb uplift at joint 13, 183 lb uplift at joint 9 and 143 lb uplift at joint 8.
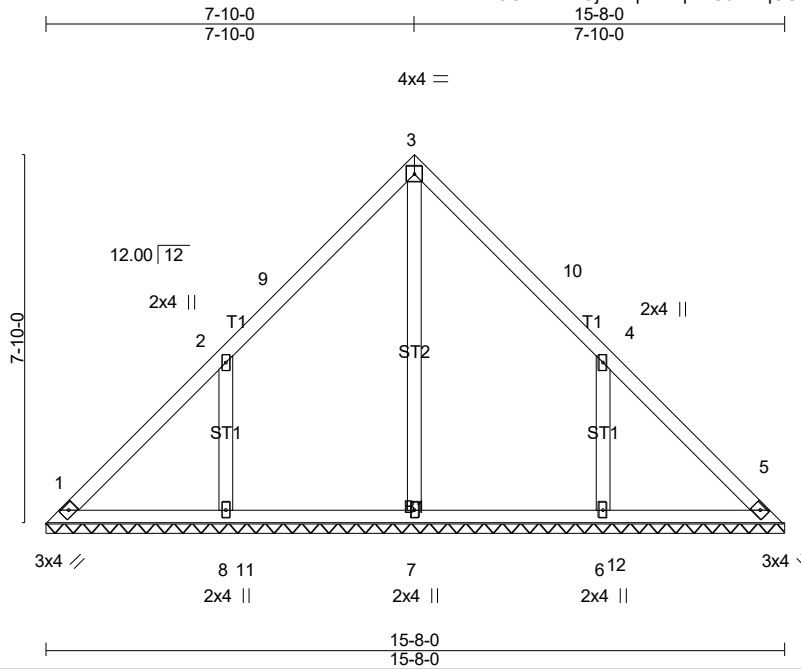
LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT06	Valley	1	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:10 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-vqCGkGGIIHgkYBIlgbjeerp66G4rQWqTAV?PUQyuaal

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 75 lb	FT = 0%
BCDL	10.0											

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

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

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

REACTIONS. All bearings 15-8-0.
 (lb) - Max Horz 1=-146(LC 8)
     Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-187(LC 12), 6=-187(LC 13)
     Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=425(LC 22), 8=451(LC 19), 6=451(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-284/216, 4-6=-284/216

NOTES-   (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 5-1-13, Exterior(2R) 5-1-13 to 10-6-2, Exterior(2E) 10-6-2 to 15-3-12 zone;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) 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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=187, 6=187.
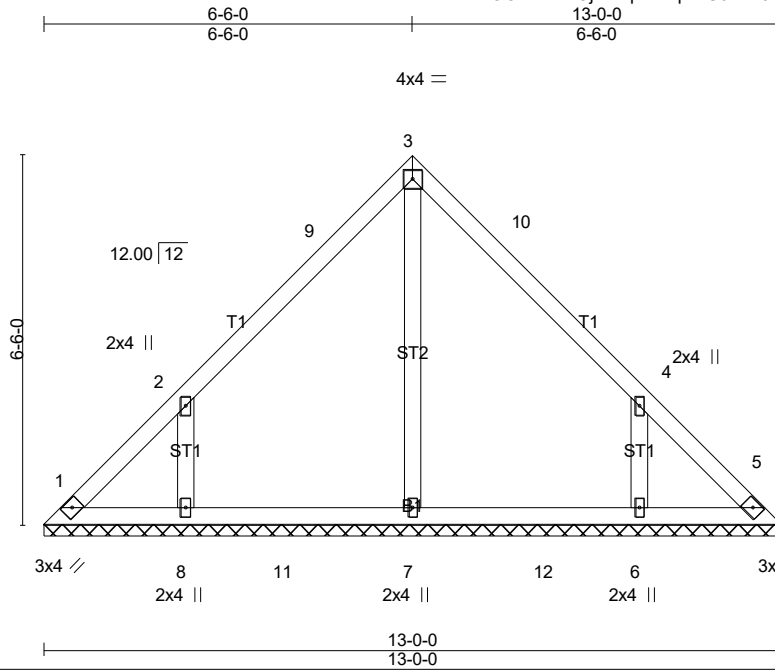
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT07	Valley	1	1	# 50803

Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:11 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-N0meycHwWbobALtxDIFtA3MI5gRN9_sdP9ly0syuaak

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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 60 lb	FT = 0%
BCDL	10.0											

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

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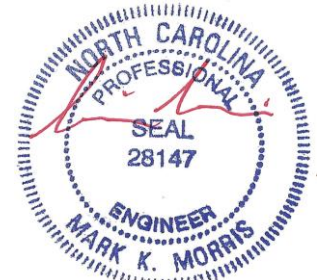BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS.   All bearings 13-0-0.
   (lb) - Max Horz 1=-120(LC 8)
            Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-162(LC 12), 6=-162(LC 13)
            Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=385(LC 19), 8=352(LC 19), 6=351(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-255/196, 4-6=-255/196

NOTES-   (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 5-1-13, Exterior(2R) 5-1-13 to 7-10-2, Exterior(2E) 7-10-2 to 12-7-12 zone;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) 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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=162, 6=162.
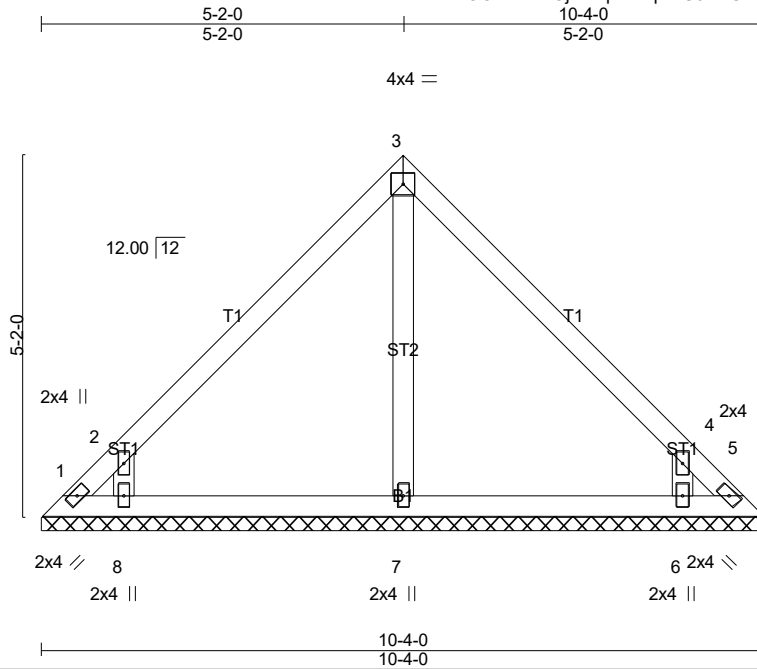
LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT08	Valley	1	1	**# 50803**

Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:12 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-rCK09yIYHvxSoVS7n0m6jGvRY4pnuRSmepUVYIyuaaj

5-2-0
5-2-0
10-4-0
5-2-0

4x4

Scale = 1:33.0

12.00 ⌐12

5-2-0

T1   ST2   T1

2x4 || 2x4 ||

2   ST1   4   5

1   ST1   ST1

2x4 //   8   7   6   2x4 \\

2x4 || 2x4 || 2x4 ||

10-4-0
10-4-0

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 44 lb	FT = 0%
BCDL	10.0											

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

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

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

REACTIONS.   All bearings 10-4-0.
(lb) - Max Horz 1=-94(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-121(LC 10), 5=-104(LC 11), 8=-185(LC 12), 6=-185(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=361(LC 19), 6=361(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-311/274, 4-6=-311/274

NOTES-   (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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
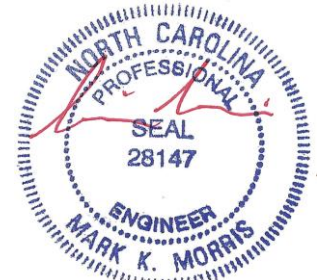4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 1, 104 lb uplift at joint 5, 185 lb uplift at joint 8 and 185 lb uplift at joint 6.
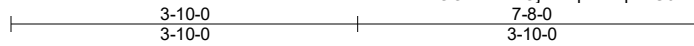
LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT09	Valley	1	1	# 50803
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:13 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-JPuPNIIA2C3JPf1KLjHLGURciT9wdvNwsTE35Iyuaai

3-10-0
3-10-0
7-8-0
3-10-0

4x4

Scale = 1:25.5

12.00 ⌐12

3-10-0

T1   T1
ST1

1   3

4
2x4 ⫽   2x4 ‖   2x4 ⟍

7-8-0
7-8-0

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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 31 lb	FT = 0%
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=168/7-8-0 (min. 0-1-8), 3=168/7-8-0 (min. 0-1-8), 4=222/7-8-0 (min. 0-1-8)
Max Horz 1=-68(LC 8)
Max Uplift1=-31(LC 13), 3=-31(LC 13)

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

NOTES- (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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) 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 31 lb uplift at joint 1 and 31 lb uplift at joint 3.
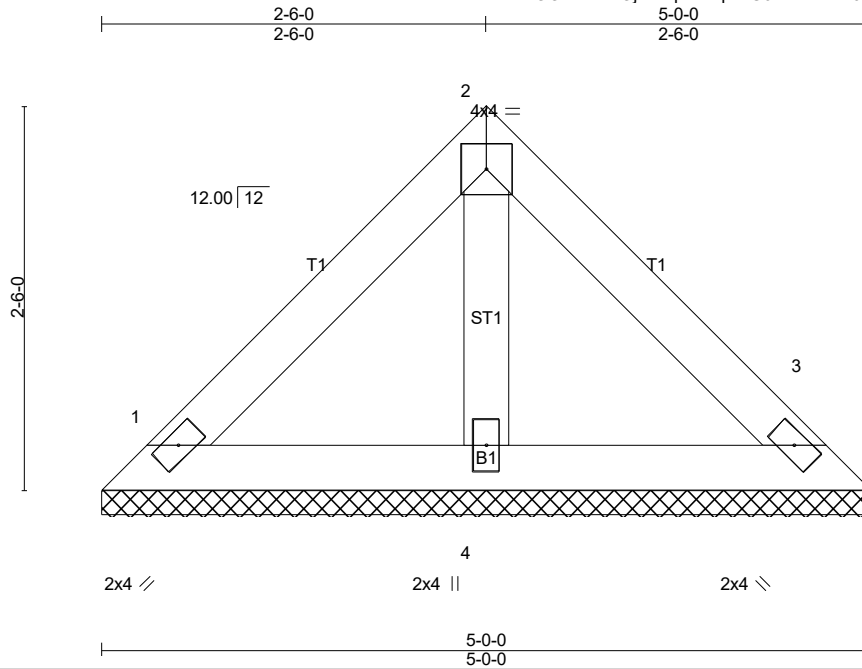
LOAD CASE(S) Standard

7/24/2024

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND | 113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT10	Valley	1	1	**# 50803**
					Job Reference (optional)

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:14 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-nbSnadJopWBA1ocWvQoaoh_pgtX9MMy357zcdByuaah

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 19 lb	FT = 0%
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 5-0-0 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=103/5-0-0 (min. 0-1-8), 3=103/5-0-0 (min. 0-1-8), 4=137/5-0-0 (min. 0-1-8)
Max Horz 1=42(LC 11)
Max Uplift1=-19(LC 13), 3=-19(LC 13)

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

NOTES- (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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) 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 19 lb uplift at joint 1 and 19 lb uplift at joint 3.
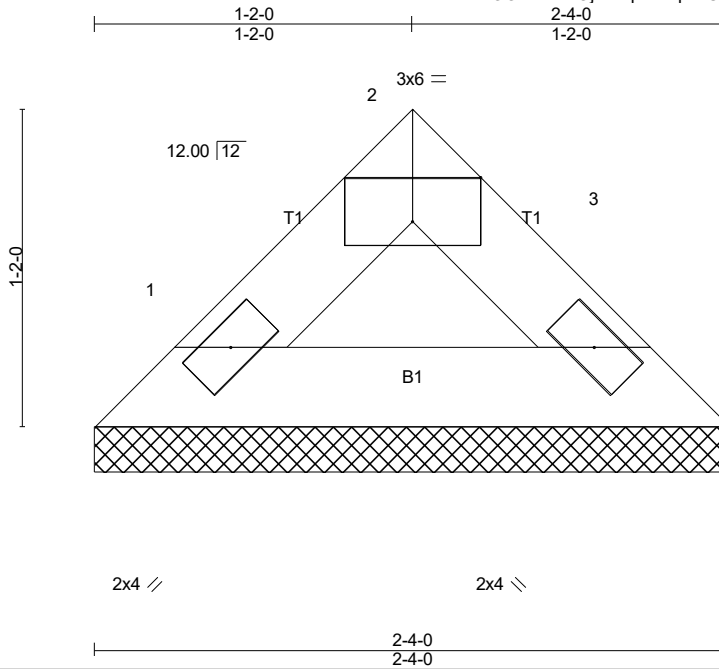
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT11	Valley	1	1	**# 50803**
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:15 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-Fn09nzKQaqJ0fyBiS8JpLvX?aHut5pTCKnjA9dyuaag

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	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: 7 lb	FT = 0%
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 2-4-0 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=65/2-4-0 (min. 0-1-8), 3=65/2-4-0 (min. 0-1-8)
Max Horz 1=-16(LC 8)
Max Uplift1=-3(LC 12), 3=-3(LC 12)

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

NOTES- (8)
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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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) 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 3 lb uplift at joint 1 and 3 lb uplift at joint 3.
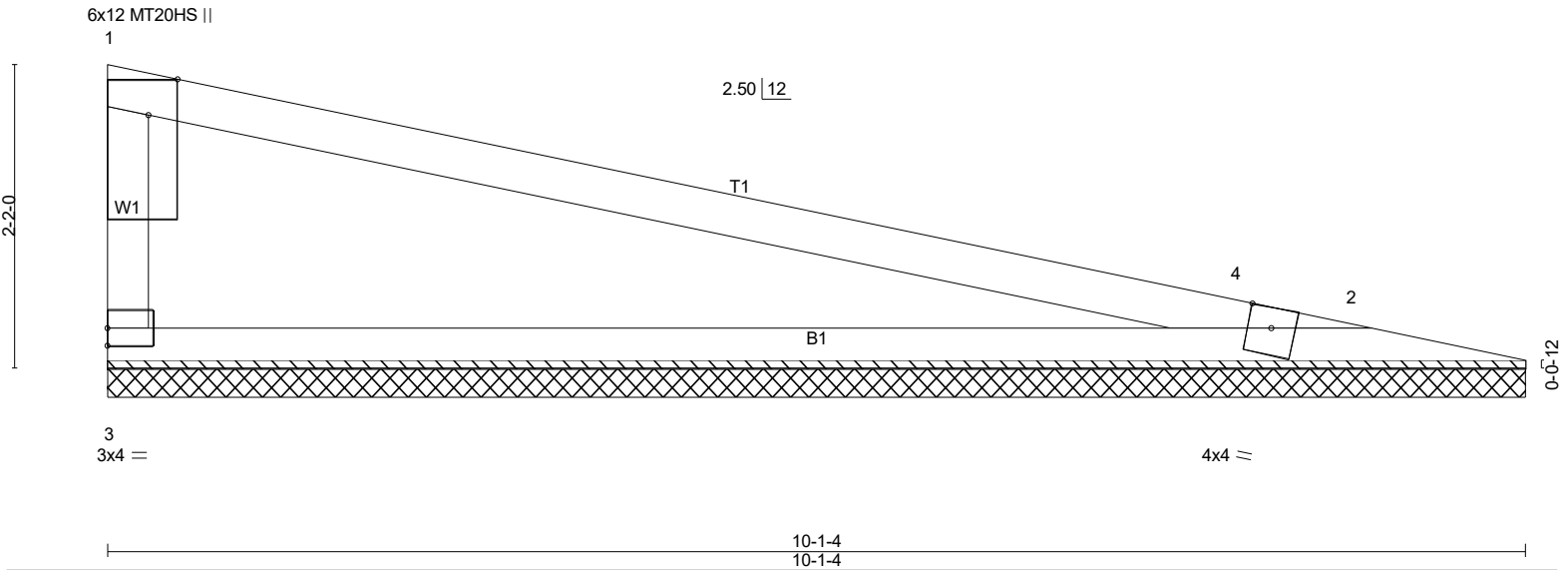
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Job	Truss	Truss Type	Qty	Ply	LOT 0.0108 BLAKE POND	113 FROST MEADOW WAY LILLINGTON, NC
24-5444-R01	VT12	Valley	1	1	**# 50803**
					Job Reference (optional)	

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:16 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-jzaX?JL2L7RtG6Iu0rq2t63?Ah0WqGjMZRSji4yuaaf

10-1-4
10-1-4

Scale = 1:16.4

6x12 MT20HS ||

2.50 | 12

T1

2-2-0

W1

B1

0-0-12

3
3x4 =

4x4 =

10-1-4
10-1-4

Plate Offsets (X,Y)-- [1:0-3-1,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	0.73	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	n/a	-	n/a	999	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 31 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SP SS	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2		

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

REACTIONS. (lb/size) 3=354/10-1-4 (min. 0-1-8), 2=354/10-1-4 (min. 0-1-8)
Max Horz3=-56(LC 11)
Max Uplift3=-52(LC 11), 2=-41(LC 11)
Max Grav 3=448(LC 21), 2=430(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-3=-318/127, 1-4=-262/31, 2-4=-330/15
BOT CHORD   2-3=0/257

NOTES- (9-12)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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) All plates are MT20 plates unless otherwise indicated.
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 52 lb uplift at joint 3 and 41 lb uplift at joint 2.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

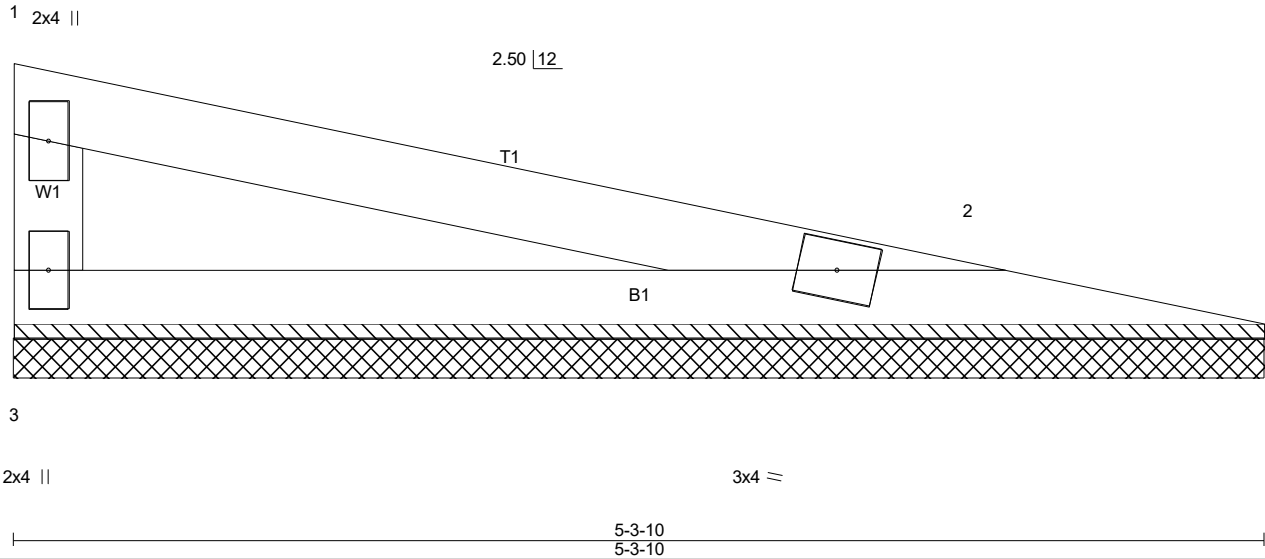**LOAD CASE(S)** Standard

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Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Jul 25 09:19:17 2024 Page 1
ID:oDuWOOMhLxMOj2fwcp2aKqzMG6w-CA8vCfLh5RZkuGK5aZLHQKcF?5UwZjzVn5CGEWyuaae

5-3-10
5-3-10

Scale = 1:9.8

1 2x4 ||

2.50 |12

1-2-0

W1

T1

2

B1

0-0-12

3

2x4 ||

3x4 =

5-3-10
5-3-10

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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P							Weight: 15 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 5-3-10 oc purlins, except end verticals.
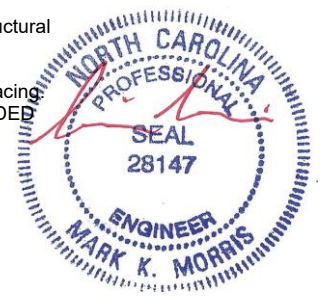BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. (lb/size)   3=162/5-3-10 (min. 0-1-8), 2=162/5-3-10 (min. 0-1-8)
Max Horz 3=-26(LC 11)
Max Uplift3=-24(LC 11), 2=-19(LC 11)
Max Grav 3=201(LC 21), 2=201(LC 21)

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

NOTES- (8-11)
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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 24 lb uplift at joint 3 and 19 lb uplift at joint 2.
8) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
9) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
10) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
11) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

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