

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: quote\_file  
Eaker - Beverly DMS

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components-Kings Mountain, NC.

Pages or sheets covered by this seal: I42384923 thru I42384946

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844



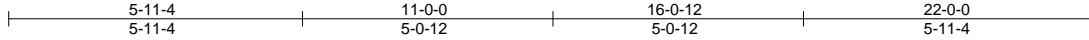
August 11, 2020

Johnson, Andrew

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

Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384923
QUOTE_FILE	GR1	HOWE	1	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:07 2020 Page 1  
 ID:8f4o8RsnClg10YU3IP1EyQyuwKQ-Cgoy?2ta\_dF4wm6Df?fjCHy0\_Aglz8b\_dNiCvyvovbY



4x6 ||

Scale = 1:46.6

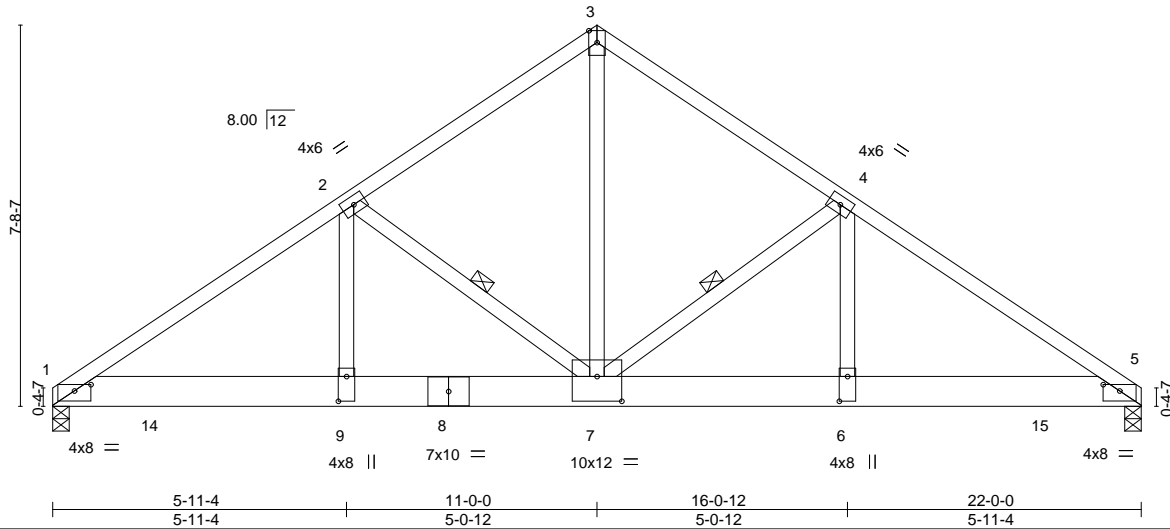


Plate Offsets (X,Y)-- [1:0-4-0,0-1-9], [5:0-4-0,0-1-9], [6:0-6-0,0-2-0], [7:0-6-0,0-6-0], [9:0-6-0,0-2-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.11	7-9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.22	7-9	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.68	Horz(CT)	0.07	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 127 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x8 SP No.1  
 WEBS 2x4 SPF Stud \*Except\*  
 3-7: 2x4 SPF No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-3-15 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 2-7, 4-7

**REACTIONS.** (size) 1=0-4-0 (req. 0-4-6), 5=0-4-0 (req. 0-4-6)  
 Max Horz 1=181(LC 7)  
 Max Uplift 1=-453(LC 8), 5=-453(LC 9)  
 Max Grav 1=2782(LC 15), 5=2782(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-4416/728, 2-3=-3028/556, 3-4=-3030/558, 4-5=-4412/724  
 BOT CHORD 1-9=-636/3752, 7-9=-636/3752, 6-7=-521/3624, 5-6=-521/3624  
 WEBS 2-9=-170/1404, 3-7=-493/3022, 4-6=-168/1402, 2-7=-1563/385, 4-7=-1561/383

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - WARNING: Required bearing size at joint(s) 1, 5 greater than input bearing size.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=453, 5=453.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Girder carries tie-in span(s): 12-0-0 from 2-0-0 to 20-0-0
  - 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-14=-20, 14-15=-213(F=-193), 5-15=-20, 1-3=-60, 3-5=-60



August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384924
QUOTE_FILE	GR7	FINK	1	2	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:08 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQywwKQ-gtMKDOuClxNxXwhPCjAyIVVEHa0qiZ37s1SIUMyovbX

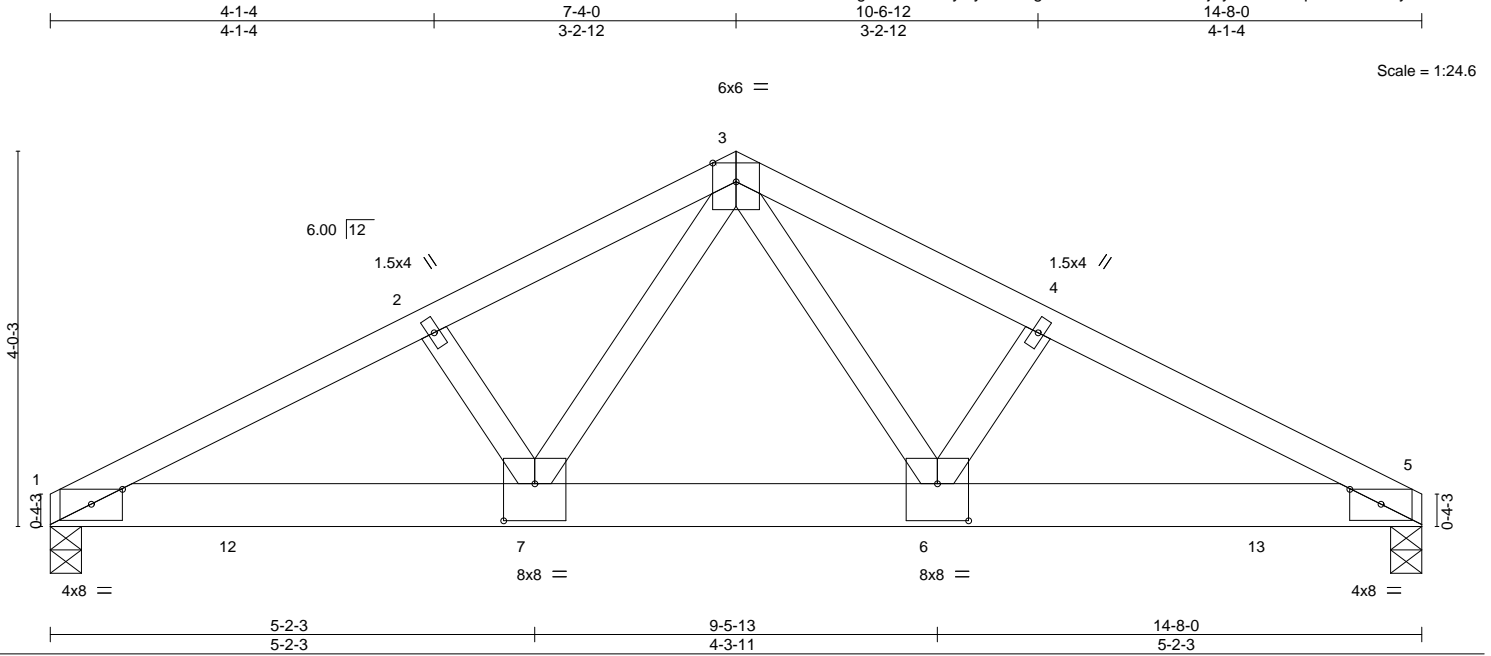


Plate Offsets (X,Y)--	[1:0-4-0,0-1-15], [5:0-4-0,0-1-15], [6:0-4-0,0-4-12], [7:0-4-0,0-4-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.57	Vert(LL) -0.09 6-7 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.78	Vert(CT) -0.19 6-7 >934 180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.80	Horz(CT) 0.05 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS		Weight: 117 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins.
BOT CHORD 2x6 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF Stud	

**REACTIONS.** (size) 1=0-4-0, 5=0-4-0  
 Max Horz 1=-61(LC 13)  
 Max Uplift 1=-679(LC 8), 5=-707(LC 9)  
 Max Grav 1=4104(LC 15), 5=4272(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-7979/1323, 2-3=-7887/1326, 3-4=-7992/1341, 4-5=-8078/1338  
 BOT CHORD 1-7=-1199/7170, 6-7=-788/5049, 5-6=-1153/7234  
 WEBS 3-7=-670/3949, 3-6=-697/4118, 4-6=-255/140

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=679, 5=707.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Girder carries tie-in span(s): 32-0-0 from 2-0-0 to 13-0-0

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-12=-20, 12-13=-613(F=-593), 5-13=-20, 1-3=-60, 3-5=-60



August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

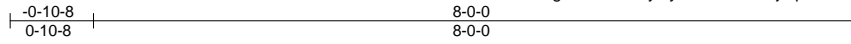


818 Soundside Road  
 Edenton, NC 27932

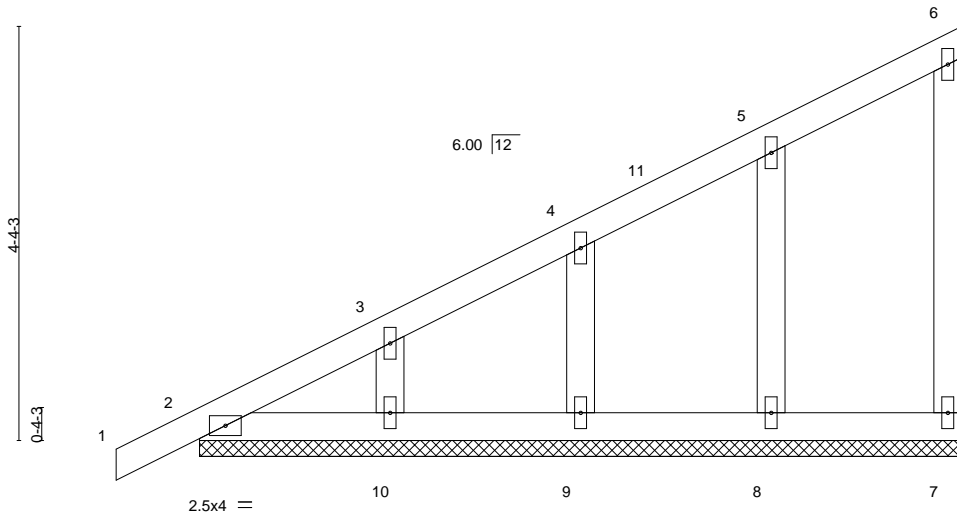
Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384925
QUOTE_FILE	M4	GABLE	1	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:09 2020 Page 1

ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-83wiQjuqWEVo94GcmQiBli1TdzYkRCrH4hB11oyovbW



Scale: 1/2"=1'



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	0.00	1	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 31 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF Stud  
OTHERS 2x4 SPF Stud

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

**REACTIONS.** All bearings 8-0-0.  
(lb) - Max Horz 2=164(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 7, 8, 9, 10  
Max Grav All reactions 250 lb or less at joint(s) 2, 7, 8, 9, 10

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 4-10-4, Corner(3E) 4-10-4 to 7-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 2, 7, 8, 9, 10.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

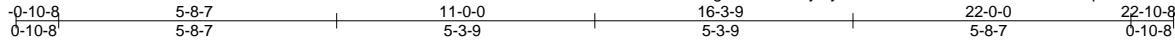
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384926
QUOTE_FILE	T1	FINK	4	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:10 2020 Page 1  
 ID:8f4o8RsnC1g10YU3iP1EyQyuwKQ-cFU4e3vSHYdfnEroK8DQqwadINi4Ab\_QJLxsZEyovbV



Scale = 1:47.3

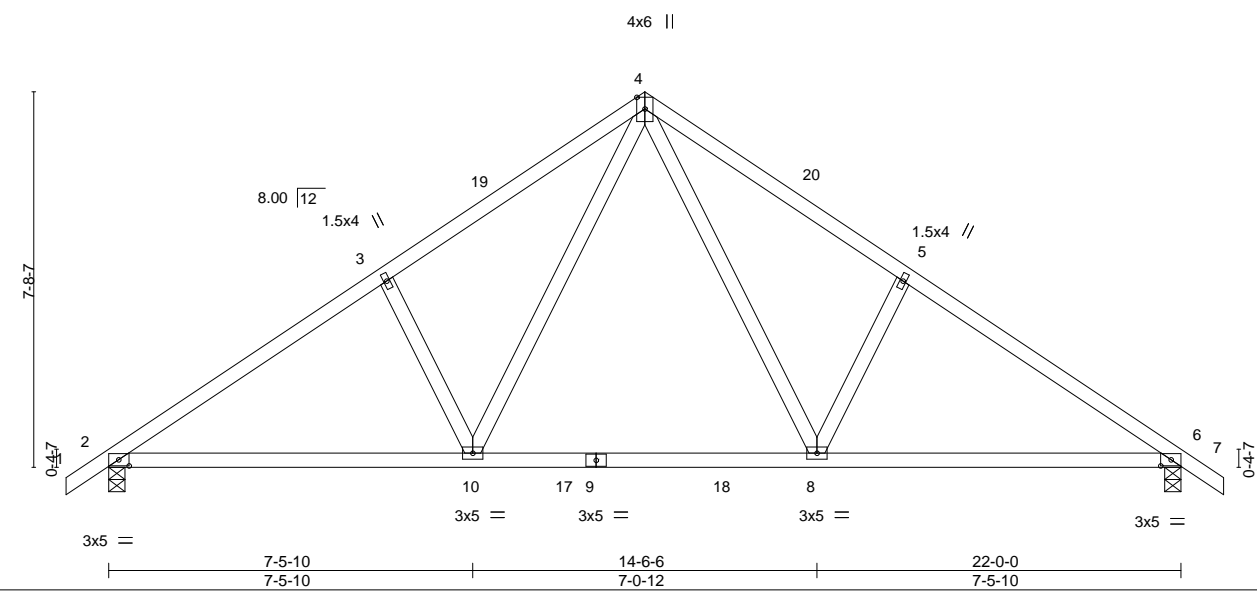


Plate Offsets (X,Y)--	[2:0-2-9,0-1-8], [6:0-2-9,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.34	Vert(LL) -0.09 8-10 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.60	Vert(CT) -0.17 8-16 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.26	Horz(CT) 0.03 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS		Weight: 85 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF Stud

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-8-3 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-4-0, 6=0-4-0  
 Max Horz 2=-196(LC 8)  
 Max Uplift 2=-156(LC 10), 6=-156(LC 11)  
 Max Grav 2=1050(LC 17), 6=1050(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1389/218, 3-4=-1307/267, 4-5=-1307/267, 5-6=-1389/218  
 BOT CHORD 2-10=-198/1249, 8-10=-31/804, 6-8=-84/1120  
 WEBS 3-10=-349/237, 4-10=-149/682, 4-8=-149/682, 5-8=-349/237

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 14-0-0, Interior(1) 14-0-0 to 19-10-8, Exterior(2E) 19-10-8 to 22-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=156, 6=156.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384927
QUOTE_FILE	T1G	GABLE	1	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:11 2020 Page 1

ID:8f4o8RsnClg10YU3IP1EyQyuwKQ-5S1TrPw41sVPNQ\_urkIN77sEnDpv4uaY?gP5gyovbU

0-10-8 11-0-0 22-0-0 22-10-8  
0-10-8 11-0-0 11-0-0 0-10-8

4x4 =

Scale = 1:49.4

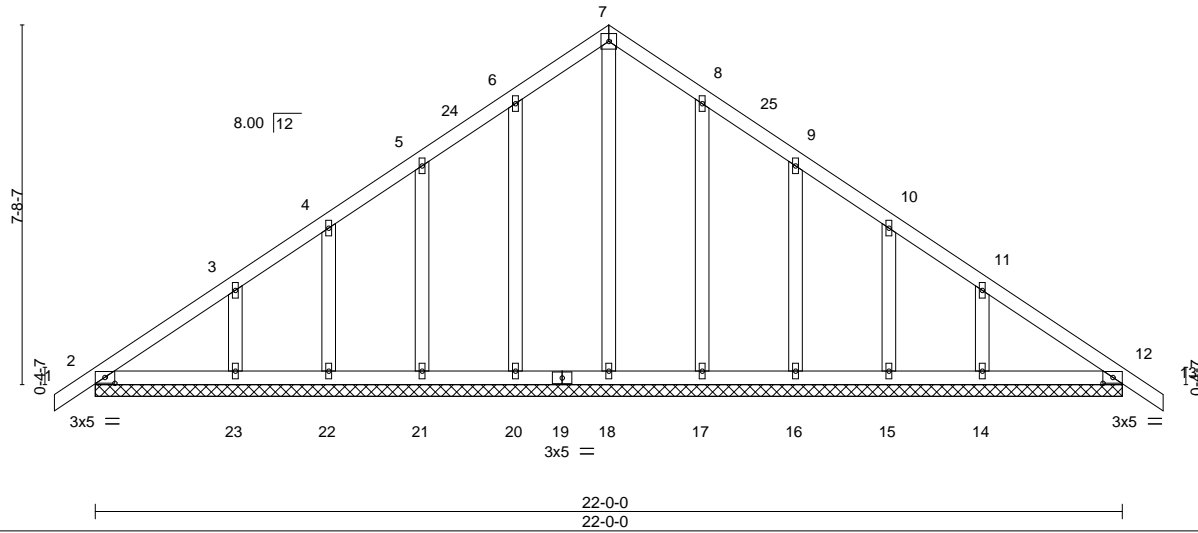


Plate Offsets (X,Y)-- [2:0-2-9,0-1-8], [12:0-2-9,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.08	Vert(LL)	0.00	13	n/r	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT)	0.00	13	n/r		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT)	0.01	12	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 101 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
OTHERS 2x4 SPF Stud

**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 22-0-0.  
(lb) - Max Horz 2=-196(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 17, 16, 15 except 23=-103(LC 10), 14=-103(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 20, 21, 22, 23, 17, 16, 15, 14

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 14-0-0, Interior(1) 14-0-0 to 19-10-8, Exterior(2E) 19-10-8 to 22-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 17, 16, 15 except (jt=lb) 23=103, 14=103.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

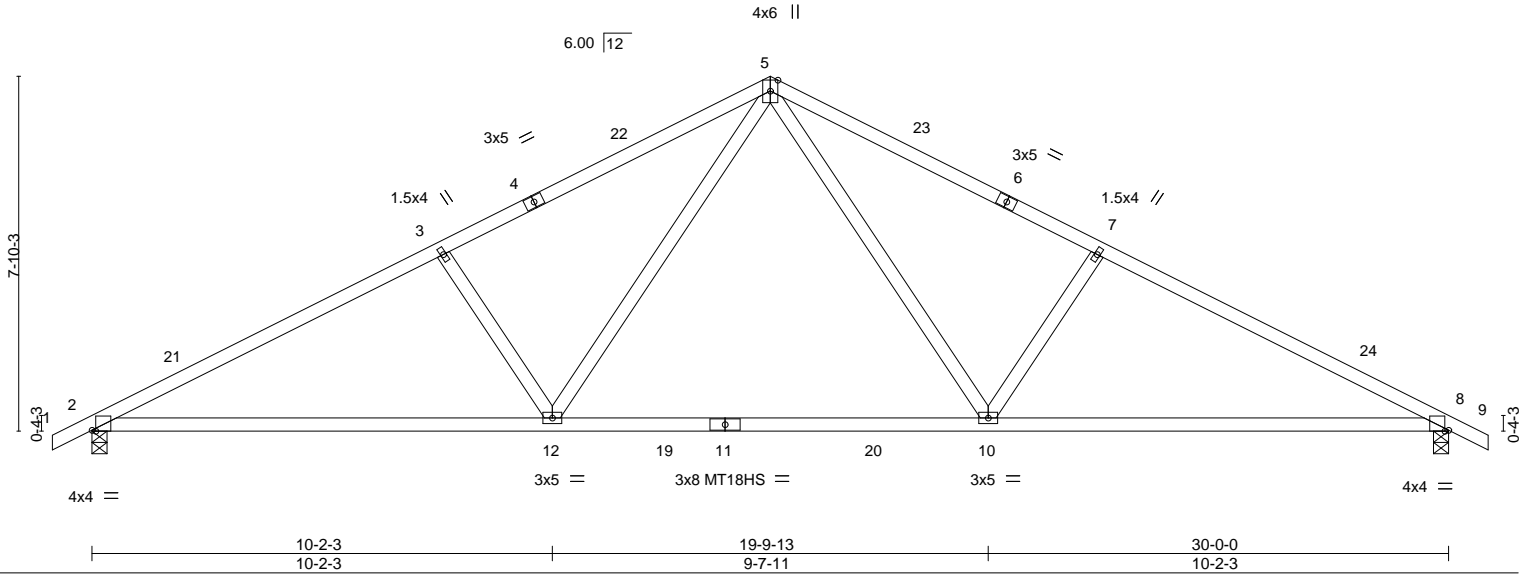


Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384928
QUOTE_FILE	T2	FINK	6	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:12 2020 Page 1  
 ID:8f4o8RsnC1g10YU3iP1EyQyuwKQ-Ze3r3lxio9tM0X?BRZFuvLfsmBMRreTWjmfQzd7yovbT

0-10-8 7-9-4 15-0-0 22-2-12 30-0-0 30-10-8  
 0-10-8 7-9-4 7-2-12 7-2-12 7-9-4 0-10-8

Scale = 1:51.0



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.73	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.86	Vert(LL) -0.29 10-12 >999 240	MT18HS	197/144
BCLL 0.0 *	Lumber DOL 1.15	WB 0.38	Vert(CT) -0.53 12-15 >683 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.07 8 n/a n/a		
	Code IRC2018/TPI2014			Weight: 105 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF 1650F 1.5E  
 WEBS 2x4 SPF Stud

**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.

**REACTIONS.** (size) 2=0-4-0, 8=0-4-0  
 Max Horz 2=133(LC 14)  
 Max Uplift 2=-217(LC 10), 8=-217(LC 11)  
 Max Grav 2=1353(LC 2), 8=1353(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2288/388, 3-5=-2102/393, 5-7=-2102/393, 7-8=-2288/388  
 BOT CHORD 2-12=-348/2011, 10-12=-105/1321, 8-10=-243/2011  
 WEBS 3-12=-472/290, 5-12=-160/893, 5-10=-160/893, 7-10=-472/291

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-0-0, Exterior(2R) 12-0-0 to 18-0-0, Interior(1) 18-0-0 to 27-10-8, Exterior(2E) 27-10-8 to 30-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=217, 8=217.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384929
QUOTE_FILE	T2G	GABLE	1	1		

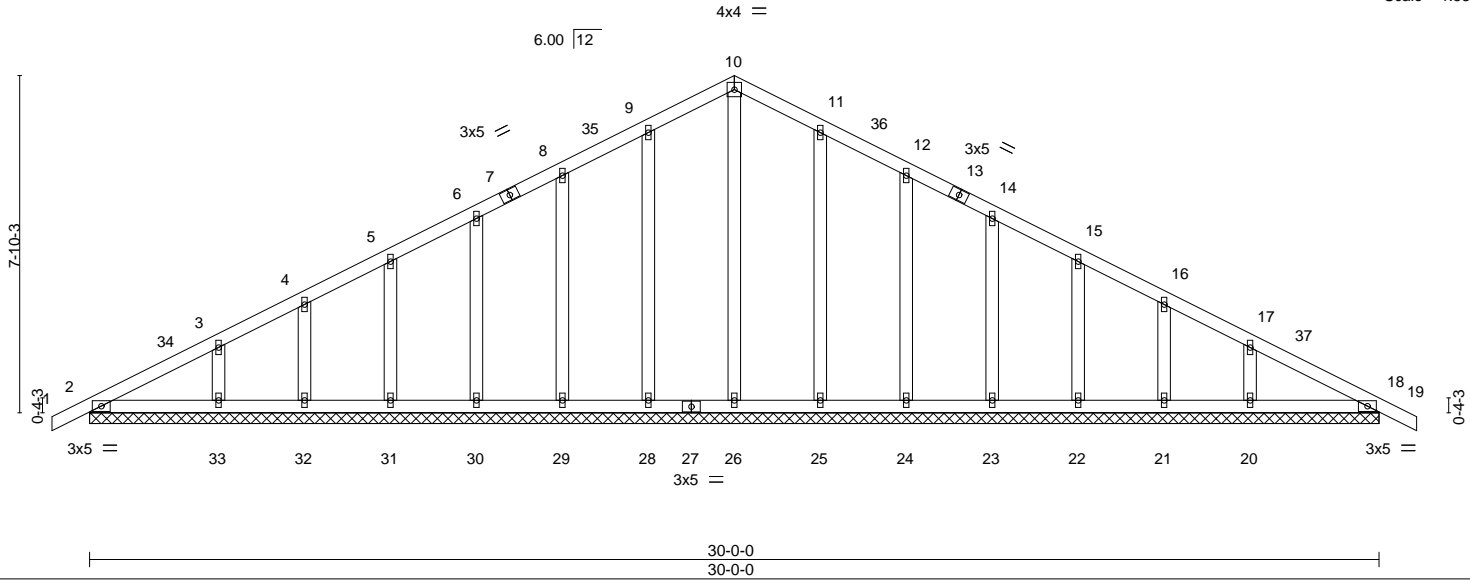
84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086,

8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:14 2020 Page 1

ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-V1jbTRyzKn74Gr9ZZ\_HN?mkMR\_FX6RX0Ezv3i?yovbR

-0-10-8 15-0-0 30-0-0 30-10-8  
0-10-8 15-0-0 15-0-0 0-10-8

Scale = 1:53.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.08	Vert(LL)	0.00	19	n/r	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	0.00	19	n/r		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Horz(CT)	0.01	18	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2018/TPI2014						Weight: 135 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF Stud	

**REACTIONS.** All bearings 30-0-0.  
 (lb) - Max Horz 2=133(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 18, 28, 29, 30, 31, 32, 33, 25, 24, 23, 22, 21, 20  
 Max Grav All reactions 250 lb or less at joint(s) 2, 18, 26, 28, 29, 30, 31, 32, 33, 25, 24, 23, 22, 21, 20

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-0-0, Exterior(2R) 12-0-0 to 18-0-0, Interior(1) 18-0-0 to 27-10-8, Exterior(2E) 27-10-8 to 30-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 18, 28, 29, 30, 31, 32, 33, 25, 24, 23, 22, 21, 20.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

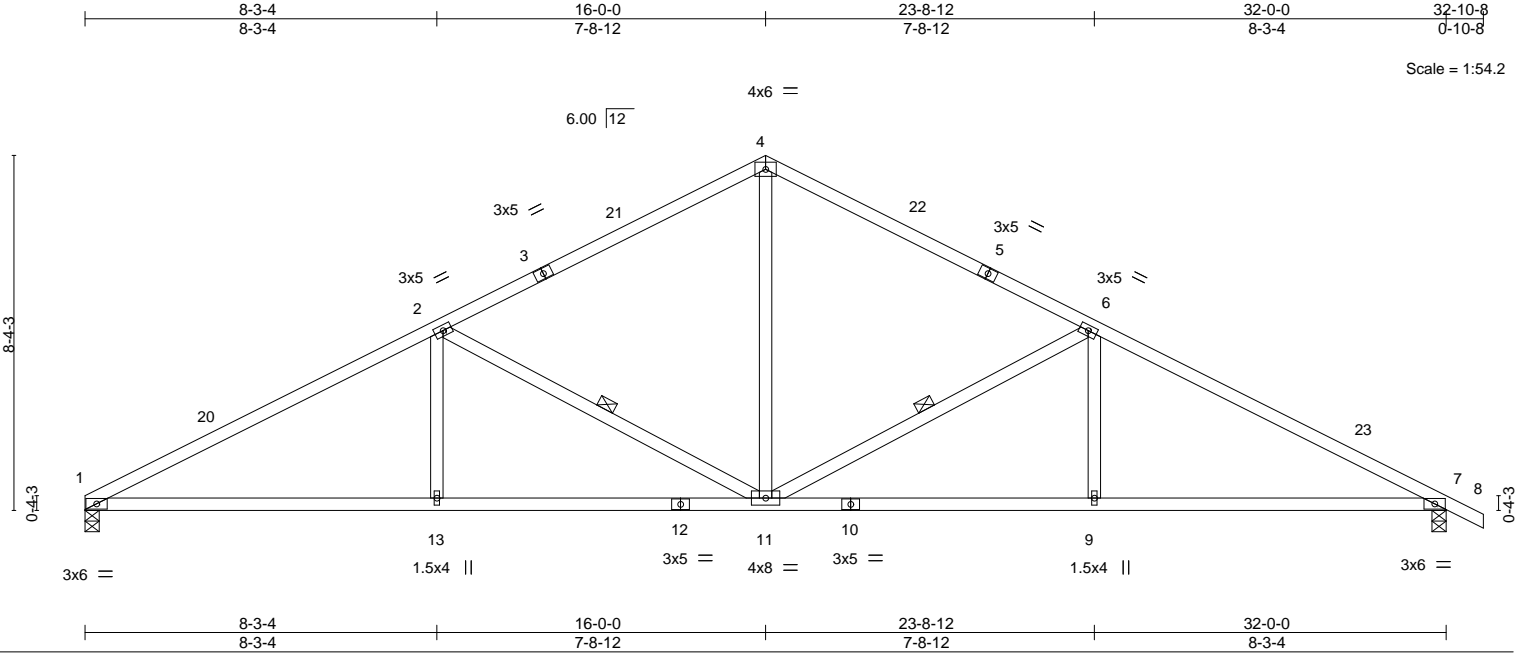


August 11, 2020



Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384930
QUOTE_FILE	T3	HOWE	6	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:15 2020 Page 1  
 ID:8f4o8RsnC1g10YU3iP1EyQyuwKQ-zDHzhnb54Fxt?jl7hocXzHNV001rqF9TdedESyovbQ



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.76	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.87	Vert(LL) 0.16 13-16 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.39	Vert(CT) -0.34 13-16 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.10 7 n/a n/a		
	Code IRC2018/TPI2014			Weight: 116 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 9-4-12 oc bracing.
WEBS 2x4 SPF Stud	WEBS 1 Row at midpt 2-11, 6-11

**REACTIONS.** (size) 1=0-4-0, 7=0-4-0  
 Max Horz 1=-148(LC 11)  
 Max Uplift 1=-208(LC 10), 7=-230(LC 11)  
 Max Grav 1=1279(LC 1), 7=1333(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2330/408, 2-4=-1571/356, 4-6=-1570/355, 6-7=-2326/401  
 BOT CHORD 1-13=-361/2007, 11-13=-361/2007, 9-11=-250/2003, 7-9=-250/2003  
 WEBS 2-13=0/346, 4-11=-92/896, 6-9=0/345, 2-11=-817/300, 6-11=-812/298

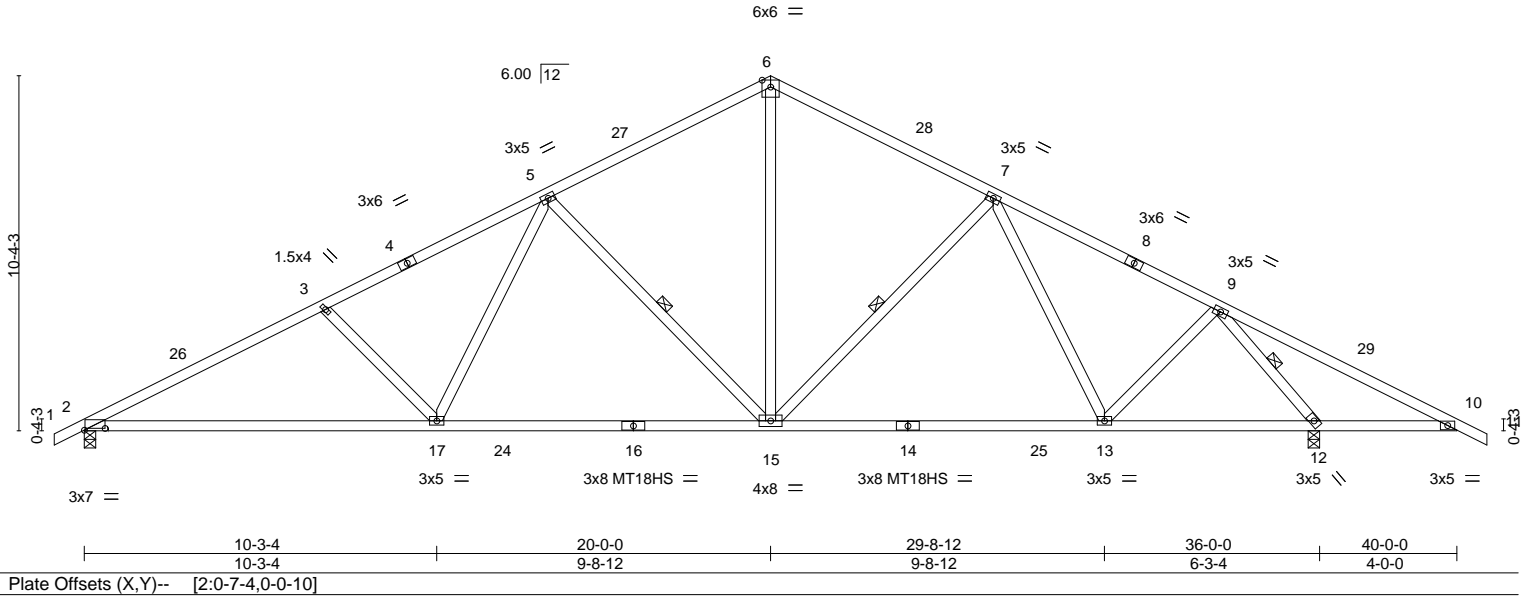
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-2-6, Interior(1) 3-2-6 to 12-9-10, Exterior(2R) 12-9-10 to 19-2-6, Interior(1) 19-2-6 to 29-8-2, Exterior(2E) 29-8-2 to 32-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=208, 7=230.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384931
QUOTE_FILE	T4	MOD. QUEEN	7	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:16 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-RPrMu7\_DsOnoV9lygOKr4BqX5ojXaFkHhOAnuyovbP  
 0-10-8 7-0-5 13-6-3 20-0-0 26-5-13 32-11-11 40-0-0 40-10-8  
 0-10-8 7-0-5 6-5-13 6-5-13 6-5-13 6-5-13 7-0-5 0-10-8

Scale = 1:67.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.77	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.91	Vert(LL) -0.29 13-15 >999 240	MT18HS	197/144
BCLL 0.0 *	Lumber DOL 1.15	WB 0.56	Vert(CT) -0.53 17-20 >808 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.10 12 n/a n/a		
	Code IRC2018/TPI2014			Weight: 163 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SPF Stud	WEBS 1 Row at midpt 5-15, 7-15, 9-12

**REACTIONS.** (size) 2=0-4-0, 12=0-4-0  
 Max Horz 2=174(LC 14)  
 Max Uplift 2=-266(LC 10), 12=-314(LC 11)  
 Max Grav 2=1599(LC 2), 12=2003(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2849/467, 3-5=-2615/420, 5-6=-1658/365, 6-7=-1659/365, 7-9=-1735/255, 9-10=-300/586  
 BOT CHORD 2-17=-497/2525, 15-17=-298/1964, 13-15=-120/1558, 12-13=-86/1031, 10-12=-441/346  
 WEBS 3-17=-407/244, 5-17=-70/735, 5-15=-789/308, 6-15=-139/1113, 7-15=-289/221, 7-13=-255/157, 9-13=-39/657, 9-12=-2295/534

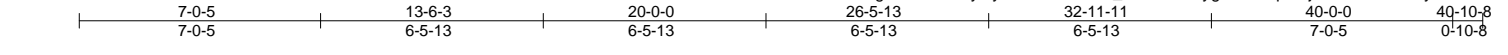
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 24-0-0, Interior(1) 24-0-0 to 36-10-8, Exterior(2E) 36-10-8 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=266, 12=314.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



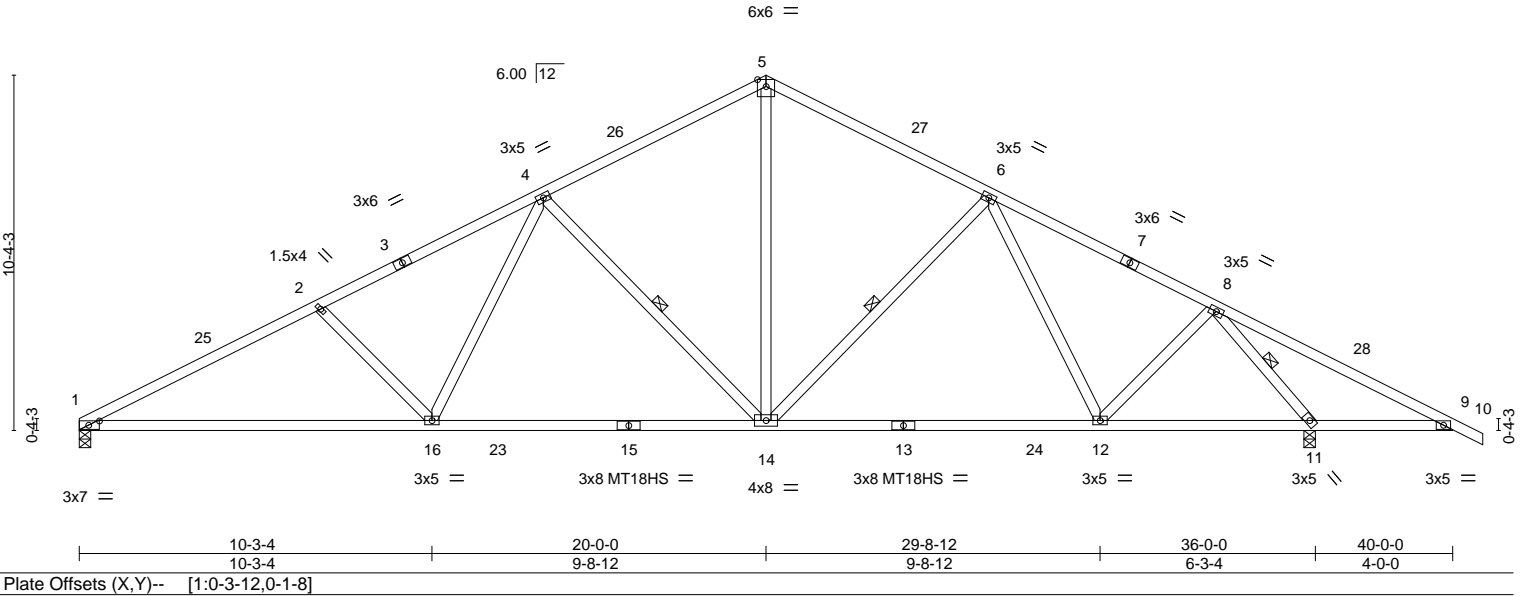
August 11, 2020

Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384932
QUOTE_FILE	T4A	MOD. QUEEN	2	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:16 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-RPrMu7\_DsOnoV9lygOKr4BqXkojSaFkJhHOAnuyovbP



Scale = 1:67.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.79	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.92	Vert(LL) -0.29 12-14 >999 240	MT18HS	197/144
BCLL 0.0 *	Lumber DOL 1.15	WB 0.56	Vert(CT) -0.54 16-19 >795 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.10 11 n/a n/a		
	Code IRC2018/TPI2014			Weight: 162 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SPF Stud	WEBS 1 Row at midpt 4-14, 6-14, 8-11

**REACTIONS.** (size) 1=0-4-0, 11=0-4-0  
 Max Horz 1=-181(LC 15)  
 Max Uplift 1=-244(LC 10), 11=-314(LC 11)  
 Max Grav 1=1554(LC 2), 11=2004(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2853/470, 2-4=-2619/425, 4-5=-1659/367, 5-6=-1660/367, 6-8=-1736/255, 8-9=-300/586  
 BOT CHORD 1-16=-500/2530, 14-16=-299/1966, 12-14=-121/1558, 11-12=-86/1031, 9-11=-441/346  
 WEBS 2-16=-410/246, 4-16=-72/739, 4-14=-790/309, 5-14=-140/1114, 6-14=-289/221, 6-12=-255/157, 8-12=-40/658, 8-11=-2296/536

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 4-0-0, Interior(1) 4-0-0 to 16-0-0, Exterior(2R) 16-0-0 to 24-0-0, Interior(1) 24-0-0 to 36-10-8, Exterior(2E) 36-10-8 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=244, 11=314.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

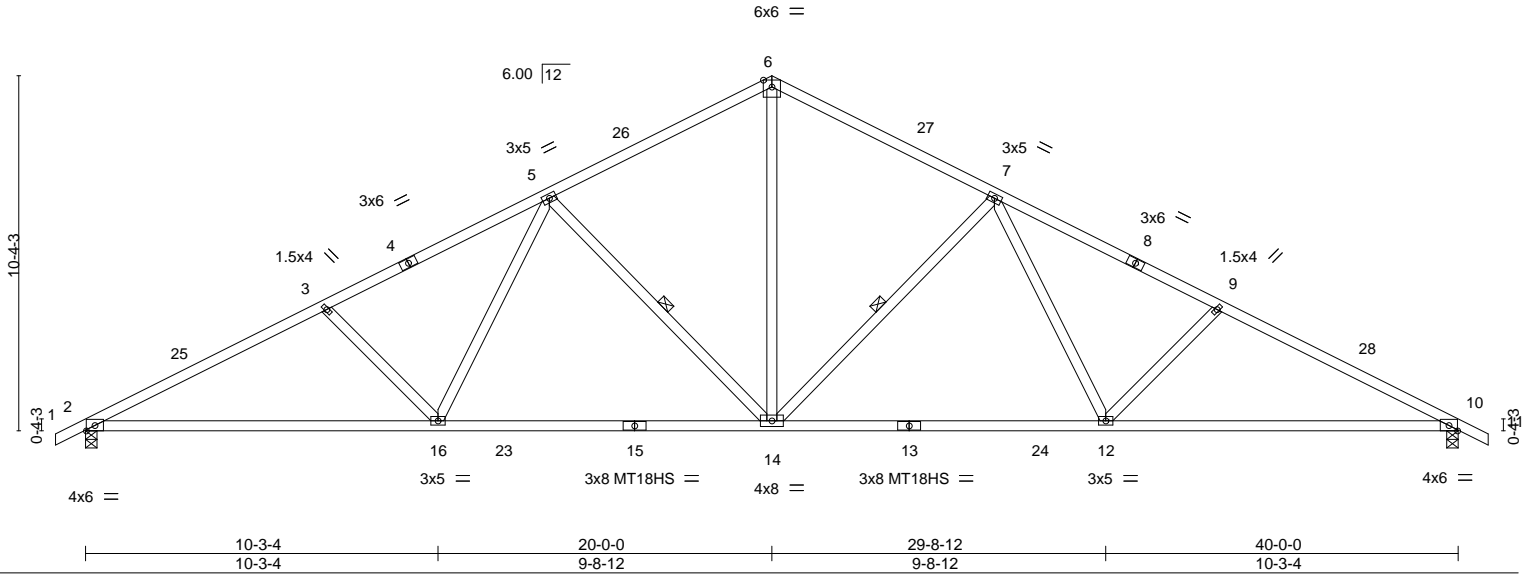


Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384933
QUOTE_FILE	T5	MOD. QUEEN	6	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:18 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQywwKQ-Noz6Jo?TO?dWkSSKopMJ9cvsJcN226rc9btHrmyovbN

0-10-8	7-0-5	13-6-3	20-0-0	26-5-13	32-11-11	40-0-0	40-10-8
0-10-8	7-0-5	6-5-13	6-5-13	6-5-13	6-5-13	7-0-5	0-10-8

Scale = 1:67.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.85	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.98	Vert(LL) -0.35 12-14 >999 240	MT18HS	197/144
BCLL 0.0 *	Lumber DOL 1.15	WB 0.65	Vert(CT) -0.61 12-14 >791 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.15 10 n/a n/a		
	Code IRC2018/TPI2014			Weight: 158 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SPF Stud	WEBS 1 Row at midpt 5-14, 7-14

**REACTIONS.** (size) 2=0-4-0, 10=0-4-0  
 Max Horz 2=174(LC 14)  
 Max Uplift 2=-282(LC 10), 10=-282(LC 11)  
 Max Grav 2=1801(LC 2), 10=1801(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3297/532, 3-5=-3064/505, 5-6=-2106/456, 6-7=-2106/456, 7-9=-3064/505, 9-10=-3297/532  
 BOT CHORD 2-16=-529/2916, 14-16=-330/2355, 12-14=-247/2355, 10-12=-373/2916  
 WEBS 3-16=-405/244, 5-16=-69/737, 5-14=-790/307, 6-14=-199/1511, 7-14=-790/307, 7-12=-69/737, 9-12=-405/244

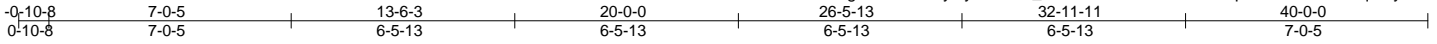
**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-10-8 to 3-1-8, Interior(1) 3-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 24-0-0, Interior(1) 24-0-0 to 36-10-8, Exterior(2E) 36-10-8 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=282, 10=282.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

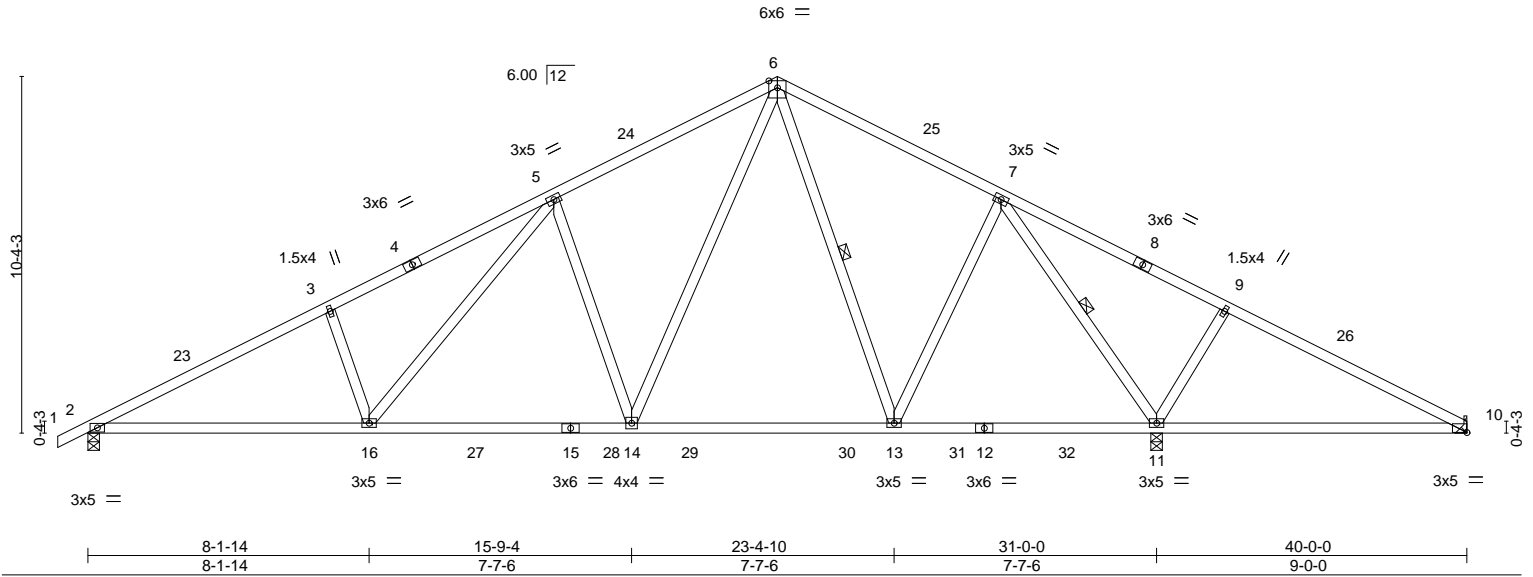


Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384934
QUOTE_FILE	T6	DBL. FINK	7	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:19 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-s\_WUX8059JINMc1XMXiYhpS5v?lbnYnINFcqNDyovbM



Scale = 1:66.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.89	Vert(LL) -0.16 16-19 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.73	Vert(CT) -0.32 16-19 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 11 n/a n/a		
	Code IRC2018/TPI2014			Weight: 165 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-0-9 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SPF Stud	WEBS 1 Row at midpt 6-13, 7-11

**REACTIONS.** (size) 2=0-4-0, 11=0-4-0, 10=Mechanical  
 Max Horz 2=181(LC 14)  
 Max Uplift 2=-231(LC 10), 11=-274(LC 11), 10=-48(LC 11)  
 Max Grav 2=1344(LC 2), 11=2144(LC 2), 10=211(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2337/376, 3-5=-2253/434, 5-6=-1477/374, 6-7=-945/287, 7-9=-70/583, 9-10=-87/418  
 BOT CHORD 2-16=-423/2081, 14-16=-232/1485, 13-14=-35/885, 11-13=0/532, 10-11=-326/108  
 WEBS 3-16=-382/240, 5-16=-186/798, 5-14=-672/331, 6-14=-238/1028, 6-13=-319/117, 7-13=-23/636, 7-11=-1782/312, 9-11=-405/241

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=4.2psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 24-0-0, Interior(1) 24-0-0 to 36-0-0, Exterior(2E) 36-0-0 to 40-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BC DL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=1b) 2=231, 11=274.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 11, 2020

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

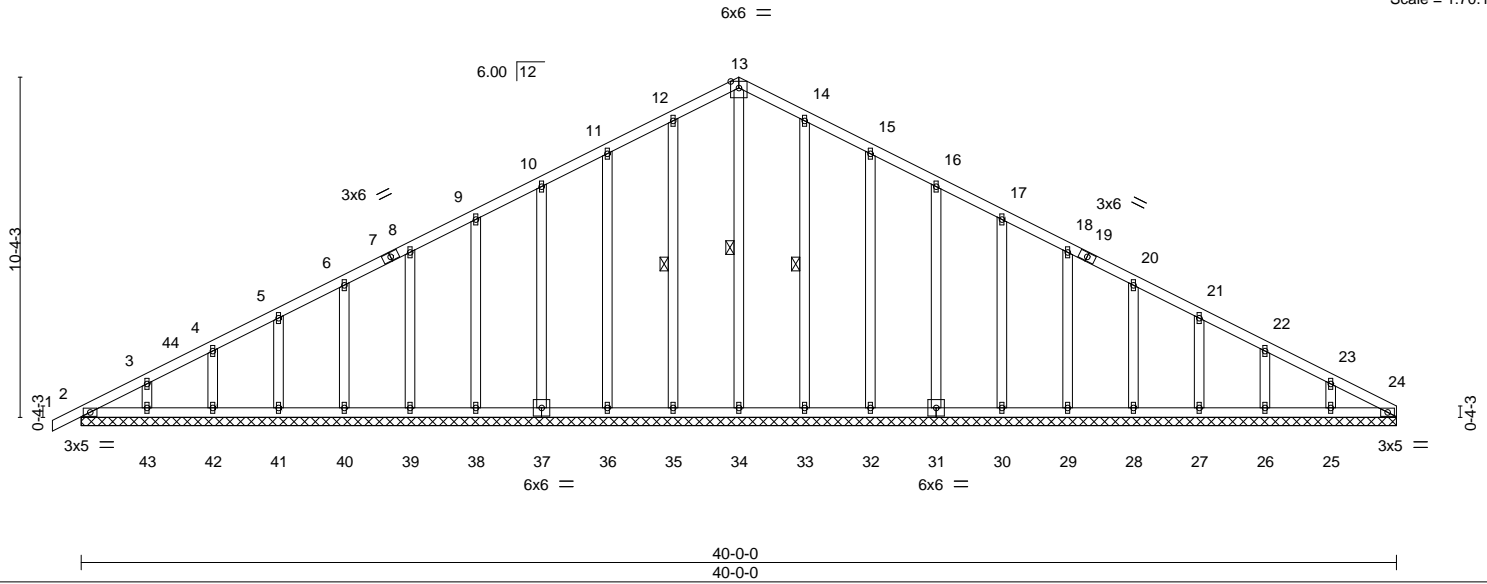


Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384935
QUOTE_FILE	T6G	GABLE	1	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:21 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-oNeFqxq2Mhw05bwBvTyv0nEXaypeUFbG2rZ5xS5yovbK

-0-10-8 20-0-0 40-0-0  
 0-10-8 20-0-0 20-0-0

Scale = 1:70.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL) -0.00	1	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT) -0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT) 0.01	24	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					
							Weight: 208 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF Stud	WEBS 1 Row at midpt 13-34, 12-35, 14-33

**REACTIONS.** All bearings 40-0-0.  
 (lb) - Max Horz 2=181(LC 14)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 35, 36, 37, 38, 39, 40, 41, 42, 43, 33, 32, 31, 30, 29, 28, 27, 26, 25  
 Max Grav All reactions 250 lb or less at joint(s) 2, 24, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 33, 32, 31, 30, 29, 28, 27, 26, 25

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=4.2psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 24-0-0, Interior(1) 24-0-0 to 36-0-0, Exterior(2E) 36-0-0 to 40-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 35, 36, 37, 38, 39, 40, 41, 42, 43, 33, 32, 31, 30, 29, 28, 27, 26, 25.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



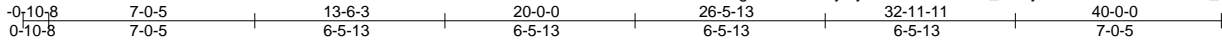
August 11, 2020



Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384936
QUOTE_FILE	T6H	DBL. FINK	4	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:22 2020 Page 1

ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-GZCd9A2\_SE8yD4m61fRFJS4cwDmm\_tkB4DrU\_YyovbJ



Scale = 1:78.6

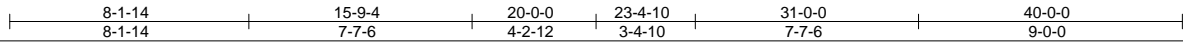
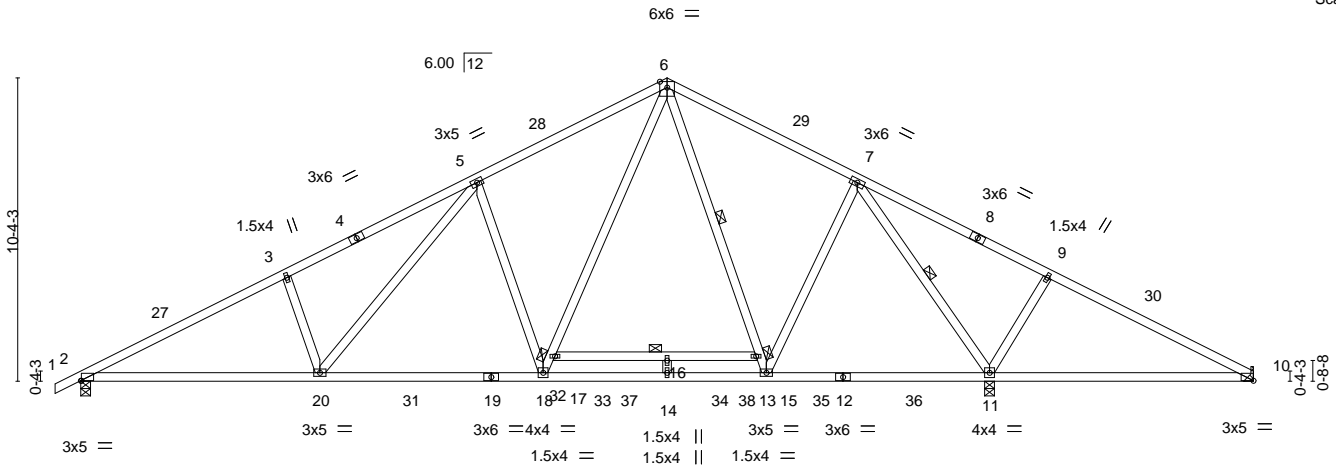


Plate Offsets (X,Y)-- [2:0-0-4,0-0-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.22 16-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.38 16-17	>967	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.07 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 173 lb	FT = 20%

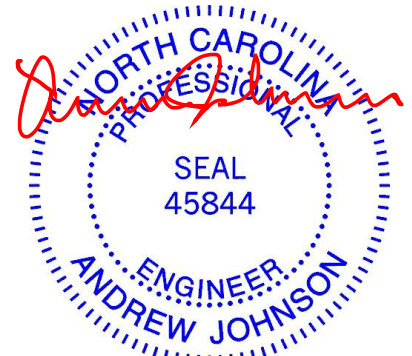
**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:  
6-0-0 oc bracing: 15-17  
WEBS 1 Row at midpt 6-15, 7-11

**REACTIONS.** (size) 2=0-4-0, 11=0-4-0, 10=Mechanical  
Max Horz 2=181(LC 14)  
Max Uplift 2=-202(LC 10), 11=-210(LC 11), 10=-55(LC 11)  
Max Grav 2=1448(LC 2), 11=2368(LC 2), 10=198(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2562/312, 3-5=-2479/371, 5-6=-1714/307, 6-7=-1125/237, 7-9=-51/640,  
9-10=-68/475  
BOT CHORD 2-20=-366/2283, 18-20=-173/1695, 14-18=0/1089, 13-14=0/1089, 11-13=0/635,  
10-11=-377/91  
WEBS 3-20=-382/240, 5-20=-190/785, 5-18=-669/333, 17-18=-223/1062, 6-17=-191/1193,  
6-15=-301/126, 13-15=-360/96, 7-13=0/775, 7-11=-2060/231, 9-11=-406/240

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 24-0-0, Interior(1) 24-0-0 to 36-0-0, Exterior(2E) 36-0-0 to 40-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 2=202, 11=210.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

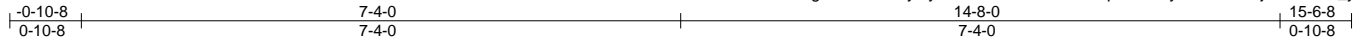
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384937
QUOTE_FILE	T7	KINGPOST	1	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:23 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-klm?MW3cDYGprDLbNyUscfncdCdjV5Llta2W\_yovbl



Scale = 1:28.2

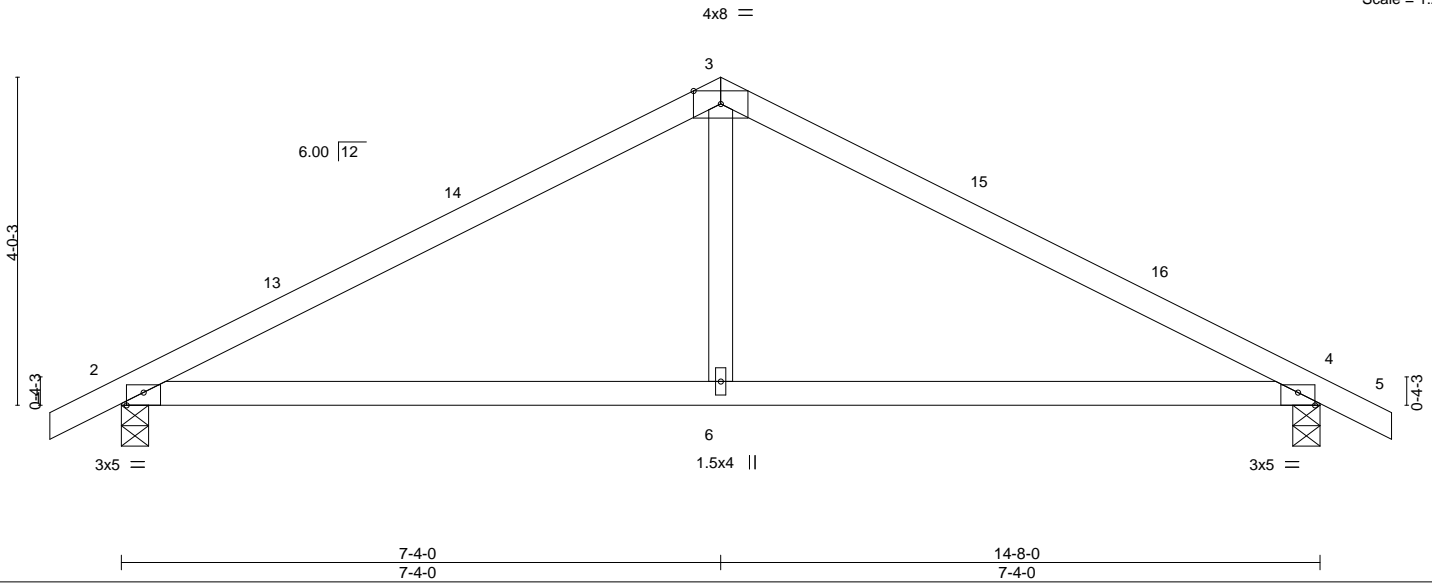


Plate Offsets (X,Y)-- [2:0-2-8,Edge], [4:0-2-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.10	6-12	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.19	6-12	>946		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.01	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 42 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF Stud

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-0-13 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-4-0, 4=0-4-0  
 Max Horz 2=-69(LC 11)  
 Max Uplift 2=-118(LC 10), 4=-118(LC 11)  
 Max Grav 2=639(LC 1), 4=639(LC 1)

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

TOP CHORD 2-3=-842/298, 3-4=-842/298  
 BOT CHORD 2-6=-134/677, 4-6=-134/677  
 WEBS 3-6=0/349

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-4-0, Exterior(2R) 4-4-0 to 10-4-0, Interior(1) 10-4-0 to 12-6-8, Exterior(2E) 12-6-8 to 15-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=118, 4=118.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

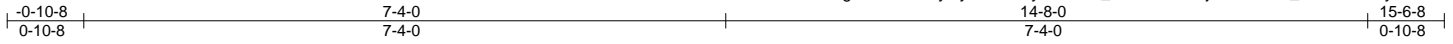


818 Soundside Road  
 Edenton, NC 27932

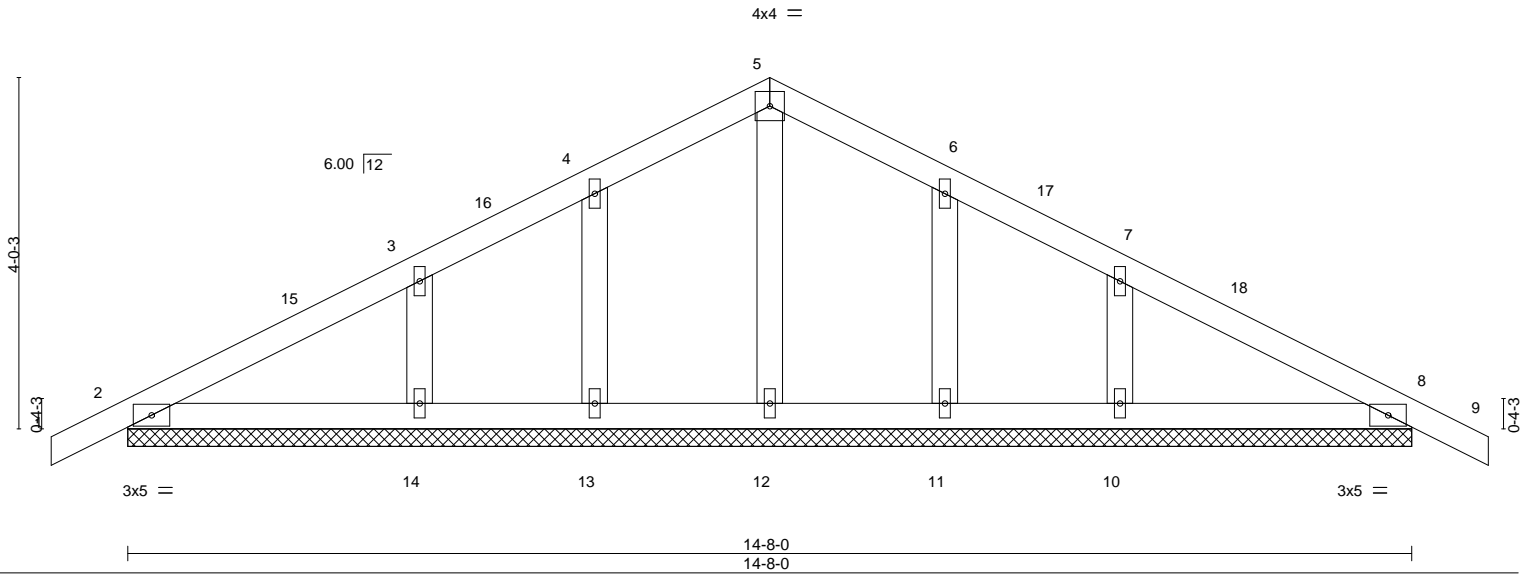
Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384938
QUOTE_FILE	T7G	GABLE	1	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:24 2020 Page 1

ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-CyKNas4E\_rOfSNvU84TjOt94b0efS\_sUXxKb3QyovbH



Scale = 1:26.3



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.10	Vert(LL) 0.00	9	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.07	Vert(CT) 0.01	9	n/r	90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 51 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
OTHERS 2x4 SPF Stud

**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 14-8-0.  
(lb) - Max Horz 2=-69(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10  
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 11 except 14=257(LC 1), 10=257(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-4-0, Exterior(2R) 4-4-0 to 10-4-0, Interior(1) 10-4-0 to 12-6-8, Exterior(2E) 12-6-8 to 15-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



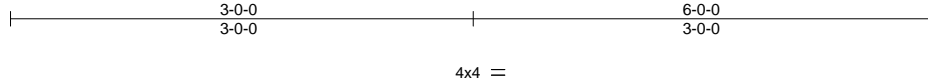
August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

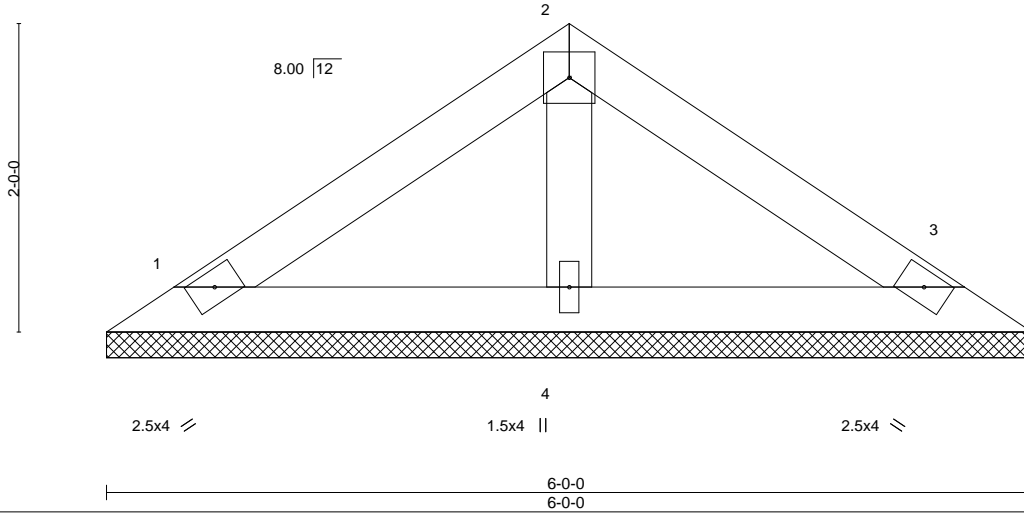


Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384939
QUOTE_FILE	V05	ROOF TRUSS	1	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:24 2020 Page 1  
 ID:8f408RsnClg10YU3iP1EyQyuwKQ-CyKNas4E\_rOfSNvU84TjOt94e0frS\_4UXXKb3QyovbH



Scale = 1:14.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2018/TPI2014						Weight: 15 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 OTHERS 2x4 SPF Stud

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

**REACTIONS.** (size) 1=6-0-0, 3=6-0-0, 4=6-0-0  
 Max Horz 1=-42(LC 6)  
 Max Uplift 1=-30(LC 10), 3=-35(LC 11), 4=-2(LC 10)  
 Max Grav 1=110(LC 1), 3=110(LC 1), 4=184(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

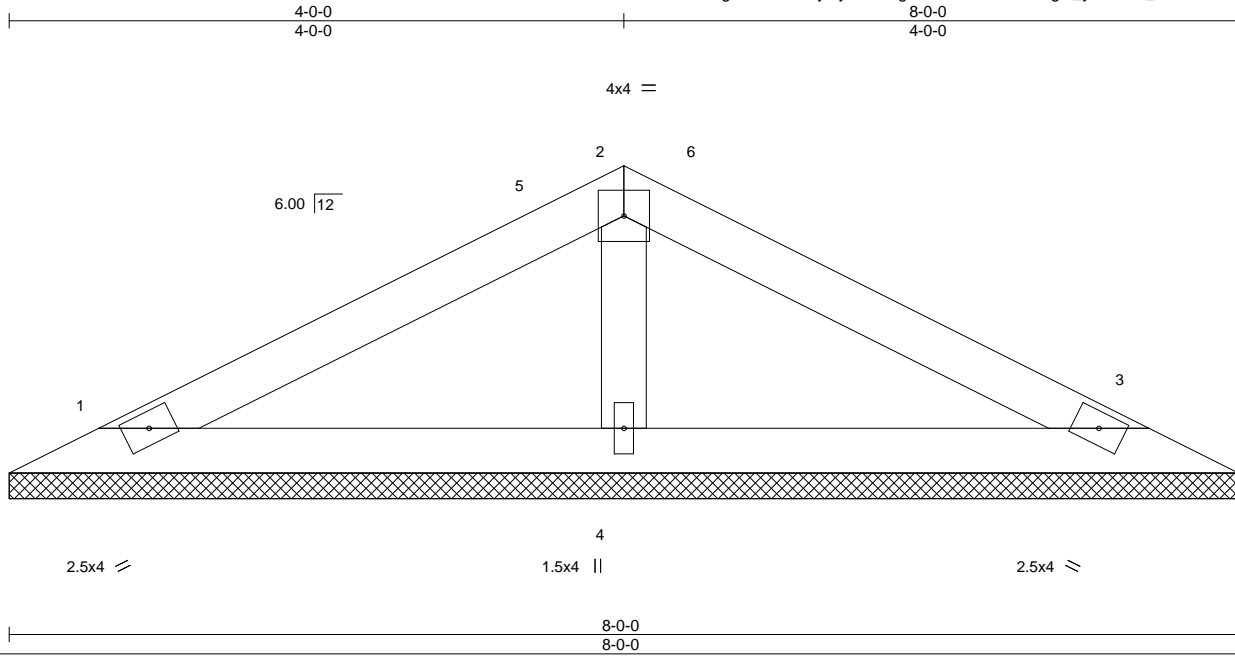
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384940
QUOTE_FILE	V08	ROOF TRUSS	1	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086,

8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:25 2020 Page 1

ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-g8BulnC5sk9WW4XUgin\_yx4iE6Q\_PBR2emB39bsyovbG



Scale = 1:15.0

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.18	Vert(LL) n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.10	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P						
							Weight: 19 lb	FT = 20%

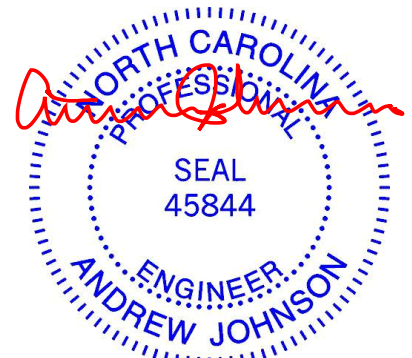
**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
OTHERS 2x4 SPF Stud

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

**REACTIONS.** (size) 1=8-0-0, 3=8-0-0, 4=8-0-0  
Max Horz 1=-28(LC 15)  
Max Uplift 1=-39(LC 10), 3=-44(LC 11), 4=-11(LC 10)  
Max Grav 1=138(LC 1), 3=138(LC 1), 4=265(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-7, Exterior(2R) 3-7-7 to 4-4-9, Exterior(2E) 4-4-9 to 7-4-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



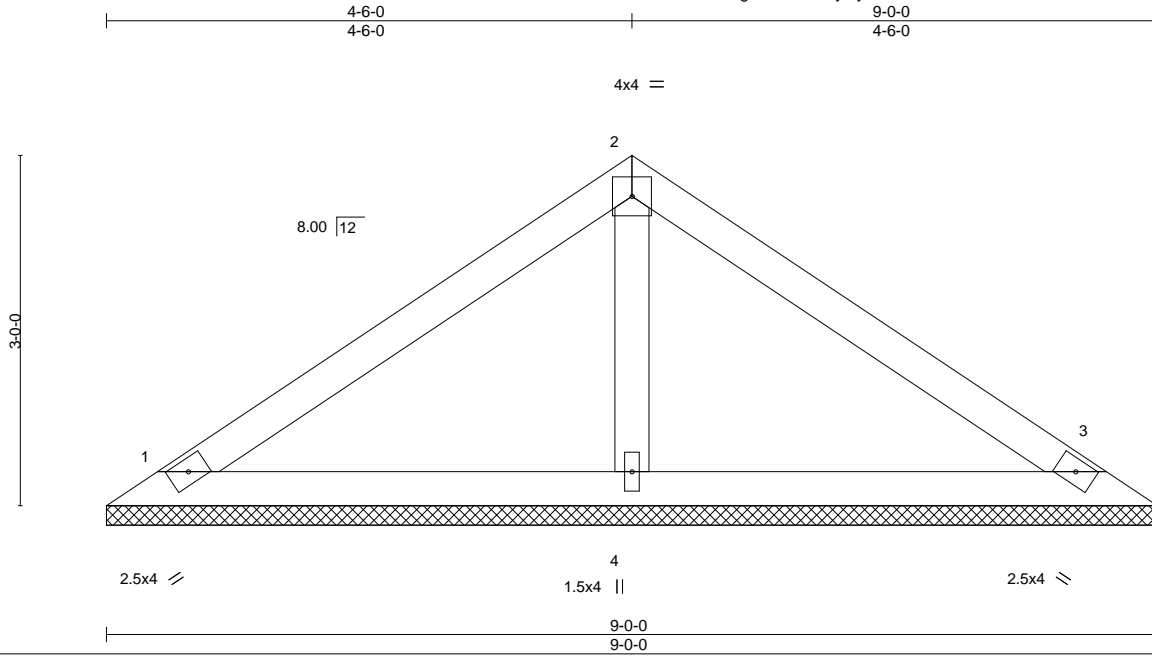
August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	142384941
QUOTE_FILE	V08A	ROOF TRUSS	1	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:26 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-8KR7?Y6UVTeNih3tGVVBUIENYqJ0wuDn\_rpi7JyovbF



Scale = 1:19.7

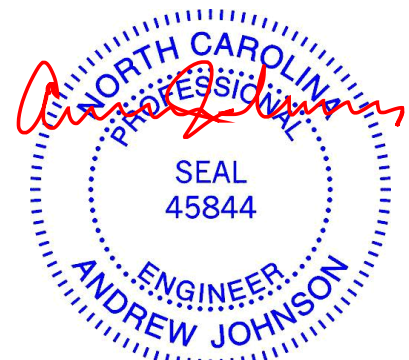
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.14	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2018/TPI2014			Weight: 24 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF Stud	

**REACTIONS.** (size) 1=9-0-0, 3=9-0-0, 4=9-0-0  
 Max Horz 1=-66(LC 8)  
 Max Uplift 1=-48(LC 10), 3=-56(LC 11), 4=-3(LC 10)  
 Max Grav 1=175(LC 1), 3=175(LC 1), 4=293(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Exterior(2R) 3-5-12 to 5-6-4, Exterior(2E) 5-6-4 to 8-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

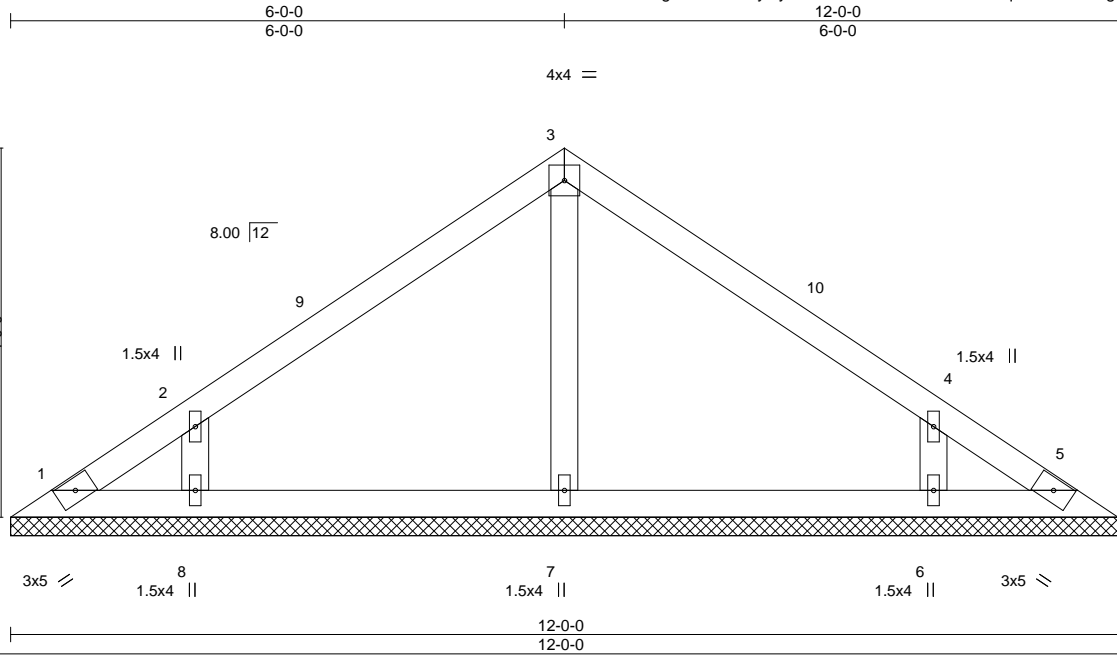


August 11, 2020



Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384942
QUOTE_FILE	V11	ROOF TRUSS	1	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:27 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-dX?WCi67GmmEJre3qC0Q0VnazEgnfLJwDVYFlyovbE



Scale = 1:25.0

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S					Weight: 35 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 OTHERS 2x4 SPF Stud

**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 12-0-0.  
 (lb) - Max Horz 1=91(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=140(LC 10), 6=140(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=263(LC 1), 8=311(LC 17), 6=311(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=251/191, 4-6=251/191

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Exterior(2R) 3-5-12 to 8-6-4, Exterior(2E) 8-6-4 to 11-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) 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=140, 6=140.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



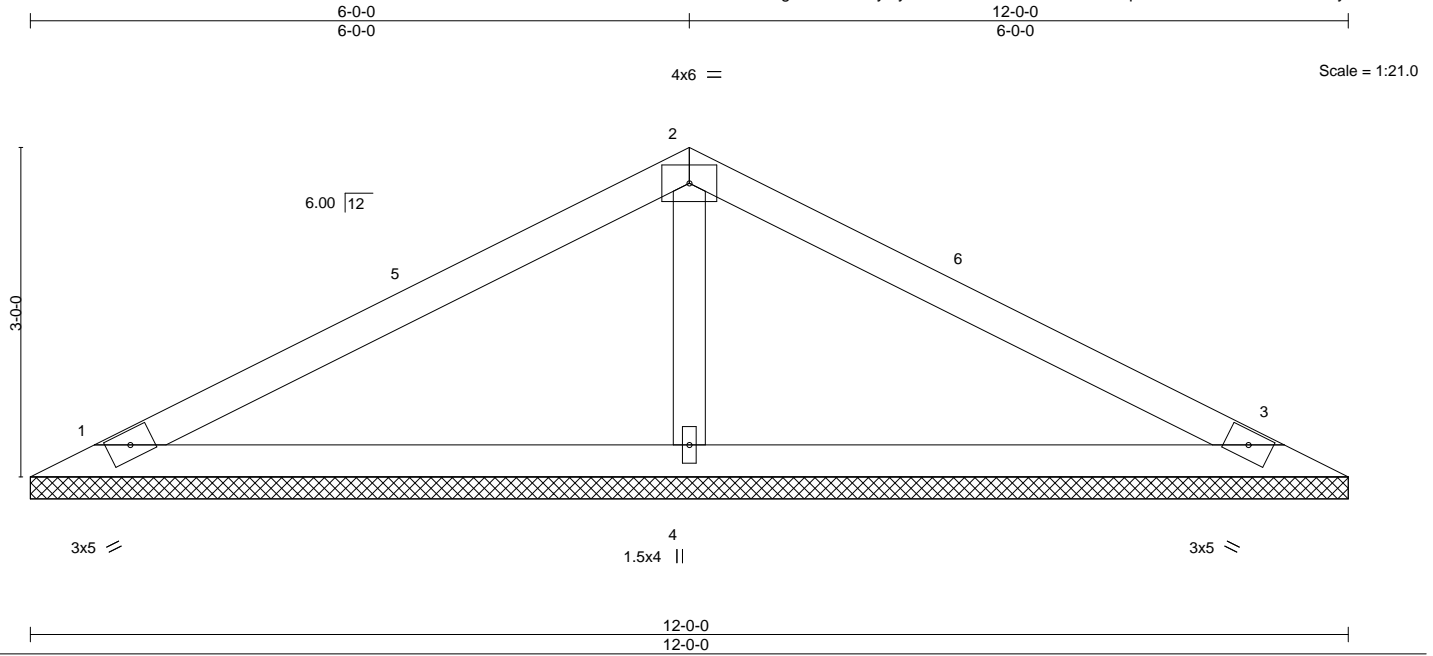
August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384943
QUOTE_FILE	V12	ROOF TRUSS	1	1	Job Reference (optional)	

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:27 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-dX?WCt67GmmEJre3qC0Q0VnXuEedK?wDVYFflyovbE



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.35	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.24	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 30 lb	FT = 20%
	Code IRC2018/TPI2014							

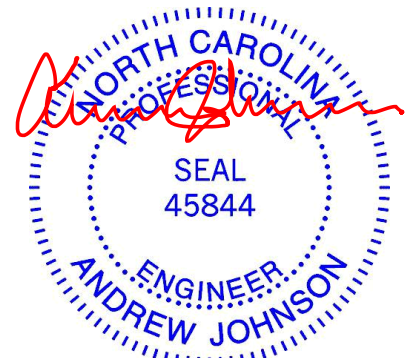
**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 OTHERS 2x4 SPF Stud

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

**REACTIONS.** (size) 1=12-0-0, 3=12-0-0, 4=12-0-0  
 Max Horz 1=-45(LC 11)  
 Max Uplift 1=-49(LC 10), 3=-58(LC 11), 4=-41(LC 10)  
 Max Grav 1=199(LC 23), 3=199(LC 24), 4=466(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-4=-308/221

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-7, Exterior(2R) 3-7-7 to 8-4-9, Exterior(2E) 8-4-9 to 11-4-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



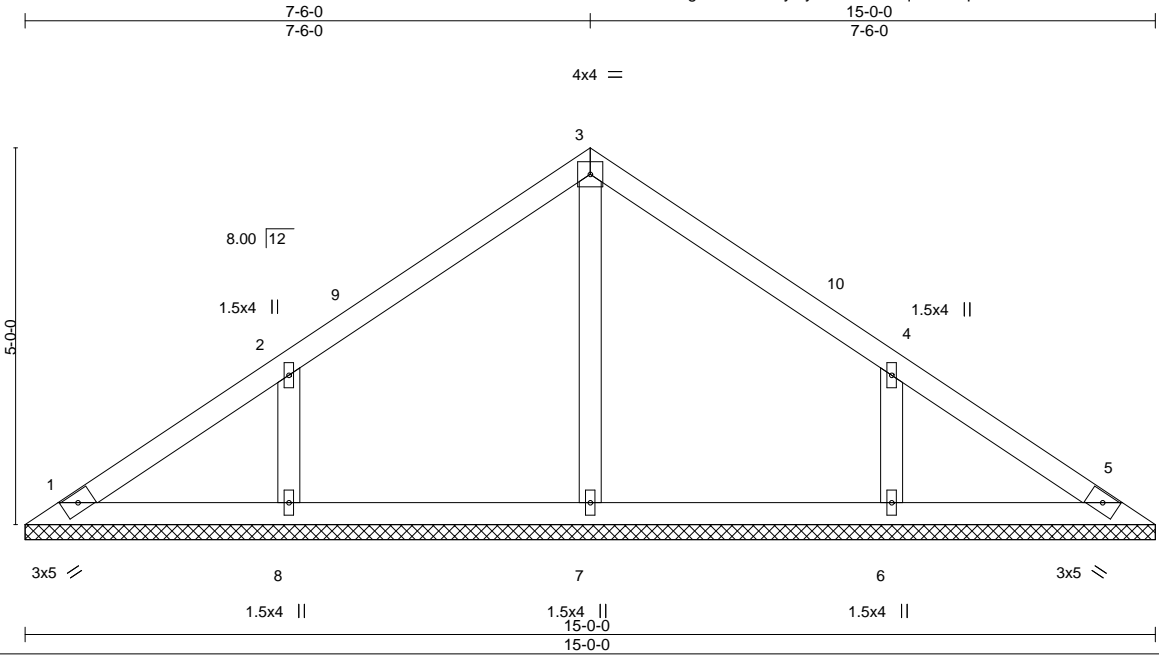
August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384944
QUOTE_FILE	V15	ROOF TRUSS	1	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:30 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-16heqv9?Zh8pAlNeVL7e7P4ERhbshhNvSnwG4yovbB



Scale = 1:30.6

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 46 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF Stud	

**REACTIONS.** All bearings 15-0-0.  
 (lb) - Max Horz 1=-116(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-153(LC 10), 6=-153(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=255(LC 1), 8=352(LC 17), 6=352(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-271/196, 4-6=-271/196

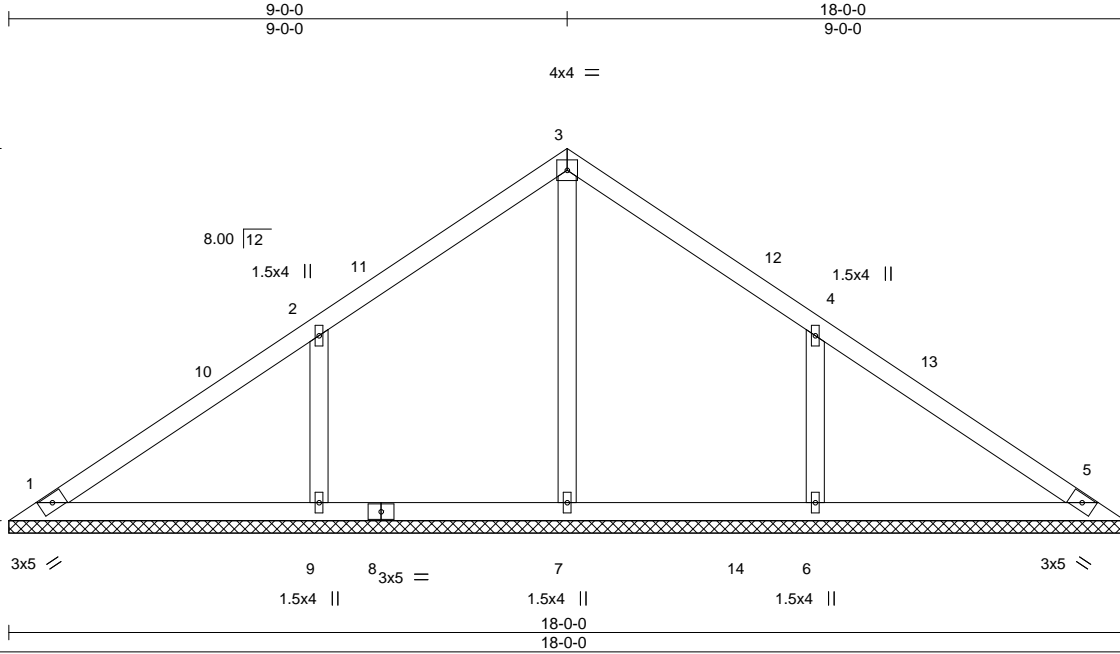
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=4.2psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-6-0, Interior(1) 3-6-0 to 4-6-0, Exterior(2R) 4-6-0 to 10-6-0, Interior(1) 10-6-0 to 11-6-0, Exterior(2E) 11-6-0 to 14-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) 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=153, 6=153.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 11, 2020

Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384945
QUOTE_FILE	V17	ROOF TRUSS	1	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:32 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-zUpPFbAF5JQXQcX1clcbjYUPTFM9KbqfNmG0LZyovb9



Scale = 1:37.1

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S					Weight: 56 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 OTHERS 2x4 SPF Stud

**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 1=140(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=186(LC 10), 6=186(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=331(LC 20), 9=526(LC 17), 6=523(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-9=331/235, 4-6=330/235

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=4.2psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 6-0-0, Exterior(2R) 6-0-0 to 12-0-0, Interior(1) 12-0-0 to 14-6-4, Exterior(2E) 14-6-4 to 17-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BC DL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=186, 6=186.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



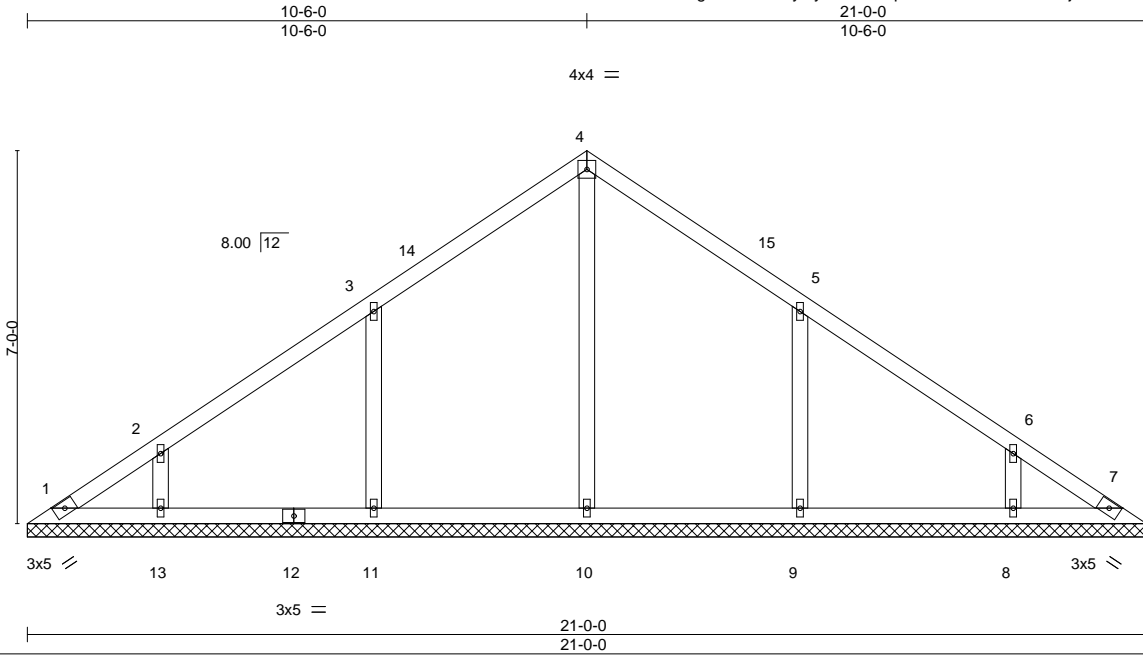
August 11, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	Eaker - Beverly DMS	I42384946
QUOTE_FILE	V21	ROOF TRUSS	1	1		

84 Lumber 2381 (Kings Mountain, NC), Kings Mountain, NC - 28086, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Aug 11 13:19:32 2020 Page 1  
 ID:8f4o8RsnClg10YU3iP1EyQyuwKQ-zUpPFbAF5JQXQcX1clcbjYUQSFMKa1fNmG0Lzyovb9



Scale = 1:43.2

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S						
								Weight: 70 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF Stud	

**REACTIONS.** All bearings 21-0-0.  
 (lb) - Max Horz 1=-165(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-160(LC 10), 13=-117(LC 10), 9=-160(LC 11), 8=-117(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=374(LC 20), 11=462(LC 17), 13=332(LC 17), 9=462(LC 18), 8=332(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-11=-288/210, 5-9=-288/209

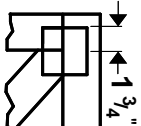
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 7-6-0, Exterior(2R) 7-6-0 to 13-6-0, Interior(1) 13-6-0 to 17-6-4, Exterior(2E) 17-6-4 to 20-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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, 7 except (jt=lb) 11=160, 13=117, 9=160, 8=117.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



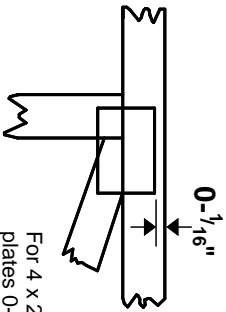
August 11, 2020

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

\* Plate location details available in **MITek 20/20 software or upon request.**

## PLATE SIZE

4 X 4

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

## LATERAL BRACING LOCATION



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

## BEARING



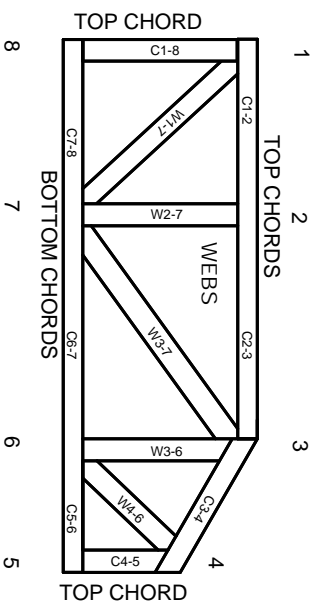
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8  
dimensions shown in ft-in-sixteenths  
(Drawings not to scale)



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MITteK® All Rights Reserved



MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T or I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.