

RE: J0221-0985  
Watermark/Lot 156 Ballard Woods/Harnett

Trenco  
818 Soundside Rd  
Edenton, NC 27932

**Site Information:**

Customer: Project Name: J0221-0985  
Lot/Block: Model:  
Address: Subdivision:  
City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.3  
Wind Code: ASCE 7-10 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 17 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E14661672	A1	2/15/2021
2	E14661673	A1GE	2/15/2021
3	E14661674	B1	2/15/2021
4	E14661675	B1A	2/15/2021
5	E14661676	B2	2/15/2021
6	E14661677	C1	2/15/2021
7	E14661678	C1GE	2/15/2021
8	E14661679	C2	2/15/2021
9	E14661680	C3GDR	2/15/2021
10	E14661681	D1	2/15/2021
11	E14661682	D1GE	2/15/2021
12	E14661683	D2	2/15/2021
13	E14661684	G1	2/15/2021
14	E14661685	G1GE	2/15/2021
15	E14661686	M1	2/15/2021
16	E14661687	P1	2/15/2021
17	E14661688	P1GE	2/15/2021

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844

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



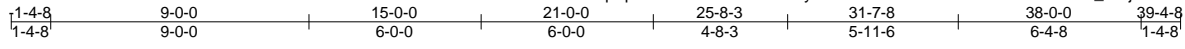
February 15, 2021

Job J0221-0985	Truss A1	Truss Type ROOF SPECIAL	Qty 5	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661672
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Comtech, Inc. Fayetteville, NC - 28314,

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4x8 =

Scale = 1:80.3

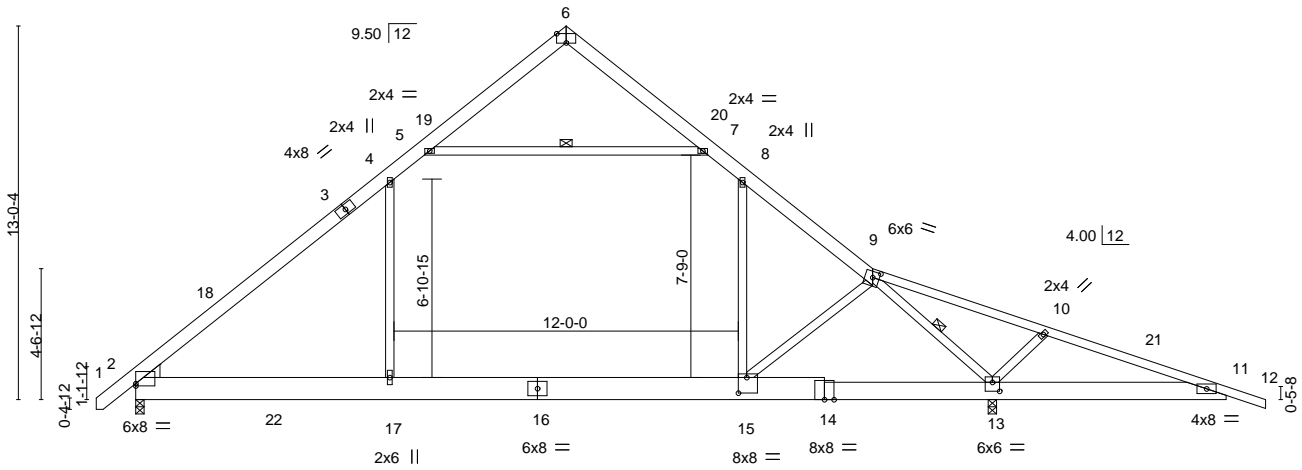


Plate Offsets (X,Y)--	[2:0-0-0,0-1-0], [6:0-4-0,Edge], [9:0-2-12,0-2-8], [13:0-3-0,0-3-12], [15:0-3-8,0-6-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.56	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.54	Vert(LL) -0.21 15-17 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.51	Vert(CT) -0.31 15-17 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 13 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.20 2-17 >999 240	Weight: 298 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 9-12: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 11-13.
BOT CHORD 2x10 SP No.1 *Except* 11-14: 2x8 SP No.1	WEBS 1 Row at midpt 9-13, 5-7
WEBS 2x4 SP No.2	
WEDGE Left: 2x6 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 13=0-3-8  
 Max Horz 2=-315(LC 8)  
 Max Uplift 2=-103(LC 10), 13=-297(LC 7)  
 Max Grav 2=1507(LC 17), 13=2094(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1850/131, 4-5=-1154/240, 5-6=-275/126, 6-7=-288/139, 7-8=-1153/253,  
 8-9=-1616/194, 9-10=-1076/1317, 10-11=-1009/1029  
 BOT CHORD 2-17=-20/1275, 15-17=-20/1275, 13-15=-47/971, 11-13=-914/1031  
 WEBS 4-17=-177/11, 9-13=-2567/1024, 10-13=-431/225, 8-15=-54/594, 9-15=-376/512,  
 5-7=-1155/213

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-3-1 to 3-1-12, Interior(1) 3-1-12 to 10-7-3, Exterior(2) 10-7-3 to 19-4-13, Interior(1) 19-4-13 to 34-11-11, Exterior(2) 34-11-11 to 39-4-8 zone; cantilever 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 30.0psf 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=103, 13=297.



July 24, 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 J0221-0985	Truss A1GE	Truss Type ROOF SPECIAL SUPPORT	Qty 1	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661673 Job Reference (optional)
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Comtech, Inc. Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:09 2020 Page 2  
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**NOTES-**

10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

**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



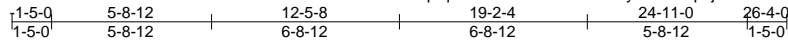
818 Soundside Road  
Edenton, NC 27932

Job J0221-0985	Truss B1	Truss Type ATTIC	Qty 4	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661674
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8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:10 2020 Page 1

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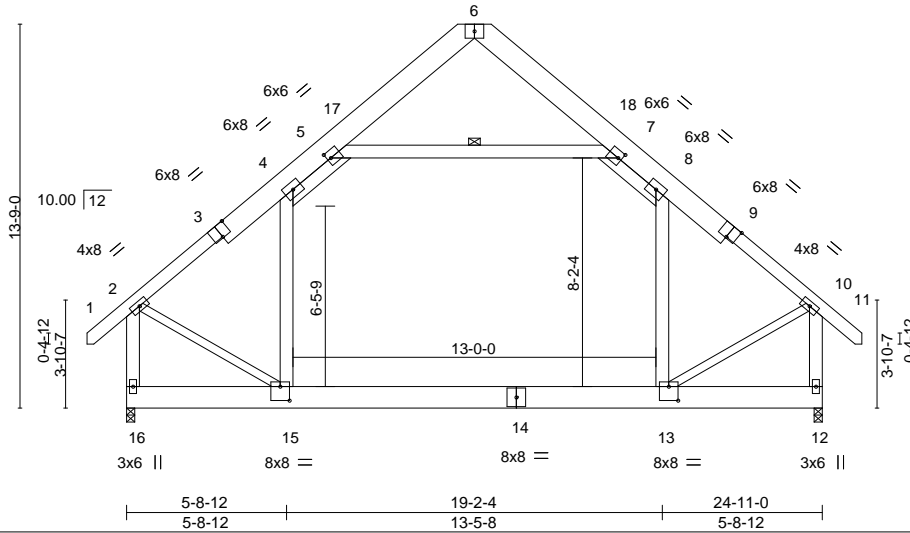


Plate Offsets (X,Y)-- [3:0-4-0,Edge], [5:0-1-8,0-3-0], [7:0-1-8,0-3-0], [9:0-4-0,Edge], [13:0-4-0,0-6-0], [15:0-4-0,0-6-0]

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 0.19	Vert(LL)	-0.17 13-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.26 13-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.01 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.06 15	>999	240	Weight: 320 lb	FT = 20%

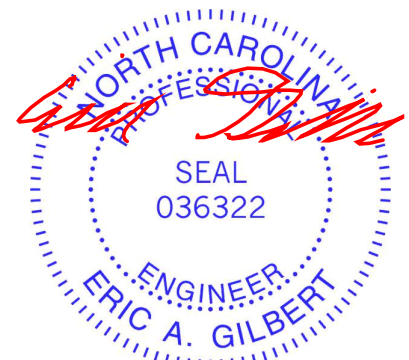
LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-3,9-11: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except* 2-15,10-13: 2x4 SP No.2	WEBS 1 Row at midpt 5-7

**REACTIONS.** (size) 16=0-3-8, 12=0-3-8  
 Max Horz 16=382(LC 8)  
 Max Grav 16=1704(LC 18), 12=1704(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1636/66, 4-5=-1224/188, 5-6=-333/147, 6-7=-333/147, 7-8=-1223/188,  
 8-10=-1636/66, 2-16=-1919/63, 10-12=-1919/63  
 BOT CHORD 15-16=-382/380, 13-15=0/1243  
 WEBS 5-7=-1053/154, 4-15=-84/571, 8-13=-84/571, 2-15=0/1444, 10-13=0/1445

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-3-1 to 3-1-12, Interior(1) 3-1-12 to 8-1-3, Exterior(2) 8-1-3 to 16-10-13, Interior(1) 16-10-13 to 21-10-4, Exterior(2) 21-10-4 to 26-3-1 zone; 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) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s). 4-15, 8-13
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
- 7) Attic room checked for L/360 deflection.



July 24, 2020

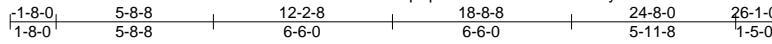
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss 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  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job J0221-0985	Truss B1A	Truss Type ROOF TRUSS	Qty 3	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661675
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8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:11 2020 Page 1

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6x8 =

Scale = 1:83.6

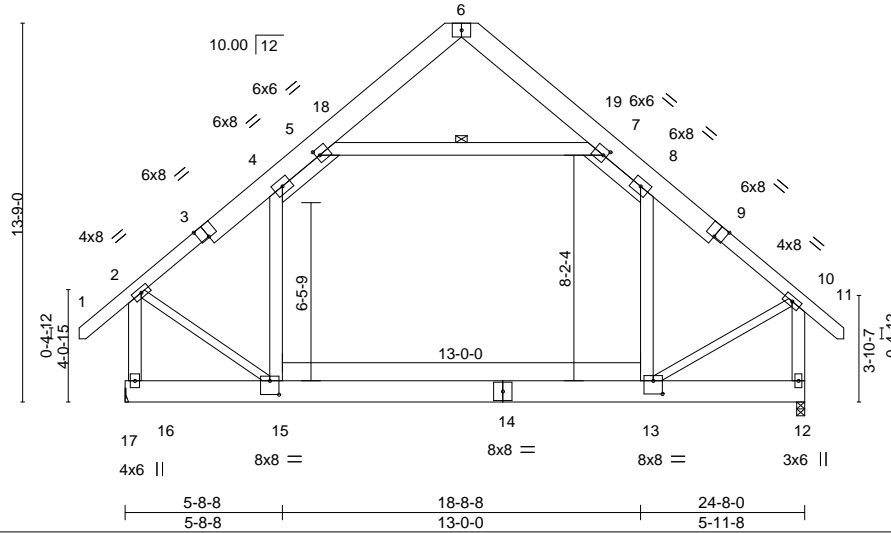


Plate Offsets (X,Y)--	[3:0-4-0,Edge], [5:0-1-8,0-3-0], [7:0-1-8,0-3-0], [9:0-4-0,Edge], [13:0-4-0,0-5-12], [15:0-4-0,0-6-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.72	Vert(LL) -0.16 13-15 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.55	Vert(CT) -0.25 13-15 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 12 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 13 >999 240	Weight: 320 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-3,9-11: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x6 SP No.1 *Except* 2-15,10-13: 2x4 SP No.2	WEBS 6-0-0 oc bracing: 15-16. 1 Row at midpt 5-7

<b>REACTIONS.</b>	(size) 16=Mechanical, 12=0-3-8 Max Horz 16=266(LC 9) Max Grav 16=1735(LC 18), 12=1684(LC 19)
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<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-1563/36, 4-5=-1194/163, 5-6=-345/154, 6-7=-336/156, 7-8=-1181/165, 8-10=-1585/24, 2-16=-1977/70, 10-12=-1858/55
BOT CHORD	15-16=-279/290, 13-15=0/1177
WEBS	4-15=-118/533, 8-13=-94/561, 2-15=0/1468, 10-13=0/1371, 5-7=-1011/113

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-6-9 to 2-10-4, Interior(1) 2-10-4 to 7-9-11, Exterior(2) 7-9-11 to 16-7-5, Interior(1) 16-7-5 to 21-6-12, Exterior(2) 21-6-12 to 25-11-9 zone;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) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-15, 8-13
  - 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Attic room checked for L/360 deflection.



July 24,2020

<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 <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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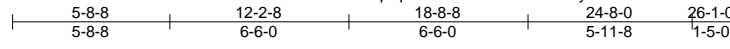


Job J0221-0985	Truss B2	Truss Type ROOF TRUSS	Qty 5	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661676
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Comtech, Inc. Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:12 2020 Page 1

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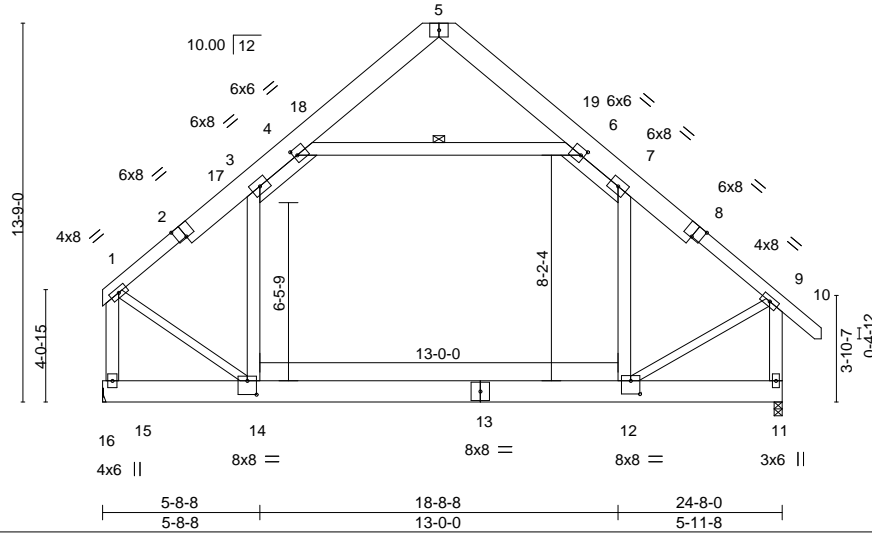


Plate Offsets (X, Y)-- [2:0-4-0,Edge], [4:0-1-8,0-3-0], [6:0-1-8,0-3-0], [8:0-4-0,Edge], [12:0-4-0,0-5-12], [14:0-4-0,0-6-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.72	Vert(LL) -0.16 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.56	Vert(CT) -0.25 12-14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 11 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 12 >999 240	Weight: 315 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-2,8-10: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x6 SP No.1 *Except* 1-14,9-12: 2x4 SP No.2	WEBS 6-0-0 oc bracing: 14-15. 1 Row at midpt 4-6

**REACTIONS.** (size) 15=Mechanical, 11=0-3-8  
Max Horz 15=-254(LC 6)  
Max Grav 15=1641(LC 19), 11=1689(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-1569/4, 3-4=-1199/162, 4-5=-340/151, 5-6=-332/147, 6-7=-1186/160,  
7-9=-1593/21, 1-15=-1893/0, 9-11=-1866/52  
BOT CHORD 14-15=-253/278, 12-14=0/1184  
WEBS 3-14=-128/527, 7-12=-90/562, 1-14=0/1449, 9-12=0/1381, 4-6=-1017/119

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-1, Interior(1) 4-9-1 to 7-9-11, Exterior(2) 7-9-11 to 16-7-5, Interior(1) 16-7-5 to 21-6-12, Exterior(2) 21-6-12 to 25-11-9 zone;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) Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s).3-14, 7-12
  - 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Attic room checked for L/360 deflection.



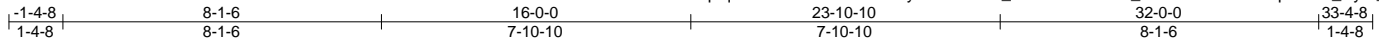
July 24, 2020

Job J0221-0985	Truss C1	Truss Type FINK	Qty 3	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661677
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Comtech, Inc. Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:14 2020 Page 1

ID:9A4qZqx4Am76h51MM0DHQyTVPT-2bsE\_dz9YcNomBv2a\_EfGamkN9BDHsHpUE6D\_Cyur\_h



5x5 =

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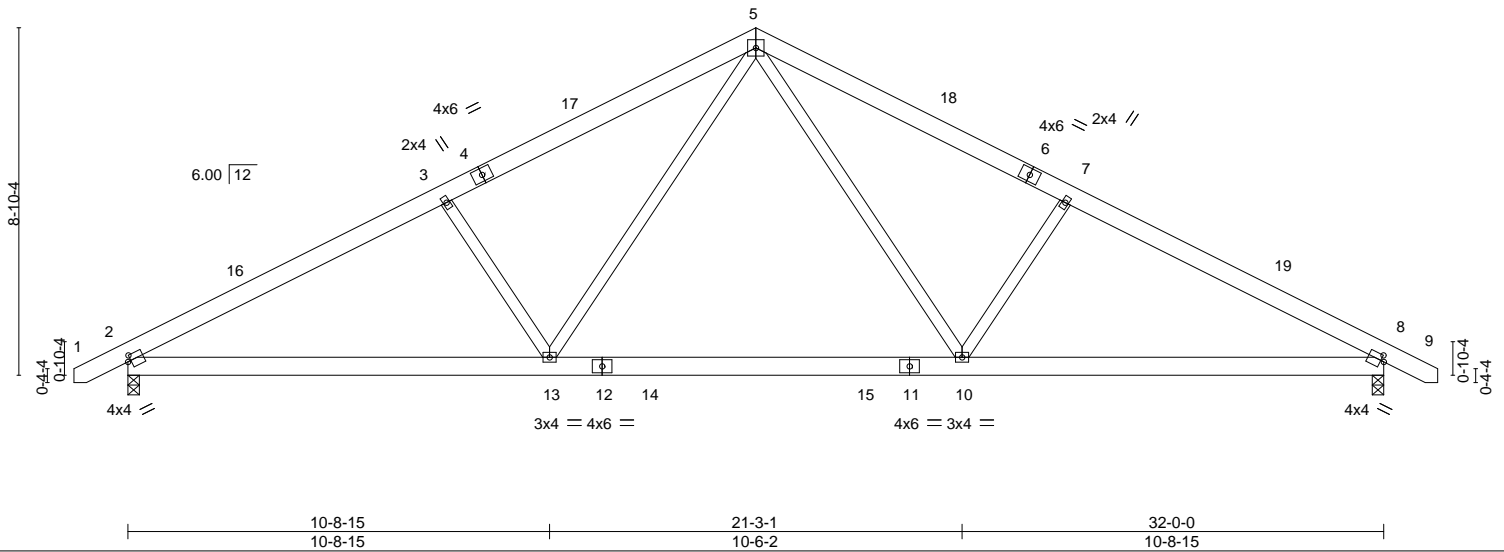


Plate Offsets (X,Y)--	[2:0-1-0,0-1-12], [8:0-1-0,0-1-12]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.15	10-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.23	10-13	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.05	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04	2-13	>999	Weight: 209 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-1-8 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=-112(LC 8)  
 Max Uplift 2=-126(LC 10), 8=-126(LC 11)  
 Max Grav 2=1350(LC 1), 8=1350(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2101/582, 3-5=-1864/604, 5-7=-1864/604, 7-8=-2101/582  
 BOT CHORD 2-13=-374/1773, 10-13=-149/1206, 8-10=-374/1773  
 WEBS 3-13=-421/274, 5-13=-147/727, 5-10=-147/727, 7-10=-421/274

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-10 to 3-2-3, Interior(1) 3-2-3 to 11-7-3, Exterior(2) 11-7-3 to 20-4-13, Interior(1) 20-4-13 to 28-9-13, Exterior(2) 28-9-13 to 33-2-10 zone; 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, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=126, 8=126.





Job J0221-0985	Truss C1GE	Truss Type GABLE	Qty 1	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661678
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8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:16 2020 Page 1

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Job Reference (optional)



5x5 =

Scale = 1:57.8

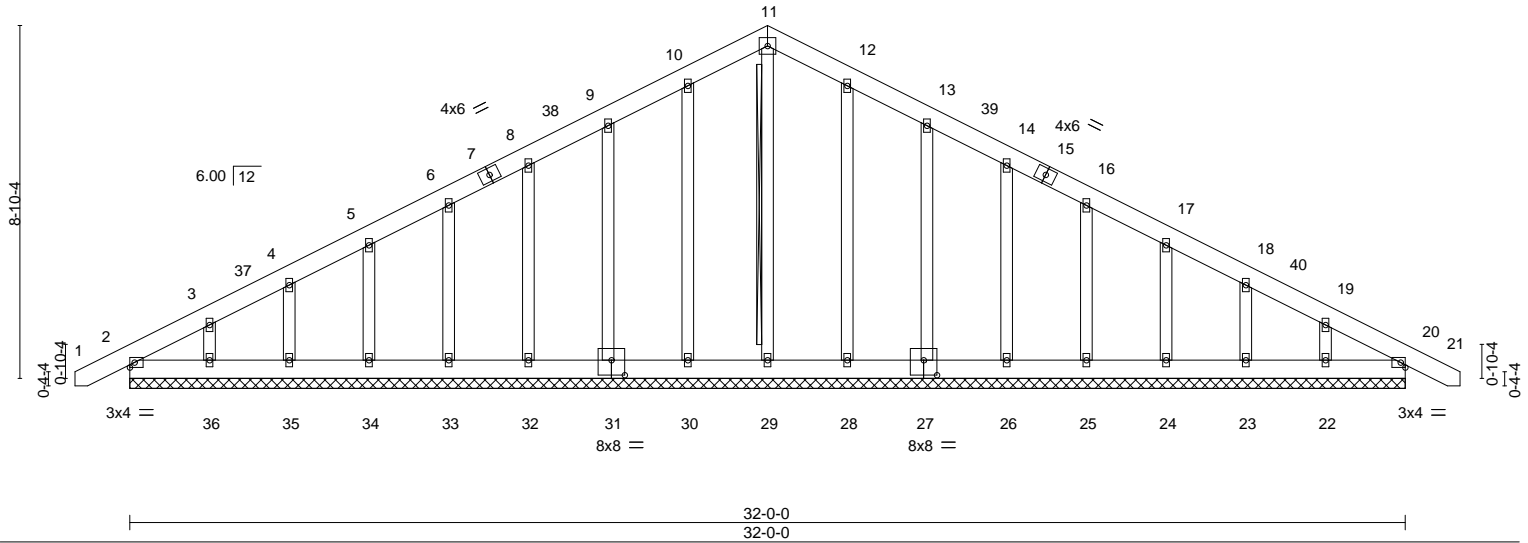


Plate Offsets (X, Y)--	[27:0-4-0-0-4-8], [31:0-4-0-0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) -0.00 20 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.00 21 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 20 n/a n/a		
	Code IRC2015/TPI2014			Weight: 260 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 11-29
	Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
	Brace must cover 90% of web length.

**REACTIONS.** All bearings 32-0-0.  
 (lb) - Max Horz 2=-174(LC 15)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 30, 31, 32, 33, 34, 35, 28, 27, 26, 25, 24, 23, 22 except 36=-105(LC 10)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 20, 29, 30, 31, 32, 33, 34, 35, 36, 28, 27, 26, 25, 24, 23, 22

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 9-10=-96/291, 10-11=-112/366, 11-12=-112/366, 12-13=-96/291

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-2-10 to 3-2-3, Exterior(2) 3-2-3 to 11-7-3, Corner(3) 11-7-3 to 20-4-13, Exterior(2) 20-4-13 to 28-9-13, Corner(3) 28-9-13 to 33-2-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 2x4 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.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 30, 31, 32, 33, 34, 35, 28, 27, 26, 25, 24, 23, 22 except (jt=lb) 36=105.
  - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

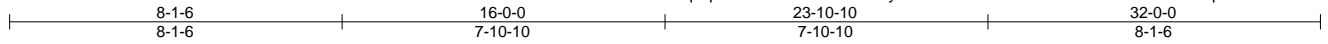


Job J0221-0985	Truss C2	Truss Type FINK	Qty 4	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661679
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8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:17 2020 Page 1

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Scale = 1:56.2

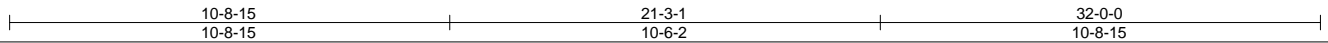
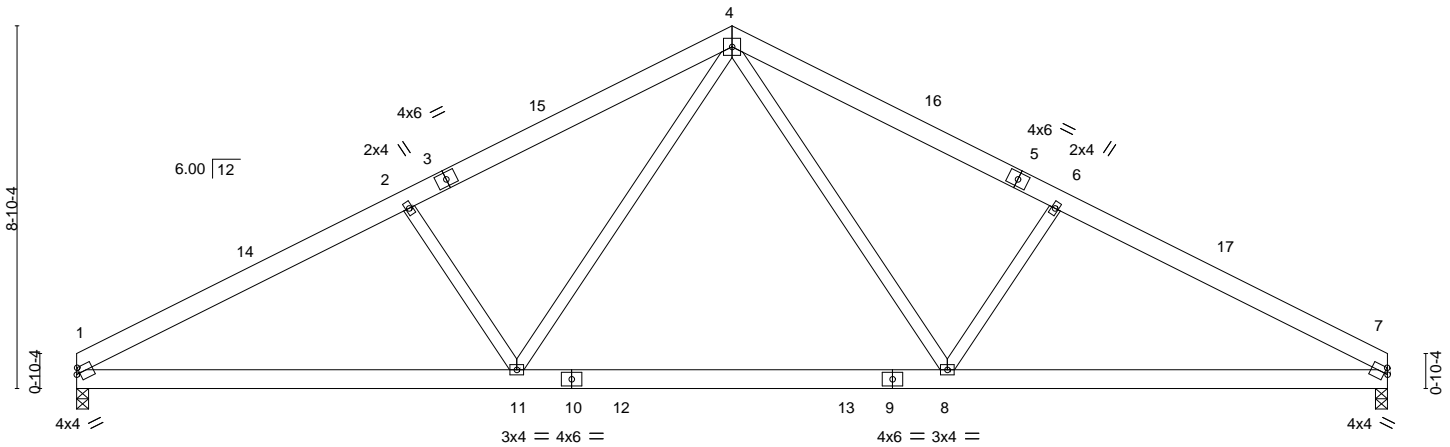


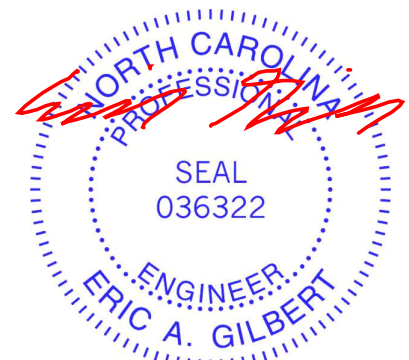
Plate Offsets (X,Y)--	[1:0-1-0,0-1-12], [7:0-1-0,0-1-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.39	Vert(LL) -0.15 8-11 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(CT) -0.23 8-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.29	Horz(CT) 0.05 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05 8 >999 240	Weight: 202 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 7=0-3-8  
 Max Horz 1=-109(LC 6)  
 Max Uplift 1=-107(LC 10), 7=-107(LC 11)  
 Max Grav 1=1268(LC 1), 7=1268(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2114/623, 2-4=-1877/643, 4-6=-1877/643, 6-7=-2114/623  
 BOT CHORD 1-11=-429/1788, 8-11=-177/1213, 7-8=-429/1788  
 WEBS 2-11=-428/299, 4-11=-173/734, 4-8=-173/734, 6-8=-428/299

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 11-7-3, Exterior(2) 11-7-3 to 20-4-13, Interior(1) 20-4-13 to 27-5-7, Exterior(2) 27-5-7 to 31-10-4 zone; 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) 1=107, 7=107.



July 24, 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  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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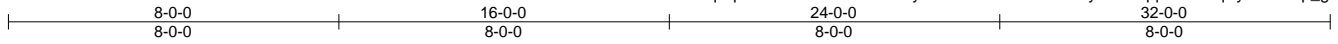
Job J0221-0985	Truss C3GDR	Truss Type HOWE	Qty 1	Ply 2	Watermark/Lot 156 Ballard Woods/Harnett E14661680
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Comtech, Inc. Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:19 2020 Page 1

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Job Reference (optional)



5x5 ||

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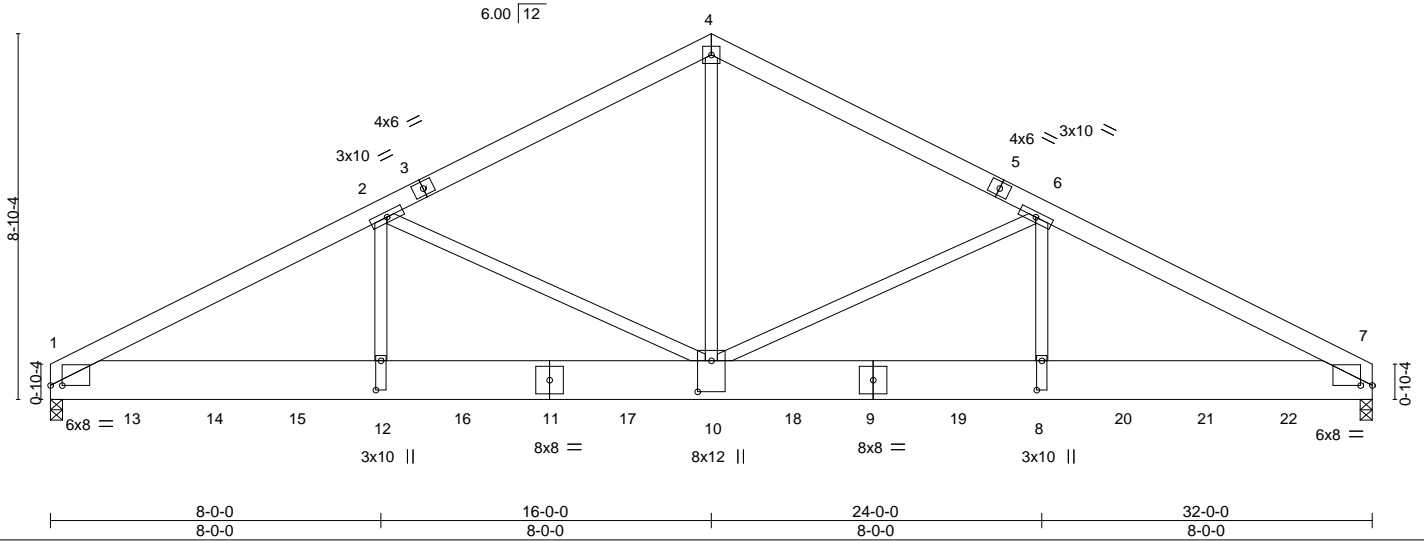


Plate Offsets (X, Y)--	[1:0-3-6,0-0-0], [7:0-3-6,0-0-0], [8:0-8-8,0-1-8], [10:0-9-0,0-4-0], [12:0-8-8,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.13	8-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.25	8-10	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.84	Horz(CT)	0.06	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.12	10-12	>999		
								Weight: 568 lb	FT = 20%

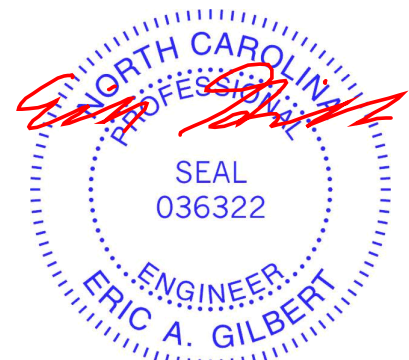
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins.
BOT CHORD 2x12 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 7=0-3-8  
 Max Horz 1=-106(LC 23)  
 Max Uplift 1=-1186(LC 8), 7=-1181(LC 9)  
 Max Grav 1=5699(LC 1), 7=5677(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-9810/2045, 2-4=-6906/1482, 4-6=-6906/1483, 6-7=-9826/2050  
 BOT CHORD 1-12=-1826/8615, 10-12=-1826/8615, 8-10=-1734/8629, 7-8=-1734/8629  
 WEBS 2-12=-458/2319, 4-10=-1187/5599, 6-8=-460/2334, 2-10=-2887/726, 6-10=-2903/731

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x12 - 2 rows staggered at 0-9-0 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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=1186, 7=1181.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 588 lb down and 153 lb up at 1-11-4, 588 lb down and 153 lb up at 3-11-4, 588 lb down and 153 lb up at 5-11-4, 588 lb down and 153 lb up at 7-11-4, 588 lb down and 153 lb up at 9-11-4, 588 lb down and 153 lb up at 11-11-4, 591 lb down and 154 lb up at 13-11-4, 591 lb down and 154 lb up at 15-11-4, 591 lb down and 154 lb up at 17-11-4, 591 lb down and 154 lb up at 19-11-4, 591 lb down and 154 lb up at 21-11-4, 588 lb down and 153 lb up at 23-11-4, 588 lb down and 153 lb up at 25-11-4, and 588 lb down and 153 lb up at 27-11-4, and 588 lb down and 153 lb up at 29-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard



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Continued on page 2

**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 J0221-0985	Truss C3GDR	Truss Type HOWE	Qty 1	Ply <b>2</b>	Watermark/Lot 156 Ballard Woods/Harnett E14661680
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8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:19 2020 Page 2  
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Job Reference (optional)

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 11=-588(F) 12=-588(F) 10=-591(F) 8=-588(F) 9=-591(F) 13=-588(F) 14=-588(F) 15=-588(F) 16=-588(F) 17=-591(F) 18=-591(F) 19=-591(F) 20=-588(F)  
21=-588(F) 22=-588(F)

**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



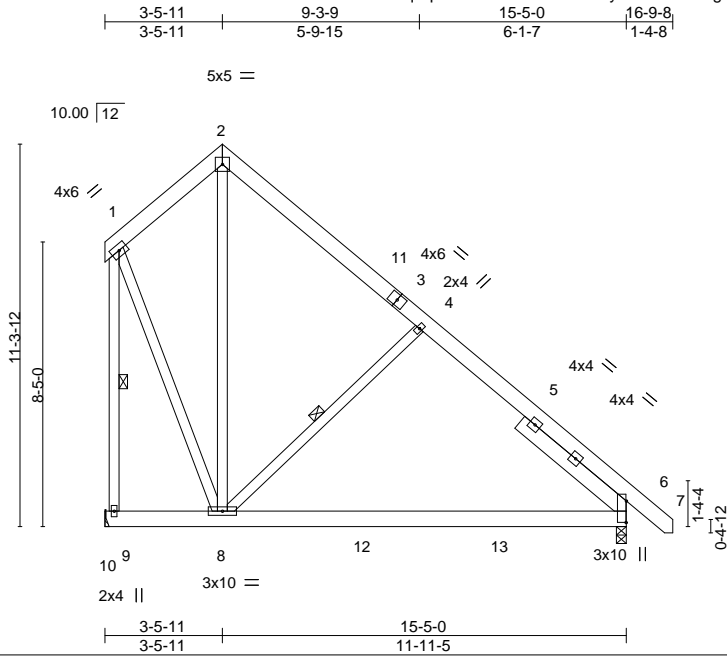
818 Soundside Road  
Edenton, NC 27932

Job J0221-0985	Truss D1	Truss Type COMMON	Qty 10	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661681
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Scale = 1:68.1

Plate Offsets (X,Y)--	[6:0-7-10,0-0-2]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.38	Vert(LL) -0.12 6-8 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.24 6-8 >756 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.01 6-8 >999 240	Weight: 149 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 4-8, 1-9
SLIDER Right 2x6 SP No.1 -x 4-1-3	

**REACTIONS.** (size) 6=0-3-8, 9=Mechanical  
 Max Horz 9=-302(LC 11)  
 Max Uplift 6=-4(LC 11), 9=-133(LC 11)  
 Max Grav 6=701(LC 18), 9=665(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-294/133, 2-4=-366/106, 4-6=-594/92, 1-9=-749/225  
 BOT CHORD 8-9=-294/349, 6-8=0/395  
 WEBS 4-8=-440/294, 1-8=-117/575

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-3-4 to 7-10-7, Interior(1) 7-10-7 to 12-3-4, Exterior(2) 12-3-4 to 16-8-1 zone; 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, with BCDL = 10.0psf.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 9=133.



July 24, 2020

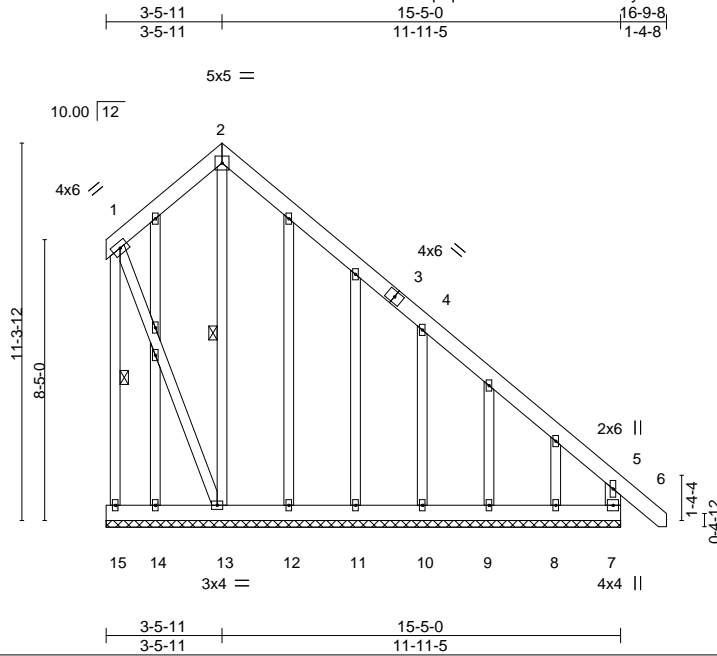
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss 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>
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Job	Truss	Truss Type	Qty	Ply	Watermark/Lot 156 Ballard Woods/Harnett	E14661682
J0221-0985	D1GE	GABLE	2	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

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ID:9A4qZqxD4Am76h51MM0DHQyTVPT-LxntS02YvmGo6FxoUySl22Y?Xze2Q08r5ql5klyur\_a



Scale = 1:69.0

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 0.17	Vert(LL)	0.00	6	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	0.00	6	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 182 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 5-7: 2x6 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 1-15, 2-13

**REACTIONS.**

All bearings 15-5-0.  
 (lb) - Max Horz 15=-295(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 7, 13 except 15=-226(LC 11), 10=-296(LC 11), 8=-145(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 15, 14, 12, 11, 9, 8 except 7=274(LC 20), 10=535(LC 18), 13=304(LC 20)

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

TOP CHORD 1-15=-334/312, 5-7=-262/19  
 BOT CHORD 14-15=-225/402, 13-14=-225/402, 12-13=-156/333, 11-12=-156/333, 10-11=-156/333,  
 9-10=-156/333, 8-9=-156/333, 7-8=-156/333  
 WEBS 4-10=-572/443

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) 0-3-4 to 7-10-7, Exterior(2) 7-10-7 to 12-3-4, and Corner(3) 12-3-4 to 16-8-1 zone; 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 2x4 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 13 except (jt=lb) 15=226, 10=296, 8=145.



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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

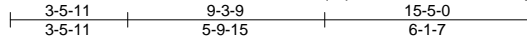


Job J0221-0985	Truss D2	Truss Type COMMON	Qty 5	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661683
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ID:9A4qZqx4Am76h51MM0DHQyTVPT-LxntS02YvmGo6FxoUySl22Y?jzaKQ2Qr5q15klyur\_a



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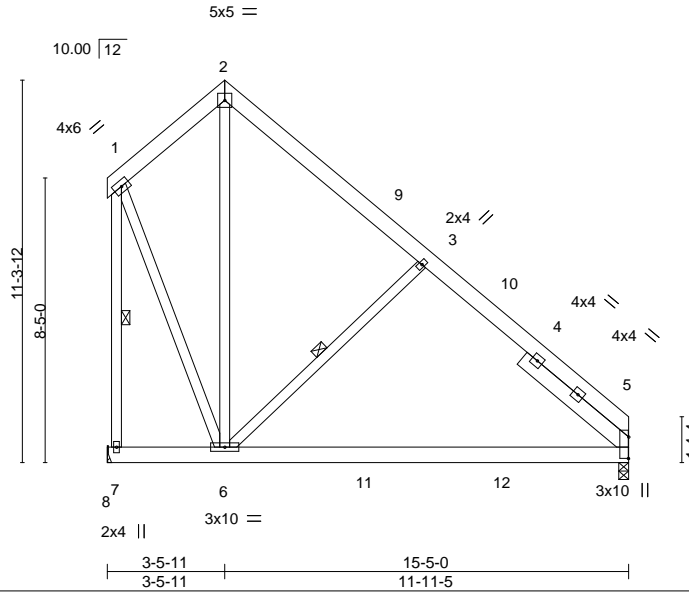


Plate Offsets (X,Y)-- [5:0-7-10,0-0-2]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.39	Vert(LL) -0.13 5-6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.25 5-6 >741 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.01 5-6 >999 240	Weight: 145 lb	FT = 20%

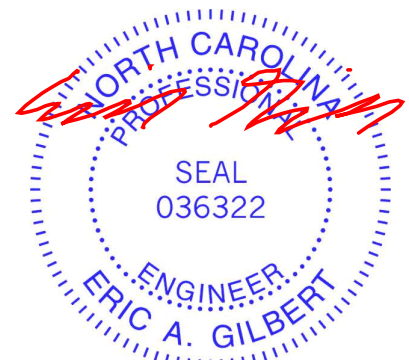
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 3-6, 1-7
SLIDER Right 2x6 SP No.1 -x 4-1-3	

**REACTIONS.** (size) 5=0-3-8, 7=Mechanical  
 Max Horz 7=-296(LC 11)  
 Max Uplift 7=-134(LC 11)  
 Max Grav 5=628(LC 18), 7=668(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-294/136, 2-3=-368/111, 3-5=-597/99, 1-7=-754/233  
 BOT CHORD 6-7=-300/344, 5-6=0/395  
 WEBS 3-6=-438/314, 1-6=-124/579

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-3-4 to 7-10-7, Interior(1) 7-10-7 to 11-0-3, Exterior(2) 11-0-3 to 15-5-0 zone; 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, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=134.



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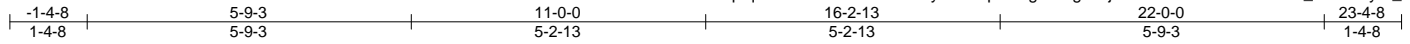
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss 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>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Watermark/Lot 156 Ballard Woods/Harnett	E14661684
J0221-0985	G1	QUEENPOST	6	1	Job Reference (optional)	

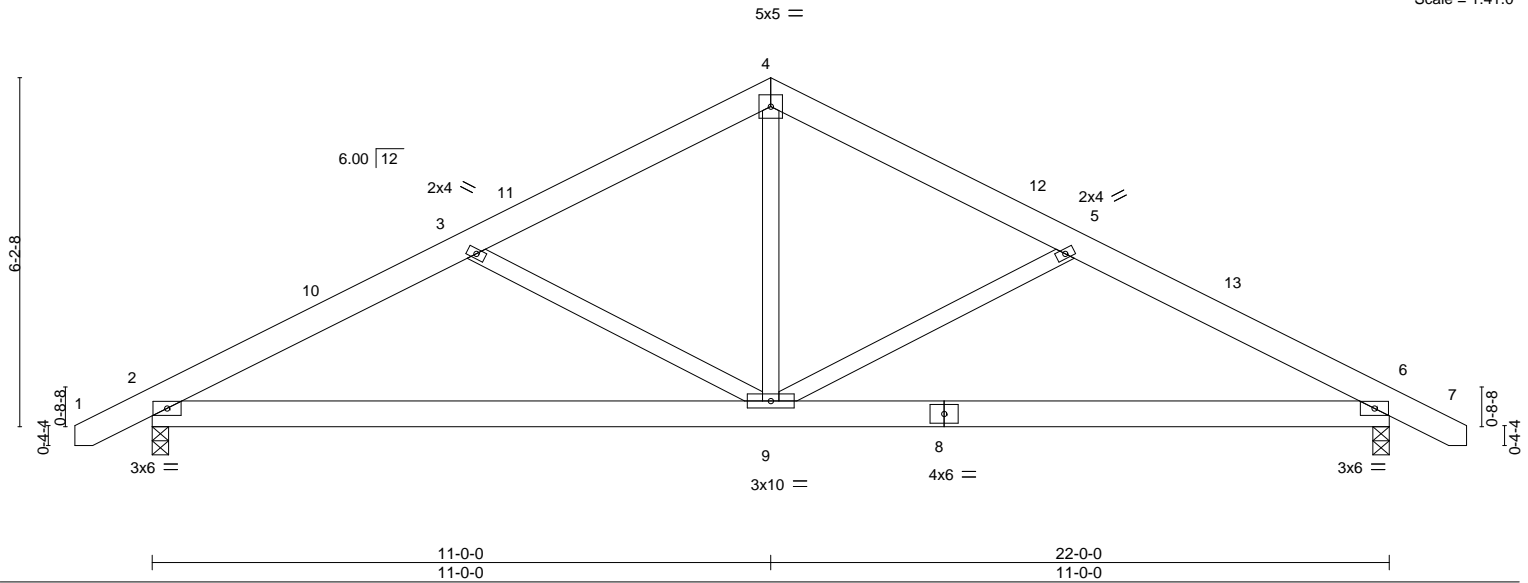
Comtech, Inc. Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:22 2020 Page 1

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Scale = 1:41.0



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 0.12	Vert(LL) -0.07	2-9	>999	360	MT20	244/190
BCDL 10.0	Lumber DOL 1.15		BC 0.41	Vert(CT) -0.15	2-9	>999	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.22	Horz(CT) 0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL) 0.02	9	>999	240		
								Weight: 142 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

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

**REACTIONS.** (size) 6=0-3-8, 2=0-3-8  
 Max Horz 2=80(LC 9)  
 Max Uplift 6=93(LC 11), 2=93(LC 10)  
 Max Grav 6=950(LC 1), 2=950(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1378/465, 3-4=-1054/361, 4-5=-1054/361, 5-6=-1378/465  
 BOT CHORD 2-9=-288/1162, 6-9=-288/1162  
 WEBS 3-9=-352/240, 4-9=-105/613, 5-9=-352/240

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-10 to 3-2-3, Interior(1) 3-2-3 to 6-7-3, Exterior(2) 6-7-3 to 15-4-13, Interior(1) 15-4-13 to 18-9-13, Exterior(2) 18-9-13 to 23-2-10 zone;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) 6, 2.



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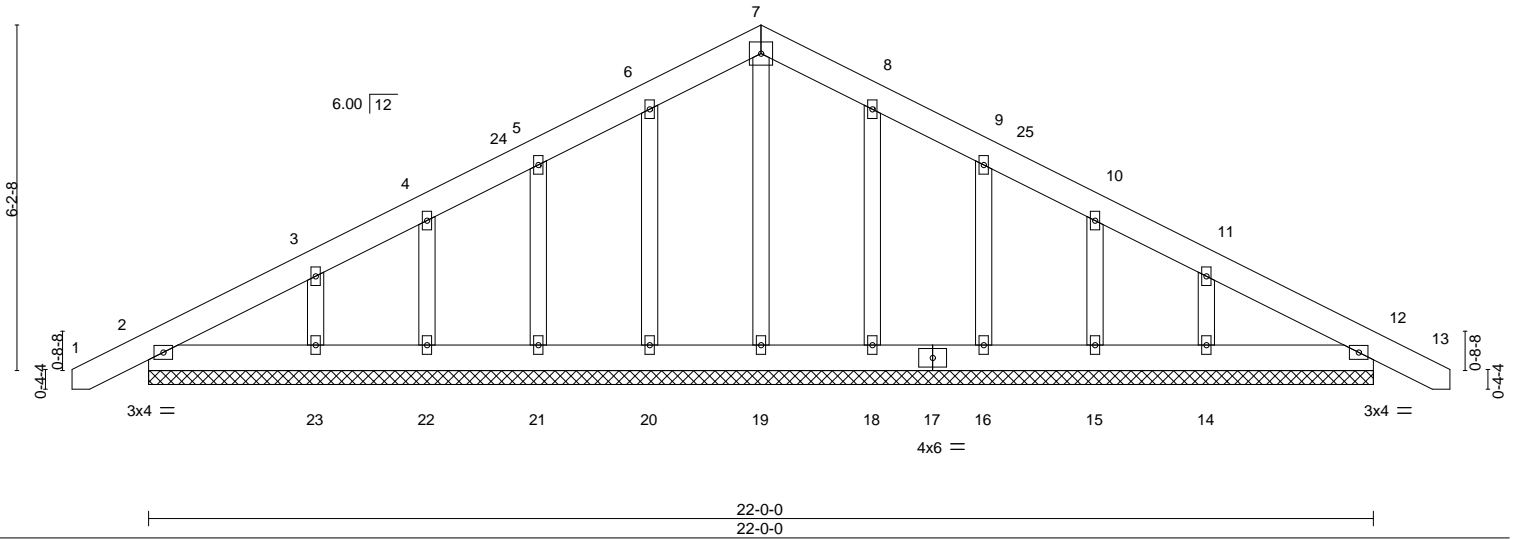
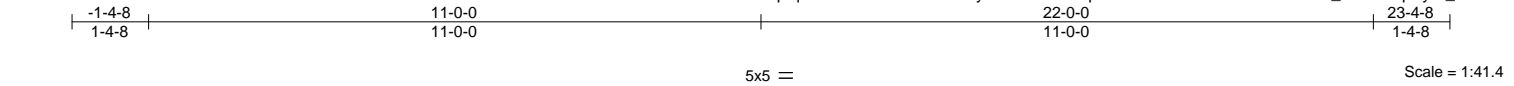
Job J0221-0985	Truss G1GE	Truss Type GABLE	Qty 1	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661685
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ID:9A4qZqx4Am76h51MMODHqyTVPT-HJveti4pQNWVLZ5mbNum7TeN2nLXu\_T8Y8nCpByur\_Y

22-0-0 23-4-8  
11-0-0 1-4-8



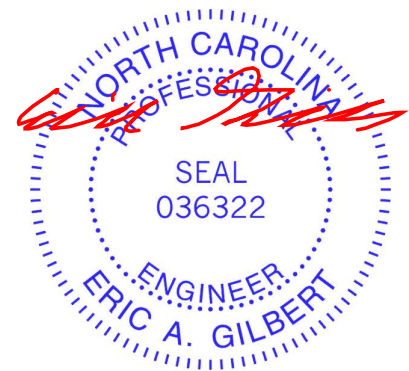
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	-0.00	12	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	12	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 158 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 22-0-0.  
 (lb) - Max Horz 2=124(LC 14)  
 Max Uplift All uplift 100 lb or less at joint(s) 12, 2, 20, 21, 22, 18, 16, 15 except 23=109(LC 10), 14=106(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 12, 2, 19, 20, 21, 22, 23, 18, 16, 15, 14

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 6-7=-81/279, 7-8=-81/279

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-2-10 to 3-0-0, Exterior(2) 3-0-0 to 6-7-3, Corner(3) 6-7-3 to 15-4-13, Exterior(2) 15-4-13 to 18-9-13, Corner(3) 18-9-13 to 23-2-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 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) 12, 2, 20, 21, 22, 18, 16, 15 except (jt=lb) 23=109, 14=106.



Job J0221-0985	Truss M1	Truss Type ROOF SPECIAL	Qty 3	Ply 1	Watermark/Lot 156 Ballard Woods/Harnett E14661686
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8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:24 2020 Page 1

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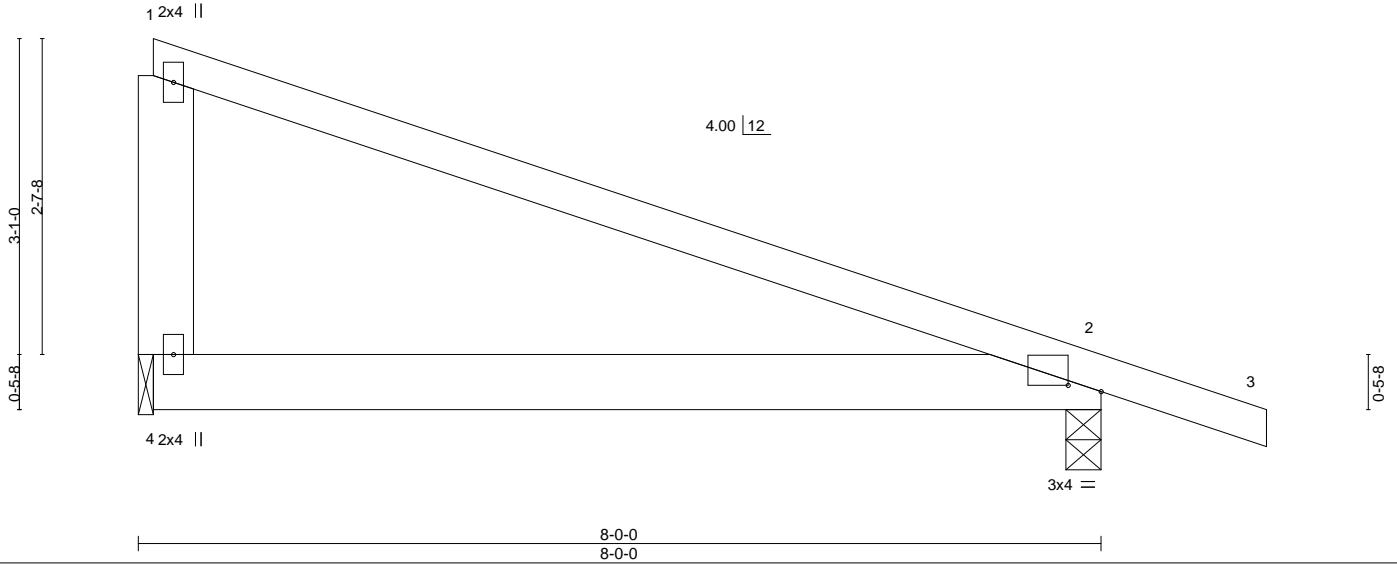


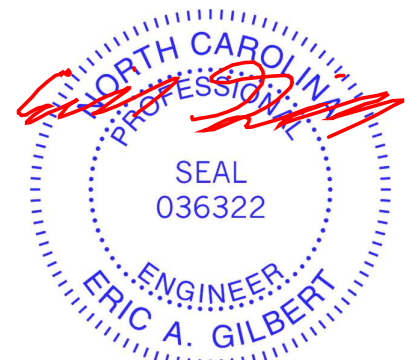
Plate Offsets (X,Y)--	[2:0-3-5,0-0-10]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	-0.05 2-4	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.09 2-4	>999	240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00 2	n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.10 2-4	>916	240
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 38 lb FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x6 SP No.1		

**REACTIONS.** (size) 2=0-3-8, 4=0-1-8  
 Max Horz 4=-105(LC 7)  
 Max Uplift 2=-171(LC 7), 4=-135(LC 7)  
 Max Grav 2=405(LC 1), 4=296(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* 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.
  - 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=171, 4=135.



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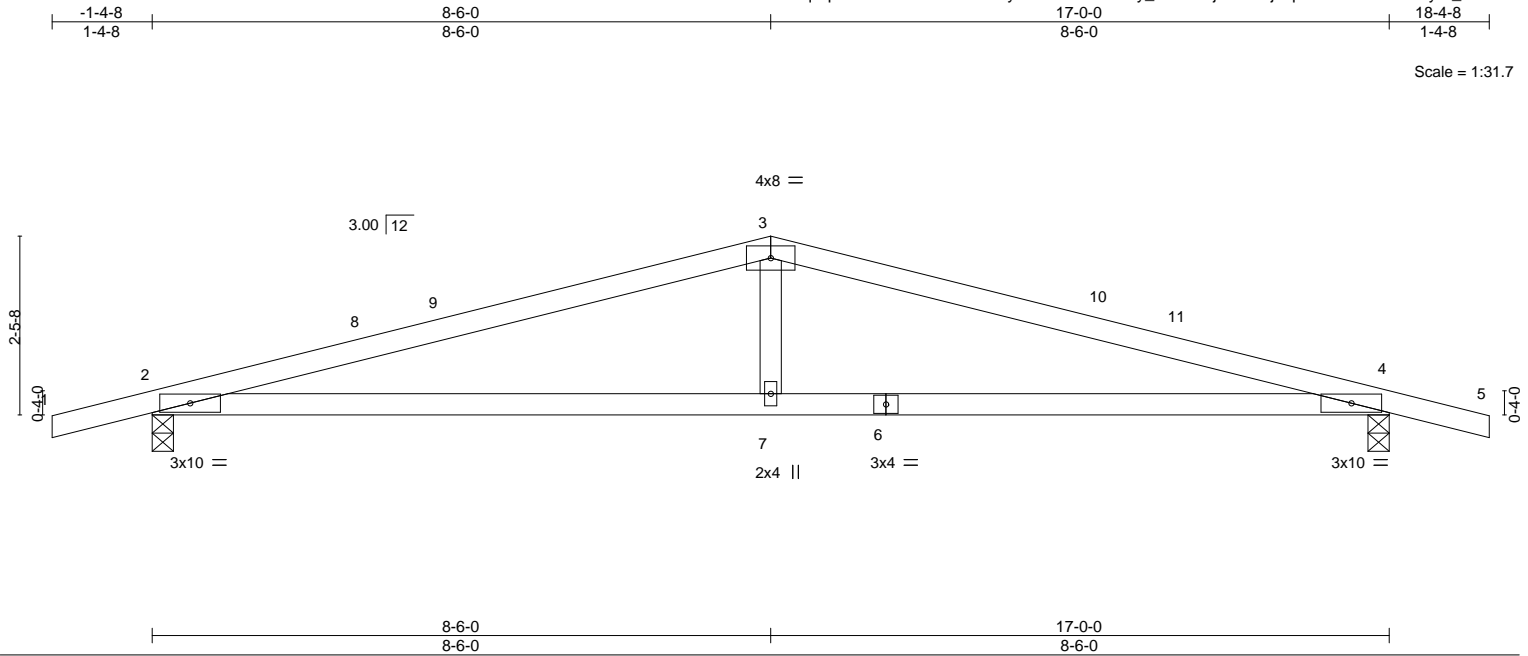
Job	Truss	Truss Type	Qty	Ply	Watermark/Lot 156 Ballard Woods/Harnett	E14661687
J0221-0985	P1	KINGPOST	5	1	Job Reference (optional)	

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ID:9A4qZqxD4Am76h51MM0DHQyTVPT-Ei0OIN53y\_mEaTf9jnwECujUqauUMsUR0SGJt3yur\_W  
 17-0-0 18-4-8  
 8-6-0 1-4-8

Scale = 1:31.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.98	Vert(LL) 0.31	4-7	>653	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.63	Vert(CT) -0.27	4-7	>746	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.03	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 59 lb	FT = 20%

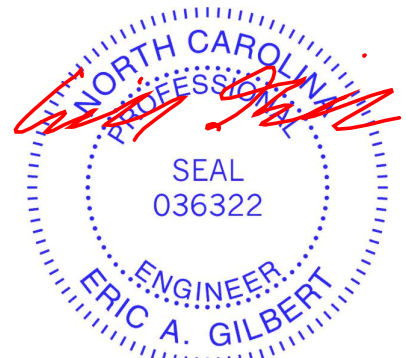
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 4-3-13 oc bracing.

**REACTIONS.** (size) 4=0-3-8, 2=0-3-8  
 Max Horz 2=-30(LC 7)  
 Max Uplift 4=-311(LC 7), 2=-311(LC 6)  
 Max Grav 4=760(LC 1), 2=760(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1567/1711, 3-4=-1567/1711  
 BOT CHORD 2-7=-1568/1458, 4-7=-1568/1458  
 WEBS 3-7=-507/401

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-4-8 to 3-0-5, Interior(1) 3-0-5 to 4-1-3, Exterior(2) 4-1-3 to 12-10-13, Interior(1) 12-10-13 to 13-11-11, Exterior(2) 13-11-11 to 18-4-8 zone; porch 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) 4=311, 2=311.



July 24, 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



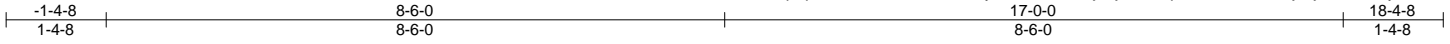
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Watermark/Lot 156 Ballard Woods/Harnett	E14661688
J0221-0985	P1GE	GABLE	1	1	Job Reference (optional)	

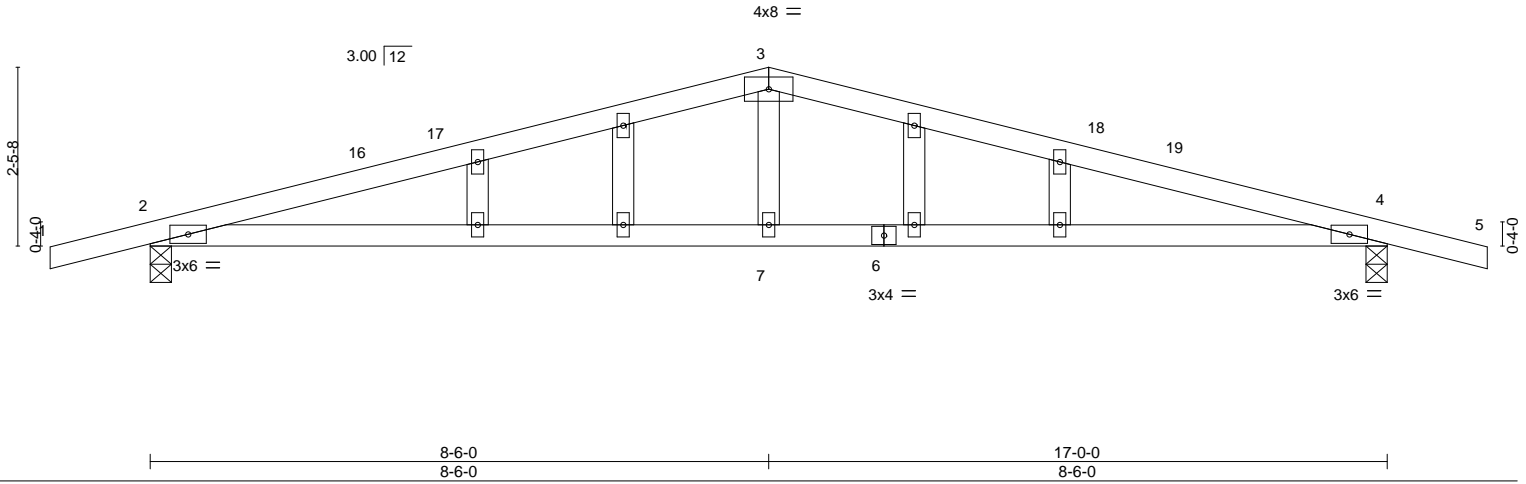
Comtech, Inc. Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 24 13:39:26 2020 Page 1

ID:9A4qZqxD4Am76h51MM0DHQyTVPT-iumWj6hju5C1qLHVSTI6Gea\_Ej5JJaE60sPVyur\_V



Scale = 1:31.7



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 0.98	Vert(LL)	-0.11 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.27 4-7	>746	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.03 4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.11 2-7	>999	240	Weight: 65 lb	FT = 20%

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

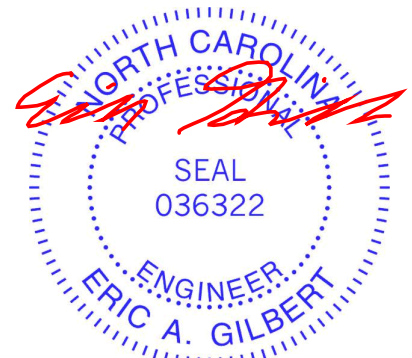
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 9-11-5 oc bracing.

**REACTIONS.** (size) 4=0-3-8, 2=0-3-8  
 Max Horz 2=-50(LC 11)  
 Max Uplift 4=-250(LC 7), 2=-250(LC 6)  
 Max Grav 4=760(LC 1), 2=760(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1567/493, 3-4=-1567/493  
 BOT CHORD 2-7=-385/1458, 4-7=-385/1458  
 WEBS 3-7=0/401

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-4-8 to 3-0-5, Interior(1) 3-0-5 to 4-1-3, Exterior(2) 4-1-3 to 12-10-13, Interior(1) 12-10-13 to 13-11-11, Exterior(2) 13-11-11 to 18-4-8 zone; 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 2x4 MT20 unless otherwise indicated.
- 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) except (jt=lb) 4=250, 2=250.



July 24, 2020

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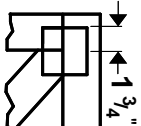


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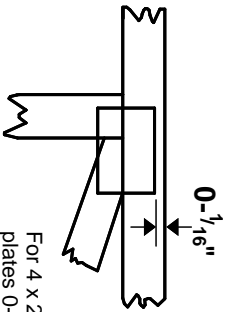


# Symbols

## 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.

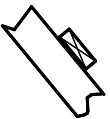
\* Plate location details available in **MITek 20/20 software** or upon request.

## PLATE SIZE

**4 X 4**

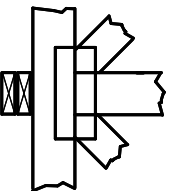
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



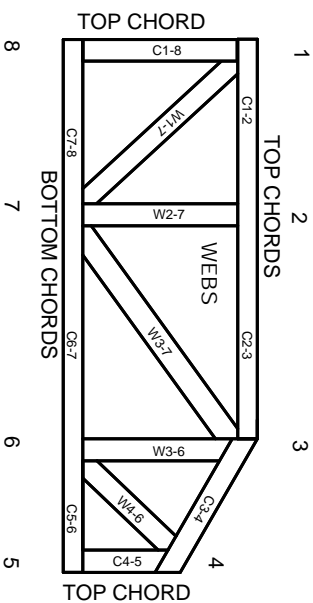
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TPI 1: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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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 Tor 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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.