

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J0121-0164  
ROUKEMA BUCHANAN FLOOR & ROOF

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

Pages or sheets covered by this seal: E15294909 thru E15294950

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

North Carolina COA: C-0844



January 11, 2021

Gilbert, Eric

**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	ROUKEMA BUCHANAN FLOOR & ROOF	E15294909
J0121-0164	1E1	Floor Supported Gable	1	1	Job Reference (optional)	

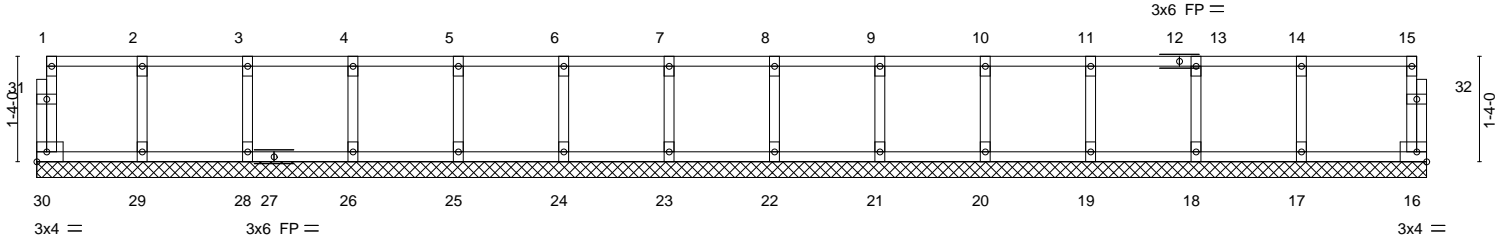
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:20:57 2021 Page 1  
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0-1,8  
H

0-1,8  
H

Scale = 1:29.2



<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>				<b>PLATES</b>		<b>GRIP</b>	
TCLL	40.0	Plate Grip DOL	2-0-0	TC	0.09	in	(loc)	l/defl	L/d	MT20	244/190		
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(LL)	n/a	-	n/a				
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Vert(CT)	n/a	-	n/a				
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R		Horz(CT)	0.00	16	n/a			Weight: 77 lb FT = 20%F, 11%E	

**LUMBER-**  
TOP CHORD 2x4 SP No.1 (flat)  
BOT CHORD 2x4 SP No.1 (flat)  
WEBS 2x4 SP No.3 (flat)  
OTHERS 2x4 SP No.3 (flat)

**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 17-7-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17

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

- NOTES-**
- All plates are 1.5x3 MT20 unless otherwise indicated.
  - Plates checked for a plus or minus 1 degree rotation about its center.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



January 11, 2021

**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	ROUKEMA BUCHANAN FLOOR & ROOF	E15294910
J0121-0164	1E2	Floor Supported Gable	2	1	Job Reference (optional)	

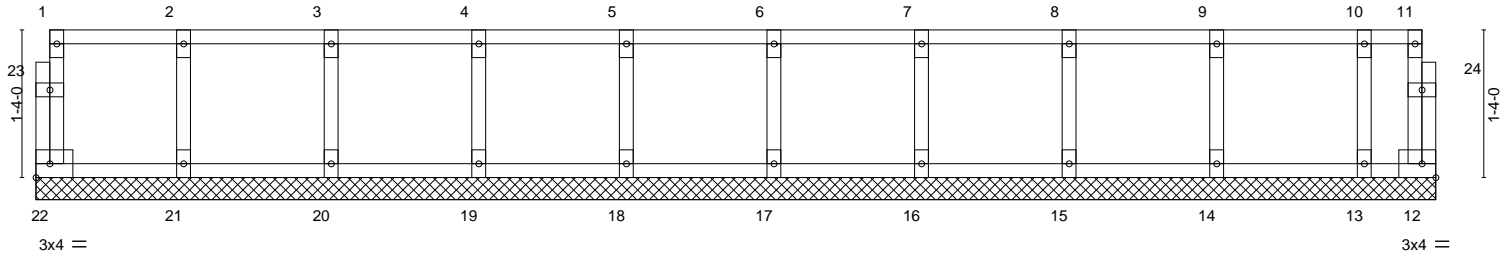
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:20:57 2021 Page 1  
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0<sub>1</sub>:8

0<sub>1</sub>:8

Scale = 1:20.8



12-7-12  
12-7-12

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	12	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R					Weight: 58 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**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.

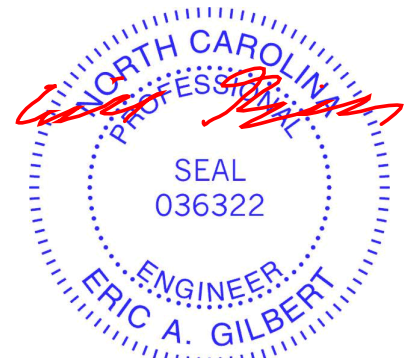
**REACTIONS.** All bearings 12-7-12.

(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

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

**NOTES-**

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Plates checked for a plus or minus 1 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294911
J0121-0164	1E3	Floor Supported Gable	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:20:58 2021 Page 1  
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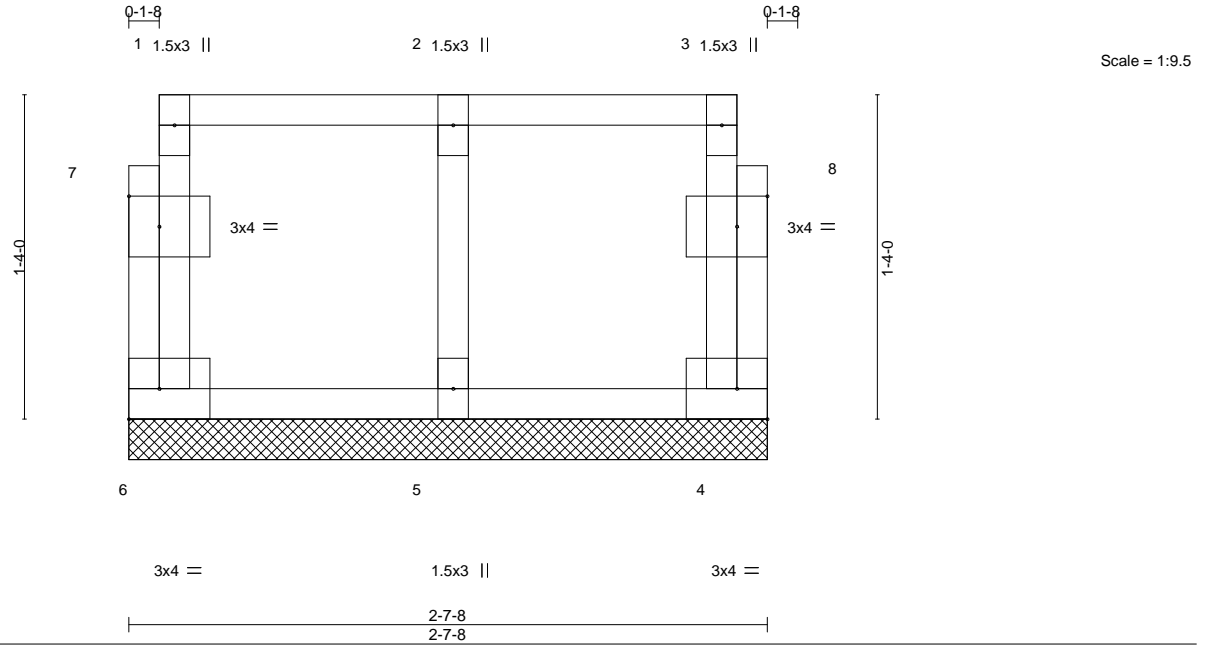


Plate Offsets (X,Y)--	[7:0-1-8,0-1-8], [8:0-1-8,0-1-8]							
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT)	0.00	4	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-R					Weight: 15 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-7-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 6=2-7-8, 4=2-7-8, 5=2-7-8  
Max Grav 6=58(LC 1), 4=56(LC 1), 5=134(LC 1)

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

- NOTES-**
- 1) Plates checked for a plus or minus 1 degree rotation about its center.
  - 2) Gable requires continuous bottom chord bearing.
  - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 4) Gable studs spaced at 1-4-0 oc.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



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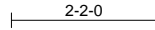
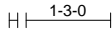
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294912
J0121-0164	1F1	Floor	11	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:20:59 2021 Page 1  
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0-1-8



0-1-8  
Scale = 1:34.1

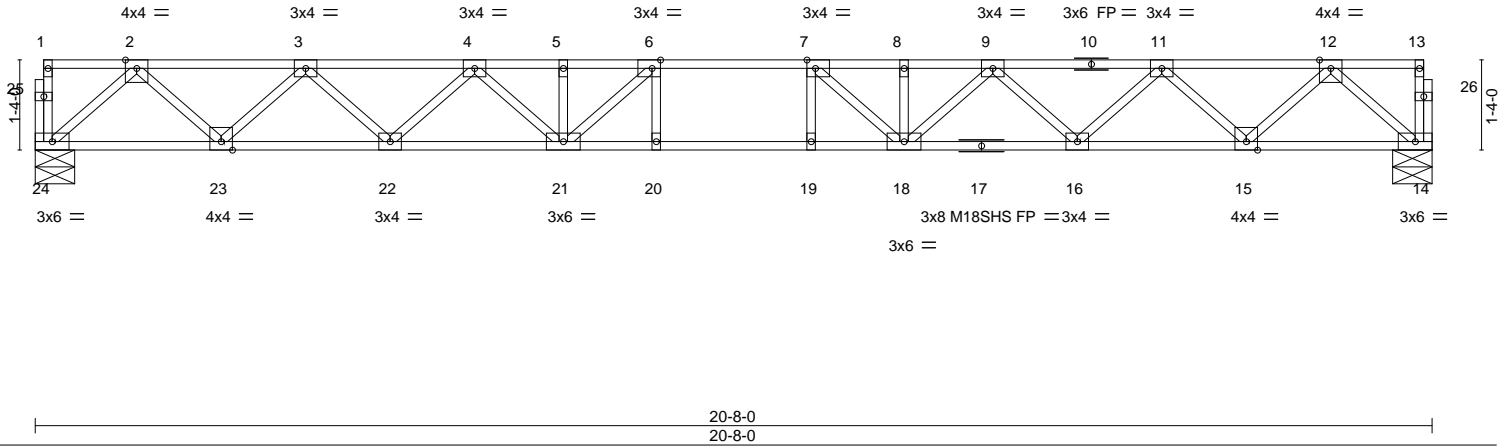


Plate Offsets (X,Y)-- [6:0-1-8,Edge], [7:0-1-8,Edge]

LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.51	Vert(LL)	-0.30	19-20	>813	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.85	Vert(CT)	-0.42	19-20	>590	M18SHS	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.47	Horz(CT)	0.08	14	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-S						
								Weight: 108 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)

**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.** (size) 24=0-7-0, 14=0-7-0  
Max Grav 24=893(LC 1), 14=893(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1678/0, 3-4=-2825/0, 4-5=-3552/0, 5-6=-3552/0, 6-7=-3757/0, 7-8=-3552/0,  
8-9=-3552/0, 9-11=-2825/0, 11-12=-1678/0  
BOT CHORD 23-24=0/971, 22-23=0/2361, 21-22=0/3268, 20-21=0/3757, 19-20=0/3757, 18-19=0/3757,  
16-18=0/3268, 15-16=0/2361, 14-15=0/971  
WEBS 2-24=-1290/0, 2-23=0/983, 3-23=-951/0, 3-22=0/645, 4-22=-617/0, 4-21=0/386,  
12-14=-1290/0, 12-15=0/983, 11-15=-951/0, 11-16=0/645, 9-16=-617/0, 9-18=0/386,  
7-18=-603/120, 6-21=-603/120

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 4) Plates checked for a plus or minus 1 degree rotation about its center.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



January 11, 2021

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294913
J0121-0164	1F2	Floor	8	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:20:59 2021 Page 1  
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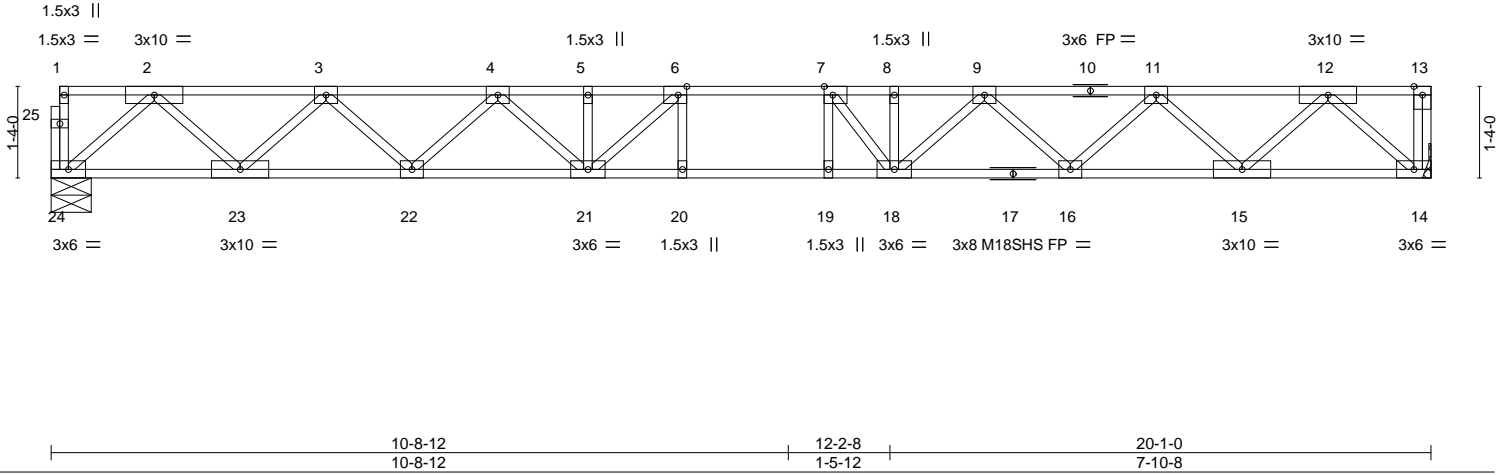
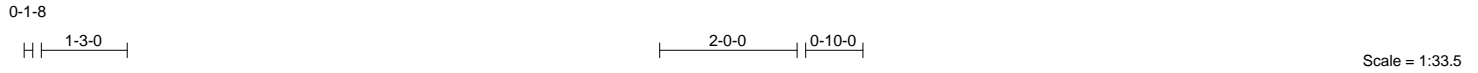


Plate Offsets (X,Y)--	[6:0-1-8,Edge], [7:0-1-8,Edge]
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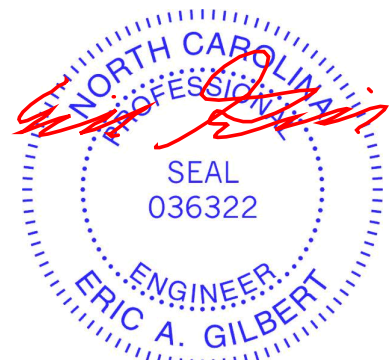
LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.46	Vert(LL)	-0.27	20	>873	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.80	Vert(CT)	-0.38	20	>634	M18SHS	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.07	14	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 106 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 24=0-7-0, 14=Mechanical  
Max Grav 24=867(LC 1), 14=872(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-1622/0, 3-4=-2716/0, 4-5=-3394/0, 5-6=-3394/0, 6-7=-3546/0, 7-8=-3384/0, 8-9=-3384/0, 9-11=-2717/0, 11-12=-1622/0  
**BOT CHORD** 23-24=0/942, 22-23=0/2279, 21-22=0/3134, 20-21=0/3546, 19-20=0/3546, 18-19=0/3546, 16-18=0/3134, 15-16=0/2279, 14-15=0/943  
**WEBS** 2-24=-1252/0, 2-23=0/946, 3-23=-914/0, 3-22=0/608, 4-22=-581/0, 4-21=0/354, 6-21=-522/144, 12-14=-1255/0, 12-15=0/945, 11-15=-913/0, 11-16=0/610, 9-16=-580/0, 9-18=0/365, 7-18=-585/137

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 3x4 MT20 unless otherwise indicated.
  - 4) Plates checked for a plus or minus 1 degree rotation about its center.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.



January 11, 2021

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294914
J0121-0164	1F3	Floor	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:00 2021 Page 1  
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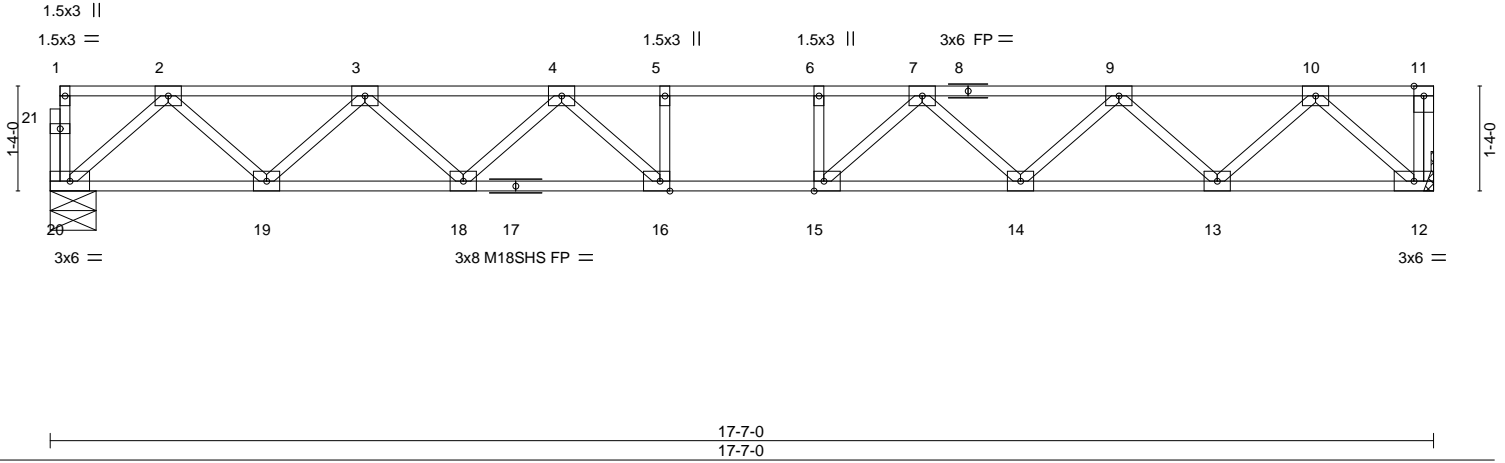
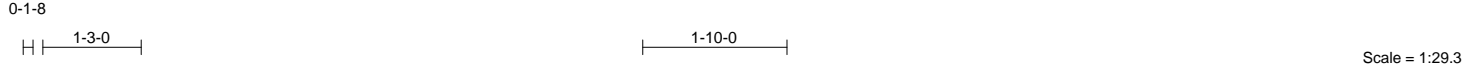


Plate Offsets (X,Y)-- [15:0-1-8,Edge], [16:0-1-8,Edge]

LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.37	Vert(LL)	-0.16 15-16	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.57	Vert(CT)	-0.22 15-16	>944	360	M18SHS	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.38	Horz(CT)	0.05 12	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 91 lb	FT = 20%F, 11%E

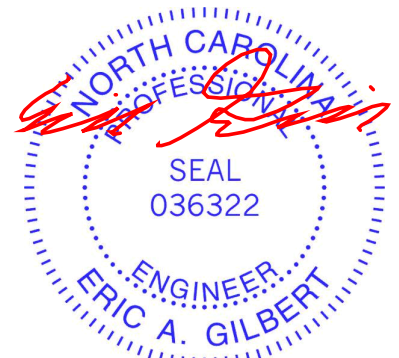
**LUMBER-**  
 TOP CHORD 2x4 SP No.1(flat)  
 BOT CHORD 2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)

**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.** (size) 20=0-7-0, 12=Mechanical  
 Max Grav 20=757(LC 1), 12=762(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1384/0, 3-4=-2251/0, 4-5=-2706/0, 5-6=-2706/0, 6-7=-2706/0, 7-9=-2251/0, 9-10=-1385/0  
 BOT CHORD 19-20=0/817, 18-19=0/1928, 16-18=0/2553, 15-16=0/2706, 14-15=0/2554, 13-14=0/1928, 12-13=0/818  
 WEBS 2-20=-1086/0, 2-19=0/789, 3-19=-757/0, 3-18=0/449, 4-18=-420/0, 4-16=-68/449, 10-12=-1089/0, 10-13=0/788, 9-13=-756/0, 9-14=0/449, 7-14=-421/0, 7-15=-69/449

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 3x4 MT20 unless otherwise indicated.
  - 4) Plates checked for a plus or minus 1 degree rotation about its center.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.



January 11, 2021

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



Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294915
J0121-0164	1F5	Floor	12	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:01 2021 Page 1  
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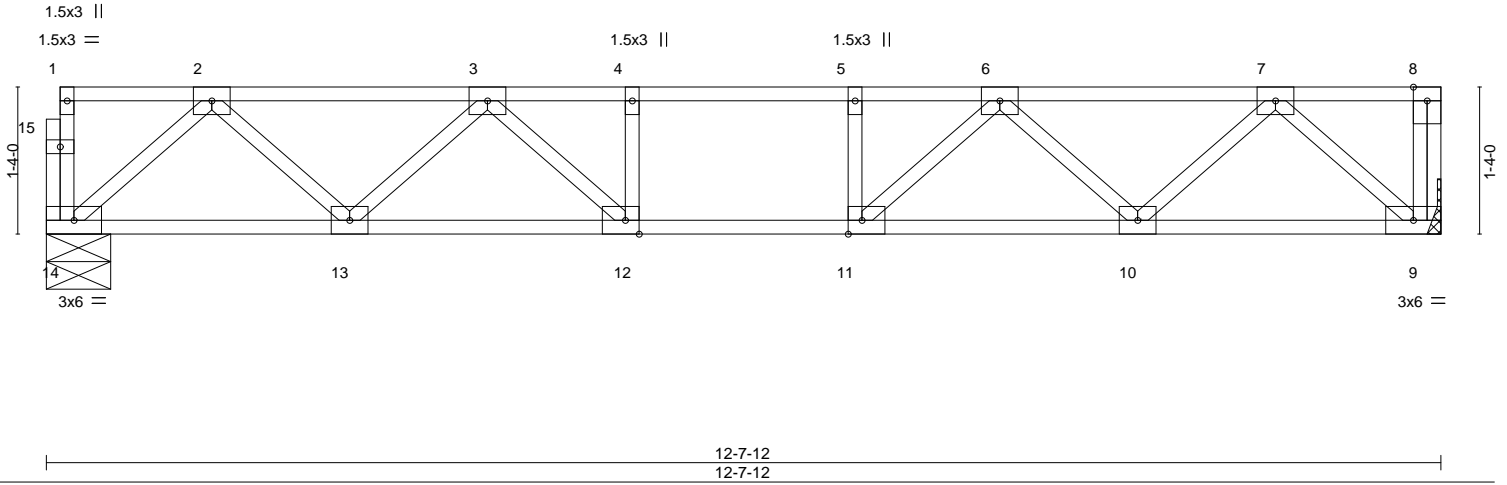
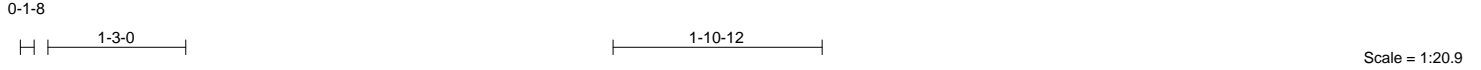


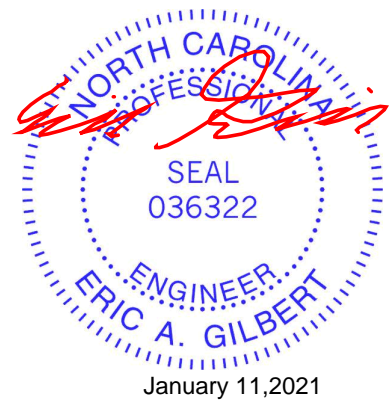
Plate Offsets (X,Y)--	[11:0-1-8,Edge], [12:0-1-8,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	1-7-3	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00		TC 0.26	Vert(LL) -0.06	10-11	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00		BC 0.32	Vert(CT) -0.08	10-11	>999	360		
BCLL 0.0	Rep Stress Incr YES		WB 0.22	Horz(CT) 0.02	9	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 67 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1 (flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 (flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 (flat)	

**REACTIONS.** (size) 14=0-7-0, 9=Mechanical  
Max Grav 14=540(LC 1), 9=545(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-910/0, 3-4=-1374/0, 4-5=-1374/0, 5-6=-1374/0, 6-7=-911/0  
BOT CHORD 13-14=0/575, 12-13=0/1221, 11-12=0/1374, 10-11=0/1221, 9-10=0/576  
WEBS 2-14=-764/0, 2-13=0/466, 3-13=-432/0, 3-12=0/354, 7-9=-767/0, 7-10=0/466, 6-10=-432/0, 6-11=0/354

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.





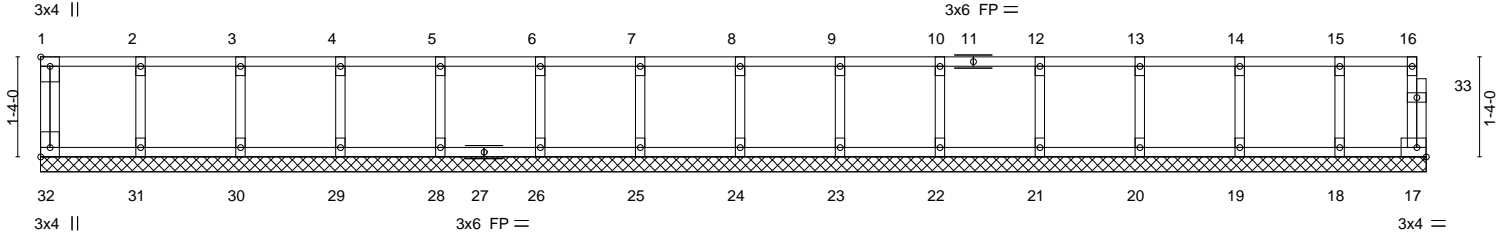
Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294916
J0121-0164	2E1	Floor Supported Gable	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:02 2021 Page 1  
 ID:k0NrKyIvgRWmszlgBmiUdy7I2I-IACtC4hosc3Fq?3qkqwspomS1WF\_R76UyZ1DL\_zwQ1V

0-1,8

Scale = 1:30.7



18-5-14  
18-5-14

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [32:Edge,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	17	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-R					Weight: 82 lb	FT = 20%F, 11%E

**LUMBER-**  
 TOP CHORD 2x4 SP No.1(flat)  
 BOT CHORD 2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

**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 18-5-14.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 32, 17, 31, 30, 29, 28, 26, 25, 24, 23, 22, 21, 20, 19, 18

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

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.



January 11, 2021

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**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	ROUKEMA BUCHANAN FLOOR & ROOF	E15294917
J0121-0164	2E2	Floor Supported Gable	2	1	Job Reference (optional)	

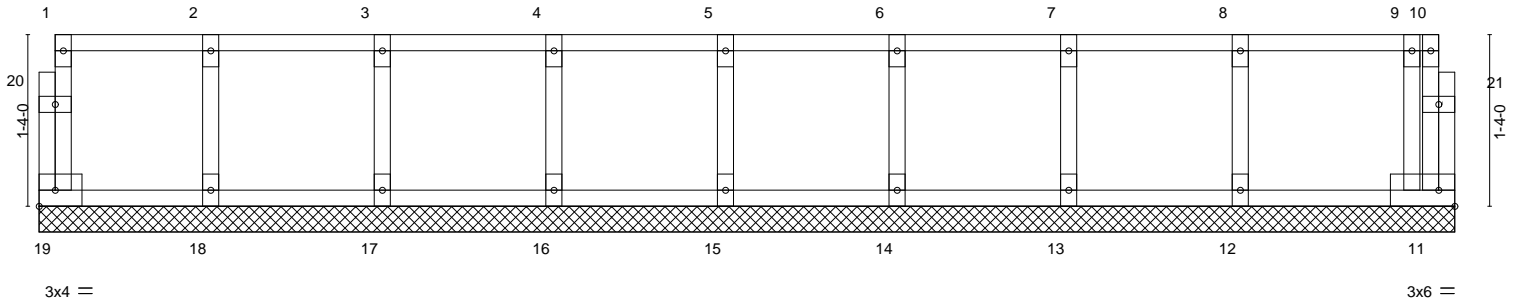
Comtech, Inc., Fayetteville, NC 28309, Mitek

8.330 s Dec 1 2020 MiTek Industries, Inc. Mon Jan 11 15:05:24 2021 Page 1  
ID:k0NrKylvgRWmszigBmiUdty7i2I-\_YX06XQQ\_PS9WHLmZPvfXF0M0bnc835J4jt5AhzwPNv

0'-1'-8"

0'-1'-8"

Scale = 1:17.9



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	2-0-0	TC	0.07	Vert(LL)	in	(loc)	l/defl	L/d	MT20	244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999	Weight: 51 lb FT = 20%F, 11%E		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	11	n/a	n/a			
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R									

**LUMBER-**  
 TOP CHORD 2x4 SP No.1(flat)  
 BOT CHORD 2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

**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 11-0-0.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 19, 11, 18, 17, 16, 15, 14, 13, 12

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

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1'-4" oc.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



January 11, 2021

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 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294918
J0121-0164	2F1	Floor	17	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:03 2021 Page 1  
ID:k0NrKylvgRWmszlgBmiUdy7i2l-mMrqQhQdwB6S9e1sRR5M?iScwRgAUbeADnnHQzwQ1U

1-3-0

2-5-14

Scale = 1:30.4

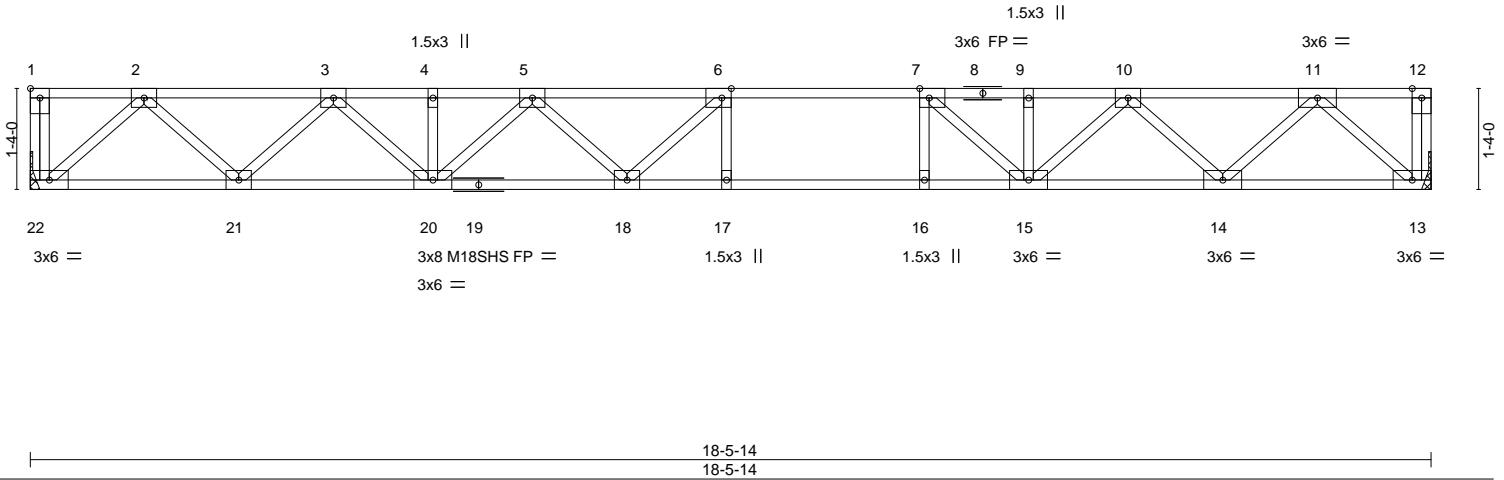


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [6:0-1-8,Edge], [7:0-1-8,Edge]

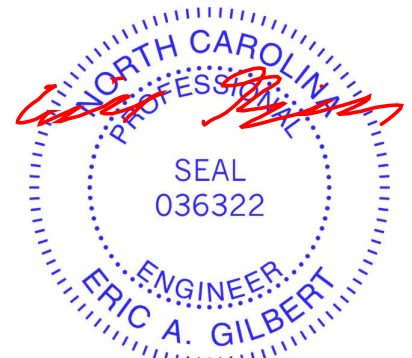
LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.71	Vert(LL)	-0.26	17-18	>854	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.68	Vert(CT)	-0.35	17-18	>630	M18SHS	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.05	13	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-S						
								Weight: 97 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat) *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
13-19: 2x4 SP 2400F 2.0E(flat)	
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 22=Mechanical, 13=Mechanical  
Max Grav 22=802(LC 1), 13=802(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1468/0, 3-4=-2451/0, 4-5=-2451/0, 5-6=-2926/0, 6-7=-2937/0, 7-9=-2428/0, 9-10=-2428/0, 10-11=-1472/0  
BOT CHORD 21-22=0/866, 20-21=0/2045, 18-20=0/2811, 17-18=0/2937, 16-17=0/2937, 15-16=0/2937, 14-15=0/2042, 13-14=0/867  
WEBS 2-22=-1153/0, 2-21=0/837, 3-21=-802/0, 3-20=0/552, 5-20=-490/0, 5-18=0/299, 6-18=-329/204, 11-13=-1154/0, 11-14=0/841, 10-14=-794/0, 10-15=0/525, 7-15=-864/0, 7-16=-31/256

- NOTES-
- Unbalanced floor live loads have been considered for this design.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 3x4 MT20 unless otherwise indicated.
  - Plates checked for a plus or minus 1 degree rotation about its center.
  - Refer to girder(s) for truss to truss connections.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



January 11, 2021

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294919
J0121-0164	2F2	Floor	15	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:03 2021 Page 1  
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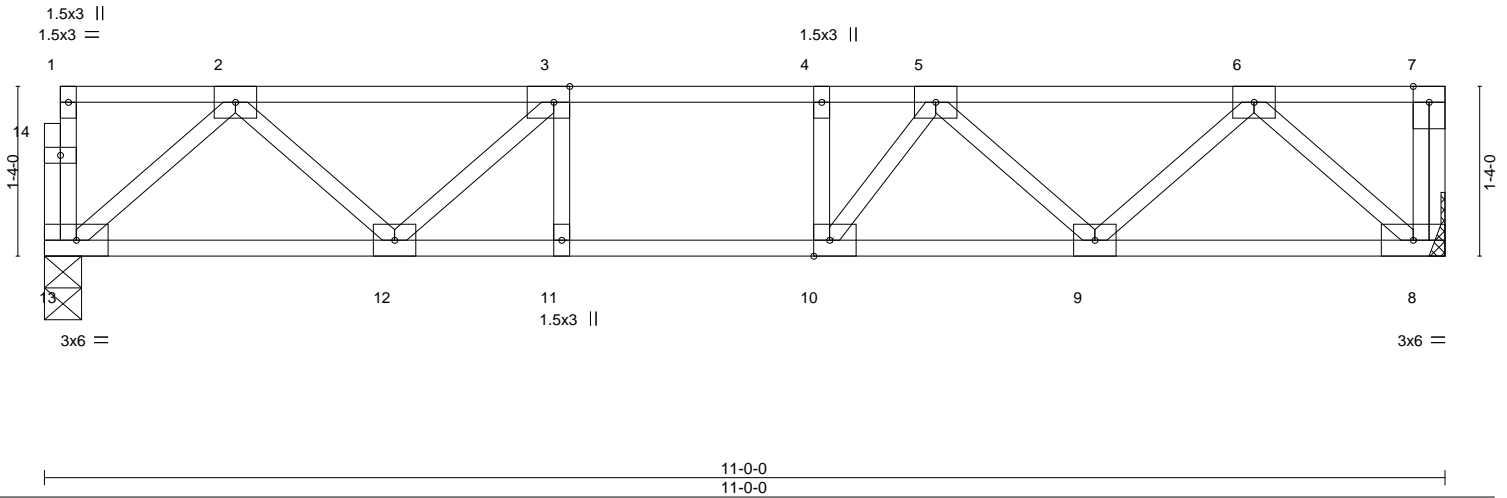


Plate Offsets (X,Y)-- [3:0-1-8,Edge], [10:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.27	Vert(LL) -0.05	9-10	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.35	Vert(CT) -0.07	9-10	>999	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.18	Horz(CT) 0.01	8	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S					Weight: 59 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)

**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.** (size) 13=0-3-8, 8=Mechanical  
Max Grav 13=468(LC 1), 8=473(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-756/0, 3-4=-1026/0, 4-5=-1026/0, 5-6=-756/0  
BOT CHORD 12-13=0/489, 11-12=0/1026, 10-11=0/1026, 9-10=0/990, 8-9=0/494  
WEBS 2-13=-648/0, 2-12=0/371, 3-12=-383/0, 6-8=-657/0, 6-9=0/365, 5-9=-325/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294920
J0121-0164	A1	Piggyback Base	5	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:05 2021 Page 1  
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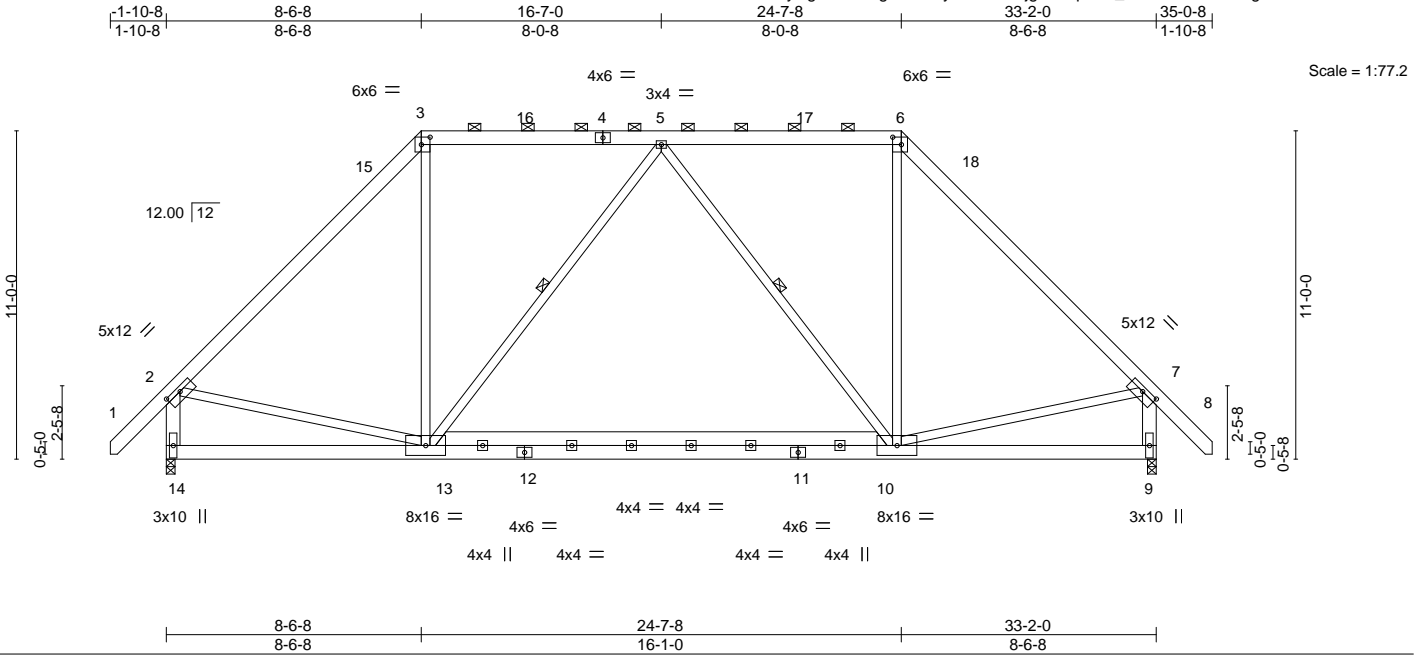


Plate Offsets (X,Y)--	[2:0-6-0,0-1-12], [3:0-3-8,0-3-0], [6:0-3-8,0-3-0], [7:0-6-0,0-1-12]
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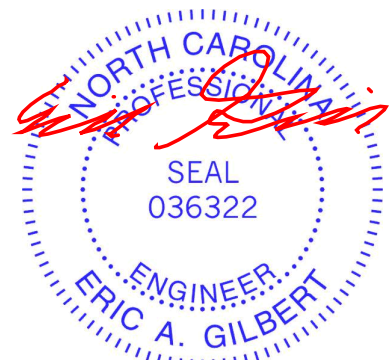
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.39	Vert(LL)	-0.26 10-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.45	Vert(CT)	-0.34 10-13	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.30	Horz(CT)	0.01 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL)	0.02 10-13	>999	240		
							Weight: 322 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals, and 2'-0" oc purlins (6'-0" max.): 3'-6."
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 8'-4" to 10' oc bracing.
WEBS 2x4 SP No.2 *Except* 2-14,7-9: 2x6 SP No.1	WEBS 1 Row at midpt 5-13, 5-10

**REACTIONS.** (size) 14=0-3-8, 9=0-3-8  
 Max Horz 14=368(LC 11)  
 Max Uplift 14=-106(LC 12), 9=-106(LC 13)  
 Max Grav 14=1450(LC 2), 9=1450(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1452/524, 3-5=-946/538, 5-6=-946/535, 6-7=-1452/526, 2-14=-1412/624,  
 7-9=-1412/627  
 BOT CHORD 13-14=-367/483, 10-13=-202/1098, 9-10=-151/380  
 WEBS 3-13=-49/582, 5-13=-384/244, 5-10=-384/244, 6-10=-47/582, 2-13=-104/884,  
 7-10=-115/886

- 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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-9-2 to 7-2-14, Interior(1) 7-2-14 to 8-6-8, Exterior(2) 8-6-8 to 21-3-4, Interior(1) 21-3-4 to 24-7-8, Exterior(2) 24-7-8 to 34-11-2 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
  - Provide adequate drainage to prevent water ponding.
  - 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" tall by 2'-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 106 lb uplift at joint 14 and 106 lb uplift at joint 9.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 11, 2021

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294921
J0121-0164	A1GR	PIGGYBACK BASE GIRDE	1	2	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:06 2021 Page 1  
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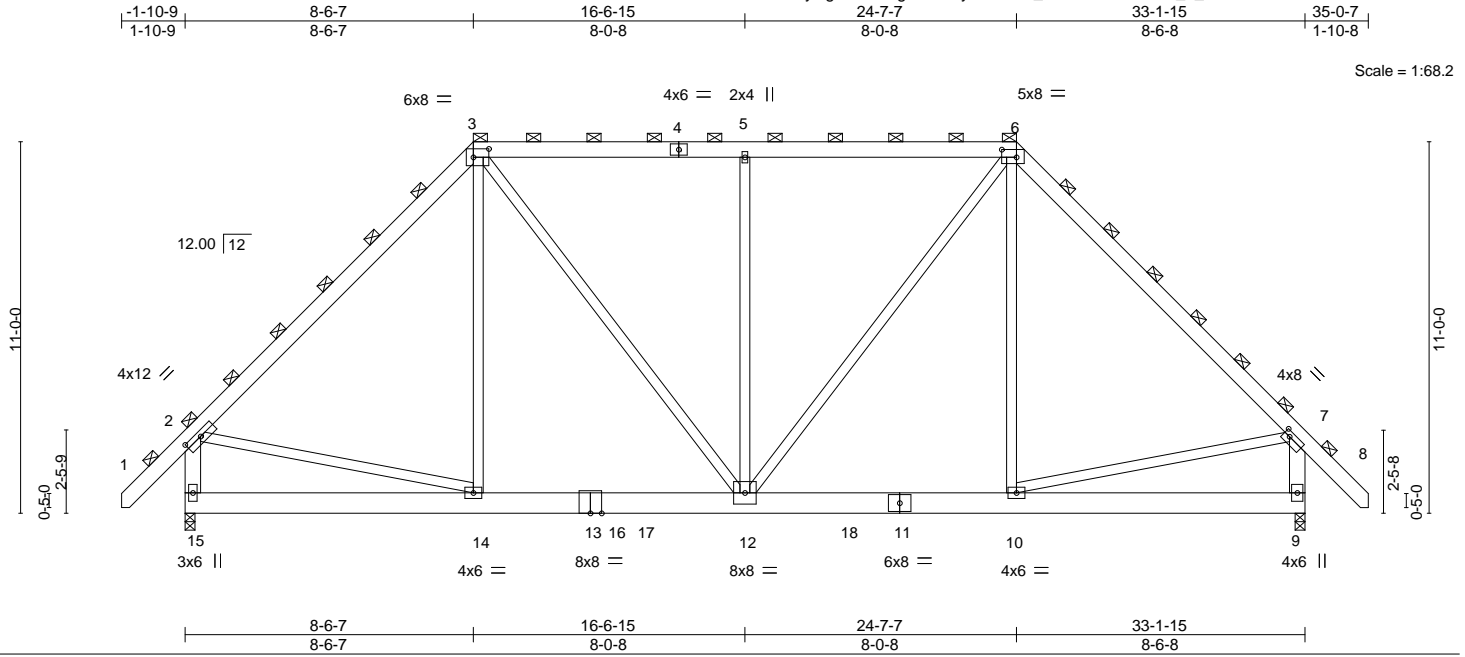


Plate Offsets (X,Y)-- [2:0-6-0,0-1-12], [3:0-5-8,0-3-0], [6:0-5-4,0-2-12], [7:0-2-4,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	5-0-0	TC 0.40	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.86	Vert(LL) -0.12 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.52	Vert(CT) -0.20 12-14 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.02 9 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.08 12-14 >999 240	Weight: 648 lb	FT = 20%

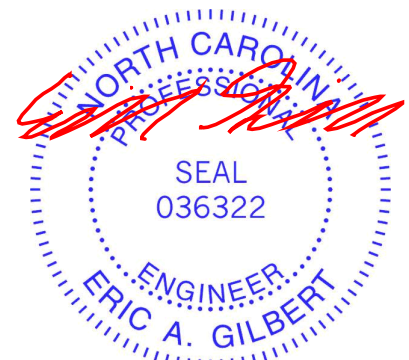
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
BOT CHORD 2x8 SP No.1	(Switched from sheeted: Spacing > 2-8-0).
WEBS 2x4 SP No.2 *Except* 2-15,7-9: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 15=0-3-8, 9=0-3-8  
 Max Horz 15=-912(LC 6)  
 Max Uplift 15=-452(LC 8), 9=-380(LC 9)  
 Max Grav 15=4533(LC 2), 9=4197(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-4618/575, 3-5=-3837/623, 5-6=-3837/623, 6-7=-4110/465, 2-15=-4458/580,  
 7-9=-3986/479  
 BOT CHORD 14-15=-937/1224, 12-14=-625/2984, 10-12=-231/2615, 9-10=-361/483  
 WEBS 3-14=-25/953, 3-12=-521/1510, 5-12=-1311/581, 6-12=-652/2115, 6-10=-216/535,  
 2-14=-477/2737, 7-10=-392/2361

- 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: 2x8 - 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - 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 452 lb uplift at joint 15 and 380 lb uplift at joint 9.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1429 lb down and 363 lb up at 12-8-7 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	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294921
J0121-0164	A1GR	PIGGYBACK BASE GIRDE	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:06 2021 Page 2  
 ID:k0NrKylvgRWmszlgBmiUdy7i2l-AxR\_SRklwrZhJcMcXa\_o\_ew2b8PhNoU4tB?RulzwQ1R

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-150, 2-3=-150, 3-6=-150, 6-7=-150, 7-8=-150, 9-15=-50  
 Concentrated Loads (lb)  
 Vert: 16=-1429(F)

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 Edenton, NC 27932





Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294923
J0121-0164	A2	PIGGYBACK BASE	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:07 2021 Page 1

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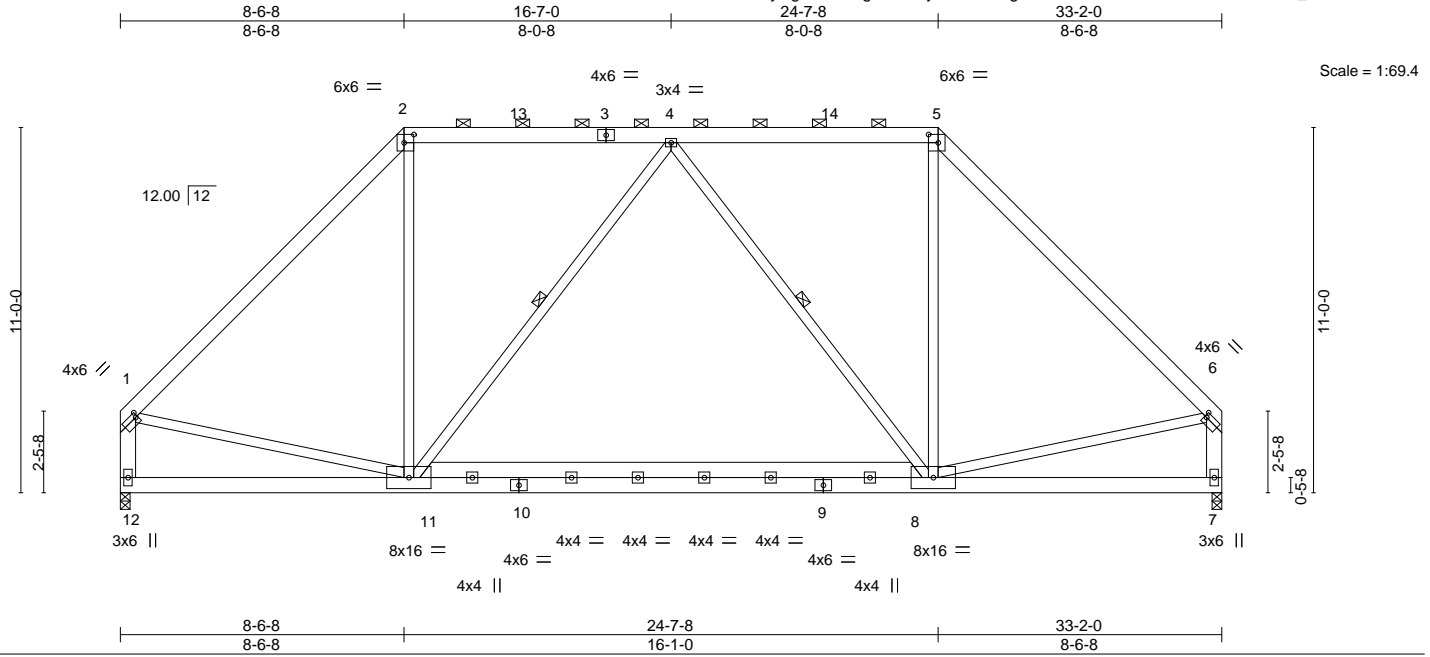


Plate Offsets (X,Y)-- [1:0-0-12,0-1-12], [2:0-3-8,0-3-0], [5:0-3-8,0-3-0], [6:0-0-12,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.44	Vert(LL) -0.26	8-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.34	8-11	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.30	Horz(CT) 0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.02	8-11	>999	240	Weight: 310 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 1-12,6-7: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-11-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-5.  
 BOT CHORD Rigid ceiling directly applied or 8-4-10 oc bracing.  
 WEBS 1 Row at midpt 4-11, 4-8

**REACTIONS.**

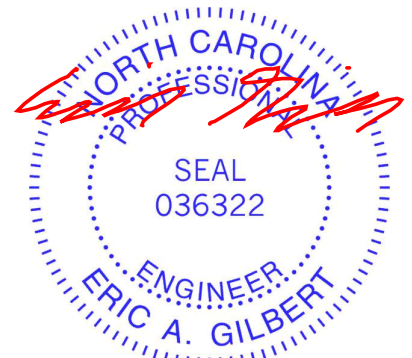
(size) 12=0-3-8, 7=0-3-8  
 Max Horz 12=313(LC 11)  
 Max Uplift 12=-71(LC 12), 7=-71(LC 13)  
 Max Grav 12=1351(LC 2), 7=1351(LC 2)

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

TOP CHORD 1-2=-1456/510, 2-4=-957/546, 4-5=-957/547, 5-6=-1456/514, 1-12=-1313/499,  
 6-7=-1313/503  
 BOT CHORD 11-12=-342/394, 8-11=-285/1107  
 WEBS 2-11=-20/579, 4-11=-384/244, 4-8=-384/244, 5-8=-18/579, 1-11=-102/865,  
 6-8=-112/867

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-12 to 21-3-4, Interior(1) 21-3-4 to 24-7-8, Exterior(2) 24-7-8 to 32-11-4 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
- Provide adequate drainage to prevent water ponding.
- 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 71 lb uplift at joint 12 and 71 lb uplift at joint 7.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294925
J0121-0164	B1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:10 2021 Page 1

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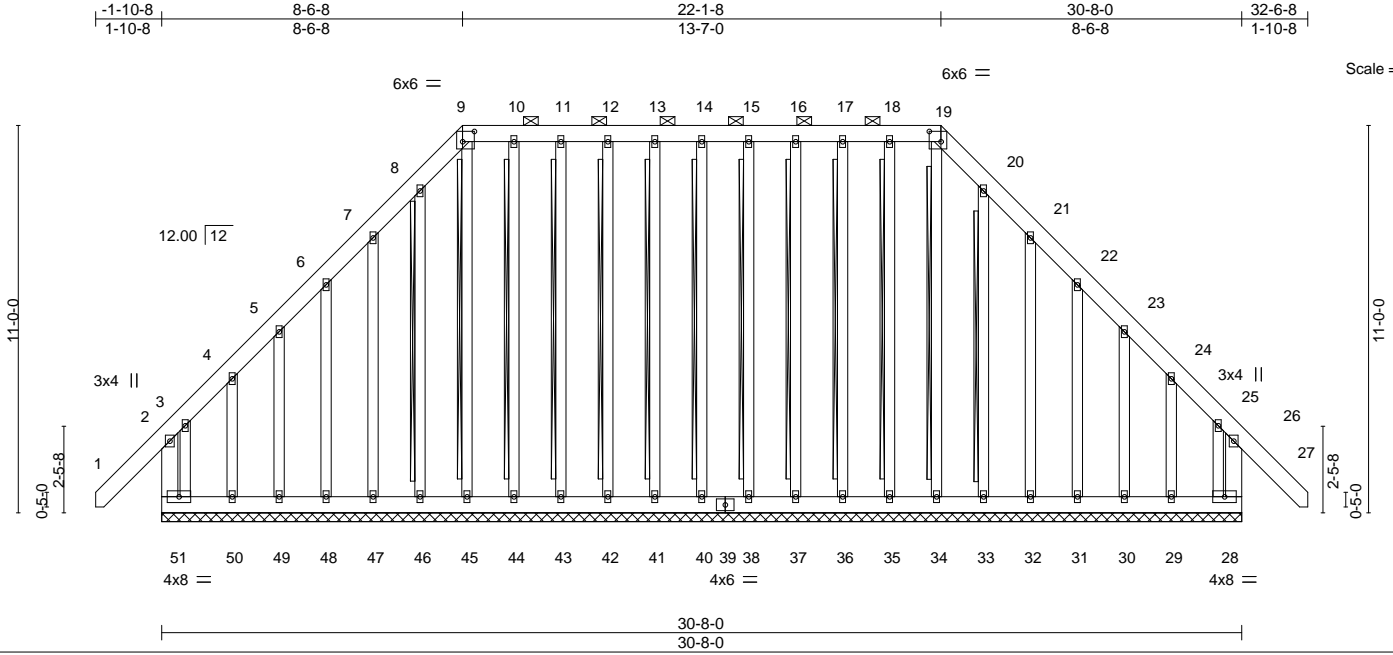


Plate Offsets (X,Y)-- [9:0-4-0,0-3-8], [19:0-4-0,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.15	Vert(LL) -0.01	27	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.11	Vert(CT) -0.01	27	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(CT) -0.01	28	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R						
							Weight: 445 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 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, and 2-0-0 oc purlins (10-0-0 max.): 9-19.  
 Rigid ceiling directly applied or 6-0-0 oc bracing.  
 BOT CHORD  
 WEBS T-Brace: 2x4 SPF No.2 - 14-40, 13-41, 12-42, 11-43, 10-44, 9-45, 8-46, 15-38, 16-37, 17-36, 18-35, 19-34, 20-33  
 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 30-8-0.  
 (lb) - Max Horz 51=-460(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 40, 41, 42, 43, 44, 45, 46, 49, 38, 37, 36, 35, 33, 30 except 51=-444(LC 8), 28=-382(LC 9), 47=-122(LC 12), 48=-126(LC 12), 50=-444(LC 9), 32=-122(LC 13), 31=-125(LC 13), 29=-396(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 38, 37, 36, 35, 34, 33, 32, 31, 30 except 51=473(LC 20), 28=421(LC 19), 50=497(LC 10), 29=444(LC 11)

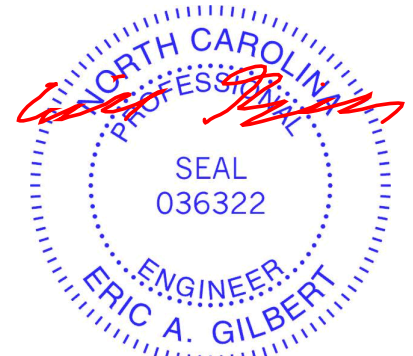
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 3-4=-327/358, 5-6=-193/298, 6-7=-277/385, 7-8=-365/491, 8-9=-390/518, 9-10=-326/436, 10-11=-324/434, 11-12=-324/434, 12-13=-324/434, 13-14=-324/434, 14-15=-324/434, 15-16=-324/434, 16-17=-324/434, 17-18=-324/434, 18-19=-326/436, 19-20=-389/517, 20-21=-365/491, 21-22=-277/385, 22-23=-194/287, 24-25=-273/309, 2-51=-403/440, 26-28=-391/443  
 WEBS 4-50=-271/269, 3-51=-535/524, 25-28=-470/455

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-9-2 to 7-3-13, Exterior(2) 7-3-13 to 8-6-8, Corner(3) 8-6-8 to 17-6-8, Exterior(2) 17-6-8 to 22-1-8, Corner(3) 22-1-8 to 31-1-8, Exterior(2) 31-1-8 to 32-5-2 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
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

Continued on page 2



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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



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 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294925
J0121-0164	B1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:11 2021 Page 2  
ID:k0NrKyivgRWmszlgBmiUdty7i2l-XvEtV9nRkNCzQNFZK7azghezM9JZ29Pp0SjCZyzwQ1M

**NOTES-**

- 10) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 40, 41, 42, 43, 44, 45, 46, 49, 38, 37, 36, 35, 33, 30 except (jt=lb) 51=444, 28=382, 47=122, 48=126, 50=444, 32=122, 31=125, 29=396.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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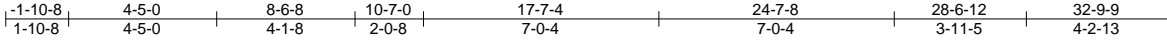
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294926
J0121-0164	C1	Piggyback Base	8	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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ID:k0NrKyivgRWmszlgBmiUdty7i2l-?5oFjVo3VhKq1Xqluq5CDvA7jYZ2nWFyF6Si5OzwQ1L



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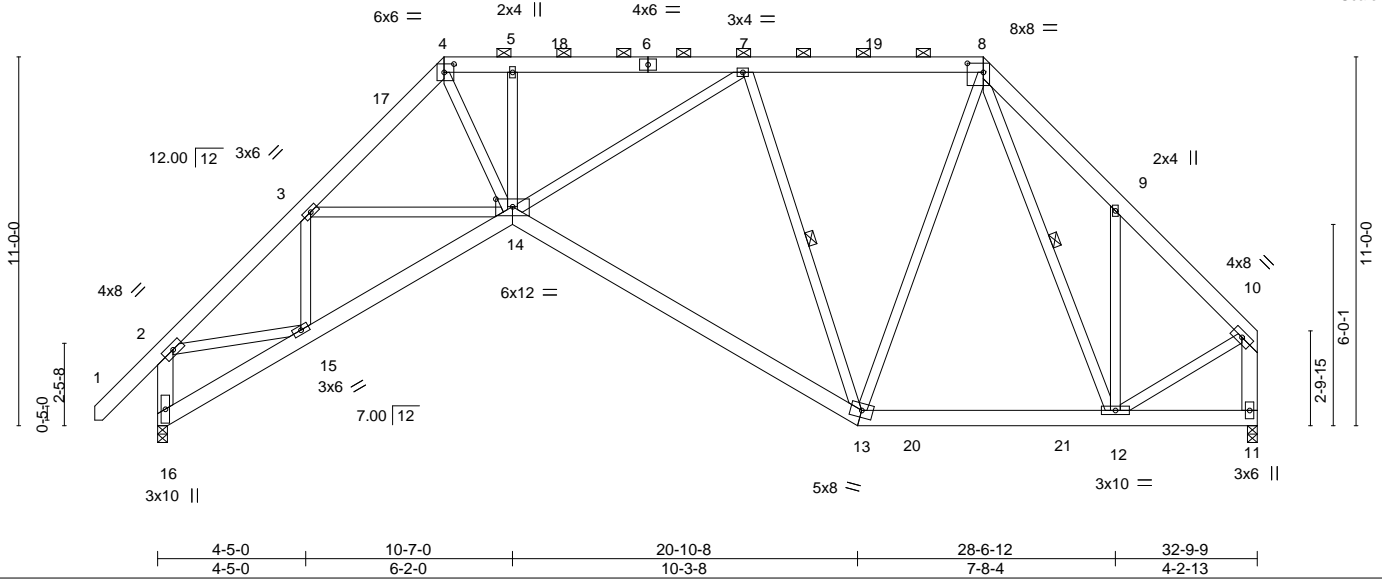


Plate Offsets (X,Y)-- [4:0-3-8,0-3-0], [8:0-5-12,0-3-4], [14:0-6-0,0-2-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.41	Vert(LL) -0.13 13-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.56	Vert(CT) -0.29 13-14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.14 11 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.07 14 >999 240	Weight: 303 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 2-16,10-11: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-3-7 oc purlins, except end verticals, and 2-0-0 oc purlins (5-4-0 max.): 4-8.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-13, 8-12

**REACTIONS.**

(size) 16=0-3-8, 11=0-3-8  
 Max Horz 16=355(LC 9)  
 Max Uplift 16=-104(LC 12), 11=-69(LC 13)  
 Max Grav 16=1417(LC 1), 11=1290(LC 1)

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

TOP CHORD 2-3=-1806/734, 3-4=-2167/797, 4-5=-2038/848, 5-7=-2036/849, 7-8=-938/564,  
 8-9=-1207/735, 9-10=-1120/433, 2-16=-1383/630, 10-11=-1295/464  
 BOT CHORD 15-16=-392/381, 14-15=-567/1520, 13-14=-442/1472, 12-13=-179/740  
 WEBS 3-15=-510/205, 3-14=-105/319, 4-14=-480/1372, 7-14=-301/962, 7-13=-1049/446,  
 8-13=-118/545, 8-12=-231/267, 9-12=-444/380, 2-15=-274/1185, 10-12=-221/855

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-9-2 to 7-2-14, Interior(1) 7-2-14 to 8-6-8, Exterior(2) 8-6-8 to 21-3-4, Interior(1) 21-3-4 to 24-7-8, Exterior(2) 24-7-8 to 32-6-13 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
- Provide adequate drainage to prevent water ponding.
- 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.
- Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 16=104.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 11, 2021

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818 Soundside Road  
 Edenton, NC 27932

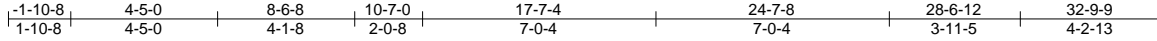


Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294927
J0121-0164	C1GE-GR	PIGGYBACK BASE	1	2	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

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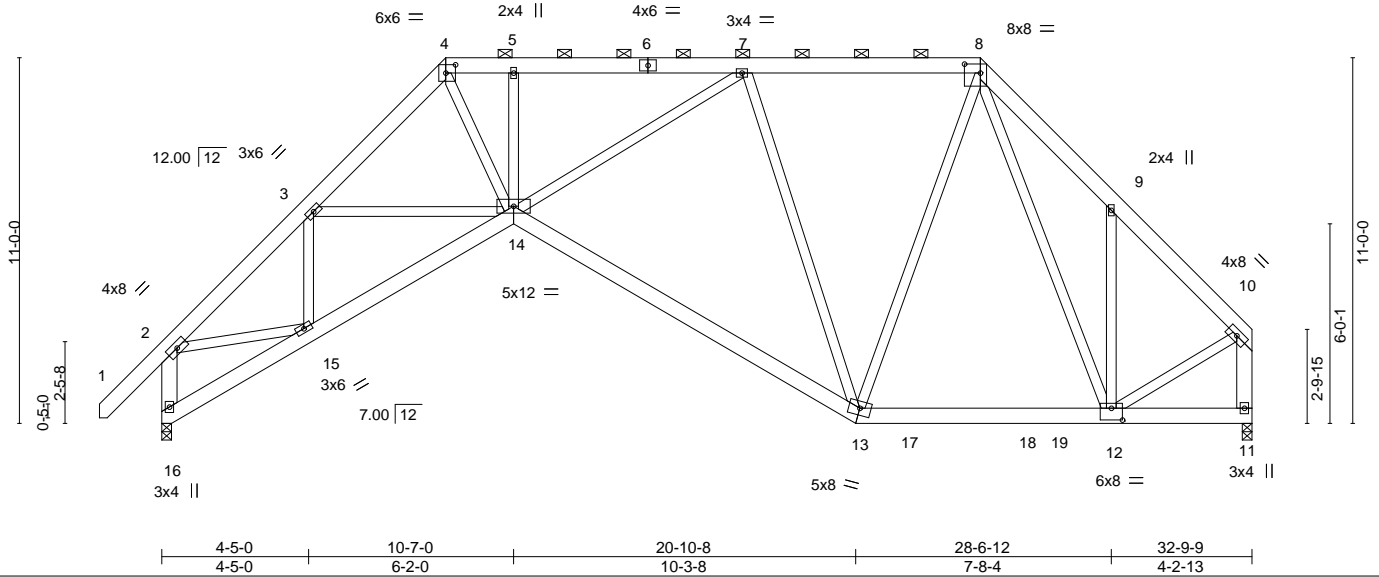


Plate Offsets (X,Y)-- [4:0-3-8,0-3-0], [8:0-5-12,0-3-4], [12:0-4-0,0-4-4]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) -0.14	12-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.79	Vert(CT) -0.28	12-13	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.48	Horz(CT) 0.10	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.11	12-13	>999	240		
							Weight: 605 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1 \*Except\*  
 11-13: 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.2 \*Except\*  
 2-16,10-11: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-8.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.

**REACTIONS.**

(size) 16=0-3-8, 11=0-3-8  
 Max Horz 16=355(LC 31)  
 Max Uplift 16=-160(LC 8), 11=-284(LC 9)  
 Max Grav 16=1906(LC 1), 11=3194(LC 1)

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

TOP CHORD 2-3=-2554/437, 3-4=-3238/567, 4-5=-3140/590, 5-7=-3137/591, 7-8=-1907/286,  
 8-9=-3141/547, 9-10=-3195/332, 2-16=-1879/326, 10-11=-3747/358  
 BOT CHORD 15-16=-394/387, 14-15=-606/2018, 13-14=-459/2614, 12-13=-217/1708  
 WEBS 3-15=-756/154, 3-14=-76/565, 4-14=-362/2164, 7-14=-313/1067, 7-13=-1097/392,  
 8-13=-120/641, 8-12=-381/1378, 9-12=-312/301, 2-15=-181/1700, 10-12=-243/2665

**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: 2x6 - 2 rows staggered at 0-4-0 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; TC DL=6.0psf; BCDL=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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.
- Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=160, 11=284.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2394 lb down and 278 lb up at 25-11-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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**LOAD CASE(S) Standard**

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Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294927
J0121-0164	C1GE-GR	PIGGYBACK BASE	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:13 2021 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-60, 2-4=-60, 4-8=-60, 8-10=-60, 14-16=-20, 13-14=-20, 11-13=-20  
 Concentrated Loads (lb)  
 Vert: 18=-2394(F)

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Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294928
J0121-0164	C2GR	PIGGYBACK BASE GIRDE	1	2	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:14 2021 Page 1  
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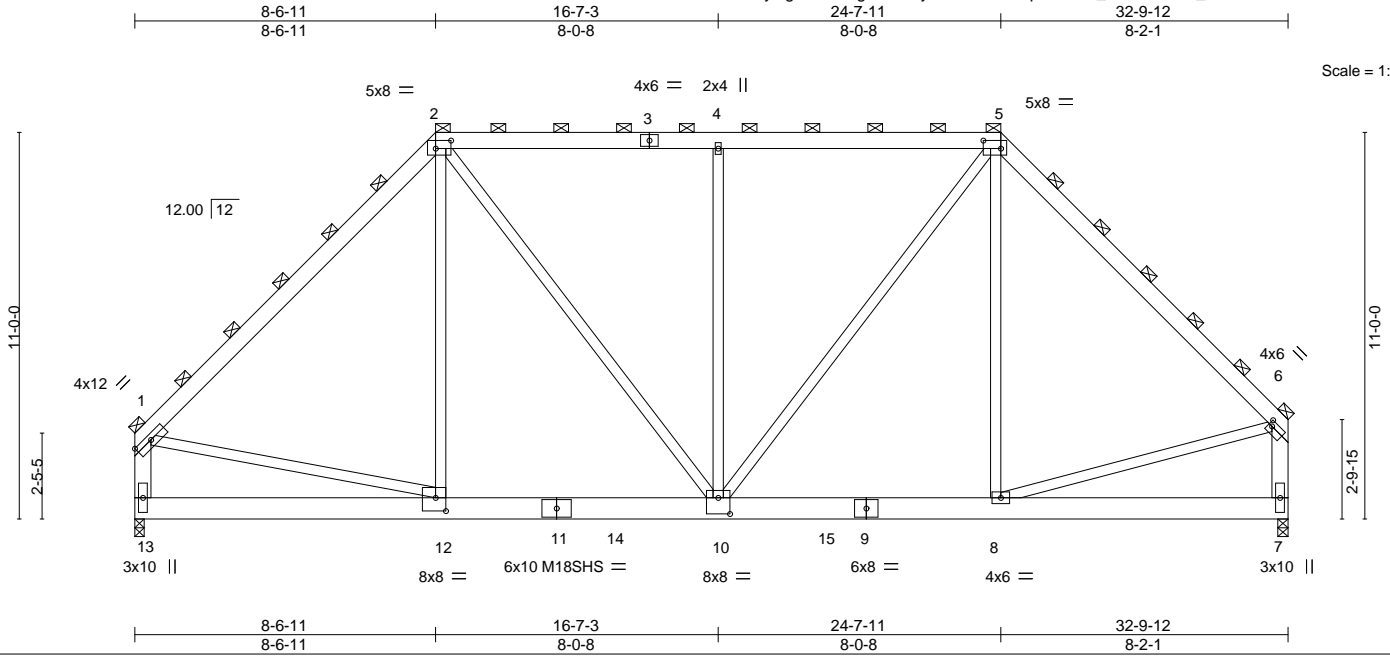


Plate Offsets (X,Y)-- [2:0-5-4,0-2-12], [5:0-6-0,0-2-12], [6:0-1-4,0-1-12], [10:0-4-0,0-5-8], [12:0-3-8,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	5-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.79	Vert(LL) -0.17 10-12 >999 360	M18SHS	244/190
BCLL 0.0 *	Lumber DOL 1.15	WB 0.90	Vert(CT) -0.29 10-12 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.02 7 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.18 10-12 >999 240	Weight: 621 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x8 SP 2400F 2.0E  
 WEBS 2x4 SP No.2 \*Except\*  
 1-13,6-7: 2x6 SP No.1

**BRACING-**

TOP CHORD 2-0-0 oc purlins (5-8-14 max.), except end verticals  
 (Switched from sheeted: Spacing > 2-8-0).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 13=0-3-3, 7=0-3-8  
 Max Horz 13=790(LC 7)  
 Max Uplift 13=-1092(LC 8), 7=-815(LC 9)  
 Max Grav 13=5325(LC 2), 7=4761(LC 2)

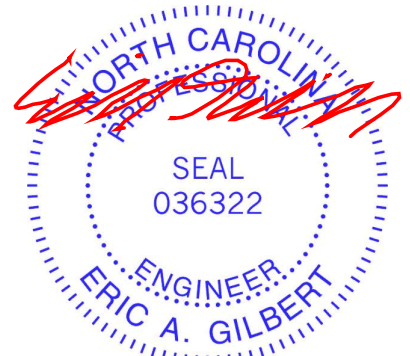
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-5918/1449, 2-4=-5172/1490, 4-5=-5171/1490, 5-6=-4815/988, 1-13=-5340/1290,  
 6-7=-4519/875  
 BOT CHORD 12-13=-900/1039, 10-12=-1358/3929, 8-10=-701/3141, 7-8=-256/331  
 WEBS 2-12=-294/1327, 2-10=-909/2162, 4-10=-1296/590, 5-10=-1462/3439, 5-8=-730/701,  
 1-12=-1140/3761, 6-8=-743/2982

**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: 2x8 - 2 rows staggered at 0-3-0 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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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 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) 13=1092, 7=815.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3323 lb down and 1624 lb up at 13-7-3 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

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Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294928
J0121-0164	C2GR	PIGGYBACK BASE GIRDE	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:14 2021 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-150, 2-5=-150, 5-6=-150, 7-13=-50
  - Concentrated Loads (lb)
    - Vert: 14=-3150(B)

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Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294929
J0121-0164	D1	Piggyback Base	4	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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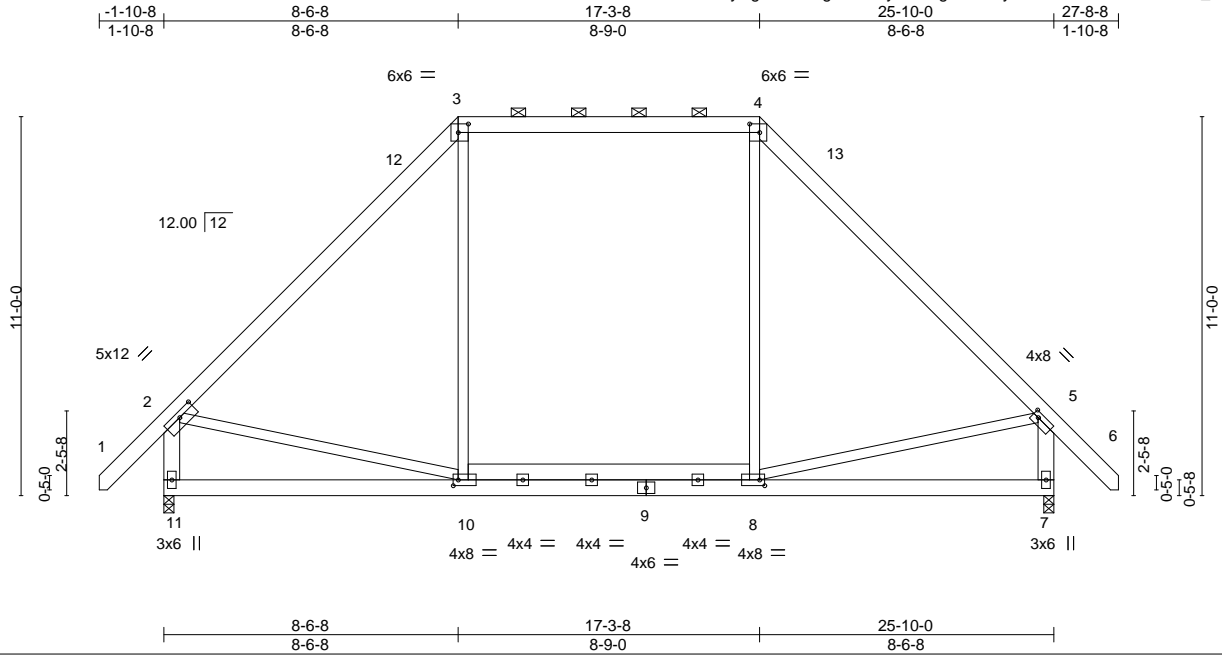


Plate Offsets (X,Y)-- [2:0-6-0,0-1-12], [3:0-3-8,0-3-0], [4:0-3-8,0-3-0], [5:0-2-0,0-1-12], [8:0-1-12,0-2-0], [10:0-1-12,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.38	Vert(LL) 0.18	7-8	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.30	Vert(CT) -0.20	7-8	>999	180		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Horz(CT) 0.01	7	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 233 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 2-11,5-7: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 11=0-3-8, 7=0-3-8  
 Max Horz 11=-368(LC 10)  
 Max Uplift 11=-97(LC 12), 7=-97(LC 13)  
 Max Grav 11=1178(LC 2), 7=1178(LC 2)

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

TOP CHORD 2-3=-1082/424, 3-4=-711/456, 4-5=-1082/424, 2-11=-1111/533, 5-7=-1111/534  
 BOT CHORD 10-11=-415/537, 8-10=-90/725, 7-8=-159/377  
 WEBS 3-10=0/335, 4-8=0/335, 2-10=-205/675, 5-8=-211/679

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-9-2 to 7-2-14, Interior(1) 7-2-14 to 8-6-8, Exterior(2) 8-6-8 to 27-7-2 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
- Provide adequate drainage to prevent water ponding.
- 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) 11, 7.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 11, 2021

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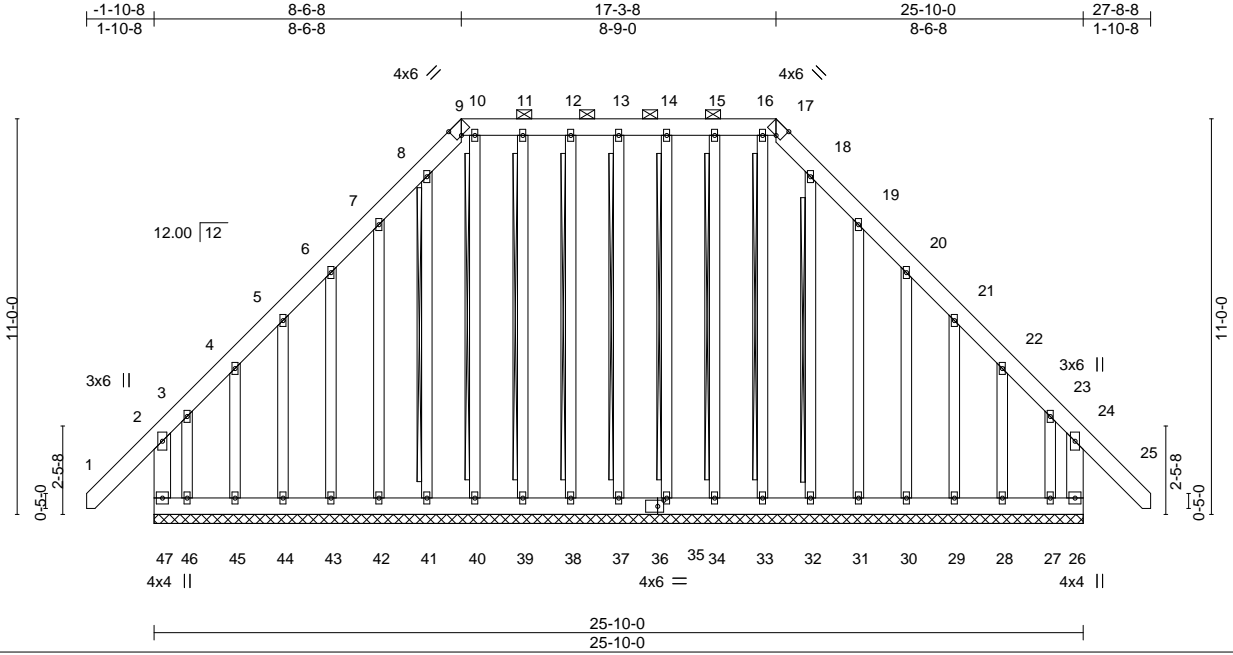
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294930
J0121-0164	D1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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Scale: 3/16"=1'

Plate Offsets (X,Y)-- [9:0-2-2,Edge], [17:0-2-2,Edge], [36:0-2-0,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL) -0.01	25	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(CT) -0.01	25	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(CT) -0.01	26	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R					Weight: 367 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 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, and 2-0-0 oc purlins (10-0-0 max.): 9-17. Rigid ceiling directly applied or 6-0-0 oc bracing.  
BOT CHORD T-Brace: 2x4 SPF No.2 - 13-37, 12-38, 11-39, 10-40, 8-41, 14-35, 15-34, 16-33, 18-32  
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 25-10-0.  
(lb) - Max Horz 47=-462(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 37, 38, 39, 40, 41, 45, 35, 34, 32, 28 except 47=-724(LC 8), 26=-634(LC 9), 42=-121(LC 12), 43=-119(LC 12), 44=-120(LC 12), 46=-657(LC 9), 31=-121(LC 13), 30=-120(LC 13), 29=-120(LC 13), 27=-588(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 37, 38, 39, 40, 41, 42, 43, 44, 45, 35, 34, 33, 32, 31, 30, 29, 28 except 47=757(LC 11), 26=655(LC 10), 46=701(LC 10), 27=622(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-47=-400/395, 2-3=-360/400, 3-4=-216/258, 4-5=-165/261, 5-6=-203/330, 6-7=-289/435, 7-8=-372/537, 8-9=-365/511, 9-10=-320/451, 10-11=-320/451, 11-12=-320/451, 12-13=-320/451, 13-14=-320/451, 14-15=-320/451, 15-16=-320/451, 16-17=-320/451, 17-18=-365/511, 18-19=-372/537, 19-20=-289/435, 20-21=-202/331, 21-22=-131/251, 23-24=-305/350, 24-26=-359/347

- 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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-9-2 to 7-2-14, Exterior(2) 7-2-14 to 8-6-8, Corner(3) 8-6-8 to 26-3-8, Exterior(2) 26-3-8 to 27-7-2 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
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide



Continued on page 2 the bottom chord and any other members.

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

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

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294930
J0121-0164	D1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:17 2021 Page 2  
ID:k0NrKylvgRWmszlgBmiUdty7i2l-M3c8mCsCKDy78lijhOhOwyt\_dZLQStphOOAWnczwQ1G

- NOTES-**
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 37, 38, 39, 40, 41, 45, 35, 34, 32, 28 except (jt=lb) 47=724, 26=634, 42=121, 43=119, 44=120, 46=657, 31=121, 30=120, 29=120, 27=588.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 13) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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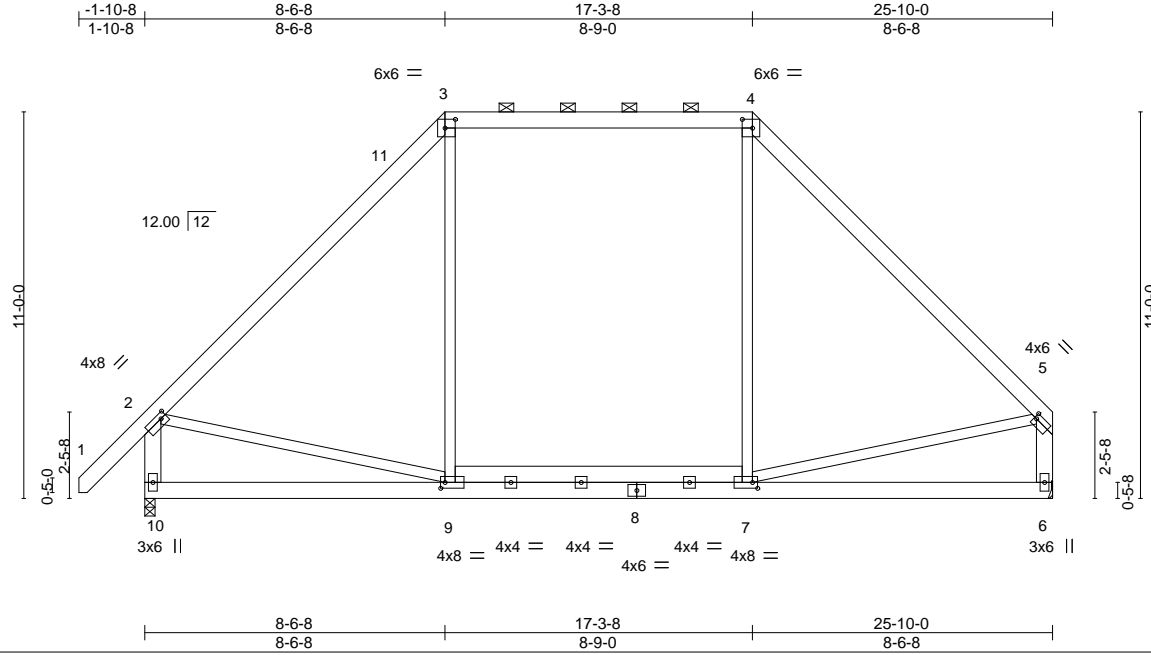
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294931
J0121-0164	D2	PIGGYBACK BASE	8	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:17 2021 Page 1

ID:k0NnrKyIvgRWmszlgBmiUdty7i2l-M3c8mCsCKDy78lijhOhOwytwYZJtSrChOOAWnczwQ1G



Scale = 1:65.6

Plate Offsets (X,Y)--	[2:0-2-0,0-1-12], [3:0-3-8,0-3-0], [4:0-3-8,0-3-0], [5:0-0-12,0-1-12], [7:0-1-12,0-2-0], [9:0-1-8,0-2-0]
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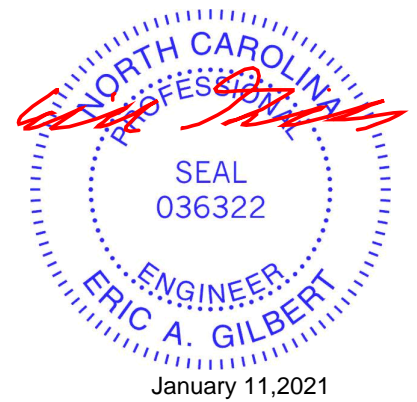
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.42	Vert(LL) 0.19	6-7	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.30	Vert(CT) -0.20	6-7	>999	180		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.26	Horz(CT) 0.01	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 227 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, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 2-10,5-6: 2x6 SP No.1	

**REACTIONS.** (size) 10=0-3-8, 6=Mechanical  
 Max Horz 10=350(LC 9)  
 Max Uplift 10=-96(LC 12), 6=-64(LC 13)  
 Max Grav 10=1182(LC 2), 6=1075(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1089/424, 3-4=-714/465, 4-5=-1078/400, 2-10=-1118/534, 5-6=-1005/404  
 BOT CHORD 9-10=-448/501, 7-9=-121/703  
 WEBS 3-9=0/337, 4-7=0/330, 2-9=-205/684, 5-7=-201/667

- 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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-9-2 to 7-2-14, Interior(1) 7-2-14 to 8-6-8, Exterior(2) 8-6-8 to 25-7-4 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 6.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



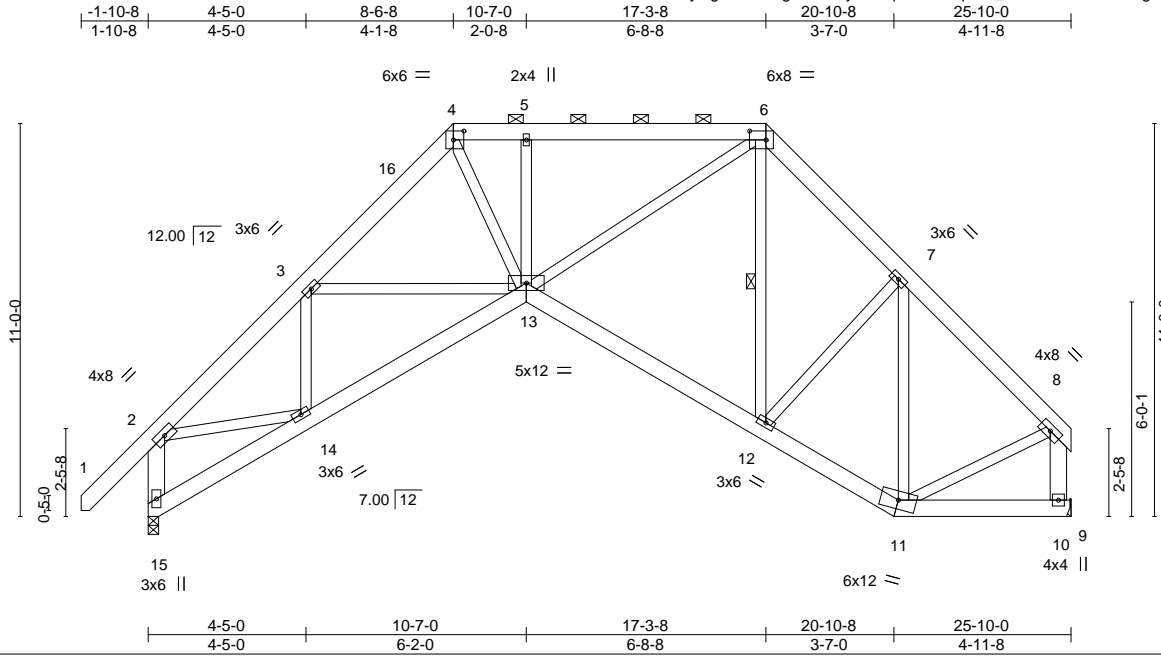


Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294932
J0121-0164	D3	Piggyback Base	4	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:18 2021 Page 1

ID:k0NrKylvgRWmszlgBmiUdty7i2l-qF9WzYtq5X4\_JSHvE5CdTAQ8czg9BHqrd2v3J2zwQ1F



Scale: 3/16"=1'

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) -0.04	13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(CT) -0.08	12-13	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.37	Horz(CT) 0.09	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	13	>999	240		
							Weight: 242 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 2-15,8-10: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-12

**REACTIONS.**

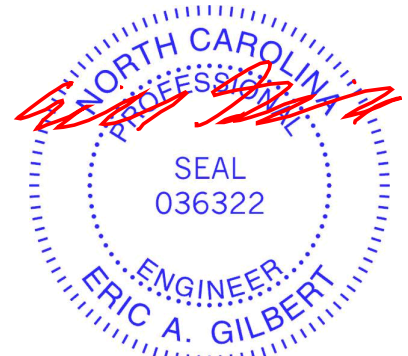
(size) 15=0-3-8, 10=Mechanical  
 Max Horz 15=352(LC 9)  
 Max Uplift 15=-96(LC 12), 10=-59(LC 13)  
 Max Grav 15=1134(LC 1), 10=1012(LC 1)

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

TOP CHORD 2-3=-1384/583, 3-4=-1517/584, 4-5=-1393/636, 5-6=-1394/636, 6-7=-1054/553,  
 7-8=-890/377, 2-15=-1103/530, 8-10=-950/385  
 BOT CHORD 14-15=-389/380, 13-14=-446/1209, 12-13=-148/822, 11-12=-228/662  
 WEBS 3-14=-346/160, 4-13=-335/931, 5-13=-300/223, 6-13=-316/850, 7-11=-520/227,  
 2-14=-168/898, 8-11=-160/579

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-9-2 to 7-2-14, Interior(1) 7-2-14 to 8-6-8, Exterior(2) 8-6-8 to 25-5-12 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
- Provide adequate drainage to prevent water ponding.
- 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.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 10.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 11, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294933
J0121-0164	E1GR	PIGGYBACK BASE	1	2	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:19 2021 Page 1  
 ID:k0NrKylvgRWmszlgBmiUdy7i2l-IRjuBuuSsqCrNcs6oojs?Nz9VNqlwbz\_sifdrVzwQ1E

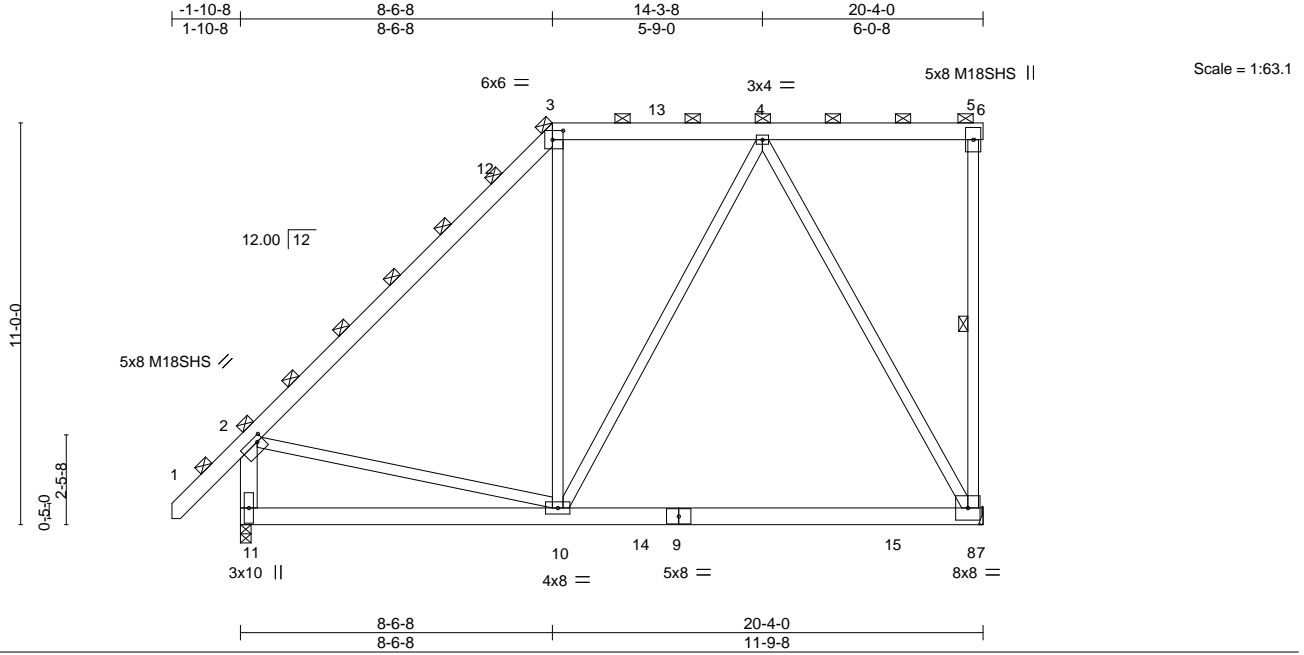


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [3:0-3-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.84	Vert(LL) -0.43	8-10	>555	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.95	Vert(CT) -0.58	8-10	>414	240	M18SHS	244/190
BCLL 0.0 *	Rep Stress Incr NO	WB 0.95	Horz(CT) 0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.07	8-10	>999	240		
							Weight: 382 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 5-8: 2x4 SP No.1, 2-11: 2x6 SP No.1

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals  
 (Switched from sheeted: Spacing > 2-8-0).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-8

**REACTIONS.**

(size) 8=Mechanical, 11=0-3-8  
 Max Horz 11=1194(LC 9)  
 Max Uplift 8=582(LC 9), 11=189(LC 12)  
 Max Grav 8=2303(LC 2), 11=2296(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2066/803, 3-4=-1418/955, 4-5=-568/610, 5-8=-389/430, 2-11=-2183/1106  
 BOT CHORD 10-11=-2520/2541, 8-10=-988/1281  
 WEBS 3-10=-278/579, 4-10=-538/1127, 4-8=-1806/1341, 2-10=-750/1311

**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, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 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.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-9-2 to 7-2-14, Interior(1) 7-2-14 to 8-6-8, Exterior(2) 8-6-8 to 20-4-0 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
- Provide adequate drainage to prevent water ponding.
- 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 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.
- 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) except (jt=lb) 8=582, 11=189.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 11, 2021

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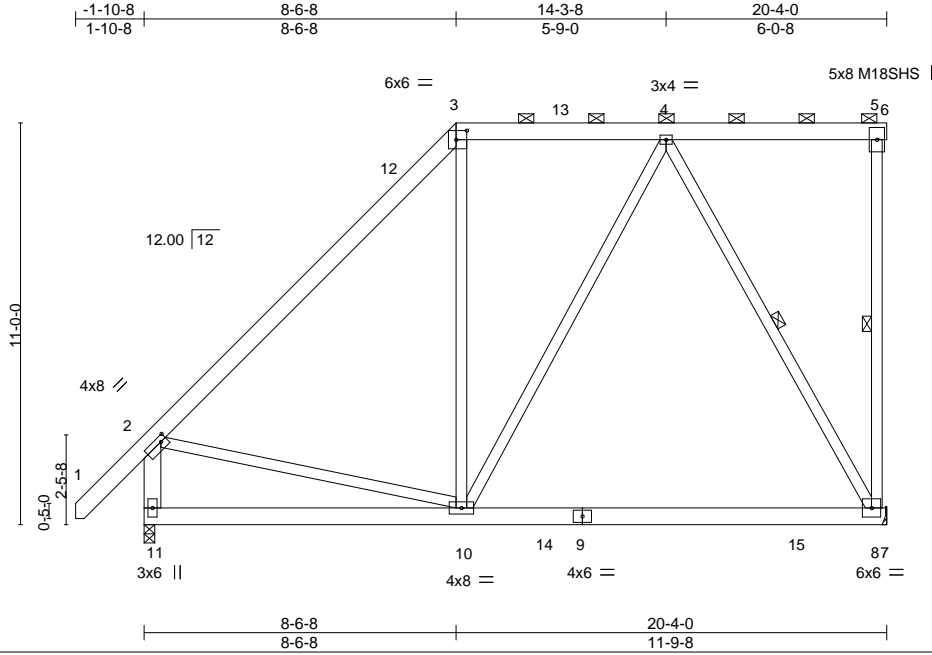
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294934
J0121-0164	E2	Piggyback Base	2	1	Job Reference (optional)	

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ID:k0NrKylvgRWmszlgBmiUdty7i2l-IRjuBuuSsqCrNcs6oojs?Nz88NuFwhX\_sifdrVzwQ1E



Scale = 1:63.1

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.93	Vert(LL) -0.35	8-10	>689	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.69	Vert(CT) -0.46	8-10	>513	240	M18SHS	244/190
BCLL 0.0 *	Rep Stress Incr YES	WB 0.53	Horz(CT) 0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.06	8-10	>999	240		
							Weight: 191 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 2-11: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-6.  
 BOT CHORD Rigid ceiling directly applied or 7-8-6 oc bracing.  
 WEBS 1 Row at midpt 5-8, 4-8

**REACTIONS.**

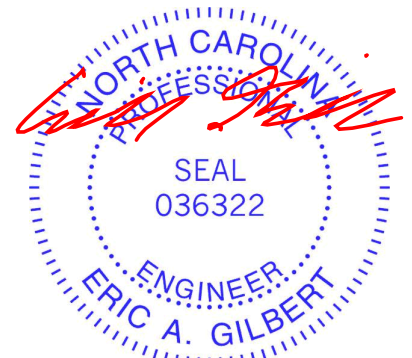
(size) 8=Mechanical, 11=0-3-8  
 Max Horz 11=477(LC 9)  
 Max Uplift 8=-233(LC 9), 11=-76(LC 12)  
 Max Grav 8=921(LC 2), 11=919(LC 1)

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

TOP CHORD 2-3=-827/321, 3-4=-567/382, 2-11=-874/442  
 BOT CHORD 10-11=-1008/1016, 8-10=-395/513  
 WEBS 4-10=-215/451, 4-8=-723/536, 2-10=-300/525

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-9-2 to 7-2-14, Interior(1) 7-2-14 to 8-6-8, Exterior(2) 8-6-8 to 20-4-0 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
- 2) Provide adequate drainage to prevent water ponding.
- 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 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.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 8=233.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 11, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294935
J0121-0164	F1	Common	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

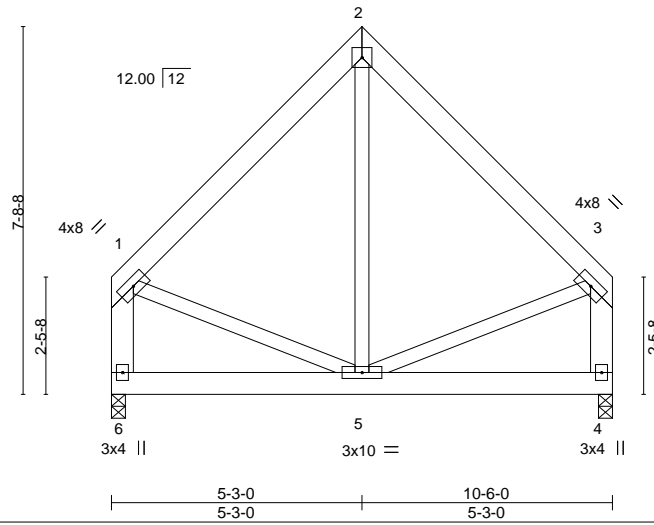
8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:20 2021 Page 1

ID:k0NrKylvgRWmszlgBmiUdty7i2l-meHG0Eu4d8Ki?mRIMWE5YbVWRnNEfGX85MOANxzwQ1D



5x5 =

Scale: 1/4"=1'



<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 0.12	Vert(LL)	-0.00	4-5	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.00	5	>999	240		
	Code IRC2015/TPI2014							Weight: 94 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 1-6,3-4: 2x6 SP No.1

**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.**

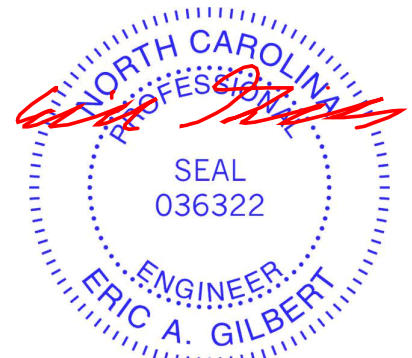
(size) 6=0-3-8, 4=0-3-8  
 Max Horz 6=-222(LC 8)  
 Max Uplift 6=-40(LC 13), 4=-40(LC 12)  
 Max Grav 6=402(LC 1), 4=402(LC 1)

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

TOP CHORD 1-2=-330/173, 2-3=-330/173, 1-6=-390/191, 3-4=-391/192

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.



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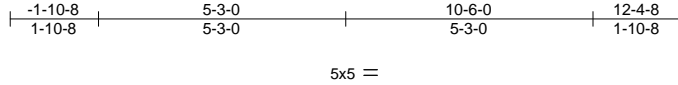


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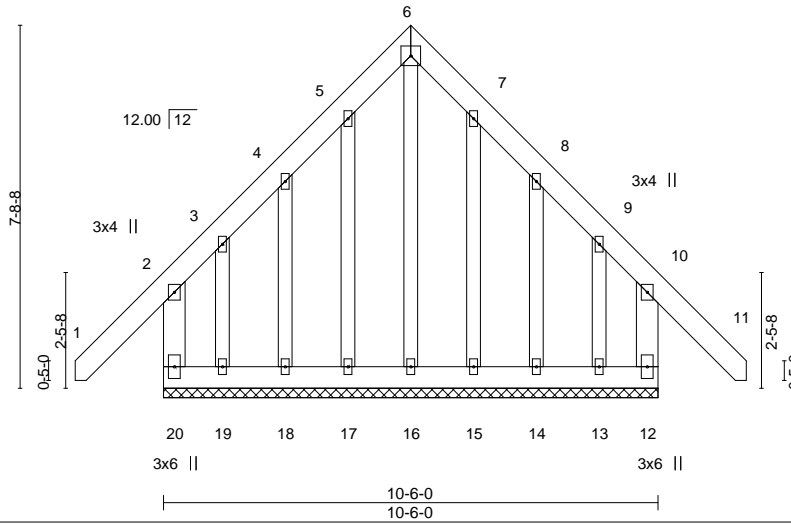
Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294936
J0121-0164	F1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:21 2021 Page 1  
 ID:k0NrkYlvgrWmszlgBmiUdty7i2I-EqrecavjOSSZcw0UwDIK4o2gjBj4OfhHJ08jwNzwQ1C



Scale = 1:48.9



<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)	-0.01	11	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	11	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.30	Horz(CT)	-0.00	12	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-R						Weight: 128 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 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 6-0-0 oc bracing.

**REACTIONS.**

All bearings 10-6-0.  
 (lb) - Max Horz 20=-346(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 17, 15 except 20=-374(LC 8), 12=-353(LC 9), 18=-107(LC 12), 19=-352(LC 9), 14=-107(LC 13), 13=-336(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 17, 18, 15, 14 except 20=412(LC 20), 12=393(LC 19), 16=267(LC 13), 19=405(LC 10), 13=386(LC 11)

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

TOP CHORD 2-20=-265/410, 4-5=-187/340, 5-6=-217/361, 6-7=-217/361, 7-8=-186/342, 10-12=-253/404  
 WEBS 6-16=-356/158

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 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) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 15 except (jt=lb) 20=374, 12=353, 18=107, 19=352, 14=107, 13=336.



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Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294937
J0121-0164	F1GR	Common Girder	1	2	Job Reference (optional)	

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8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:22 2021 Page 1  
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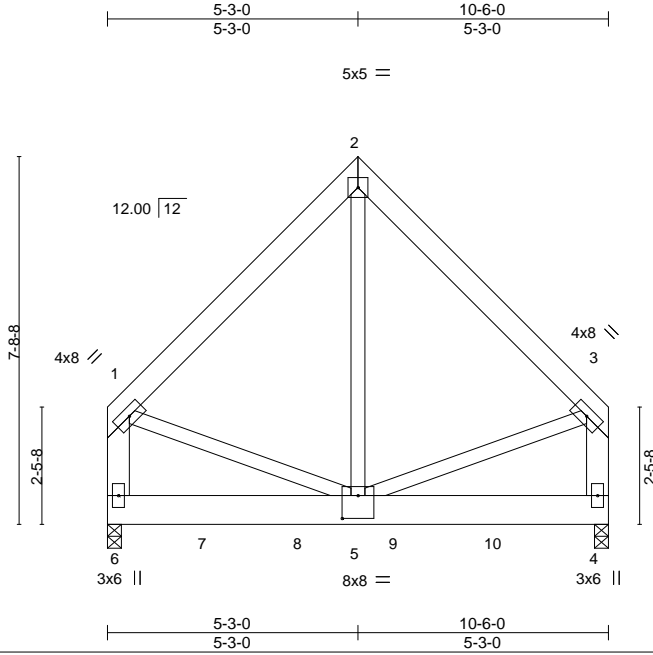


Plate Offsets (X,Y)-- [5:0-4-0,0-5-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0 Plate Grip DOL 1.15	TC 0.14	Vert(LL) -0.02	5-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.03	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.27	Horz(CT) 0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.01	5-6	>999	240	Weight: 202 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x8 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 1-6,3-4: 2x6 SP No.1

**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.**

(size) 6=0-3-8, 4=0-3-8  
 Max Horz 6=-219(LC 4)  
 Max Uplift 6=-197(LC 9), 4=-257(LC 8)  
 Max Grav 6=2540(LC 2), 4=3444(LC 2)

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

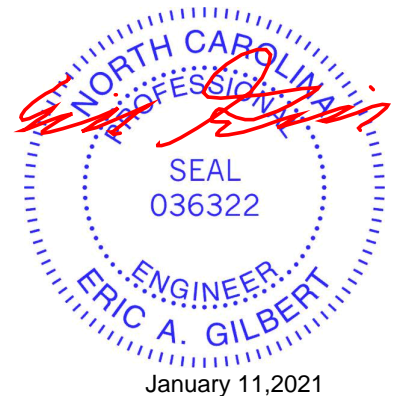
TOP CHORD 1-2=-1817/207, 2-3=-1817/207, 1-6=-1767/169, 3-4=-1776/170  
 BOT CHORD 5-6=-224/331  
 WEBS 2-5=-136/2212, 1-5=-136/1103, 3-5=-141/1129

**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: 2x8 - 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; TC DL=6.0psf; BCDL=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=197, 4=257.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1055 lb down and 84 lb up at 2-0-12, 1055 lb down and 84 lb up at 4-0-12, 1055 lb down and 84 lb up at 6-0-12, and 1055 lb down and 84 lb up at 8-0-12, and 1062 lb down and 76 lb up at 10-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-60, 2-3=-60, 4-6=-20



Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294937
J0121-0164	F1GR	Common Girder	1	<b>2</b>	Job Reference (optional)	

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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 4=-998(B) 7=-990(B) 8=-990(B) 9=-990(B) 10=-990(B)

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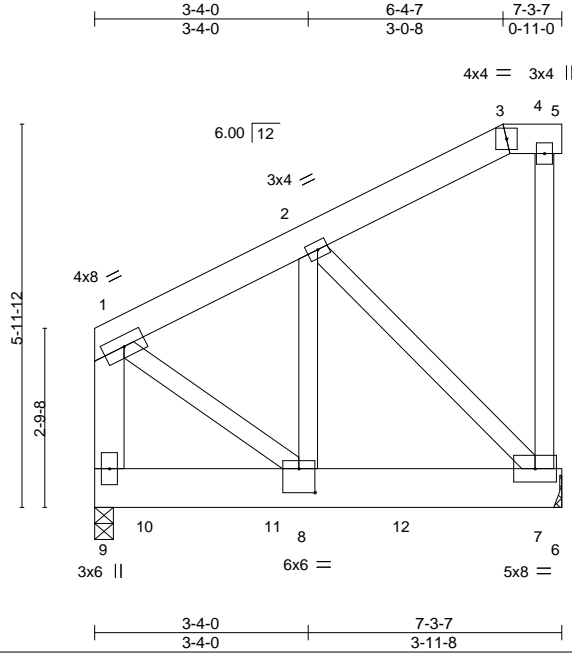
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Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294938
J0121-0164	G1GR	Half Hip Girder	1	2	Job Reference (optional)	

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Scale = 1:35.9

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

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.08	Vert(LL) -0.01	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.01	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.16	Horz(CT) 0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.00	7-8	>999	240		
							Weight: 141 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x8 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 1-9: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 7=Mechanical, 9=0-3-8  
 Max Horz 9=227(LC 5)  
 Max Uplift 7=-258(LC 5), 9=-155(LC 8)  
 Max Grav 7=2414(LC 1), 9=2119(LC 1)

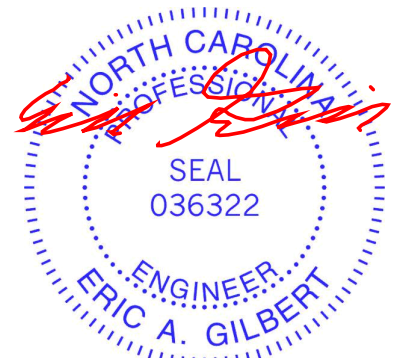
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-1085/91, 1-9=-1208/109  
 BOT CHORD 7-8=-171/932  
 WEBS 2-8=-92/1291, 2-7=-1343/182, 1-8=-79/1069

**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, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-8-0 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; TC DL=6.0psf; BCDL=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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.
- 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) except (jt=lb) 7=258, 9=155.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 997 lb down and 75 lb up at 0-9-12, 992 lb down and 79 lb up at 2-9-12, and 992 lb down and 79 lb up at 4-9-12, and 998 lb down and 74 lb up at 6-9-12 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

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294938
J0121-0164	G1GR	Half Hip Girder	1	<b>2</b>	Job Reference (optional)	

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8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:23 2021 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 4-5=-20, 6-9=-20  
Concentrated Loads (lb)  
Vert: 7=-998(B) 10=-997(B) 11=-992(B) 12=-992(B)

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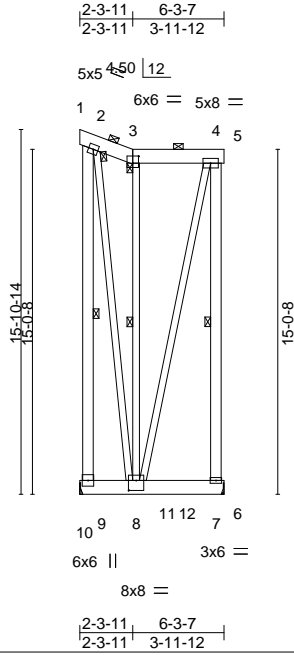
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Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294939
J0121-0164	H1GR	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

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Scale = 1:100.5

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

LOADING (psf)	SPACING-	6-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	-0.01	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.02	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.51	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.01	7-8	>999	240	Weight: 339 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x8 SP No.1  
 BOT CHORD 2x8 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 2-9,4-7: 2x6 SP No.1

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals  
 (Switched from sheeted: Spacing > 2-8-0).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 2-9, 4-7, 3-8

**REACTIONS.**

(size) 9=Mechanical, 9=Mechanical, 7=Mechanical  
 Max Horz 9=-137(LC 4)  
 Max Uplift 9=-1462(LC 4), 7=-213(LC 5)  
 Max Grav 9=3666(LC 2), 9=3312(LC 1), 7=1776(LC 2)

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

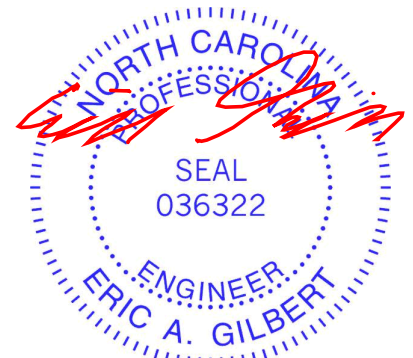
TOP CHORD 2-9=-1232/781, 4-7=-931/87  
 WEBS 2-8=-622/1093, 3-8=-543/263, 4-8=0/700

**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, 2x8 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 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.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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.
- 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) except (jt=lb) 9=1462, 7=213.
- Non Standard bearing condition. Review required.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2212 lb down and 673 lb up at 0-6-7, and 861 lb down and 293 lb up at 2-5-11, and 738 lb down and 293 lb up at 4-5-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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



January 11, 2021

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.**

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294939
J0121-0164	H1GR	ROOF SPECIAL GIRDER	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:24 2021 Page 2  
 ID:k0NrKylvgRWmszlgBmiUdty7i2l-fPXnEbybgNr7TNk3bMJ1iRgB?OiKby6j?\_MOWizwQ19

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=-180, 2-3=-180, 3-4=-180, 4-5=-180, 6-10=-60

Concentrated Loads (lb)

Vert: 9=-1904(F) 8=-738(F) 12=-738(F)

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

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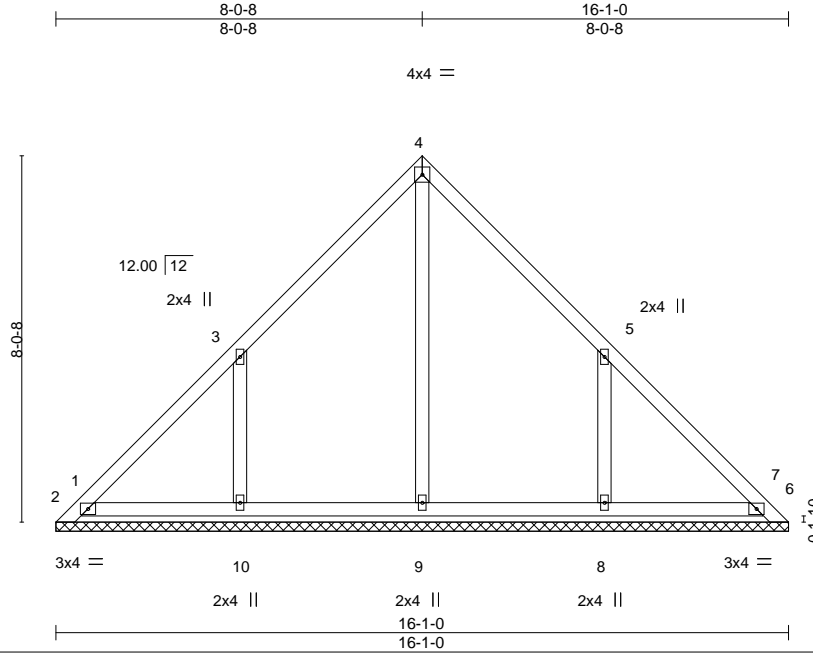


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294940
J0121-0164	PB1	GABLE	8	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:25 2021 Page 1  
ID:k0NrKylvgRWmszlgBmiUdty7i2l-7b49RxyDRgz\_5XJF93qGFEDMVo3ZKU4tEe6x38zwQ18



Scale = 1:50.6

<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 0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.19	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.14	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						Weight: 77 lb	FT = 20%
	Code IRC2015/TPI2014								

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 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.**

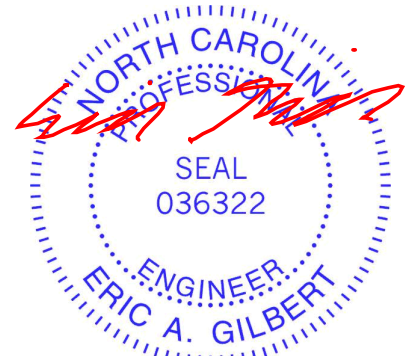
All bearings 16-1-0.  
(lb) - Max Horz 1=-214(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 6 except 1=-274(LC 10), 7=-130(LC 20), 2=-106(LC 12), 10=-214(LC 12), 8=-214(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 2=353(LC 19), 6=319(LC 1), 9=426(LC 22), 10=485(LC 19), 8=483(LC 20)

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

TOP CHORD 1-2=-306/347  
WEBS 3-10=-428/371, 5-8=-428/371

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 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.
- Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 1=274, 7=130, 2=106, 10=214, 8=214.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 11, 2021

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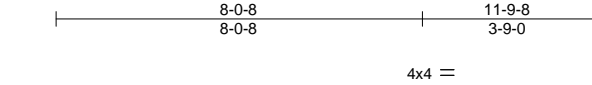
818 Soundside Road  
Edenton, NC 27932



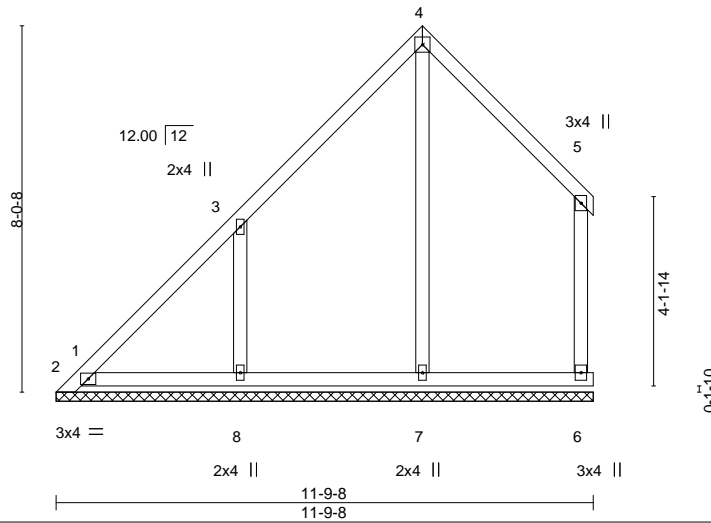
Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294941
J0121-0164	PB1A	GABLE	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:26 2021 Page 1  
ID:k0NrKyIvlgRWmszlgBmiUdty7i2l-bneXfHzrC\_5rjhuSinLVnsIXvCP\_3vT0TlrUbbzwQ17



Scale = 1:50.6



<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 0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.18	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.26	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						Weight: 63 lb	FT = 20%
	Code IRC2015/TPI2014								

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

**REACTIONS.**

All bearings 11-9-8.  
(lb) - Max Horz 1=275(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 7 except 1=264(LC 10), 6=101(LC 8), 2=129(LC 12), 8=213(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) except 1=270(LC 9), 6=273(LC 20), 2=284(LC 1), 7=538(LC 19), 8=490(LC 19)

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

TOP CHORD 1-2=-554/560, 2-3=-292/262, 3-4=-275/290, 4-5=-271/294, 5-6=-281/267  
WEBS 4-7=-265/161, 3-8=-440/391

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 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.
- Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 1=264, 6=101, 2=129, 8=213.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 11, 2021

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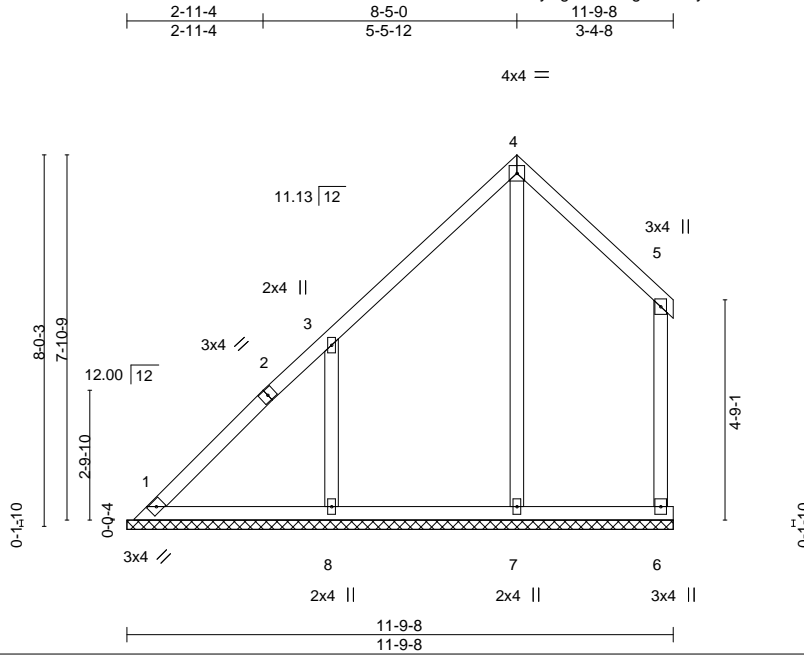


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294942
J0121-0164	PB1B	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:26 2021 Page 1  
ID:k0NrkYlvgRWmszlgBmiUdty7i2l-bneXfHzrC\_5rjhuSinLVnslVscPE3wh0TlrUbbzwQ17



<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 0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.25	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						Weight: 64 lb	FT = 20%
	Code IRC2015/TPI2014								

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 11-9-8.  
(lb) - Max Horz 1=276(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 7 except 8=231(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 7=498(LC 19), 8=543(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-318/295, 2-3=-295/314, 3-4=-260/289, 4-5=-256/280, 5-6=-257/247  
WEBS 4-7=-251/151, 3-8=-481/399

- 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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-14 to 3-0-7, Interior(1) 3-0-7 to 8-5-0, Exterior(2) 8-5-0 to 11-6-4 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
  - 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.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 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 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) 1, 6, 7 except (jt=lb) 8=231.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

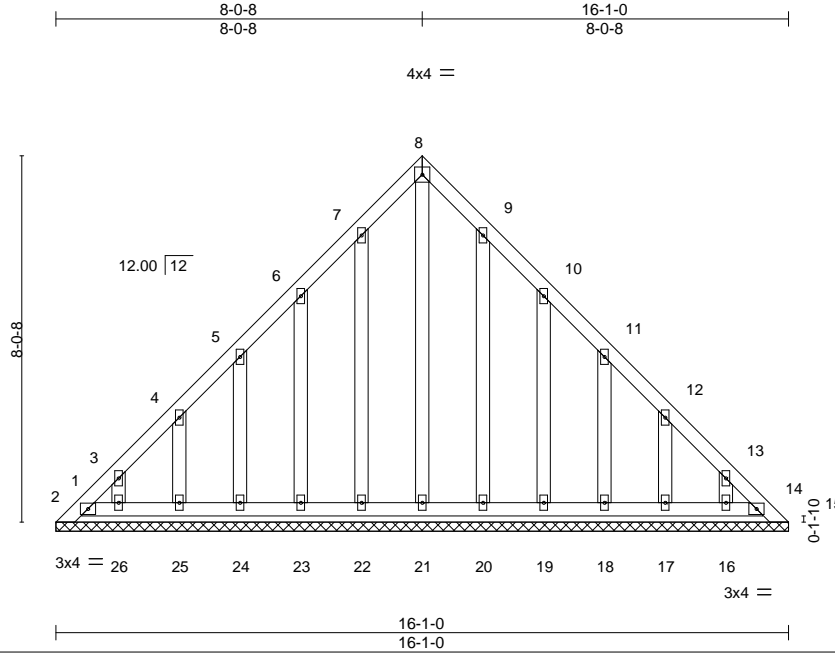


January 11, 2021

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294943
J0121-0164	PB1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:28 2021 Page 1  
 ID:k0NrKylvgRWmszlgBmiUdty7i2l-XAmI4z?6kbLZy?2qqBNztHrvb?7jXqJwckbfTzwQ15



Scale = 1:50.6

<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 0.05	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.21	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 14 n/a n/a		
	Code IRC2015/TPI2014			Weight: 117 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 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.**

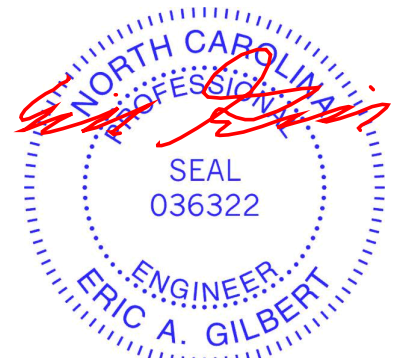
All bearings 16-1-0.  
 (lb) - Max Horz 1=-268(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 14, 21, 22, 20 except 1=-195(LC 8), 23=-120(LC 12), 24=-109(LC 12), 25=-114(LC 12), 26=-117(LC 12), 19=-122(LC 13), 18=-108(LC 13), 17=-115(LC 13), 16=-109(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 15, 2, 14, 21, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16

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

TOP CHORD 1-2=-337/341, 2-3=-366/226, 3-4=-270/188, 13-14=-319/217  
 BOT CHORD 2-26=-171/252, 25-26=-171/252, 24-25=-171/252, 23-24=-171/252, 22-23=-171/252, 21-22=-171/252, 20-21=-171/252, 19-20=-171/252, 18-19=-171/252, 17-18=-171/252, 16-17=-171/252, 14-16=-171/252

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 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 1-4-0 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 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.
- Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 14, 21, 22, 20 except (jt=lb) 1=195, 23=120, 24=109, 25=114, 26=117, 19=122, 18=108, 17=115, 16=109.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 11, 2021

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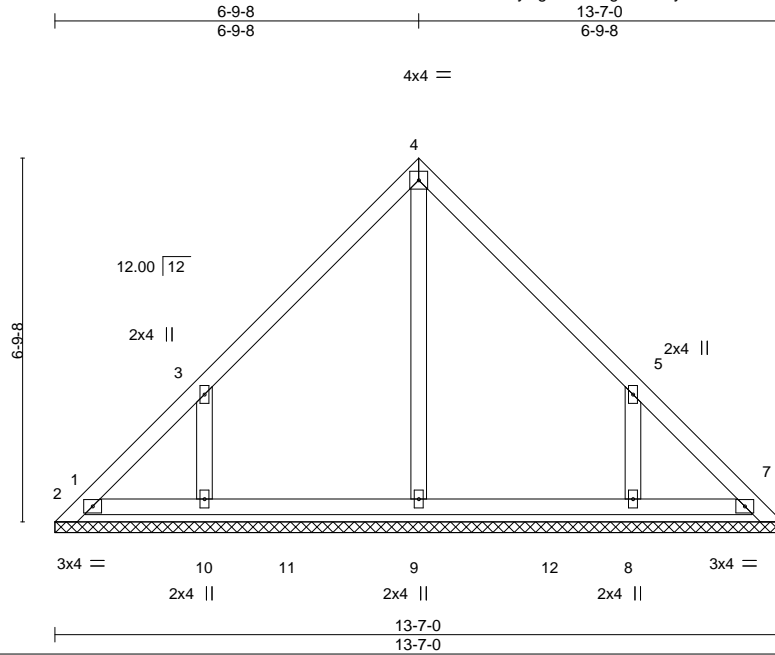


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294944
J0121-0164	PB2	GABLE	3	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:30 2021 Page 1  
 ID:k0NrKylvgRWmszlgBmiUdty7i2I-TZu2Uf0MGDbHBICDxcQRyiwDTpnFm3cOwpikMzWQ13



Scale = 1:43.0

<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 0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.09	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						Weight: 62 lb	FT = 20%
	Code IRC2015/TPI2014								

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 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.**

All bearings 13-7-0.

(lb) - Max Horz 1=180(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 7, 2, 6 except 1=126(LC 8), 10=202(LC 12), 8=201(LC 13)

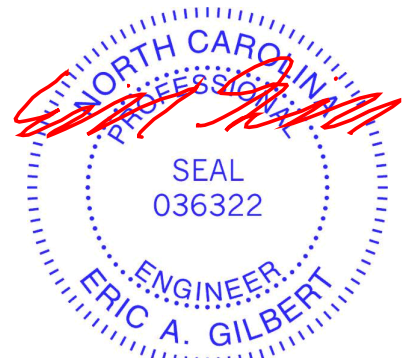
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6 except 9=392(LC 19), 10=396(LC 19), 8=394(LC 20)

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

WEBS 3-10=-400/354, 5-8=-400/354

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 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) 7, 2, 6 except (jt=lb) 1=126, 10=202, 8=201.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 11, 2021

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**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

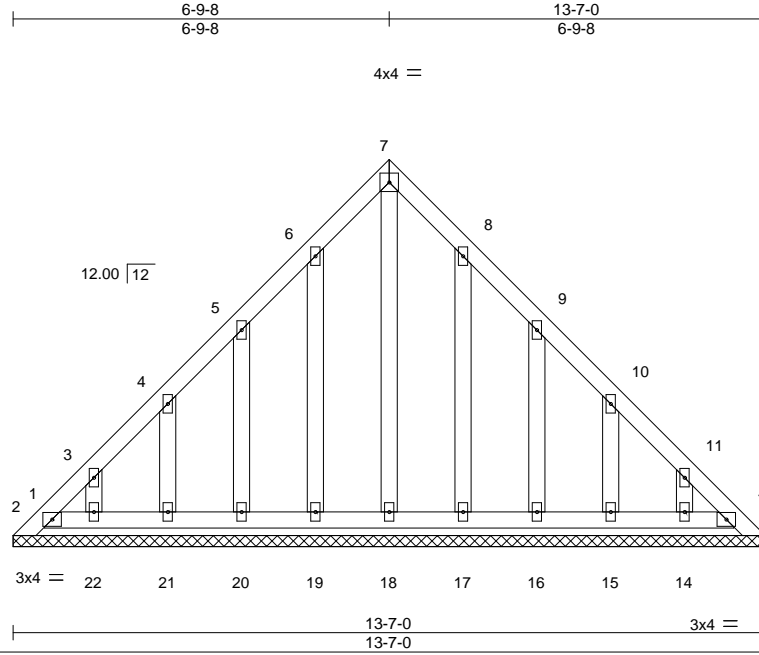


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294945
J0121-0164	PB2GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:31 2021 Page 1  
 ID:k0NrKylvgrWmszlgBmiUdy7i2l-xISQi\_1\_1Wj8pSnPVKxgUvTQxD8VkDwIcaZFGozwQ12



Scale = 1:41.6

<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	Plate Grip DOL 1.15	TC 0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						Weight: 89 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 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.**

All bearings 13-7-0.  
 (lb) - Max Horz 1=-225(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 17 except 1=-165(LC 8), 20=-117(LC 12), 21=-112(LC 12), 22=-114(LC 12), 16=-119(LC 13), 15=-112(LC 13), 14=-108(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 13, 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

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

TOP CHORD 1-2=-284/289, 2-3=-293/185, 11-12=-254/172

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 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 1-4-0 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 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 19, 17 except (jt=lb) 1=165, 20=117, 21=112, 22=114, 16=119, 15=112, 14=108.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 11, 2021

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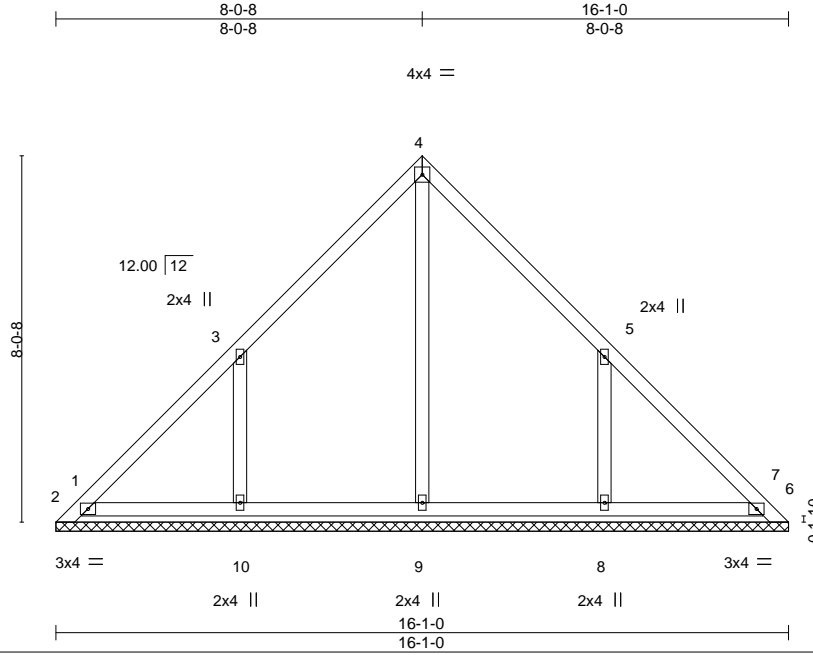


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294946
J0121-0164	PB3	GABLE	8	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:32 2021 Page 1  
ID:k0NrKylvgRWmszlgBmiUdty7i2l-Qx0pvK2coqr?RcMb31Sv17?YkcSCTfprDlpoEzwQ11



Scale = 1:50.6

<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 0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.19	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.14	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						Weight: 77 lb	FT = 20%
	Code IRC2015/TPI2014								

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 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.**

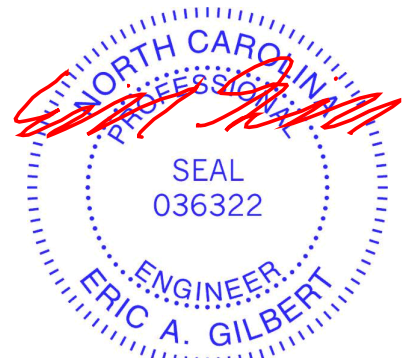
All bearings 16-1-0.  
(lb) - Max Horz 1=-214(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 6 except 1=-274(LC 10), 7=-130(LC 20), 2=-106(LC 12), 10=-214(LC 12), 8=-214(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 2=353(LC 19), 6=319(LC 1), 9=426(LC 22), 10=485(LC 19), 8=483(LC 20)

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

TOP CHORD 1-2=-306/347  
WEBS 3-10=-428/371, 5-8=-428/371

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 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.
- Bearing at joint(s) 7, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 1=274, 7=130, 2=106, 10=214, 8=214.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 11, 2021

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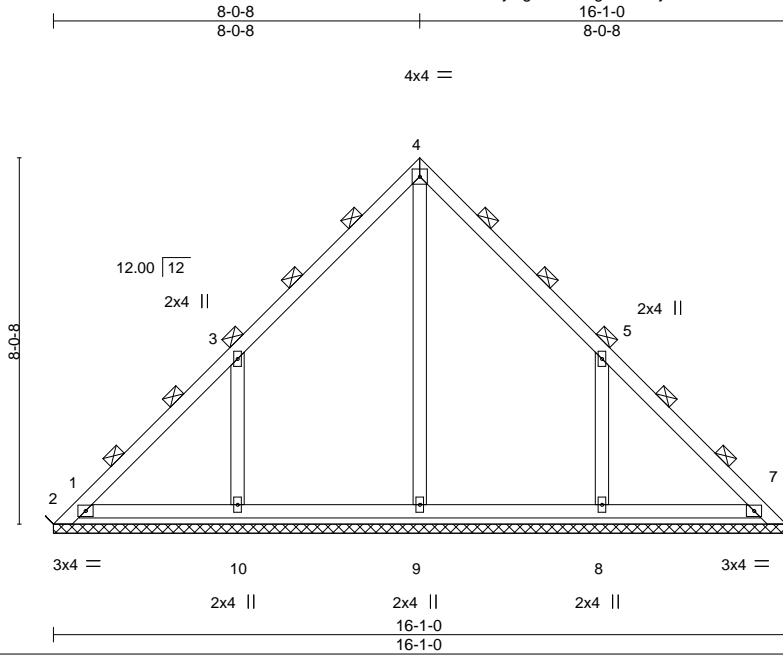
818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294947
J0121-0164	PB3A	GABLE	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:34 2021 Page 1  
ID:k0NrKylvgRWmszlgBmiUdty7i2l-MK7ZK03sKR5jgwV\_ASUN6Y5t5Q6axaFCJXnwt7zwQ1?



Scale = 1:50.6

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.26	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.08	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 153 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
(Switched from sheeted: Spacing > 2-8-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

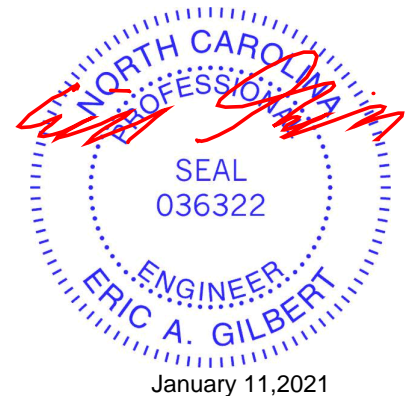
All bearings 16-1-0.  
(lb) - Max Horz 1=-536(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=-684(LC 10), 7=-325(LC 20), 2=-265(LC 12), 6=-108(LC 13), 10=-536(LC 12), 8=-534(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) except 1=560(LC 9), 7=270(LC 13), 2=882(LC 19), 6=799(LC 1), 9=1066(LC 22), 10=1212(LC 19), 8=1209(LC 20)

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

TOP CHORD 1-2=-765/868, 2-3=-520/393, 3-4=-512/478, 4-5=-512/478, 5-6=-426/268, 6-7=-253/357  
BOT CHORD 2-10=-327/460, 9-10=-327/460, 8-9=-327/460, 6-8=-327/460  
WEBS 4-9=-359/39, 3-10=-1069/928, 5-8=-1069/928

**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 0-9-0 oc.  
Bottom chords 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; TC DL=6.0psf; BCDL=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 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.
- Bearing at joint(s) 7, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 684 lb uplift at joint 1, 325 lb uplift at joint 7, 265 lb uplift at joint 2, 108 lb uplift at joint 6, 536 lb uplift at joint 10 and 534 lb uplift at joint 8.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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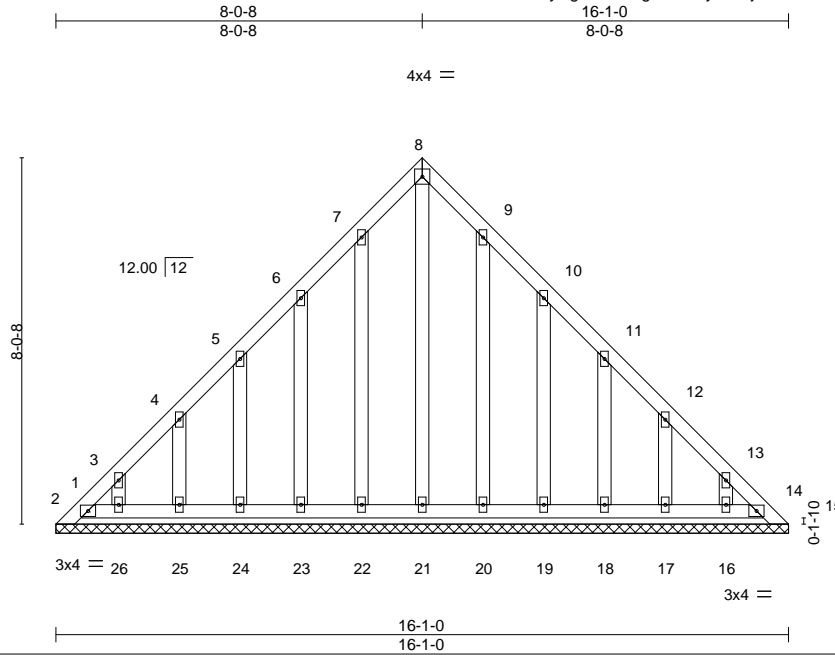


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294948
J0121-0164	PB3GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:36 2021 Page 1  
ID:k0NrkYlvgRWmszlgBmiUdty7i2l-ljFJli57s2LQwDfNltXrBzAGaEsbPSkUmrG0w?zwQ0z



<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 0.05	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.21	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 14 n/a n/a		
	Code IRC2015/TPI2014			Weight: 117 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 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.**

All bearings 16-1-0.  
(lb) - Max Horz 1=-268(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 14, 21, 22, 20 except 1=-195(LC 8), 23=-120(LC 12), 24=-109(LC 12), 25=-114(LC 12), 26=-117(LC 12), 19=-122(LC 13), 18=-108(LC 13), 17=-115(LC 13), 16=-109(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 15, 2, 14, 21, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16

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

TOP CHORD 1-2=-337/341, 2-3=-366/226, 3-4=-270/188, 13-14=-319/217  
BOT CHORD 2-26=-171/252, 25-26=-171/252, 24-25=-171/252, 23-24=-171/252, 22-23=-171/252, 21-22=-171/252, 20-21=-171/252, 19-20=-171/252, 18-19=-171/252, 17-18=-171/252, 16-17=-171/252, 14-16=-171/252

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 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 1-4-0 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 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.
- Bearing at joint(s) 15, 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 14, 21, 22, 20 except (jt=lb) 1=195, 23=120, 24=109, 25=114, 26=117, 19=122, 18=108, 17=115, 16=109.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 11, 2021

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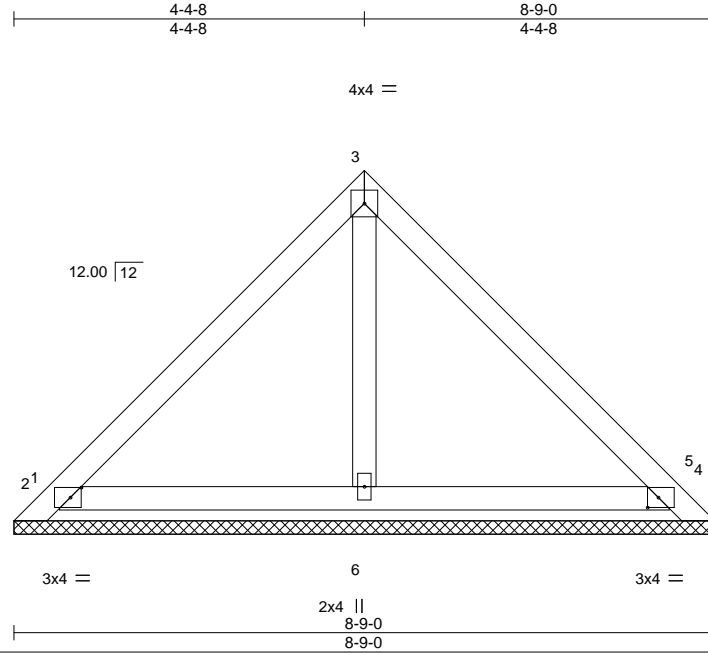


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294949
J0121-0164	PB4	GABLE	16	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:37 2021 Page 1  
ID:k0NrkylvgRWmszlgBmiUdty7i2l-mvpiz26ldMTHXNEZsa24kAiOOdAd8yle?V0aTSzwQ0y



Scale = 1:28.8

Plate Offsets (X,Y)-- [2:0-1-10,0-1-8], [4:0-1-10,0-1-8]

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 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 35 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 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.**

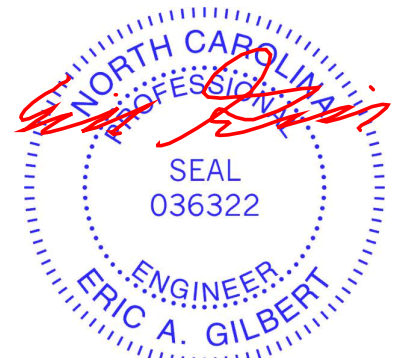
All bearings 8-9-0.  
(lb) - Max Horz 1=-114(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=-396(LC 19), 5=-330(LC 20), 2=-386(LC 12), 4=-351(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 6 except 1=331(LC 12), 5=287(LC 13), 2=605(LC 19), 4=553(LC 20)

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

TOP CHORD 1-2=-283/327, 4-5=-283/312

**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=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 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.
- Bearing at joint(s) 5, 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 396 lb uplift at joint 1, 330 lb uplift at joint 5, 386 lb uplift at joint 2 and 351 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 11, 2021

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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

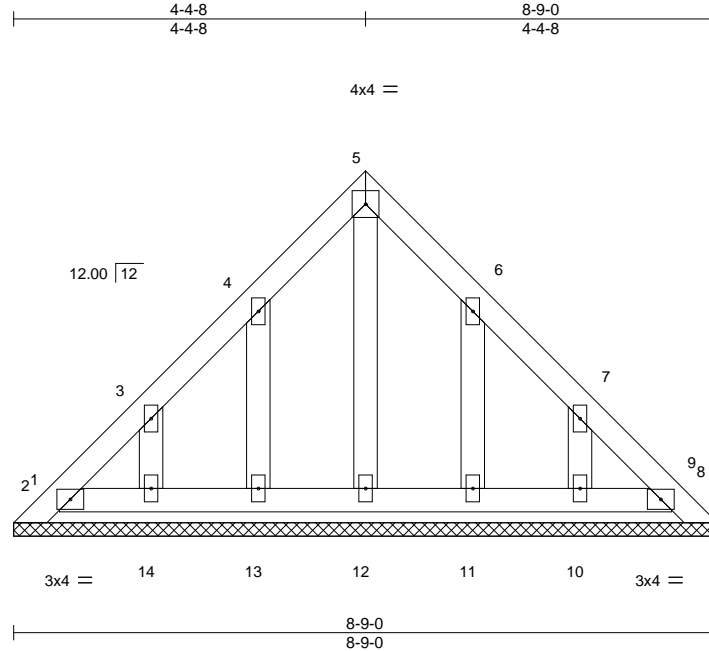


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	ROUKEMA BUCHANAN FLOOR & ROOF	E15294950
J0121-0164	PB4GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 11 13:21:38 2021 Page 1  
ID:k0NrKylvgRWmszlgBmiUdty7i2l-E5N4AO6Nngb89XpIPIZJHOFcM1XHtP4nD9l7?uzwQ0x



Scale = 1:28.6

<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 0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 45 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 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.**

All bearings 8-9-0.

(lb) - Max Horz 1=142(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 9, 2, 8 except 1=112(LC 10), 13=121(LC 12), 14=111(LC 12), 11=121(LC 13), 10=109(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 9, 2, 8, 12, 13, 14, 11, 10

**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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=28ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 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 1-4-0 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 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.
- Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 2, 8 except (jt=lb) 1=112, 13=121, 14=111, 11=121, 10=109.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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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/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: 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/TFP 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MII-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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.