

**Trenco**

818 Soundside Rd  
Edenton, NC 27932

Re: 23209-23209A  
240.2596.C

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I39995733 thru I39995768

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

North Carolina COA: C-0844



January 22, 2020

Liu, Xuegang

**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 23209-23209A	Truss AE	Truss Type Common Supported Gable	Qty 1	Ply 1	240.2596.C	139995733
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84 Components (Dunn),

Dunn, NC - 28334,

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ID:VMD62rz1yiHD\_OqRtbnrIFztQ8K-7fwT6hqygi8R?KGq7clTnivSFHa?2C6MkqoEEhzsmC4



4x4 =

Scale = 1:32.5

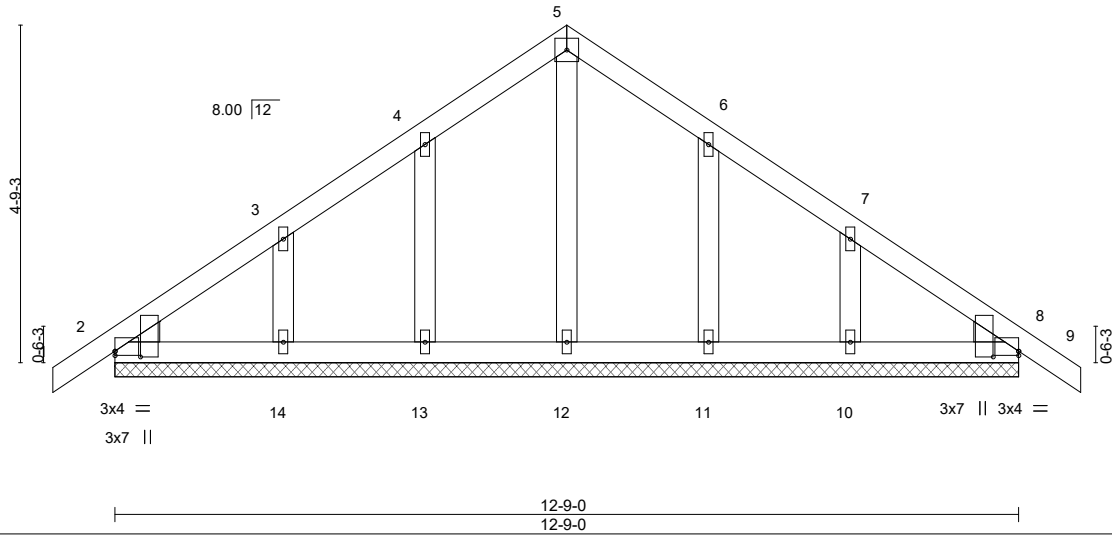


Plate Offsets (X,Y)--	[2:0-0-0,0-0-12], [2:0-0-15,0-4-5], [8:0-0-0,0-0-12], [8:0-0-15,0-4-5]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) -0.00 8 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) 0.00 8 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 66 lb	FT = 20%

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

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

**REACTIONS.** All bearings 12-9-0.  
(lb) - Max Horz 2=125(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10  
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 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; TCCL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-4-8, Exterior(2) 2-4-8 to 6-4-8, Corner(3) 6-4-8 to 9-4-8, Exterior(2) 9-4-8 to 13-7-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
A MITEK COMPANY

818 Soundside Road  
Edenton, NC 27932

Job 23209-23209A	Truss AG	Truss Type Common Girder	Qty 1	Ply 2	240.2596.C	139995734
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84 Components (Dunn), Dunn, NC - 28334,

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ID:VMD62rz1yiHD\_OqRtbnrIFztQ8K-322DXNrCCJO9EeQDF1nxt7\_iE52bWt6eB8HLlazzmC2



4x6 ||

Scale = 1:30.8

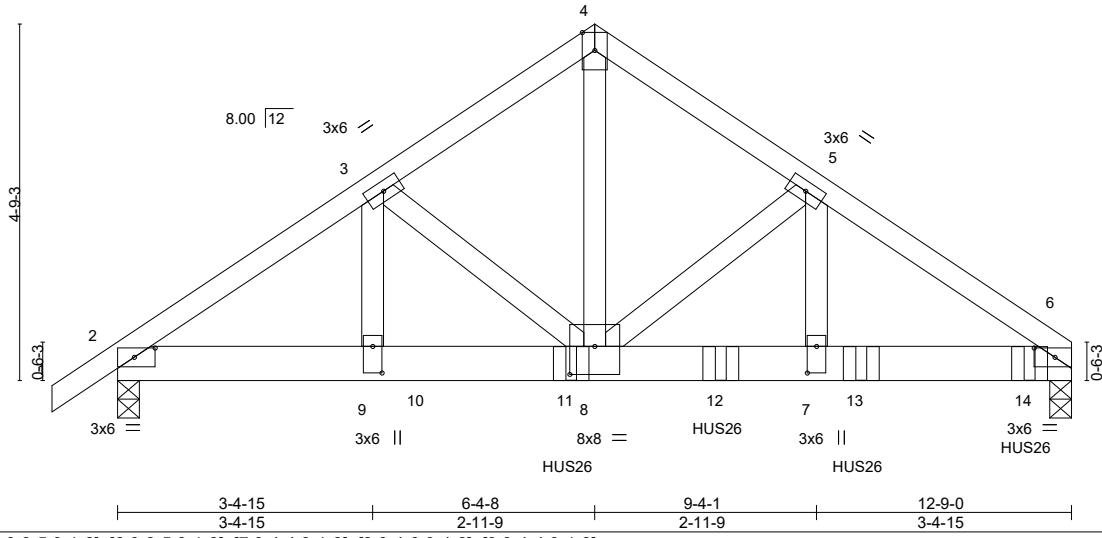


Plate Offsets (X,Y)--	[2:0-3-5,0-1-8], [6:0-3-5,0-1-8], [7:0-4-4,0-1-8], [8:0-4-0,0-4-8], [9:0-4-4,0-1-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.05	8-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.10	8-9	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.97	Horz(CT)	0.03	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 154 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-6 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 6=5305/0-3-8, 2=3586/0-3-8  
 Max Horz 2=121(LC 26)  
 Max Uplift 6=-767(LC 9), 2=-731(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-5835/1196, 3-4=-4449/808, 4-5=-4453/808, 5-6=-6370/946  
 BOT CHORD 2-9=-982/4652, 8-9=-982/4652, 7-8=-719/5113, 6-7=-719/5113  
 WEBS 4-8=-819/4675, 5-8=-1843/253, 5-7=-177/2254, 3-8=-1253/505, 3-9=-496/1598

**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: 2x6 - 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; TCCL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=767, 2=731.
- Use USP HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-3-0 oc max. starting at 6-0-12 from the left end to 12-2-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1991 lb down and 675 lb up at 4-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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



January 22, 2020

Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	 818 Soundside Road Edenton, NC 27932
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Job 23209-23209A	Truss AG	Truss Type Common Girder	Qty 1	Ply <b>2</b>	240.2596.C Job Reference (optional)	139995734
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:11 2020 Page 2  
ID:VMD62rz1yiHD\_OqRtbnrFztQ8K-322DXNrCCJO9EeQDF1nxt7\_iE52bWt6eB8HLlazzmC2

**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 10=-1991(B) 11=-1459(B) 12=-1459(B) 13=-1459(B) 14=-1465(B)

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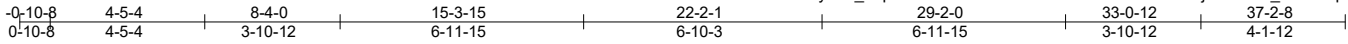
818 Soundside Road  
Edenton, NC 27932

Job 23209-23209A	Truss H1	Truss Type Hip	Qty 1	Ply 1	240.2596.C	139995735
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:12 2020 Page 1

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Scale = 1:66.2

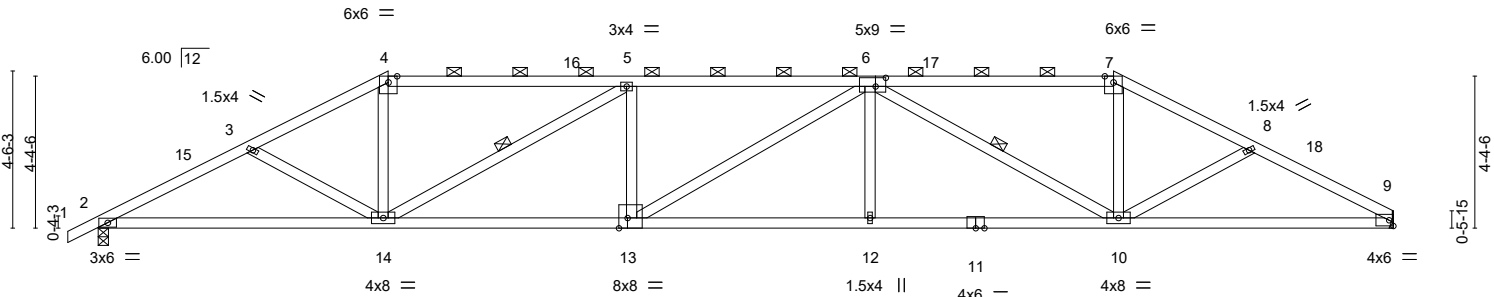


Plate Offsets (X,Y)--	[6:0-3-8,0-3-0], [13:0-3-0,Edge]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.27	12-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.57	12-13	>776		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.18	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 185 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-8 oc purlins, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (2-2-0 max.): 4-7.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
	WEBS 1 Row at midpt 5-14, 6-10

**REACTIONS.** (lb/size) 9=1479/Mechanical, 2=1542/0-3-8  
 Max Horz 2=86(LC 12)  
 Max Uplift 9=-163(LC 8), 2=-169(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2827/543, 3-4=-2637/474, 4-5=-2304/458, 5-6=-3323/612, 6-7=-2266/445,  
 7-8=-2594/461, 8-9=-2744/520  
 BOT CHORD 2-14=-441/2465, 13-14=-507/3327, 12-13=-484/3313, 10-12=-484/3313, 9-10=-411/2367  
 WEBS 4-14=-68/828, 5-14=-1251/289, 5-13=0/264, 6-12=0/272, 6-10=-1277/292, 7-10=-68/809

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-2, Interior(1) 2-10-2 to 8-4-0, Exterior(2) 8-4-0 to 13-7-2, Interior(1) 13-7-2 to 29-2-0, Exterior(2) 29-2-0 to 34-5-2, Interior(1) 34-5-2 to 37-1-12 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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=163.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 22, 2020

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**ENGINEERING BY**  
**TRENCO**  
 A MITEK COMPANY

818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss H2	Truss Type Hip	Qty 1	Ply 1	240.2596.C	139995736
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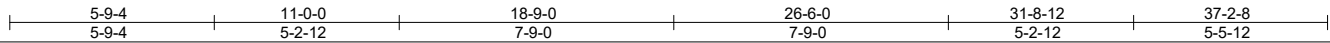
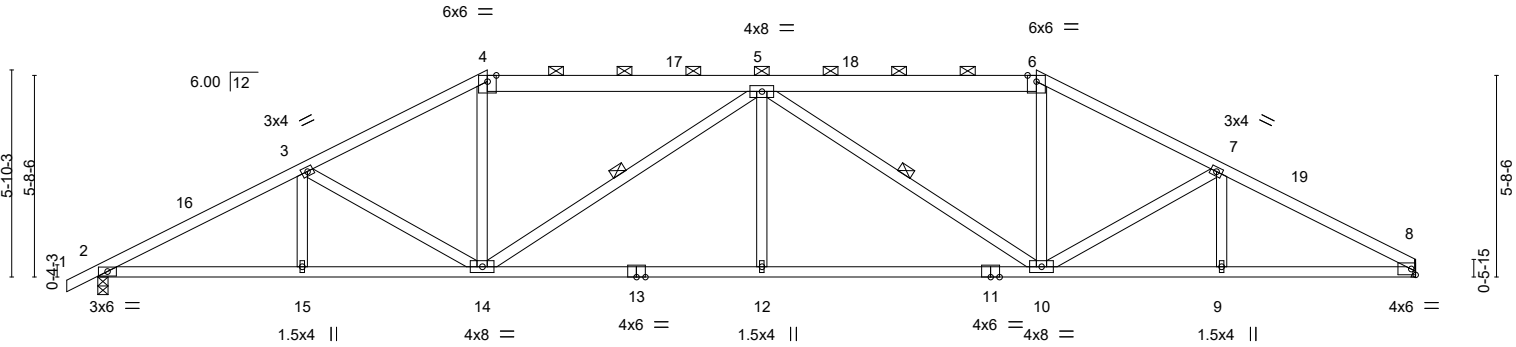
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:13 2020 Page 1

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Scale = 1:65.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL) -0.18	12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT) -0.41	12-14	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.38	Horz(CT) 0.15	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					
							Weight: 204 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-8-10 oc purlins, except  
2-0-0 oc purlins (4-8-2 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 9-5-7 oc bracing.  
WEBS 1 Row at midpt 5-14, 5-10

**REACTIONS.** (lb/size) 8=1479/Mechanical, 2=1542/0-3-8  
Max Horz 2=109(LC 12)  
Max Uplift 8=-132(LC 13), 2=-158(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2851/488, 3-4=-2430/463, 4-5=-2111/456, 5-6=-2089/448, 6-7=-2405/455,  
7-8=-2778/475  
BOT CHORD 2-15=-384/2467, 14-15=-384/2467, 12-14=-339/2652, 10-12=-339/2652, 9-10=-364/2400,  
8-9=-364/2400  
WEBS 3-14=401/183, 4-14=-48/702, 5-14=-773/194, 5-12=0/333, 5-10=-796/195,  
6-10=-56/691, 7-10=-351/182

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-2, Interior(1) 2-10-2 to 11-0-0, Exterior(2) 11-0-0 to 16-3-2, Interior(1) 16-3-2 to 26-6-0, Exterior(2) 26-6-0 to 31-8-12, Interior(1) 31-8-12 to 37-1-12 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) 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) except (jt=lb) 8=132.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 22, 2020

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818 Soundside Road  
Edenton, NC 27932



Job 23209-23209A	Truss H3	Truss Type ROOF TRUSS	Qty 1	Ply 1	240.2596.C	139995737
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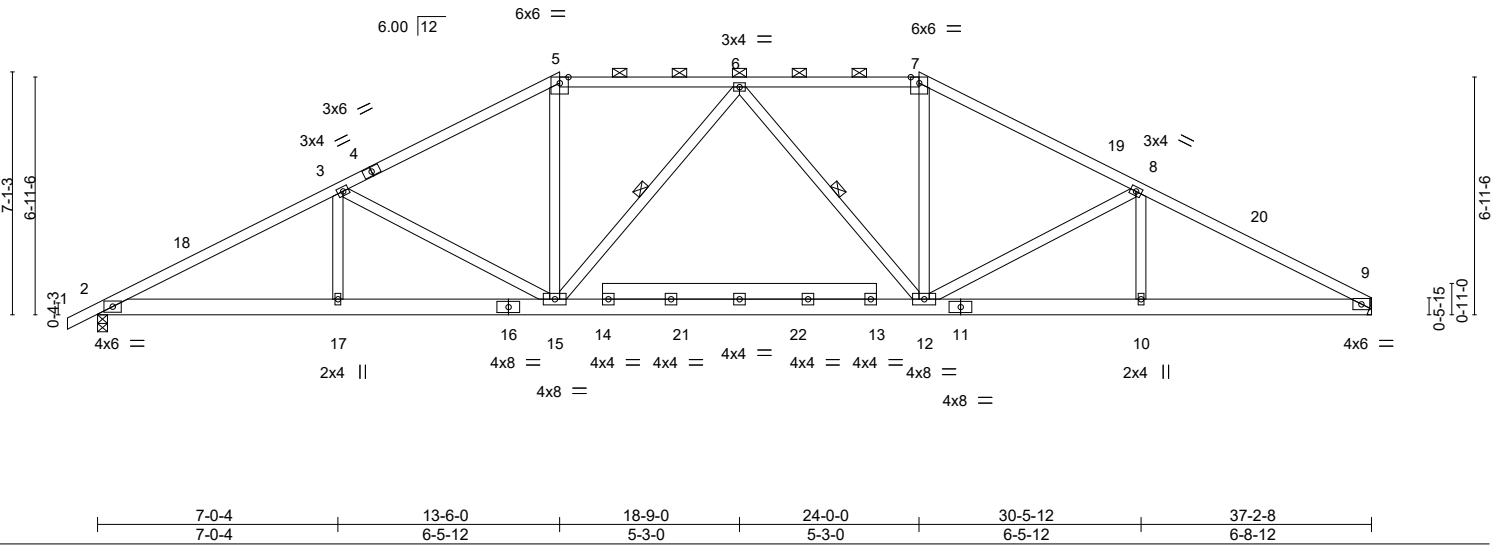
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:14 2020 Page 1

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Scale = 1:67.3



<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 0.79	Vert(LL)	-0.13 12-15	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.28 12-15	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.08 9	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 240 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-11-7 max.): 5-7.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-15, 6-12

**REACTIONS.** (lb/size) 9=1479/Mechanical, 2=1542/0-3-8  
 Max Horz 2=133(LC 12)  
 Max Uplift 9=-158(LC 13), 2=-184(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2845/478, 3-5=-2250/442, 5-6=-1922/444, 6-7=-1910/435, 7-8=-2237/432, 8-9=-2799/462  
 BOT CHORD 2-17=-370/2463, 15-17=-370/2463, 12-15=-258/2072, 10-12=-346/2413, 9-10=-346/2413  
 WEBS 3-17=0/271, 3-15=-609/235, 5-15=-56/655, 6-15=-372/164, 6-12=-387/164, 7-12=-64/651, 8-12=-568/233, 8-10=0/264

**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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-8 to 2-10-2, Interior(1) 2-10-2 to 13-6-0, Exterior(2) 13-6-0 to 18-9-0, Interior(1) 18-9-0 to 24-0-0, Exterior(2) 24-0-0 to 29-3-2, Interior(1) 29-3-2 to 37-1-12 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=158.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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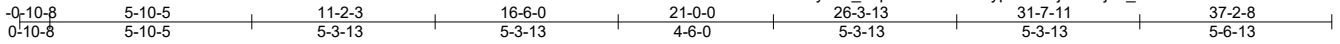
818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss H4	Truss Type ROOF TRUSS	Qty 1	Ply 1	240.2596.C	139995738
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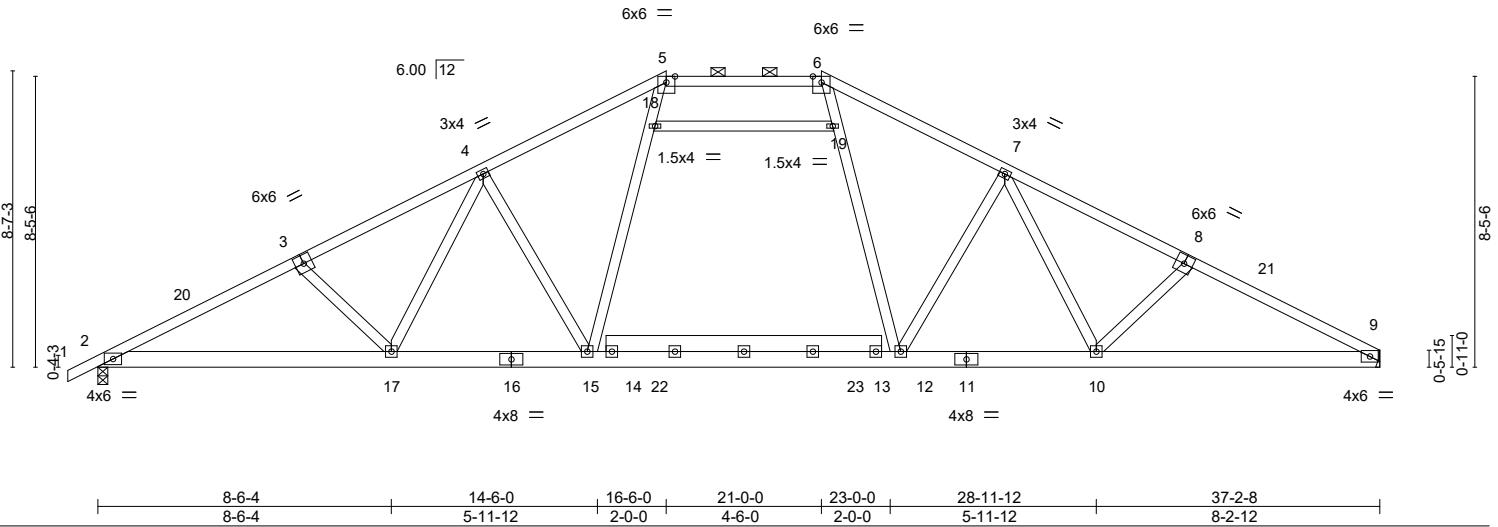
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:15 2020 Page 1

ID:VMD62r21yiHD\_OqRtbnrlFztQ8K-ypHkNkvjGYuajFk\_Utst1z9KRiS4SoSE6mFZRLzsmC\_



Scale = 1:66.9



<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 0.59	Vert(LL)	-0.32 15-17	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.45 15-17	>986	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.08 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 247 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-9-6 oc purlins, except 2-0-0 oc purlins (4-4-4 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=1542/0-3-8, 9=1479/Mechanical  
 Max Horz 2=159(LC 12)  
 Max Uplift 2=-210(LC 12), 9=-185(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2845/453, 3-4=-2609/447, 4-5=-2098/451, 5-6=-1603/415, 6-7=-2095/457, 7-8=-2565/442, 8-9=-2787/455  
 BOT CHORD 2-17=-405/2473, 15-17=-252/2084, 12-15=-139/1662, 10-12=-236/2065, 9-10=-333/2408  
 WEBS 3-17=-303/189, 4-17=-124/546, 4-15=-646/284, 7-12=-616/281, 7-10=-121/503, 8-10=-265/191, 15-18=-68/664, 5-18=-70/682, 6-19=-73/674, 12-19=-71/655

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-2, Interior(1) 2-10-2 to 16-6-0, Exterior(2) 16-6-0 to 26-3-13, Interior(1) 26-3-13 to 37-1-12 zone;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) All plates are 4x4 MT20 unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=185.
  - 9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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818 Soundside Road  
 Edenton, NC 27932



Job 23209-23209A	Truss H5	Truss Type Hip	Qty 1	Ply 1	240.2596.C	139995739
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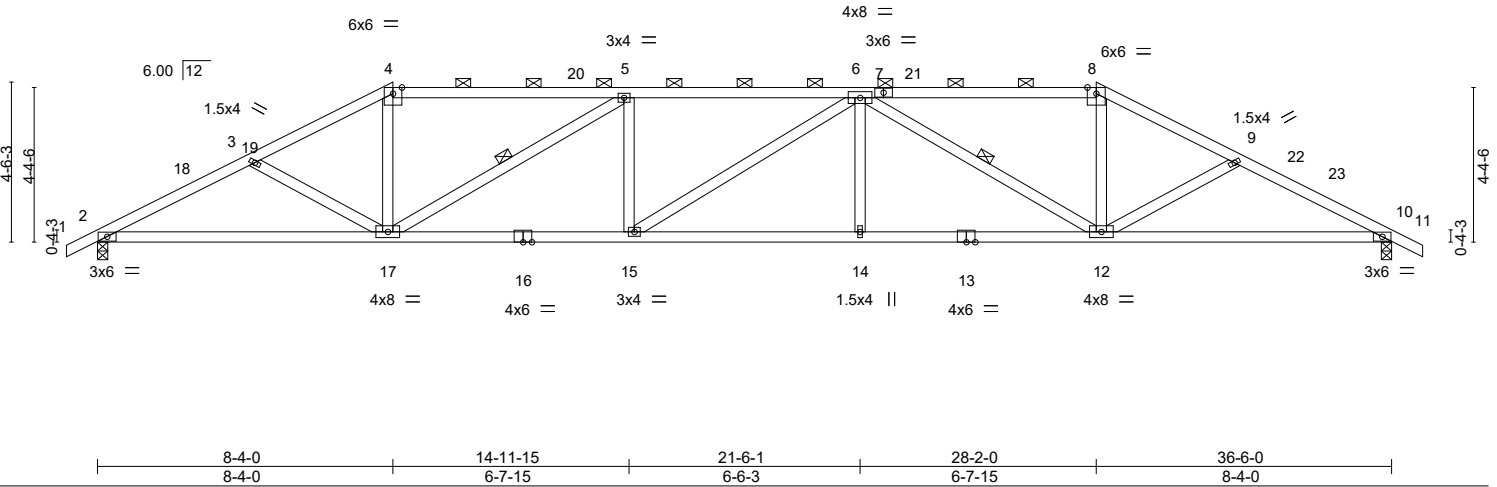
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:17 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrFztQ8K-uCPUnQwzo98lyZuNbluL6OEc3V5uwjDXZ4kFVDzsmBy

-0-10-8	4-5-4	8-4-0	14-11-15	21-6-1	28-2-0	32-0-12	36-6-0	37-4-8
0-10-8	4-5-4	3-10-12	6-7-15	6-6-3	6-7-15	3-10-12	4-5-4	0-10-8

Scale = 1:65.0



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.84	Vert(LL) -0.25 14-15 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.94	Vert(CT) -0.53 14-15 >824 180		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.42	Horz(CT) 0.17 10 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S			Weight: 183 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins, except 2-0-0 oc purlins (2-7-15 max.); 4-8.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midt 5-17, 6-12

**REACTIONS.** (lb/size) 2=1510/0-3-8, 10=1510/0-3-8  
 Max Horz 2=-79(LC 17)  
 Max Uplift 2=-161(LC 9), 10=-161(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2759/521, 3-4=-2565/454, 4-5=-2238/440, 5-6=-3175/578, 6-8=-2238/440, 8-9=-2565/454, 9-10=-2758/521  
 BOT CHORD 2-17=-403/2405, 15-17=-463/3175, 14-15=-440/3177, 12-14=-440/3177, 10-12=-405/2405  
 WEBS 4-17=-62/807, 5-17=-1165/272, 5-15=0/253, 6-14=0/252, 6-12=-1167/273, 8-12=-63/808

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-9-5, Interior(1) 2-9-5 to 8-4-0, Exterior(2) 8-4-0 to 13-5-15, Interior(1) 13-5-15 to 28-2-0, Exterior(2) 28-2-0 to 33-3-15, Interior(1) 33-3-15 to 37-4-8 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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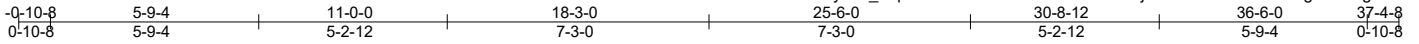
**ENGINEERING BY**  
**TRENCO**  
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818 Soundside Road  
 Edenton, NC 27932

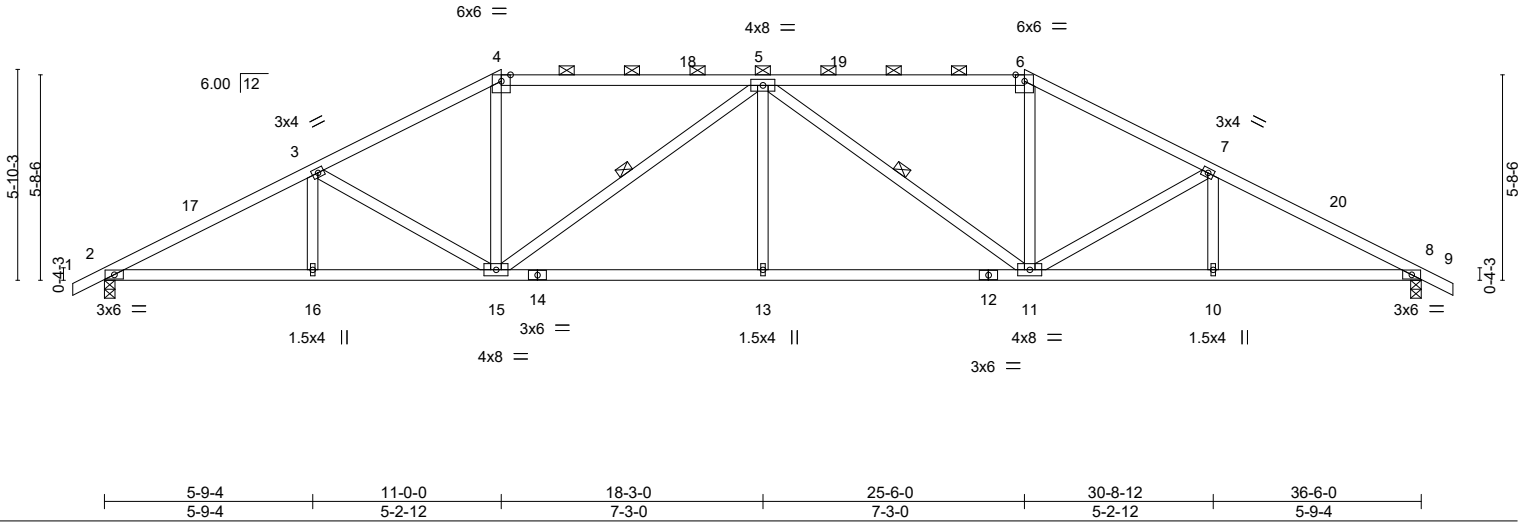
Job 23209-23209A	Truss H6	Truss Type Hip	Qty 1	Ply 1	240.2596.C	139995740
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:18 2020 Page 1  
ID:VMD62rz1yIHd\_OqRtbnrIFztQ8K-MOZt?mxbZTG9ajSZ9?PafcmnJvThfC7gokTD1gzsmBx



Scale: 3/16"=1'



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 0.87	Vert(LL)	-0.18	13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.39	11-13	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.31	Horz(CT)	0.14	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 189 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-10 oc purlins, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (2-2-0 max.): 4-6.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 9-10-8 oc bracing.
	WEBS 1 Row at midpt 5-15, 5-11

**REACTIONS.** (lb/size) 2=1510/0-3-8, 8=1510/0-3-8  
 Max Horz 2=102(LC 16)  
 Max Uplift 2=-158(LC 12), 8=-158(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2781/473, 3-4=-2347/446, 4-5=-2029/440, 5-6=-2029/440, 6-7=-2347/446, 7-8=-2781/473  
 BOT CHORD 2-16=-351/2405, 15-16=-351/2405, 13-15=-287/2497, 11-13=-287/2497, 10-11=-353/2405, 8-10=-353/2405  
 WEBS 3-15=-422/185, 4-15=-46/681, 5-15=-692/171, 5-13=0/312, 5-11=-692/171, 6-11=-46/681, 7-11=-422/186

- 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; BCCL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-9-5, Interior(1) 2-9-5 to 11-0-0, Exterior(2) 11-0-0 to 16-1-15, Interior(1) 16-1-15 to 25-6-0, Exterior(2) 25-6-0 to 30-8-12, Interior(1) 30-8-12 to 37-4-8 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 22, 2020

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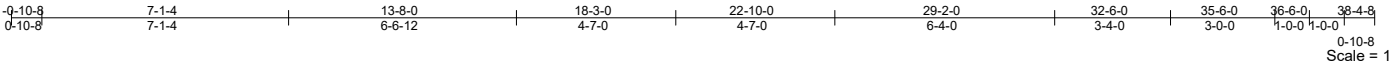
818 Soundside Road  
Edenton, NC 27932

Job 23209-23209A	Truss H7	Truss Type Roof Special	Qty 1	Ply 1	240.2596.C	139995741
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:19 2020 Page 1

ID:VMD62rz1yiHD\_QqRtbnrFzTQ8K-qaXFC6yEJm00Cs1IjwpBpJyQnWOXHq1ODmZ6zsmBw



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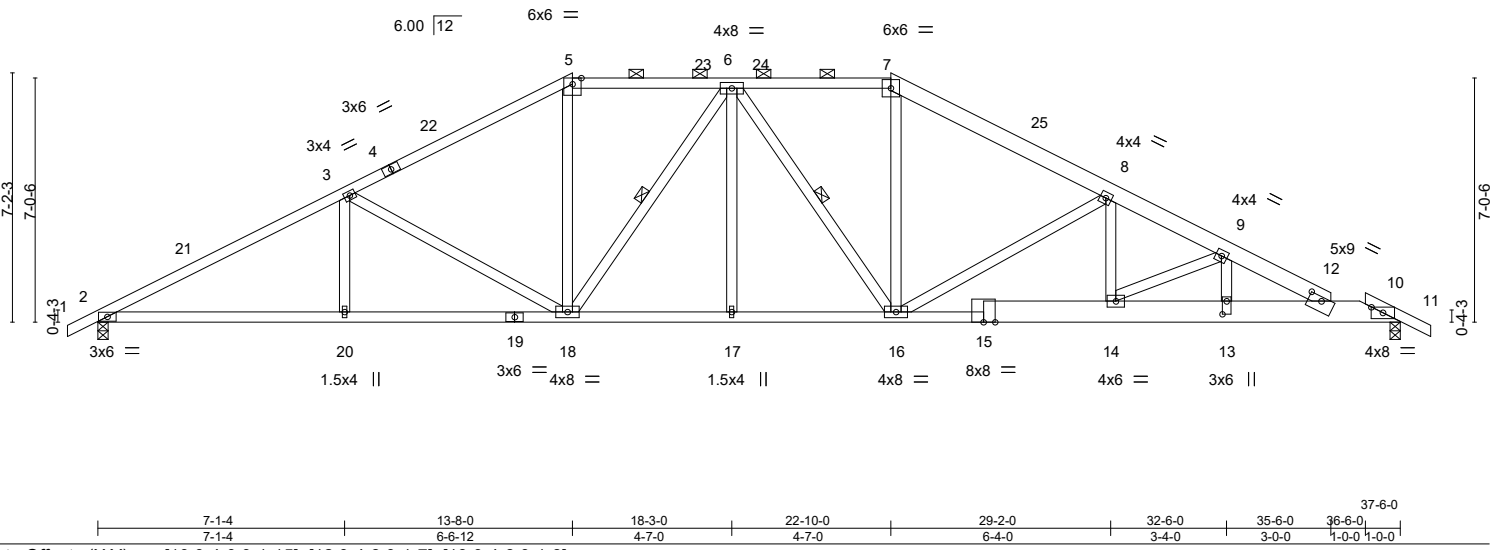


Plate Offsets (X,Y)--	[10:0-4-0,0-1-15], [12:0-4-8,0-1-7], [13:0-4-8,0-1-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.85	Vert(LL)	-0.18	16-17	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.38	16-17	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.11	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 238 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 7-12: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-0-6 max.): 5-7.
BOT CHORD 2x4 SP No.2 *Except* 10-15: 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 9-2-13 oc bracing: 12-13 5-8-0 oc bracing: 10-12.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-18, 6-16

**REACTIONS.** (lb/size) 2=1547/0-3-8, 10=1441/0-3-8  
Max Horz 2=127(LC 12)  
Max Uplift 2=-185(LC 12), 10=-145(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2817/411, 3-5=-2216/400, 5-6=-1888/403, 6-7=-1948/413, 7-8=-2281/410,  
8-9=-3033/456, 9-12=-4022/540  
BOT CHORD 2-20=-286/2429, 18-20=-286/2429, 17-18=-178/2060, 16-17=-178/2060, 14-16=-317/2704,  
13-14=-418/3459, 12-13=-418/3459  
WEBS 3-20=0/299, 3-18=-615/230, 5-18=-56/655, 6-18=-431/113, 6-16=-337/109,  
7-16=-50/672, 8-16=-857/229, 8-14=0/501, 9-13=-88/881, 9-14=-859/135

- NOTES-** (8)
- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-8, Interior(1) 2-10-8 to 13-8-0, Exterior(2) 13-8-0 to 17-5-0, Interior(1) 17-5-0 to 22-10-0, Exterior(2) 22-10-0 to 26-7-0, Interior(1) 26-7-0 to 38-4-8 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Build Up 1 1/8" to match slope of hip



January 22, 2020

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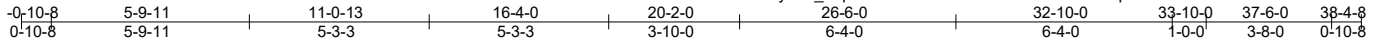
818 Soundside Road  
Edenton, NC 27932

Job 23209-23209A	Truss H8	Truss Type Roof Special	Qty 1	Ply 1	240.2596.C	139995742
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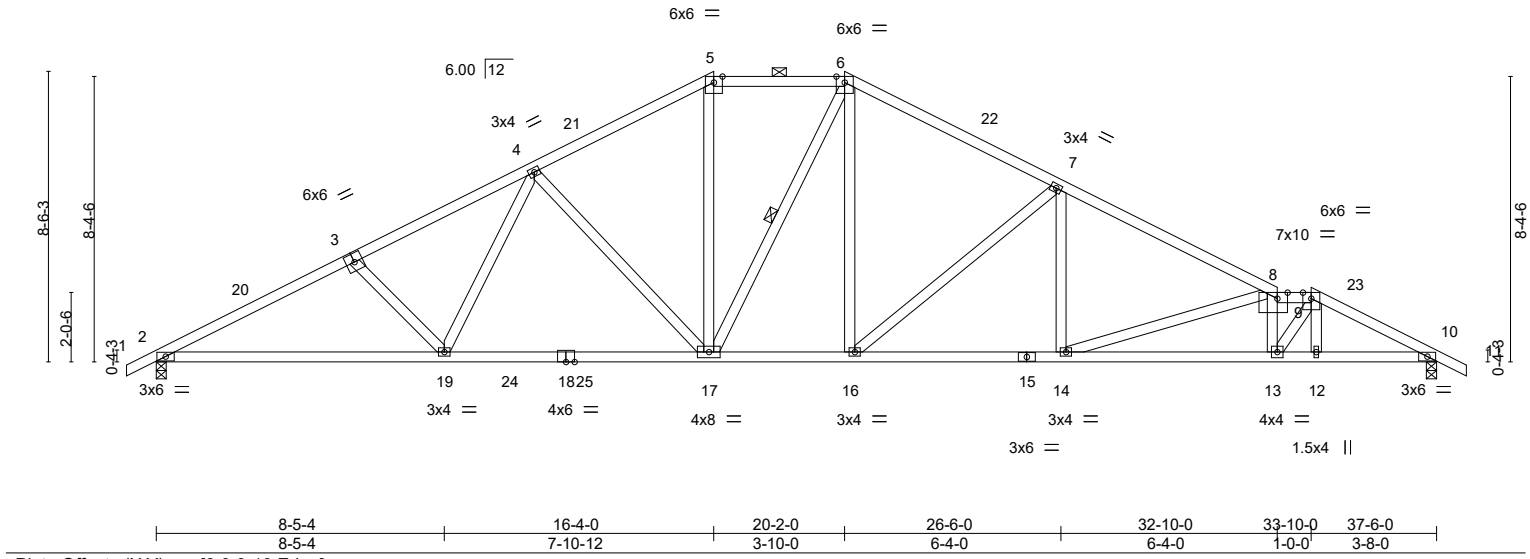
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:21 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-mze?dnzUrOekRAB8qzHHEOKm6S?sOY7Uiite?zsmBu



Scale = 1:67.5



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.19 17-19	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.40 17-19	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97	Horz(CT)	0.15 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 217 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-0-15 max.): 5-6, 8-9.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	2-2-0 oc bracing: 2-19, 13-14.
	WEBS 1 Row at midpt 6-17

**REACTIONS.** (lb/size) 2=1550/0-3-8, 10=1550/0-3-8  
 Max Horz 2=149(LC 16)  
 Max Uplift 2=-209(LC 12), 10=-219(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2814/421, 3-4=-2598/410, 4-5=-1959/398, 5-6=-1683/391, 6-7=-2001/398,  
 7-8=-2689/427, 8-9=-3376/510, 9-10=-2981/440  
 BOT CHORD 2-19=-383/2451, 17-19=-230/2076, 16-17=-87/1700, 14-16=-230/2331, 13-14=-402/3285,  
 12-13=-331/2606, 10-12=-331/2608  
 WEBS 3-19=-289/196, 4-19=-44/472, 4-17=-572/227, 5-17=-73/571, 6-16=-104/594,  
 7-16=-800/253, 7-14=0/486, 8-14=-991/215, 8-13=-1139/220, 9-13=-183/1437

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-8, Interior(1) 2-10-8 to 16-4-0, Exterior(2) 16-4-0 to 23-11-0, Interior(1) 23-11-0 to 33-10-0, Exterior(2) 33-10-0 to 37-4-4, Interior(1) 37-4-4 to 38-4-8 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

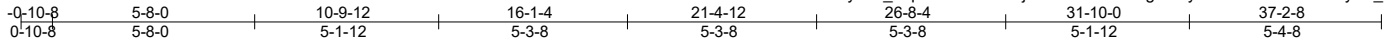
**ENGINEERING BY**  
**TRENCO**  
 A MITEK COMPANY

818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss HG1	Truss Type HIP GIRDER	Qty 1	Ply 1	240.2596.C	139995743
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84 Components (Dunn), Dunn, NC - 28334, 8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:23 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrFztQ8K-jMmm2T?kN?vSgULXyZ?iMfUd9wFXKLVPy0B\_itzsmBs



Scale: 3/16"=1'

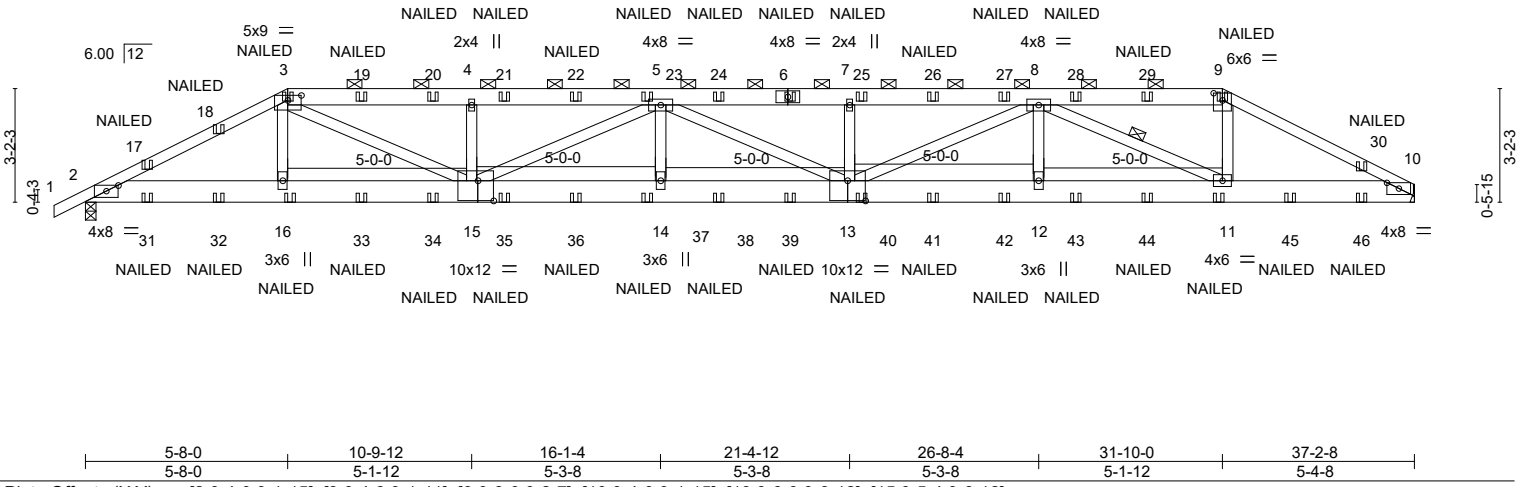


Plate Offsets (X,Y)-- [2:0-4-0,0-1-15], [3:0-4-8,0-1-11], [9:0-3-0,0-2-7], [10:0-4-0,0-1-15], [13:0-6-0,0-6-12], [15:0-5-4,0-6-12]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.93	Vert(LL)	0.53	13-14	>833	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.80	13-14	>553		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.81	Horz(CT)	0.11	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 256 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 3-6,6-9: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except 2-0-0 oc purlins (2-4-13 max.): 3-9.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 6-1-12 oc bracing.
WEBS 2x4 SP No.3 *Except* 3-15,5-15,5-13,8-13,8-11: 2x4 SP No.2	WEBS 1 Row at midpt 8-11

**REACTIONS.** (lb/size) 10=2011/Mechanical, 2=2105/0-3-8  
Max Horz 2=66(LC 31)  
Max Uplift 10=-655(LC 4), 2=-628(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4139/1374, 3-4=-5819/2119, 4-5=-5818/2118, 5-7=-6910/2534, 7-8=-6919/2541,  
8-9=-3383/1193, 9-10=-3958/1342  
BOT CHORD 2-16=-1230/3638, 15-16=-1234/3625, 14-15=-2563/7069, 13-14=-2563/7069,  
12-13=-2075/5827, 11-12=-2075/5827, 10-11=-1147/3456  
WEBS 3-16=0/362, 3-15=-988/2501, 4-15=-456/337, 5-15=-1412/550, 5-14=0/362,  
7-13=-404/303, 8-13=-469/1241, 8-12=0/345, 8-11=-2776/1084, 9-11=-382/1383

**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=35ft; Cat. II; Exp B; Enclosed; MWFERS (envelope) gable end zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 10=655, 2=628.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-9=-60, 9-10=-60, 2-10=-20



January 22, 2020

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	240.2596.C	139995743
23209-23209A	HG1	HIP GIRDER	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:23 2020 Page 2  
 ID:VMD62rz1yiHD\_OqRtbnrFztQ8K-jMmm2T?kN?vSgULXyZ?IMfUd9wFXKLVPy0B\_itzsmBs

**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 3=-46(F) 6=-46(F) 9=-46(F) 16=-18(F) 11=-18(F) 17=-27(F) 18=-39(F) 19=-46(F) 20=-46(F) 21=-46(F) 22=-46(F) 23=-46(F) 24=-46(F) 25=-46(F) 26=-46(F)  
 27=-46(F) 28=-46(F) 29=-46(F) 30=-46(F) 31=-35(F) 32=-25(F) 33=-18(F) 34=-18(F) 35=-18(F) 36=-18(F) 37=-18(F) 38=-18(F) 39=-18(F) 40=-18(F) 41=-18(F)  
 42=-18(F) 43=-18(F) 44=-18(F) 45=-18(F) 46=-18(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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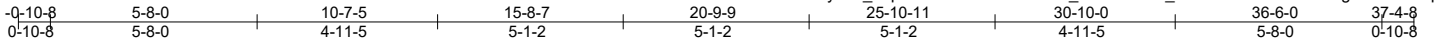
818 Soundside Road  
 Edenton, NC 27932



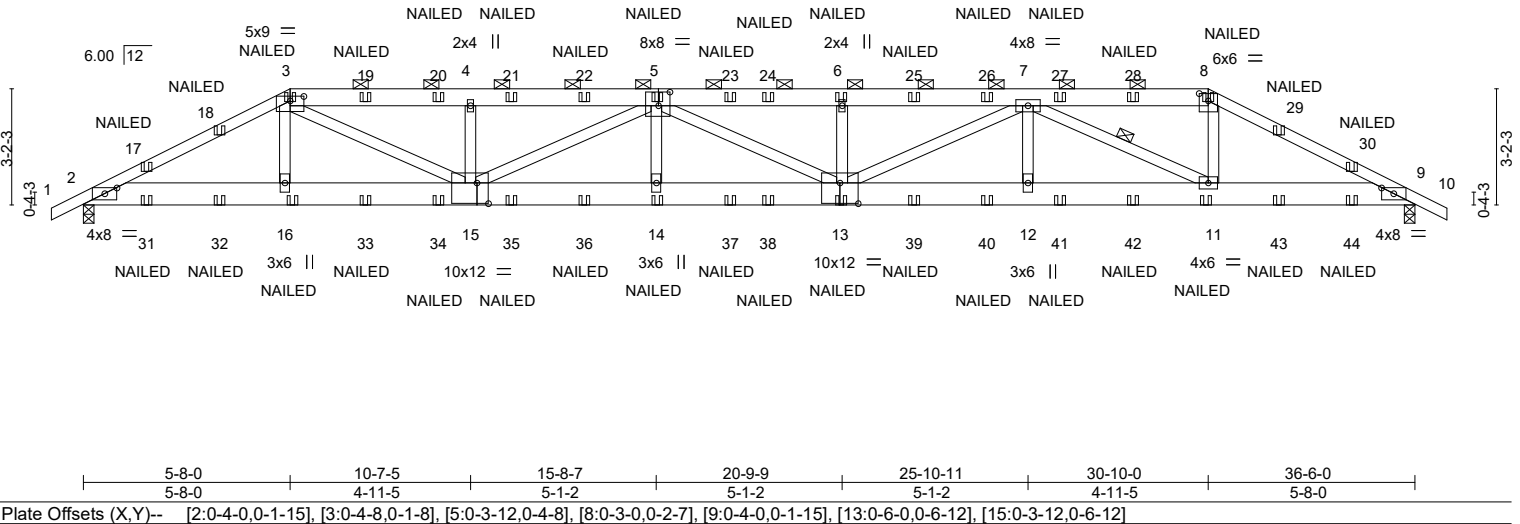
Job	Truss	Truss Type	Qty	Ply	240.2596.C	139995744
23209-23209A	HG2	HIP GIRDER	1	1		
84 Components (Dunn), Dunn, NC - 28334,						Job Reference (optional)

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ID:VMD62rz1yiHD\_OqRtbnrFztQ8K-fkuWT90\_vc9AwnVv3\_1DR4Z?OkwCoCEIPKq4nmzsmBq



Scale = 1:63.2



<b>LOADING</b> (psf)	<b>SPACING</b>	2-0-0	<b>CSI</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.82	Vert(LL)	0.51	13-14	>858	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.76	13-14	>572		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.99	Horz(CT)	0.11	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 252 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 3-5,5-8: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-10 oc purlins, except 2-0-0 oc purlins (2-5-10 max.): 3-8.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 6-2-8 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-11

**REACTIONS.** (lb/size) 2=2079/0-3-8, 9=2079/0-3-8  
Max Horz 2=-56(LC 28)  
Max Uplift 2=-624(LC 5), 9=-625(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4079/1365, 3-4=-5647/2076, 4-5=-5646/2074, 5-6=-6745/2499, 6-7=-6754/2506,  
7-8=-3482/1221, 8-9=-4046/1351  
BOT CHORD 2-16=-1208/3584, 15-16=-1212/3571, 14-15=-2510/6875, 13-14=-2511/6870,  
12-13=-2048/5736, 11-12=-2048/5736, 9-11=-1165/3554  
WEBS 3-16=0/356, 3-15=-954/2389, 4-15=-438/322, 5-15=-1394/556, 5-14=0/358,  
6-13=-397/307, 7-13=-456/1159, 7-12=0/328, 7-11=-2570/1033, 8-11=-372/1355

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=624, 9=625.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-8=-60, 8-10=-60, 2-9=-20



January 22, 2020

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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**ENGINEERING BY**  
**TRENCO**  
ALEXANDRIA

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	240.2596.C	139995744
23209-23209A	HG2	HIP GIRDER	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:26 2020 Page 2  
 ID:VMD62rz1yiHD\_OqRtbnrIFztQ8K-7xSugV1dgwH1Xx46dhYS\_I6987GRXfUsezPeJCzsmBp

**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 3=-46(F) 8=-46(F) 16=-18(F) 5=-46(F) 14=-18(F) 13=-18(F) 6=-46(F) 11=-18(F) 17=-27(F) 18=-39(F) 19=-46(F) 20=-46(F) 21=-46(F) 22=-46(F) 23=-46(F)  
 24=-46(F) 25=-46(F) 26=-46(F) 27=-46(F) 28=-46(F) 29=-39(F) 30=-27(F) 31=-35(F) 32=-25(F) 33=-18(F) 34=-18(F) 35=-18(F) 36=-18(F) 37=-18(F) 38=-18(F)  
 39=-18(F) 40=-18(F) 41=-18(F) 42=-18(F) 43=-25(F) 44=-35(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss J1	Truss Type Jack-Open	Qty 30	Ply 1	240.2596.C	139995745
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:27 2020 Page 1

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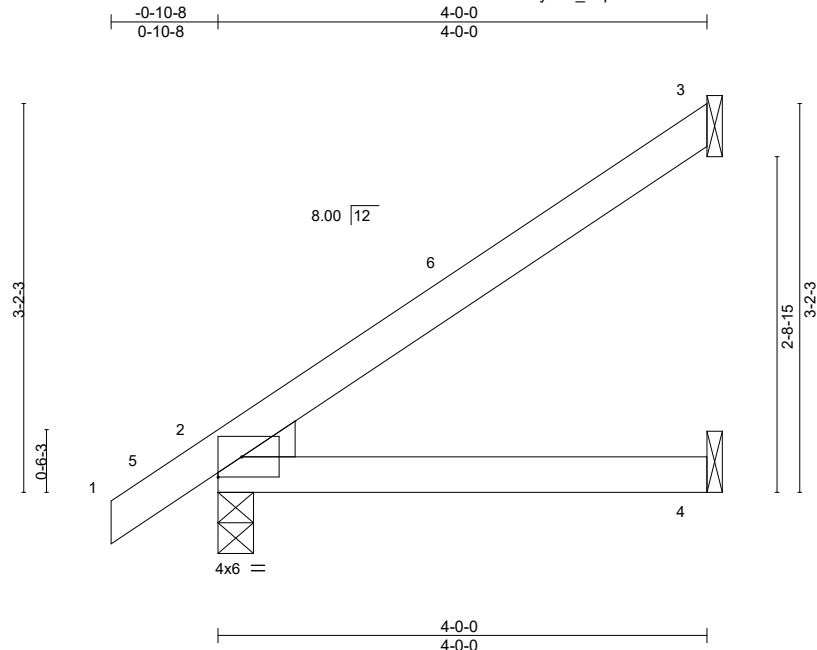


Plate Offsets (X,Y)--	[2:0-1-3,0-0-12], [2:0-5-13,0-1-9]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(LL) -0.01 2-4 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.02 2-4 >999 180		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Horz(CT) -0.00 3 n/a n/a	Weight: 16 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 3=106/Mechanical, 2=221/0-3-8, 4=38/Mechanical  
Max Horz 2=127(LC 12)  
Max Uplift 3=-92(LC 12), 2=-16(LC 12)  
Max Grav 3=119(LC 19), 2=221(LC 1), 4=76(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



January 22, 2020

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job 23209-23209A	Truss J2	Truss Type Jack-Open	Qty 3	Ply 1	240.2596.C	139995746
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84 Components (Dunn),

Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:27 2020 Page 1

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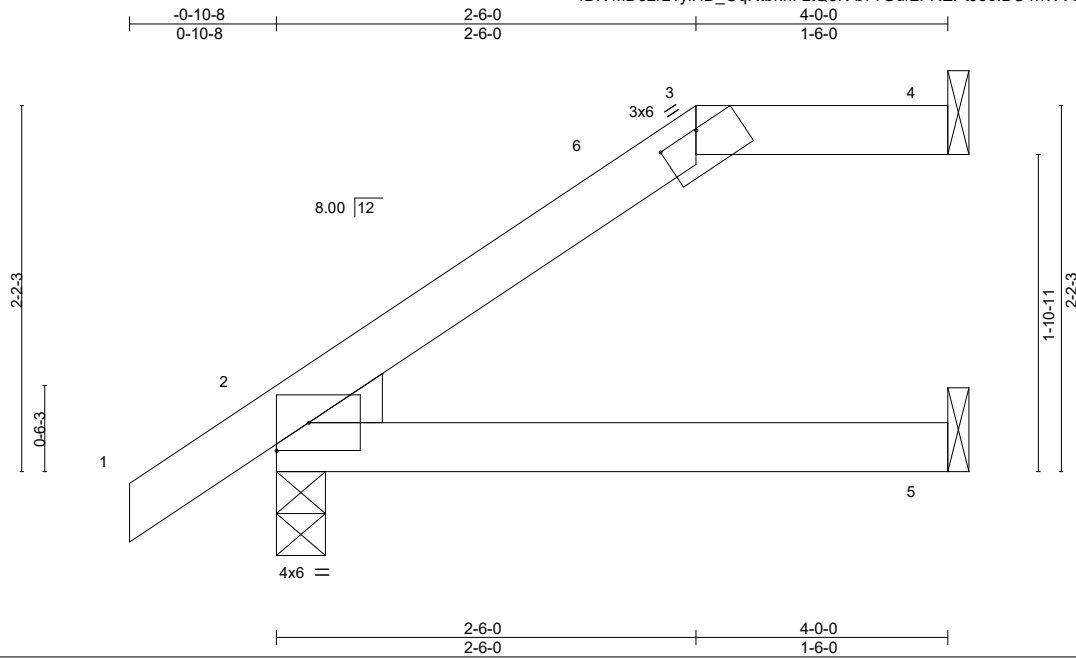


Plate Offsets (X,Y)--	[2:0-5-13,0-1-9], [2:0-1-3,0-0-12], [3:0-3-0,0-0-2]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.19	Vert(LL) -0.01 2-5 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(CT) -0.02 2-5 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.02 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 15 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except 2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 4=99/Mechanical, 2=221/0-3-8, 5=45/Mechanical  
Max Horz 2=90(LC 12)  
Max Uplift 4=-42(LC 9), 2=-34(LC 12)  
Max Grav 4=99(LC 1), 2=221(LC 1), 5=71(LC 3)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-6-0, Exterior(2) 2-6-0 to 3-11-4 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4.
- 8) One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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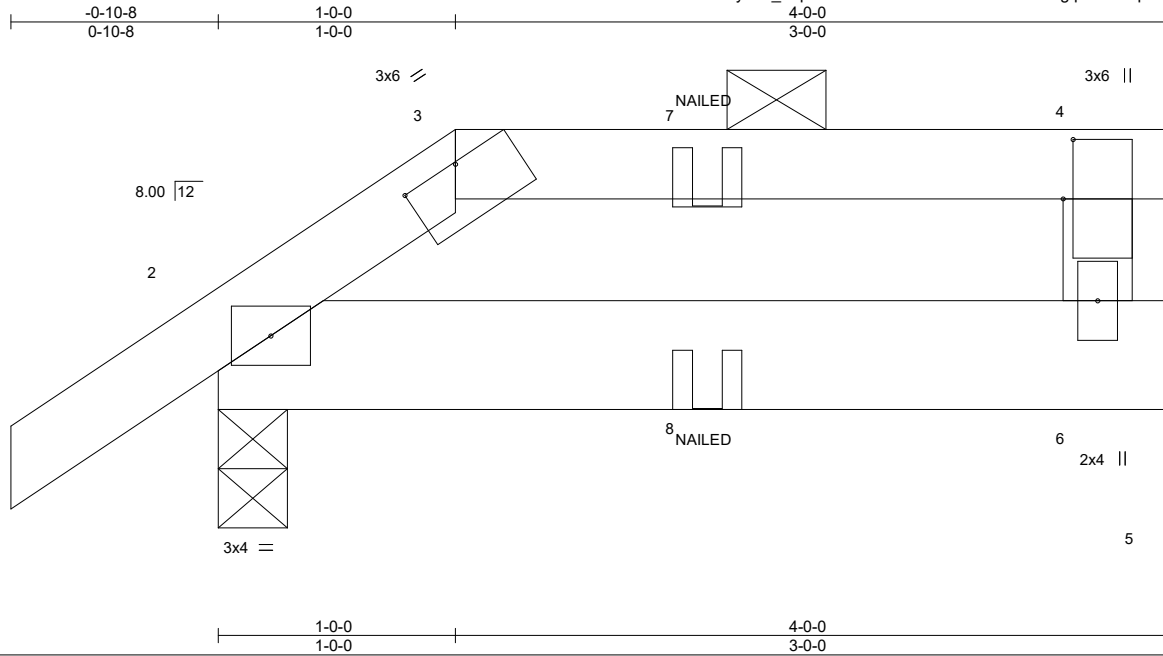
Job 23209-23209A	Truss J3	Truss Type Jack-Open Girder	Qty 3	Ply 1	240.2596.C	139995747
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:29 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-XW71JW3VzrfbPPoglp69bwkqSLOfKfgIKxelwXzsmBm

Job Reference (optional)



Scale = 1:9.7

Plate Offsets (X,Y)--	[3:0-3-0,0-0-2], [4:0-3-0,0-0-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.17	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) -0.00 2-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.01 2-6 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-P	Horz(CT) 0.01 4 n/a n/a		
	Code IRC2015/TPI2014			Weight: 18 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except 2-0-0 oc purlins: 3-4.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=212/0-3-8, 4=87/Mechanical, 6=53/Mechanical  
 Max Horz 2=49(LC 8)  
 Max Uplift 2=-39(LC 8), 4=-40(LC 5)  
 Max Grav 2=212(LC 1), 4=87(LC 1), 6=85(LC 3)

**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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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) 4.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-4=-60, 2-5=-20



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

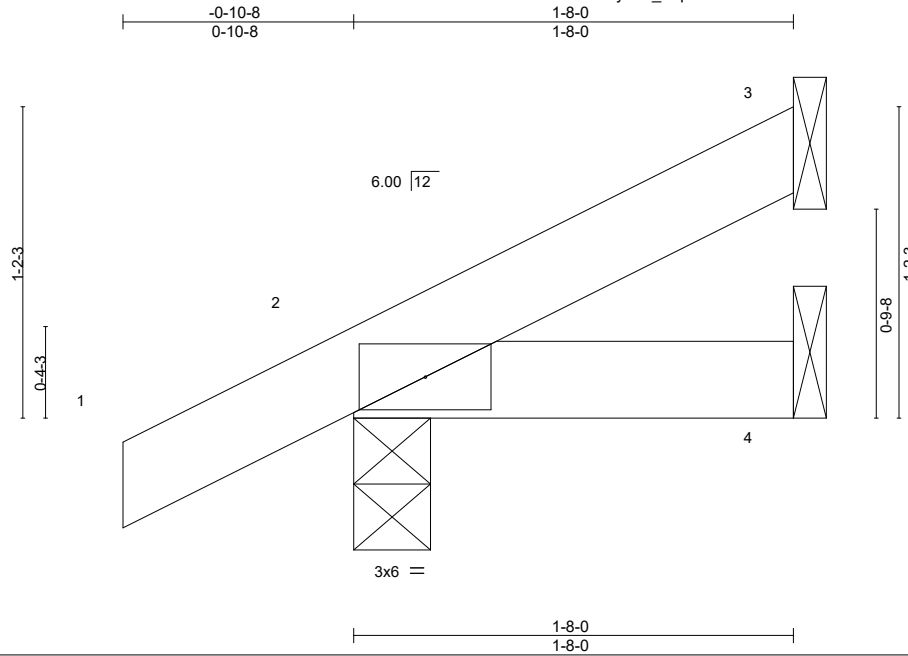
**ENGINEERING BY**  
**TRENCO**  
 A MITEK COMPANY

818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss J4	Truss Type Jack-Open	Qty 3	Ply 1	240.2596.C	139995748
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:30 2020 Page 1  
ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-?ihPWs47k9nS0ZNtsXdO88G10I8TiwRZbNrSzzsmBI



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 0.06	Vert(LL)	-0.00	2 >999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2 >999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3 n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 7 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 1-8-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=34/Mechanical, 2=134/0-3-8, 4=16/Mechanical  
 Max Horz 2=49(LC 12)  
 Max Uplift 3=-25(LC 12), 2=-32(LC 12)  
 Max Grav 3=34(LC 1), 2=134(LC 1), 4=33(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



January 22, 2020

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY  <b>TRENCO</b>  <small>A MITEK COMPANY</small></p> <p>818 Soundside Road          Edenton, NC 27932</p>
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Job 23209-23209A	Truss M1	Truss Type Monopitch	Qty 3	Ply 1	240.2596.C	139995749
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84 Components (Dunn),

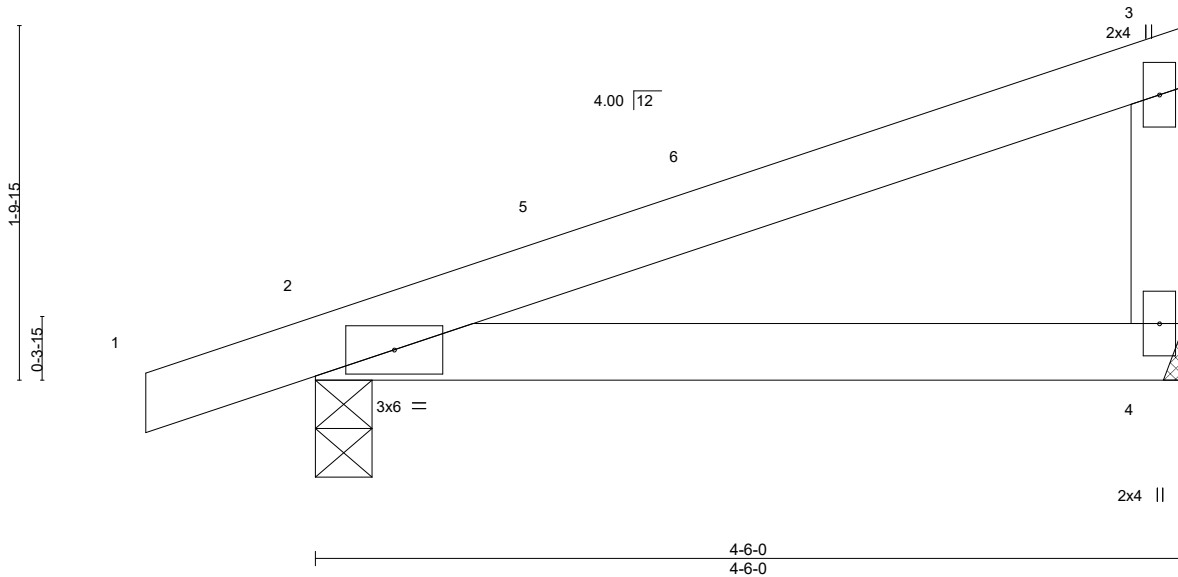
Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:30 2020 Page 1

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Scale: 1"=1'



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 0.30	Vert(LL)	-0.02 2-4	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	-0.04 2-4	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 17 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 4=161/Mechanical, 2=237/0-3-8  
 Max Horz 2=74(LC 8)  
 Max Uplift 4=-42(LC 12), 2=-72(LC 8)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-4-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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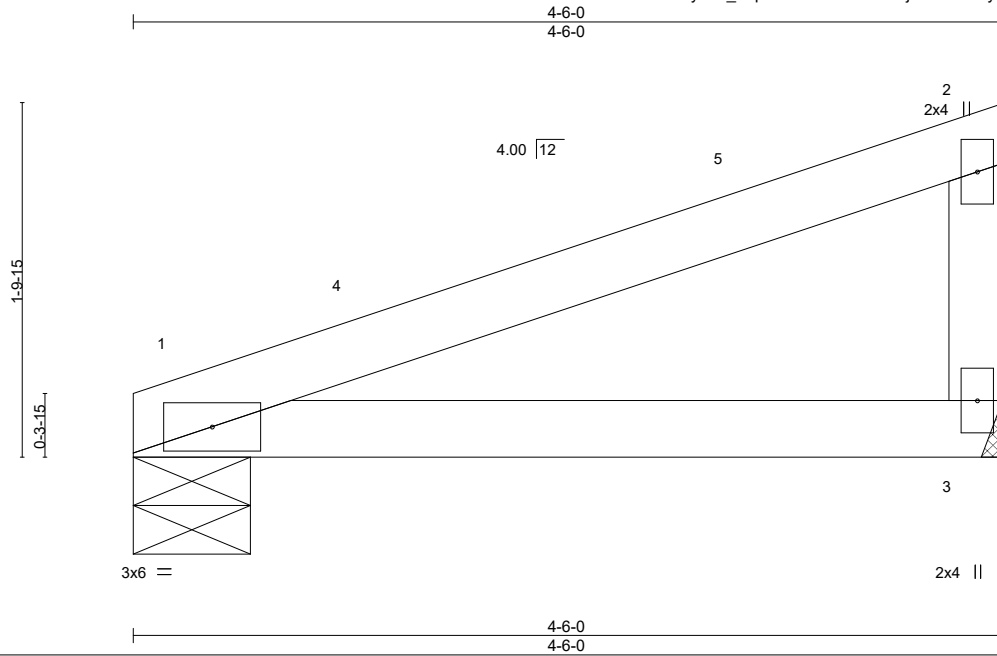
818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss M2	Truss Type Monopitch	Qty 1	Ply 1	240.2596.C	139995750
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:31 2020 Page 1

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Scale: 1"=1'

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 0.31	Vert(LL)	-0.02	1-3	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.03	1-3	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00		n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P							
									Weight: 16 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=162/0-7-4, 3=162/Mechanical  
 Max Horz 1=60(LC 8)  
 Max Uplift 1=-22(LC 8), 3=-44(LC 8)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-3-10 to 3-3-10, Interior(1) 3-3-10 to 4-4-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.



January 22,2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job 23209-23209A	Truss M3	Truss Type Half Hip	Qty 6	Ply 1	240.2596.C	139995751
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:32 2020 Page 1

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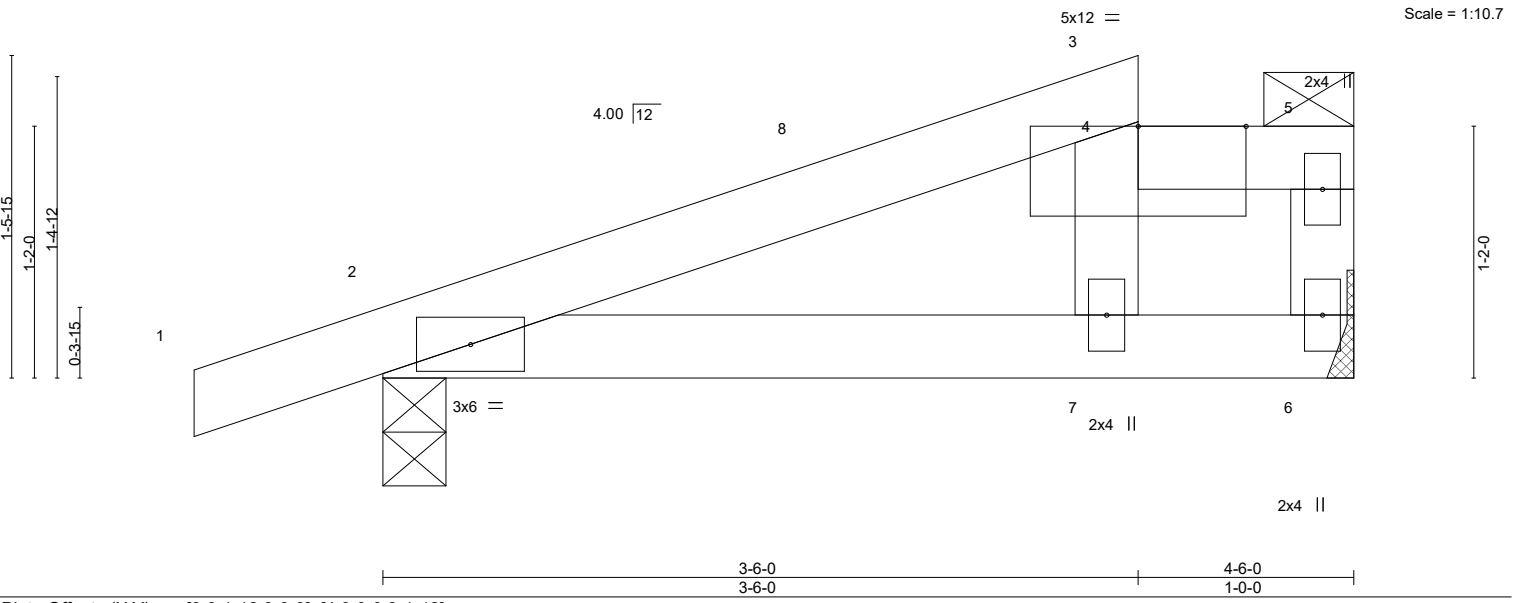
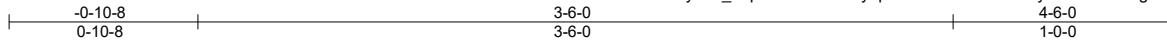


Plate Offsets (X,Y)--	[3-0-1-12,0-0-9], [4-0-0-0,0-1-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.26	Vert(LL) -0.01 2-7 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.22	Vert(CT) -0.01 2-7 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R		Weight: 17 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 6=347/Mechanical, 2=286/0-3-8  
 Max Horz 2=68(LC 12)  
 Max Uplift 6=-63(LC 12), 2=-85(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-307/97  
 BOT CHORD 2-7=-131/258

**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=35ft; Cat. II; Exp B; Enclosed; MWFERS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-4-4 zone; C-C for members and forces & MWFERS 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 6.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 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). The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 4-5=-115(F=-55), 2-6=-20  
 Concentrated Loads (lb)  
 Vert: 4=-180(F)



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job 23209-23209A	Truss M4	Truss Type Half Hip Supported	Qty 1	Ply 1	240.2596.C	139995752
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:33 2020 Page 1

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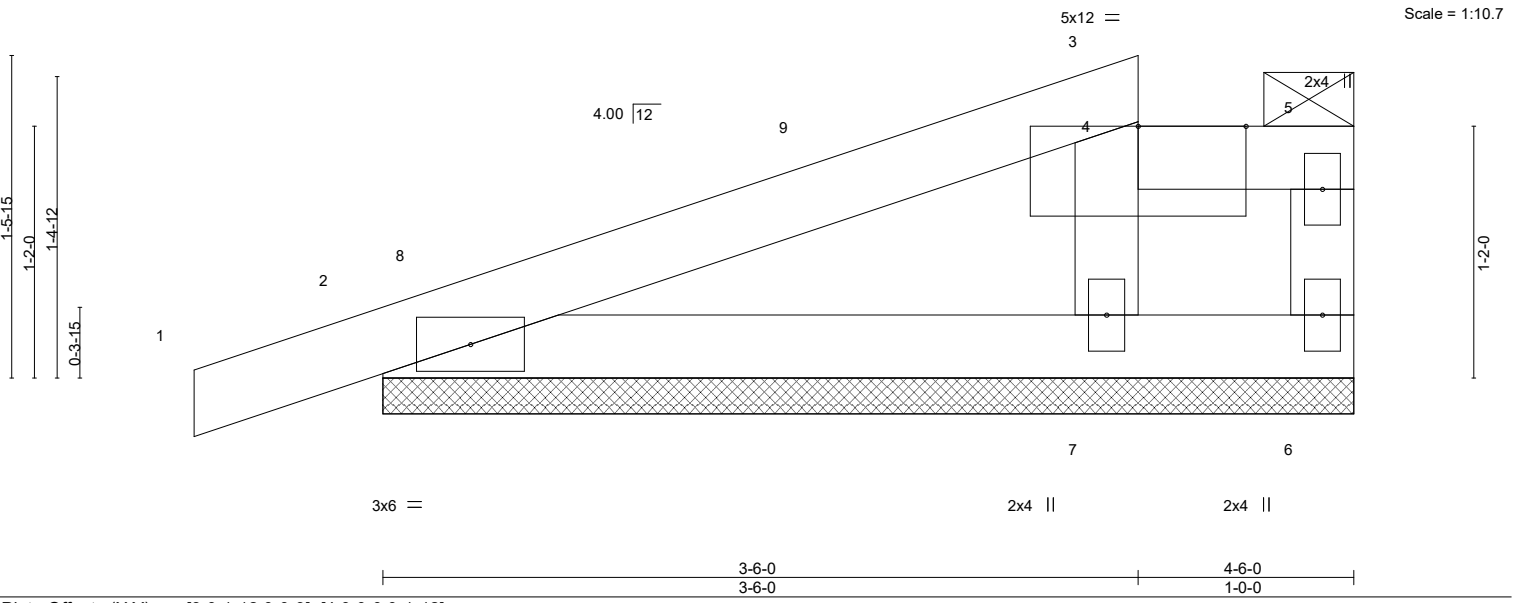
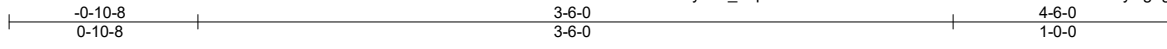


Plate Offsets (X,Y)--	[3:0-1-12,0-0-9], [4:0-0-0,0-1-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.18	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.11	Vert(LL) 0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) 0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr NO	Matrix-R	Horz(CT) -0.00 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 17 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 7=400/4-6-0, 6=48/4-6-0, 2=188/4-6-0  
 Max Horz 2=68(LC 12)  
 Max Uplift 7=-64(LC 12), 6=-25(LC 13), 2=-65(LC 8)  
 Max Grav 7=400(LC 1), 6=51(LC 24), 2=188(LC 23)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 4-7=-326/363

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 4-4-4 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.
  - Provide adequate drainage to prevent water ponding.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - n/a
  - n/a
  - 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). The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 4-5=-115(F=-55), 2-6=-20



January 22, 2020

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss M4	Truss Type Half Hip Supported	Qty 1	Ply 1	240.2596.C  Job Reference (optional)	139995752
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:33 2020 Page 2  
ID:VMD62rz1yiHD\_OqRtbnrFztQ8K-QHNX8u700491t06SXfB5mmuWLyLcg2guFZcW3lzmBi

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 4=-180(F)

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Job 23209-23209A	Truss P1	Truss Type COMMON	Qty 2	Ply 1	240.2596.C	139995753
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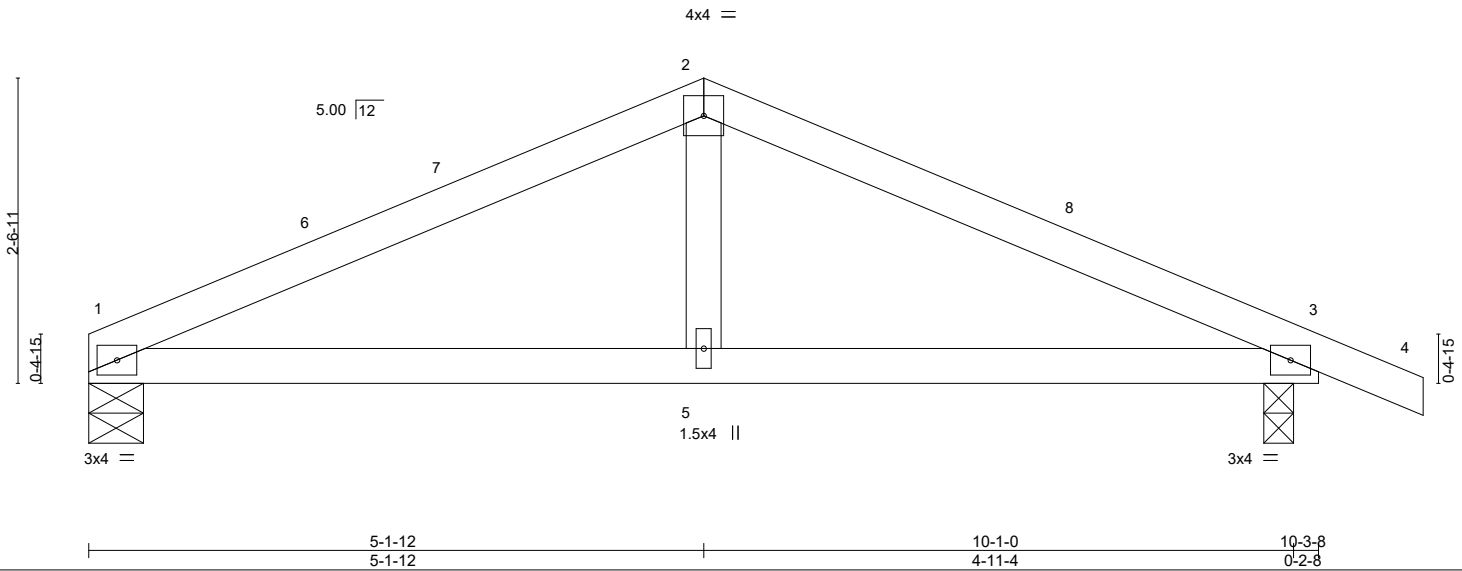
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:34 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrIFztQ8K-uTxwME7enNHuVAhe5NiKI\_Rd1MzcPUU1UDL3bkzsmBh



Scale = 1:19.3



<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 0.44	Vert(LL)	0.04	3-5	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.04	3-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 37 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 8-8-7 oc bracing.

**REACTIONS.** (lb/size) 1=394/0-5-8, 3=461/0-3-0  
 Max Horz 1=-48(LC 17)  
 Max Uplift 1=-117(LC 8), 3=-150(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-607/547, 2-3=-608/535  
 BOT CHORD 1-5=-429/500, 3-5=-429/500  
 WEBS 2-5=-258/240

**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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 5-1-12, Exterior(2) 5-1-12 to 8-1-12, Interior(1) 8-1-12 to 11-2-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.



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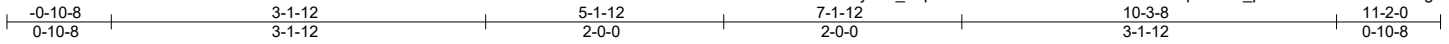
818 Soundside Road  
 Edenton, NC 27932



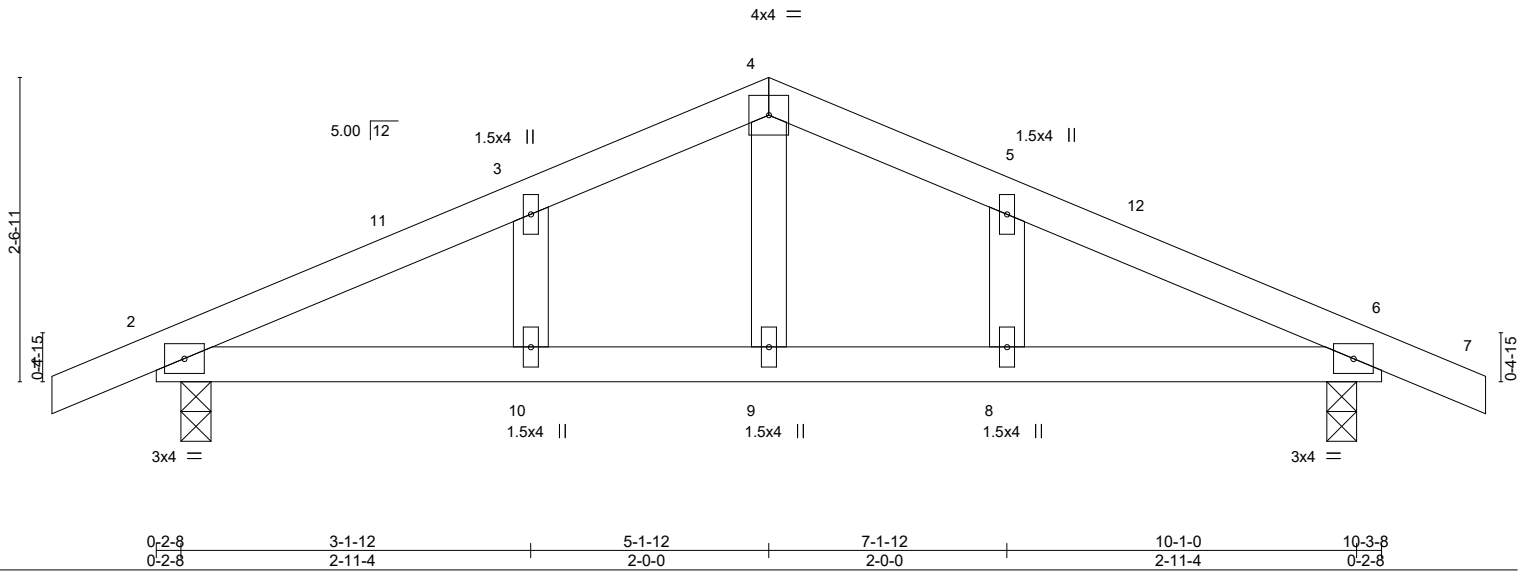
Job 23209-23209A	Truss PE	Truss Type COMMON	Qty 1	Ply 1	240.2596.C	139995754
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:35 2020 Page 1  
ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-MfUIZa8GYhPI7KGqf4DZrB\_p7mL58xIAit5c7BzsmBg



Scale = 1:19.4



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 0.35	Vert(LL)	0.04	2-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.05	6-8	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						
								Weight: 41 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 8-8-13 oc bracing.

**REACTIONS.** (lb/size) 2=462/0-3-0, 6=462/0-3-0  
 Max Horz 2=-44(LC 13)  
 Max Uplift 2=-150(LC 8), 6=-150(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-612/527, 3-4=-556/537, 4-5=-556/537, 5-6=-612/527  
 BOT CHORD 2-10=-416/512, 9-10=-416/512, 8-9=-416/512, 6-8=-416/512  
 WEBS 4-9=-256/218

**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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-1-12, Exterior(2) 5-1-12 to 8-1-12, Interior(1) 8-1-12 to 11-2-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.



January 22, 2020

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Job 23209-23209A	Truss T1	Truss Type ROOF TRUSS	Qty 2	Ply 1	240.2596.C	139995755
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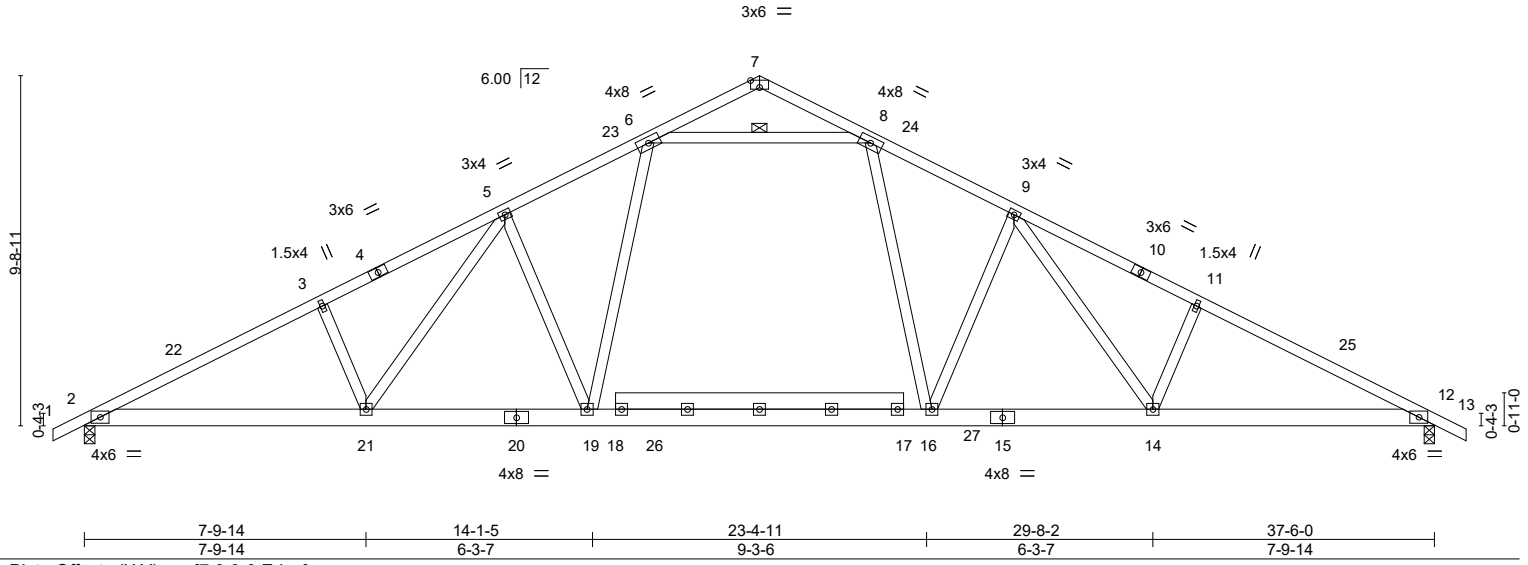
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:37 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrIFztQ8K-l2c2\_FAW4lITMdPDmVF1wc35uZyxcKTABajC3zsmBe

-0-10-8	6-7-5	11-8-3	18-9-0	25-9-13	30-10-11	37-6-0	38-4-8
0-10-8	6-7-5	5-0-14	7-0-13	7-0-13	5-0-14	6-7-5	0-10-8

Scale: 3/16"=1'



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.59	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.78	Vert(LL) -0.35 14-16 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.47	Vert(CT) -0.48 14-16 >931 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.08 12 n/a n/a		
	Code IRC2015/TPI2014			Weight: 250 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-9-2 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-8

**REACTIONS.** (lb/size) 2=1550/0-3-8, 12=1550/0-3-8  
 Max Horz 2=171(LC 12)  
 Max Uplift 2=-227(LC 12), 12=-227(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2849/398, 3-5=-2705/444, 5-6=-2131/385, 8-9=-2131/385, 9-11=-2705/444,  
 11-12=-2849/399  
 BOT CHORD 2-21=-429/2469, 19-21=-244/2049, 16-19=-122/1728, 14-16=-138/2049, 12-14=-258/2469  
 WEBS 8-16=-69/692, 9-16=-632/286, 9-14=-201/665, 11-14=-321/201, 6-19=-69/692,  
 5-19=-632/286, 5-21=-200/665, 3-21=-321/201, 6-8=-1570/307

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-8, Interior(1) 2-10-8 to 18-9-0, Exterior(2) 18-9-0 to 22-6-0, Interior(1) 22-6-0 to 38-4-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 4x4 MT20 unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 12. This connection is for uplift only and does not consider lateral forces.
- 7) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



January 22, 2020

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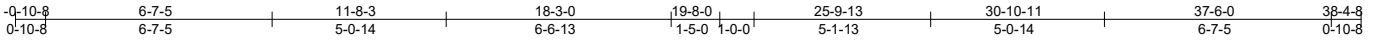
818 Soundside Road  
Edenton, NC 27932

Job 23209-23209A	Truss T2	Truss Type ROOF TRUSS	Qty 1	Ply 1	240.2596.C	139995756
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:39 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrIFztQ8K-FRkpPxBncwwBbxZbuwHV?18PENe74fSmdV3qGyzsmBc



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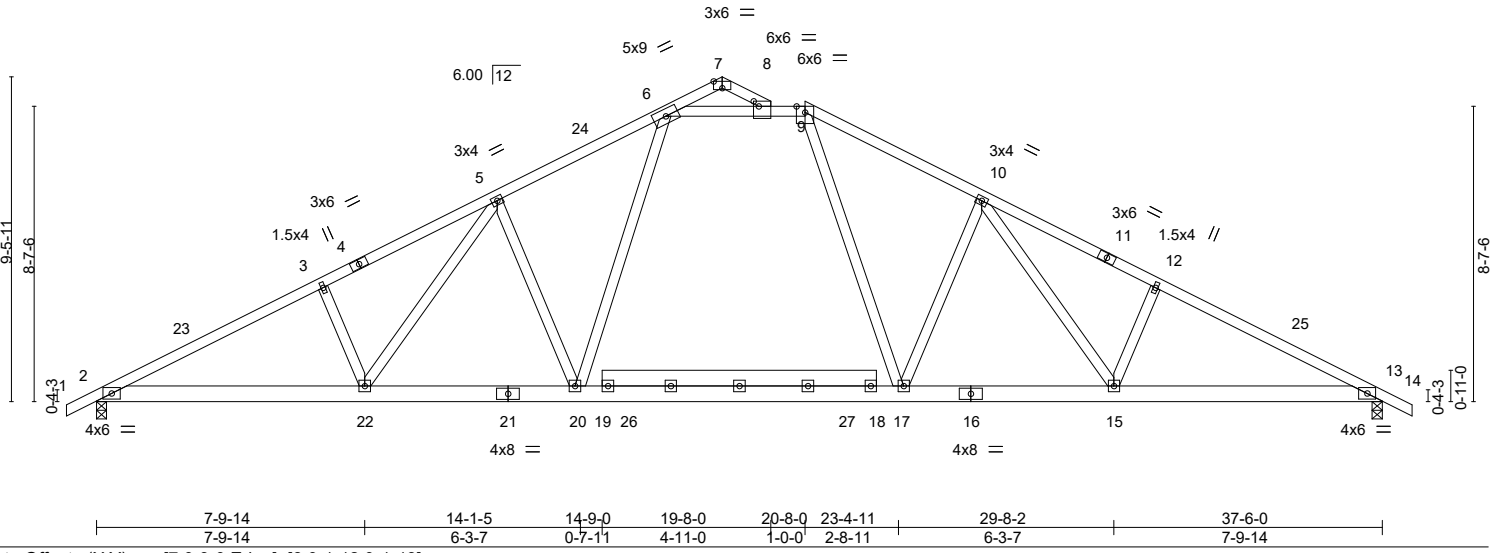


Plate Offsets (X,Y)--	[7:0-3-0,Edge], [8:0-1-12,0-1-13]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.73	Vert(LL) -0.30 20-22 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.74	Vert(CT) -0.44 20-22 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.49	Horz(CT) 0.08 13 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 248 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-8-5 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (4-4-13 max.); 6-9.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1550/0-3-8, 13=1550/0-3-8  
 Max Horz 2=167(LC 16)  
 Max Uplift 2=-223(LC 12), 13=-232(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2850/386, 3-5=-2705/431, 5-6=-2132/379, 6-8=-1517/371, 8-9=-1639/367,  
 9-10=-2145/406, 10-12=-2699/450, 12-13=-2844/405  
 BOT CHORD 2-22=-413/2469, 20-22=-243/2049, 17-20=-96/1646, 15-17=-132/2059, 13-15=-263/2464  
 WEBS 3-22=-313/193, 5-22=-179/630, 5-20=-664/304, 10-17=-601/285, 10-15=-175/609,  
 12-15=-313/196, 9-17=-102/718, 6-20=-109/708

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-8, Interior(1) 2-10-8 to 18-3-0, Exterior(2) 19-8-0 to 19-8-0, Interior(1) 20-8-0 to 38-4-8 zone; 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 4x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 13. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



January 22, 2020

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Job 23209-23209A	Truss T3	Truss Type ROOF TRUSS	Qty 1	Ply 1	240.2596.C	139995757
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:41 2020 Page 1

ID:VMD62rz1yiHD\_QqRtbnrlFztQ8K-BpsZqdD18XAurFj\_?LKz4SDhqAJhYTZ35pYxLqzsmBa



Scale = 1:74.6

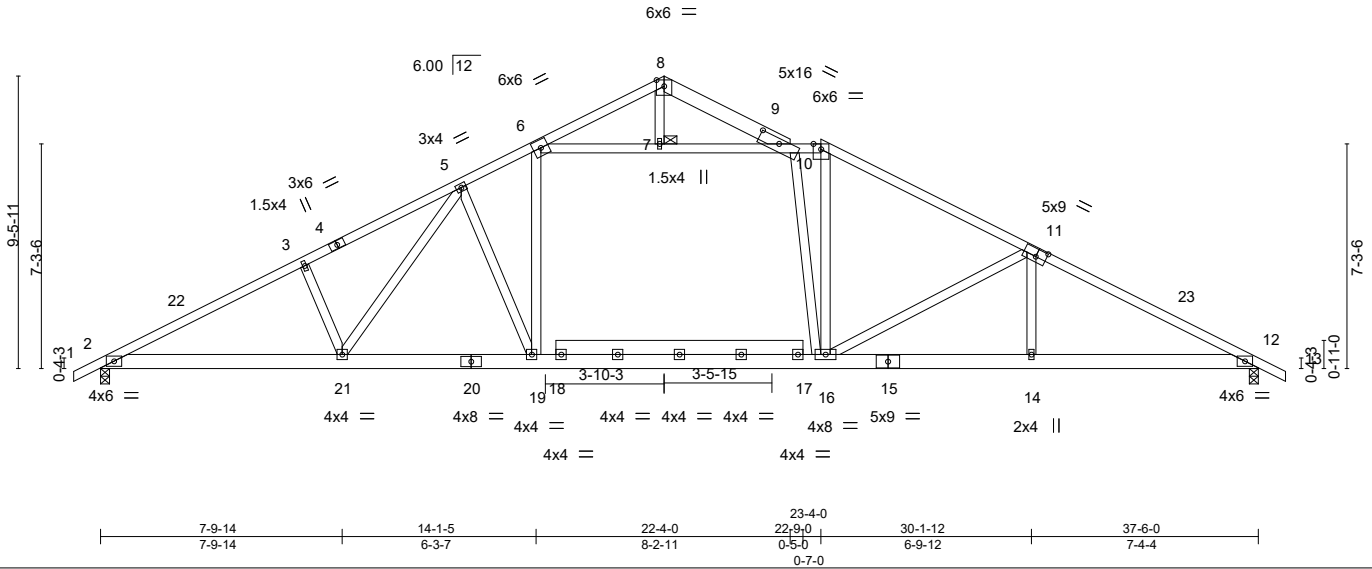


Plate Offsets (X,Y)--	[9:0-8-0,0-1-15], [11:0-4-0,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.98	Vert(LL)	-0.32 14-16	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.45 14-16	>987	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.08 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 259 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 8-9: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 6-10.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 7

**REACTIONS.** (lb/size) 2=1550/0-3-8, 12=1550/0-3-8  
 Max Horz 2=166(LC 16)  
 Max Uplift 2=-223(LC 12), 12=-232(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2847/388, 3-5=-2703/435, 5-6=-2156/388, 6-8=-370/149, 8-9=-341/139,  
 6-7=-1705/293, 7-9=-1707/294, 9-10=-1905/359, 10-11=-2227/368, 11-12=-2862/409  
 BOT CHORD 2-21=-415/2468, 19-21=-235/2058, 16-19=-141/1940, 14-16=-263/2489, 12-14=-264/2479  
 WEBS 3-21=-328/208, 5-21=-188/646, 5-19=-512/242, 9-16=-405/209, 10-16=-179/844,  
 11-16=-770/292, 11-14=0/298, 6-19=-56/580

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-8 to 2-10-8, Interior(1) 2-10-8 to 18-3-0, Exterior(2) 21-11-10 to 21-11-10, Interior(1) 23-4-0 to 38-4-8 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 12. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MITEK COMPANY

818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss T4	Truss Type Roof Special	Qty 1	Ply 1	240.2596.C	139995758
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:42 2020 Page 1

0-10-8 6-7-5 11-8-3 18-3-0 25-0-0 26-0-0 31-5-12 37-6-0 38-4-8  
 0-10-8 6-7-5 5-0-14 6-6-13 6-9-0 1-0-0 5-5-12 6-0-4 0-10-8

ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-f0Px1zDfvrlISPIAZ2rCdgmtvacwH?OCJTHUHzsmBZ

Scale = 1:78.1

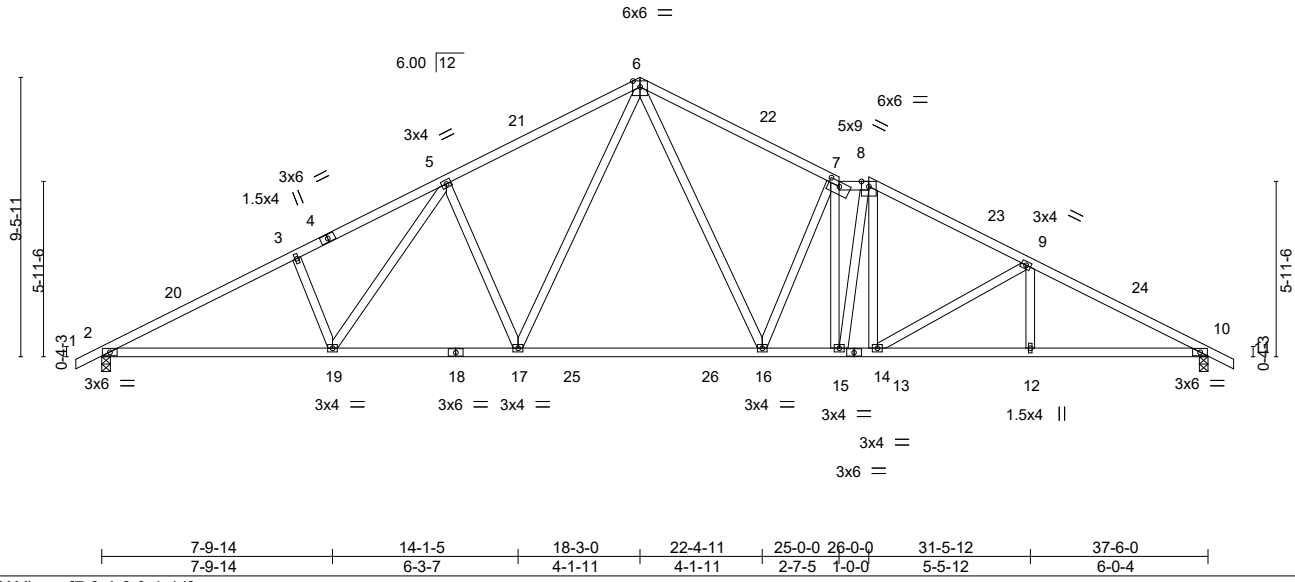


Plate Offsets (X,Y)--	[7-0-4-8,0-1-14]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.89	Vert(LL) -0.28	16-17	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.99	Vert(CT) -0.53	16-17	>842	180		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.54	Horz(CT) 0.13	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 221 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 6-7: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-8-9 max.): 7-8.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	9-2-13 oc bracing: 2-19 2-2-0 oc bracing: 15-16.
<b>REACTIONS.</b> (lb/size) 2=1550/0-3-8, 10=1550/0-3-8 Max Horz 2=167(LC 12) Max Uplift 2=-223(LC 12), 10=-232(LC 13)	

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2806/402, 3-5=-2660/445, 5-6=-2124/435, 6-7=-2188/447, 7-8=-2157/425, 8-9=-2401/410, 9-10=-2865/417
BOT CHORD 2-19=-400/2421, 17-19=-261/2039, 16-17=-80/1514, 15-16=-212/2154, 13-15=-197/2087, 12-13=-301/2480, 10-12=-301/2480
WEBS 3-19=-292/197, 5-19=-125/513, 5-17=-589/276, 7-16=-684/289, 7-15=-516/78, 8-15=-110/380, 8-13=-23/393, 9-13=-462/178, 6-17=-182/755, 6-16=-186/864

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-8, Interior(1) 2-10-8 to 18-3-0, Exterior(2) 18-3-0 to 22-0-0, Interior(1) 22-0-0 to 26-0-0, Exterior(2) 26-0-0 to 29-9-0, Interior(1) 29-9-0 to 38-4-8 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 22, 2020

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**ENGINEERING BY**  
**TRENCO**  
 A MITEK COMPANY

818 Soundside Road  
 Edenton, NC 27932



Job 23209-23209A	Truss T5	Truss Type Roof Special	Qty 1	Ply 1	240.2596.C Job Reference (optional)	139995759
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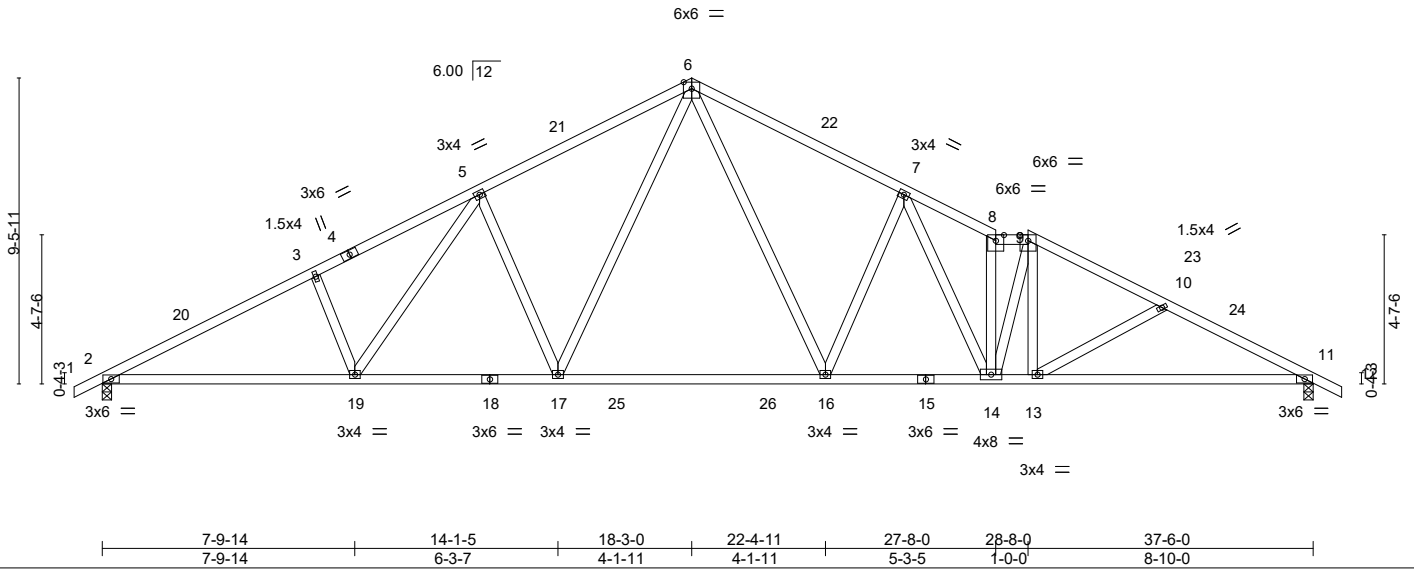
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:44 2020 Page 1

ID:VMD62rz1yiHD\_QqRtbnrlFztQ8K-bOXiSffvRSYTiSgTtgi5rDOOI7IvyVnmby9zsmBX

-0-10-8	6-7-5	11-8-3	18-3-0	24-9-13	27-8-0	28-8-0	32-9-12	37-6-0	38-4-8
0-10-8	6-7-5	5-0-14	6-6-13	6-6-13	2-10-3	1-0-0	4-1-12	4-8-4	0-10-8

Scale = 1:71.3



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 0.89	Vert(LL)	-0.29 16-17	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.94	Vert(CT)	-0.55 16-17	>809	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.54	Horz(CT)	0.13 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 218 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except
BOT CHORD	2x4 SP No.2	BOT CHORD	2-0-0 oc purlins (3-7-12 max.); 8-9.
WEBS	2x4 SP No.3		Rigid ceiling directly applied or 2-2-0 oc bracing.

<b>REACTIONS.</b>	(lb/size) 2=1550/0-3-8, 11=1550/0-3-8
	Max Horz 2=167(LC 12)
	Max Uplift 2=-223(LC 12), 11=-232(LC 13)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2805/392, 3-5=-2659/435, 5-6=-2125/426, 6-7=-2183/440, 7-8=-2686/475, 8-9=-2422/416, 9-10=-2615/399, 10-11=-2840/461
BOT CHORD	2-19=-399/2421, 17-19=-261/2040, 16-17=-80/1512, 14-16=-190/2130, 13-14=-223/2290, 11-13=-351/2479
WEBS	3-19=-292/196, 5-19=-125/513, 5-17=-591/277, 8-14=-1138/175, 9-14=-124/524, 9-13=0/452, 6-17=-183/756, 6-16=-200/868, 7-16=-681/297, 7-14=-129/609


- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-8, Interior(1) 2-10-8 to 18-3-0, Exterior(2) 18-3-0 to 22-0-0, Interior(1) 22-0-0 to 28-8-0, Exterior(2) 28-8-0 to 32-5-0, Interior(1) 32-5-0 to 38-4-8 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 11. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932



Job 23209-23209A	Truss T6	Truss Type Roof Special	Qty 1	Ply 1	240.2596.C	139995760
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:45 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-3b54g?GXCMgKJs1EAOvFION1oe2UMGf0RW8UczsmBW

-0-10-8	6-7-5	11-8-3	18-3-0	24-9-13	30-4-0	31-4-0	37-6-0	38-4-8
0-10-8	6-7-5	5-0-14	6-6-13	6-6-13	5-6-3	1-0-0	6-2-0	0-10-8

Scale = 1:71.3

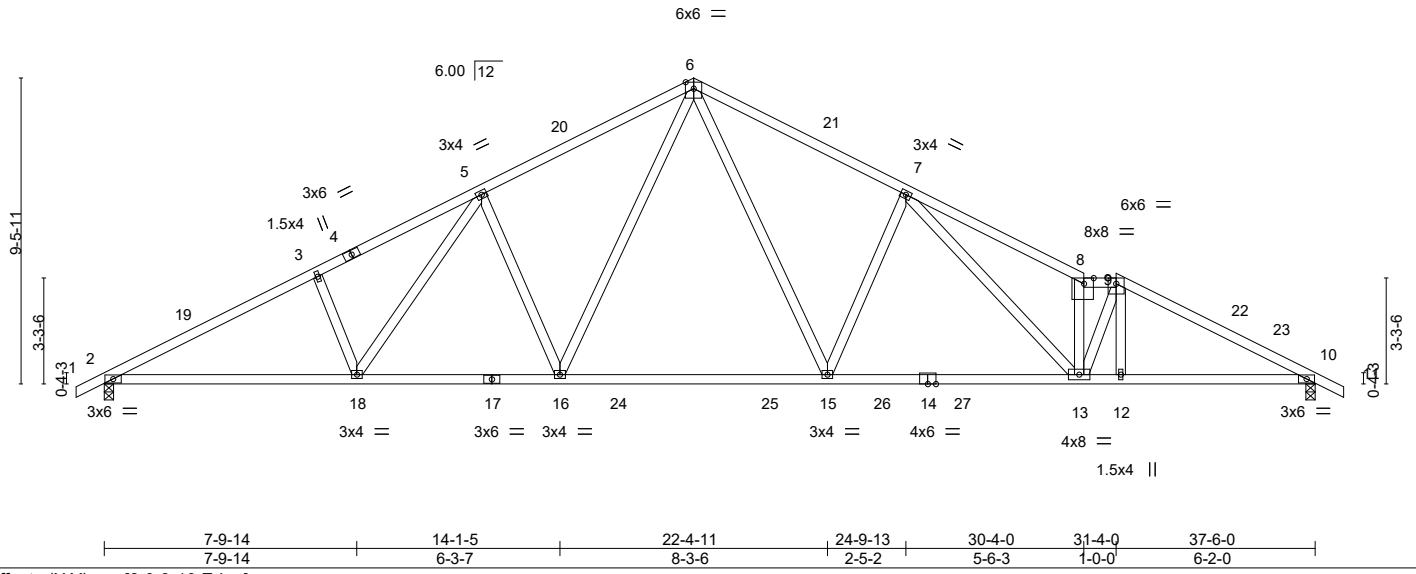


Plate Offsets (X,Y)--	[8:0-3-10,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.90	Vert(LL) -0.27	15-16	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.90	Vert(CT) -0.51	15-16	>870	180		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.54	Horz(CT) 0.12	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 208 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except
BOT CHORD	2x4 SP No.2 *Except*		2-0-0 oc purlins (3-3-1 max.): 8-9.
	14-17: 2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 9-2-14 oc bracing.
WEBS	2x4 SP No.3		

**REACTIONS.** (lb/size) 2=1550/0-3-8, 10=1550/0-3-8  
 Max Horz 2=167(LC 12)  
 Max Uplift 2=-223(LC 12), 10=-232(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2806/382, 3-5=-2660/425, 5-6=-2124/417, 6-7=-2193/424, 7-8=-3133/519,  
 8-9=-2821/423, 9-10=-2891/408  
 BOT CHORD 2-18=-399/2421, 16-18=-261/2039, 15-16=-79/1513, 13-15=-173/2134, 12-13=-283/2502,  
 10-12=-283/2507  
 WEBS 3-18=-291/196, 5-18=-124/515, 5-16=-593/277, 6-16=-186/752, 7-15=-676/309,  
 8-13=-1467/255, 9-13=-67/943, 6-15=-202/948, 7-13=-192/915

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-10-8, Interior(1) 2-10-8 to 18-3-0, Exterior(2) 18-3-0 to 22-0-0, Interior(1) 22-0-0 to 31-4-0, Exterior(2) 31-4-0 to 35-1-0, Interior(1) 35-1-0 to 38-4-8 zone; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 22, 2020

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818 Soundside Road  
Edenton, NC 27932

Job 23209-23209A	Truss V1	Truss Type GABLE	Qty 1	Ply 1	240.2596.C	139995761
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84 Components (Dunn),

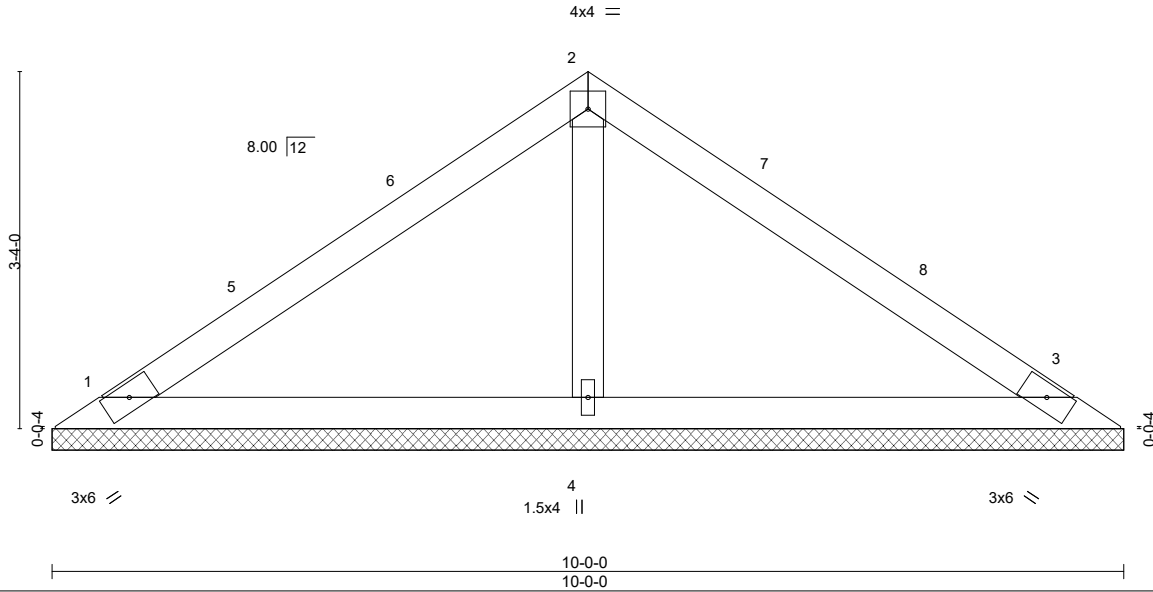
Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:46 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrIFztQ8K-XnfStKHAY3oBx0byouv8nWxfCB7uDXzoE5Fi02zsmBV



Scale = 1:21.5



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 0.49	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						Weight: 35 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=176/10-0-0, 3=176/10-0-0, 4=370/10-0-0  
 Max Horz 1=-78(LC 8)  
 Max Uplift 1=-36(LC 12), 3=-47(LC 13), 4=-19(LC 12)

**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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-0-0, Exterior(2) 5-0-0 to 8-0-0, Interior(1) 8-0-0 to 9-6-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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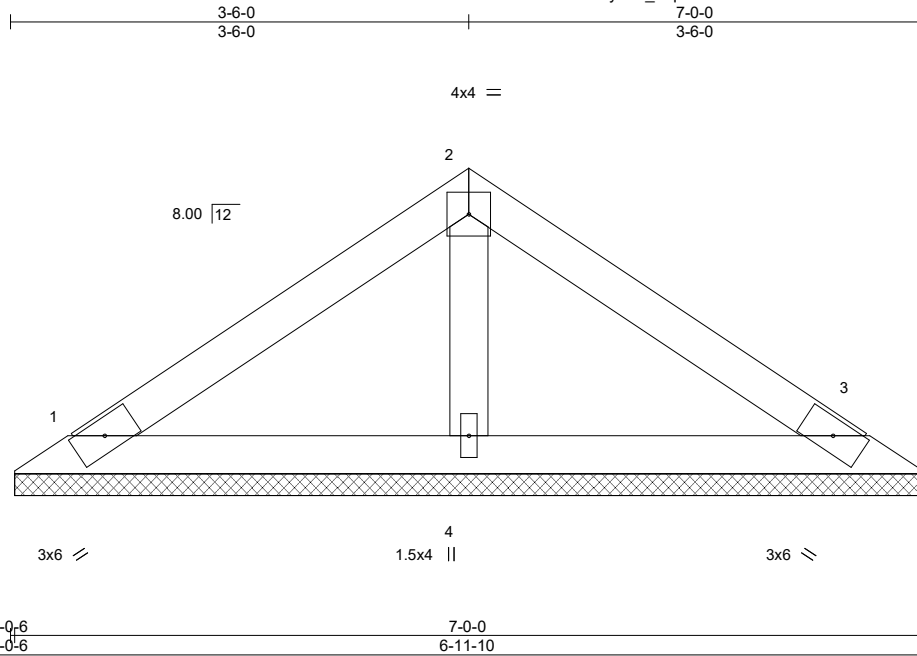
818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss V2	Truss Type Valley	Qty 1	Ply 1	240.2596.C	139995762
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84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:48 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-U9nClOIQUh2vAKIKVjyctx02u?sKhrusiPko5wzsmBT



Scale = 1:17.6

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 0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 24 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=129/6-11-4, 3=129/6-11-4, 4=224/6-11-4  
 Max Horz 1=52(LC 9)  
 Max Uplift 1=-32(LC 12), 3=-39(LC 13)

**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=35ft; Cat. II; Exp B; 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



January 22, 2020

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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss V4	Truss Type GABLE	Qty 1	Ply 1	240.2596.C	139995763
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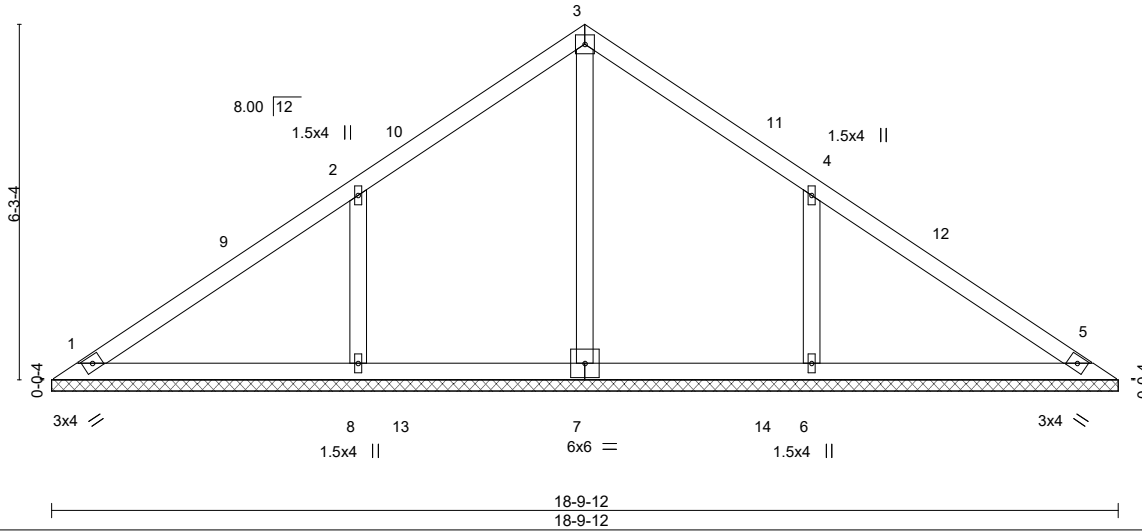
84 Components (Dunn),

Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:50 2020 Page 1  
 ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-QYuzjiKg0lldQdvj1k\_4yM5OtpXC9jG09iDv9pzsmBR



Scale = 1:40.6



<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 0.32	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 77 lb	FT = 20%

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

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

**REACTIONS.** All bearings 18-9-12.  
 (lb) - Max Horz 1=154(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-191(LC 12), 6=-191(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=346(LC 22), 8=501(LC 19), 6=500(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-350/242, 4-6=-350/242

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 9-4-14, Exterior(2) 9-4-14 to 12-4-14, Interior(1) 12-4-14 to 18-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.



January 22, 2020

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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss V5	Truss Type Valley	Qty 1	Ply 1	240.2596.C	139995764
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84 Components (Dunn),

Dunn, NC - 28334,

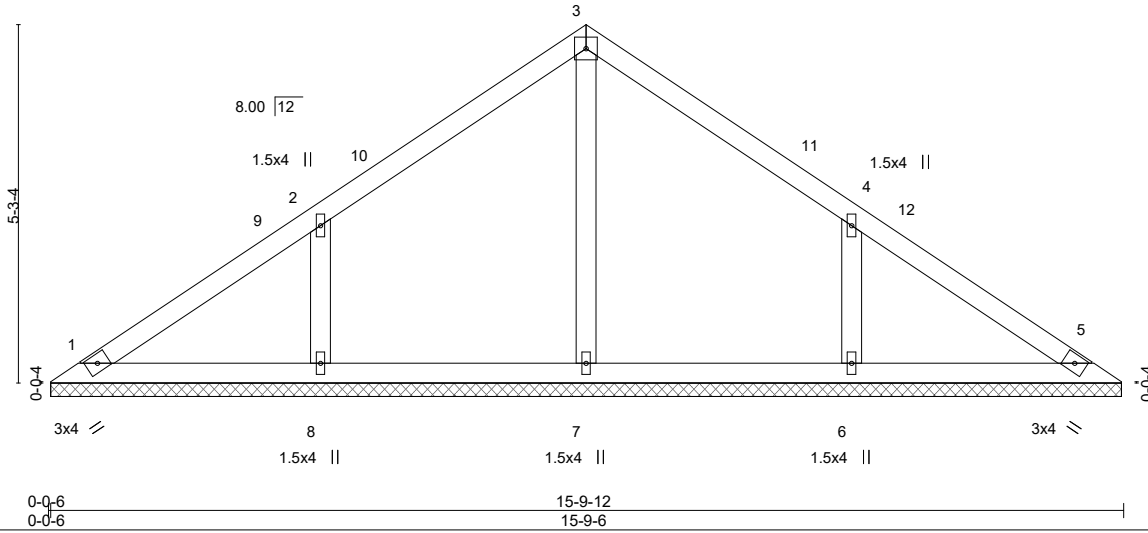
8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:51 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-ukSLw2KlnbQU1nUvbRVJUZeaNcuiiuArXOMzTIFzsmBQ



4x4 =

Scale = 1:33.9



<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 0.21	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 0.08	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 63 lb	FT = 20%

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

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

**REACTIONS.** All bearings 15-9-0.  
 (lb) - Max Horz 1=128(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 6=-156(LC 13), 8=-156(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=376(LC 20), 8=376(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 4-6=-287/200, 2-8=-287/200

- 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; BC DL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 7-10-14, Exterior(2) 7-10-14 to 10-10-14, Interior(1) 10-10-14 to 15-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.



January 22, 2020

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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job 23209-23209A	Truss V6	Truss Type GABLE	Qty 1	Ply 1	240.2596.C	139995765
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84 Components (Dunn),

Dunn, NC - 28334,

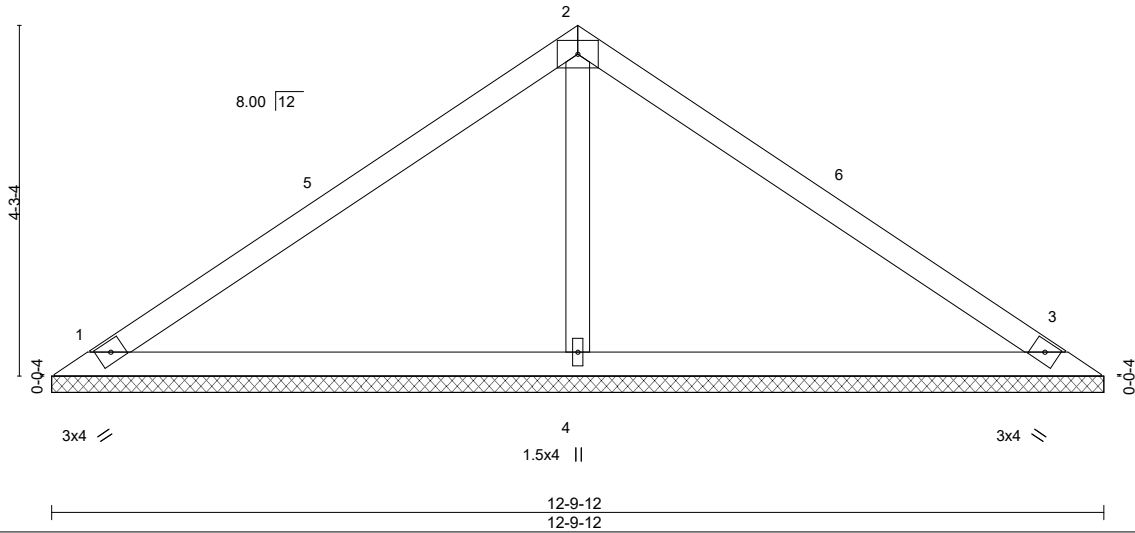
8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:53 2020 Page 1

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4x6 =

Scale = 1:28.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 46 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=233/12-9-12, 3=233/12-9-12, 4=481/12-9-12  
 Max Horz 1=102(LC 9)  
 Max Uplift 1=-48(LC 12), 3=-62(LC 13), 4=-23(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-306/98

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 6-4-14, Exterior(2) 6-4-14 to 9-4-14, Interior(1) 9-4-14 to 12-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



January 22, 2020

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 Edenton, NC 27932



Job 23209-23209A	Truss V7	Truss Type GABLE	Qty 1	Ply 1	240.2596.C	139995766
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84 Components (Dunn), Dunn, NC - 28334,

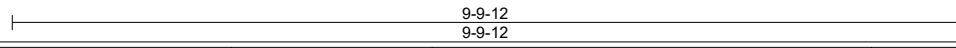
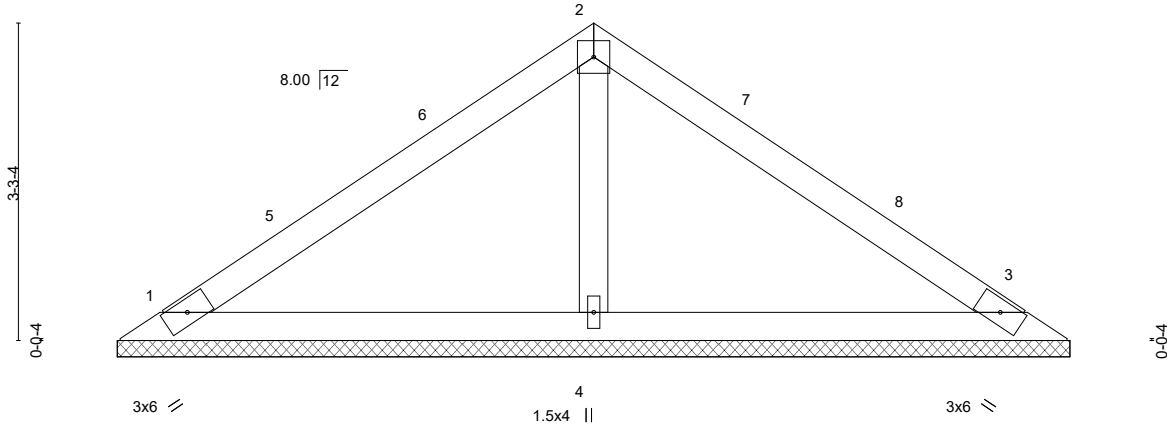
8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:55 2020 Page 1

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4x4 =

Scale = 1:23.7



<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 0.47	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 34 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=173/9-9-12, 3=173/9-9-12, 4=363/9-9-12  
Max Horz 1=-76(LC 8)  
Max Uplift 1=-36(LC 12), 3=-46(LC 13), 4=-18(LC 12)

**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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-10-14, Exterior(2) 4-10-14 to 7-10-14, Interior(1) 7-10-14 to 9-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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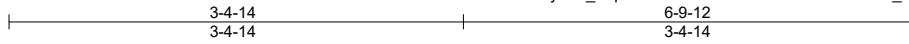
818 Soundside Road  
Edenton, NC 27932

Job 23209-23209A	Truss V8	Truss Type Valley	Qty 1	Ply 1	240.2596.C	139995767
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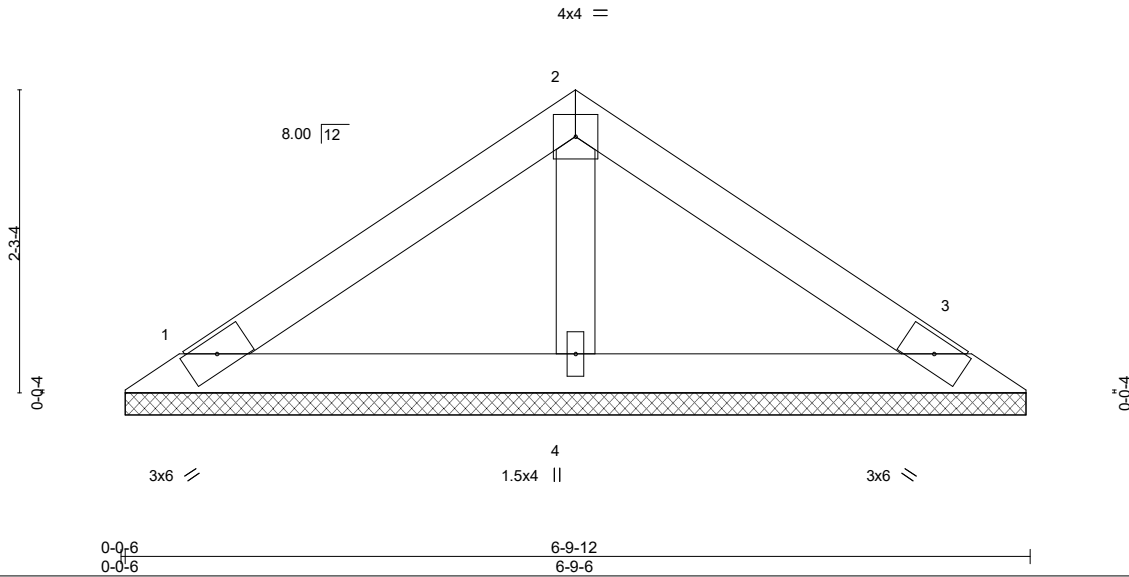
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:56 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrIFztQ8K-FIGeZIORc83m8YMtN\_5UBdLQADbMZSuGXegDNTzsmBL



Scale = 1:17.3



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 0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 23 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=125/6-9-0, 3=125/6-9-0, 4=217/6-9-0  
 Max Horz 1=-50(LC 8)  
 Max Uplift 1=-31(LC 12), 3=-37(LC 13)

**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; TC DL=6.0psf; BC DL=6.0psf; h=35ft; Cat. II; Exp B; 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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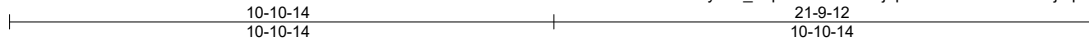
818 Soundside Road  
 Edenton, NC 27932

Job 23209-23209A	Truss VE3	Truss Type GABLE	Qty 1	Ply 1	240.2596.C	139995768
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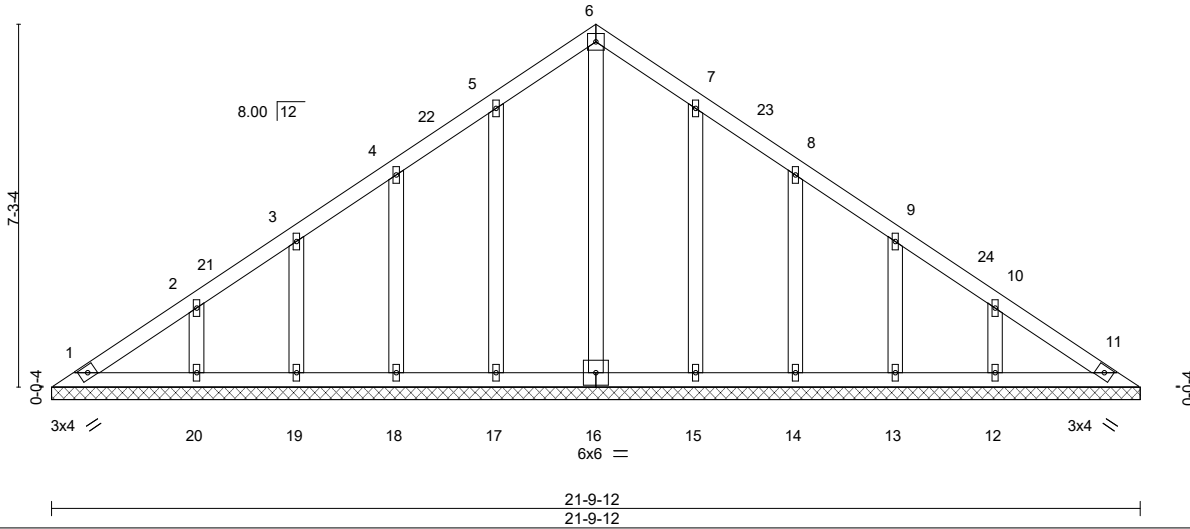
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:24:57 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrlFztQ8K-jupcB5P3NRBdmix3xicjkqueydyAluiQmIQnvzsmBK



Scale = 1:46.2



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	11	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 120 lb	FT = 20%

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

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

**REACTIONS.** All bearings 21-9-12.  
(lb) - Max Horz 1=180(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 17, 18, 19, 20, 15, 14, 13, 12  
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 16, 17, 18, 19, 20, 15, 14, 13, 12

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 10-10-14, Exterior(2) 10-10-14 to 13-10-14, Interior(1) 13-10-14 to 21-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 1.5x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

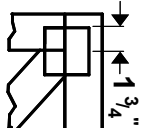
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



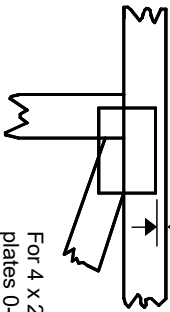
818 Soundside Road  
Edenton, NC 27932

# 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.

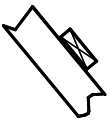
\* Plate location details available in **MITek 2020 software** or upon request.

## PLATE SIZE

4 X 4

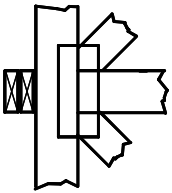
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



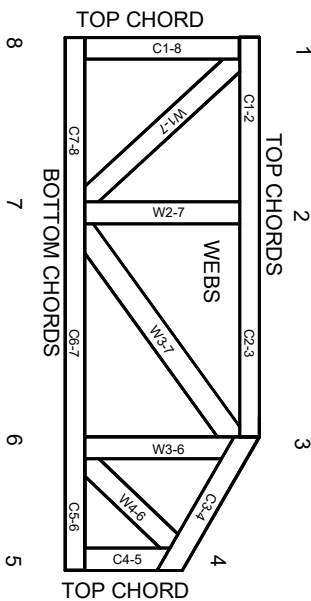
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
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

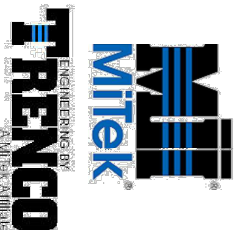
ICC-ES Reports:

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/TP1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MIL-7473 rev. 10/03/2015



# 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.

**Trenco**

818 Soundside Rd  
Edenton, NC 27932

Re: 23209-23209A  
240.2596.C.10x10cvp

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I39995770 thru I39995771

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

North Carolina COA: C-0844



January 22, 2020

Liu, Xuegang

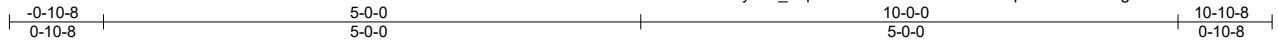
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 23209-23209A	Truss CP1	Truss Type COMMON	Qty 4	Ply 1	240.2596.C.10x10cvp	139995770
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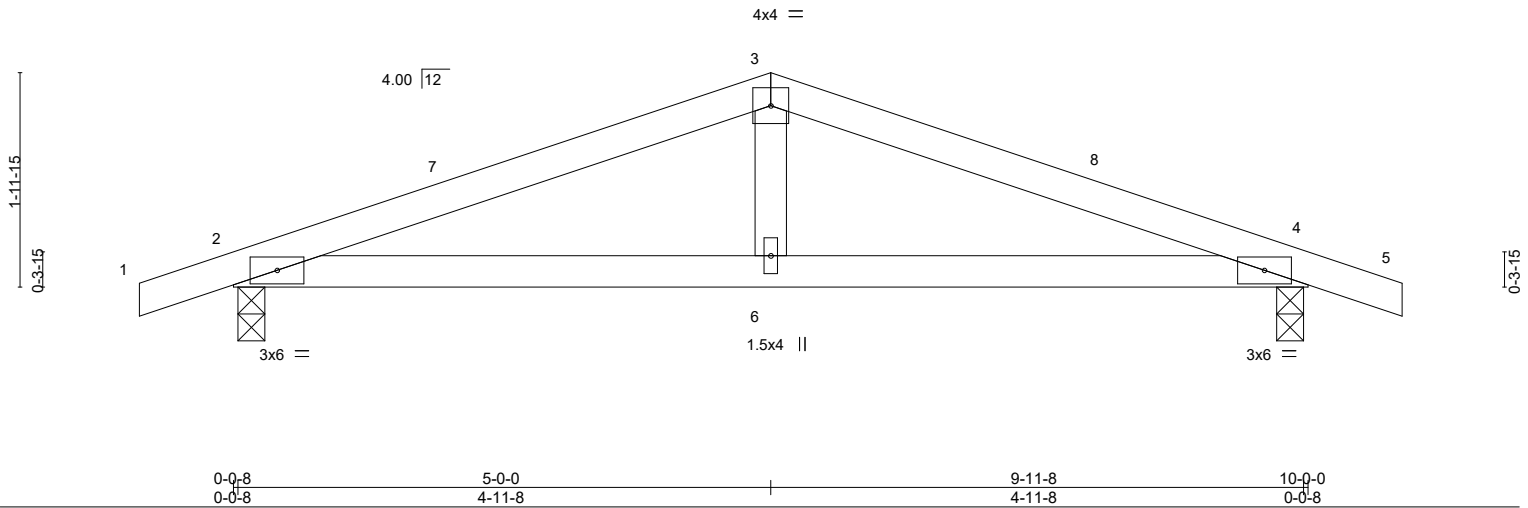
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:25:36 2020 Page 1

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Scale = 1:21.4



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 0.38	Vert(LL)	0.05	4-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.04	2-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 36 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 7-9-10 oc bracing.

**REACTIONS.** (lb/size) 2=450/0-3-0, 4=450/0-3-0  
 Max Horz 2=-34(LC 17)  
 Max Uplift 2=-200(LC 8), 4=-200(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-705/633, 3-4=-705/630  
 BOT CHORD 2-6=-538/622, 4-6=-538/622

- 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=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-0-0, Exterior(2) 5-0-0 to 8-0-0, Interior(1) 8-0-0 to 10-10-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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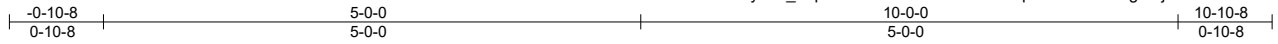


Job 23209-23209A	Truss CPE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	240.2596.C.10x10cvp	139995771
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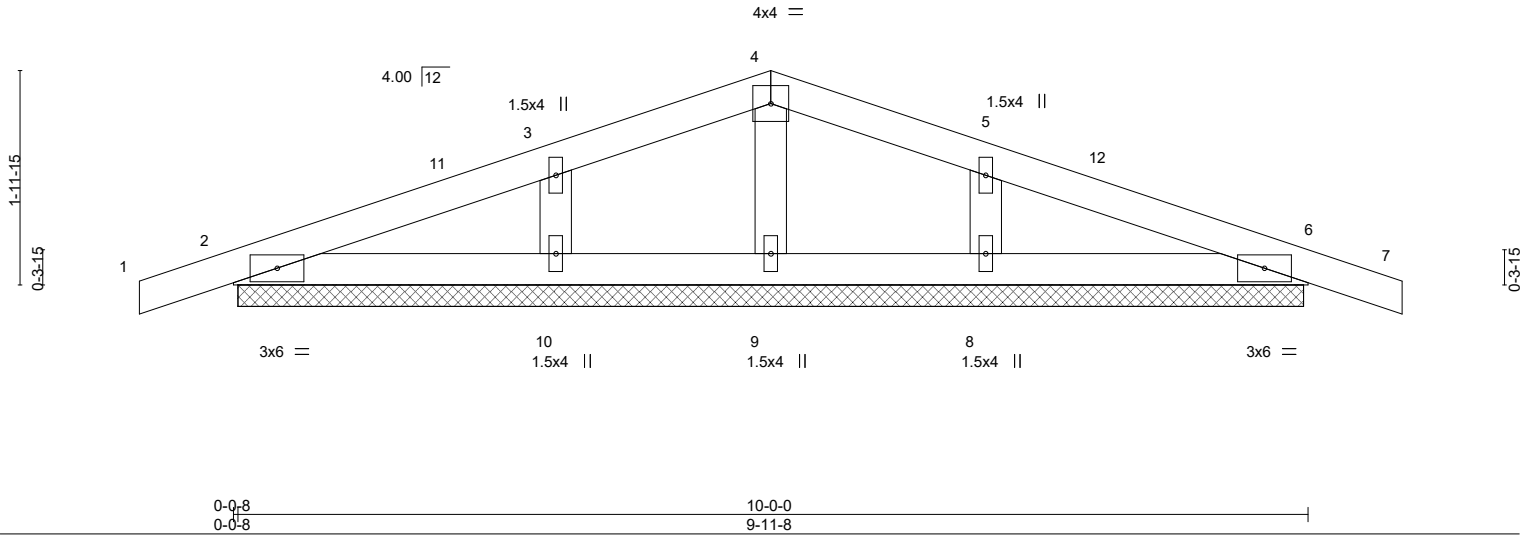
84 Components (Dunn), Dunn, NC - 28334,

8.330 s Jan 8 2020 MiTek Industries, Inc. Wed Jan 22 15:25:36 2020 Page 1

ID:VMD62rz1yiHD\_OqRtbnrFztQ8K-21Y6Q8PNDpzJNX3Px9Yvg3?jLGLG0wYN9ksNLm8zsmAj



Scale = 1:21.4



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 0.10	Vert(LL)	0.00	7	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	7	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 38 lb	FT = 20%

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

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

**REACTIONS.** All bearings 9-11-0.  
 (lb) - Max Horz 2=-34(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 5-0-0, Corner(3) 5-0-0 to 8-0-0, Exterior(2) 8-0-0 to 10-10-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) n/a
- 8) n/a
- 9) Non Standard bearing condition. Review required.



January 22, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

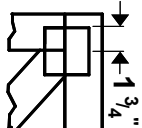
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



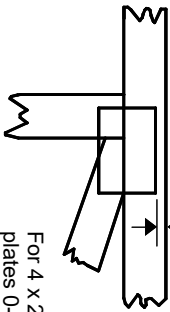
818 Soundside Road  
 Edenton, NC 27932

# 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.

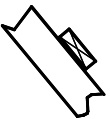
\* Plate location details available in **MITek 2020 software** or upon request.

## PLATE SIZE

4 X 4

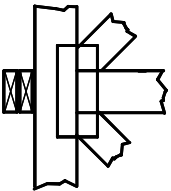
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



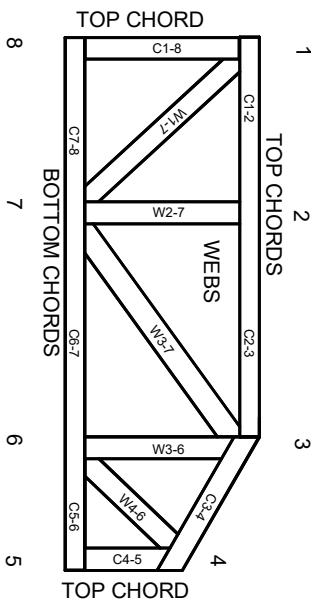
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
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

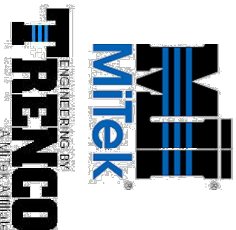
ICC-ES Reports:

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

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MITek Engineering Reference Sheet: MIL-7473 rev. 10/03/2015



# General Safety Notes

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

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