

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 33067-33067A  
180 BIRCHWOOD GROVE - ROOF

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: I53559243 thru I53559272

My license renewal date for the state of North Carolina is December 31, 2022.

North Carolina COA: C-0844



August 10, 2022

Gilbert, Eric

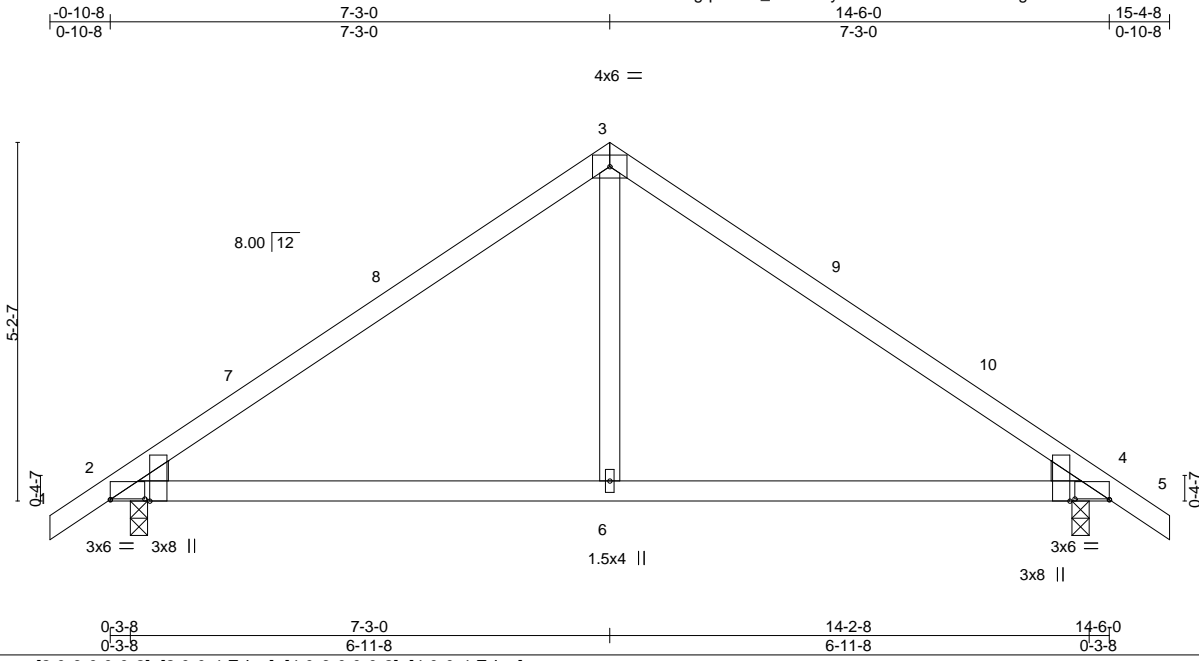
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

Job 33067-33067A	Truss A1	Truss Type COMMON	Qty 2	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559243
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84 Components (Dunn), Dunn, NC - 28334,

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ID:W17blGclgq2WNY\_TbTxie4yHe28-F74?Dmc1FoB7RgP3WT2icRHooFO?w39Xy?eunhydpDo



Scale = 1:33.4

Plate Offsets (X, Y)--	[2:0-6-0,0-0-2], [2:0-0-4,Edge], [4:0-6-0,0-0-2], [4:0-0-4,Edge]
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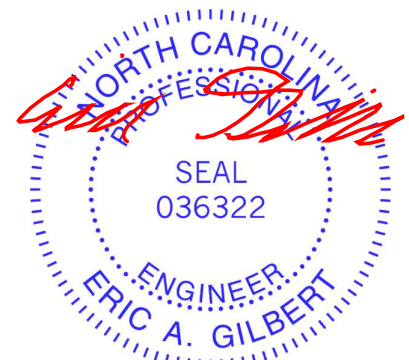
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.79	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.56	Vert(LL) 0.11 4-6 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.13	Vert(CT) -0.14 4-6 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 59 lb	FT = 20%

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

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
 Max Horz 2=114(LC 13)  
 Max Uplift 2=-43(LC 14), 4=-43(LC 15)  
 Max Grav 2=630(LC 2), 4=630(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-699/390, 3-4=-699/390  
 BOT CHORD 2-6=-219/481, 4-6=-219/481  
 WEBS 3-6=-278/350

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 7-3-0, Exterior(2) 7-3-0 to 10-3-0, Interior(1) 10-3-0 to 15-4-8 zone; cantilever left and right exposed; 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 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) 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.



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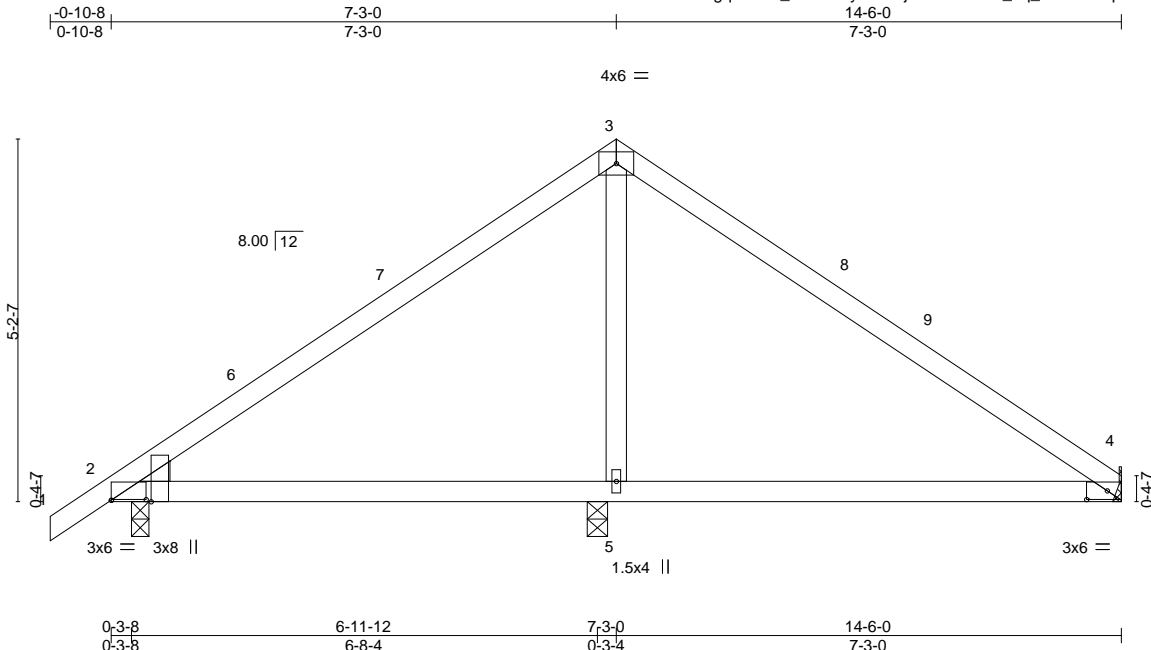
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 33067-33067A	Truss A2	Truss Type COMMON	Qty 2	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559244
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:12 2022 Page 1

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Scale = 1:33.1

Plate Offsets (X, Y)--	[2:0-0-4,Edge], [2:0-6-0,0-0-2], [4:0-3-9,0-1-8]
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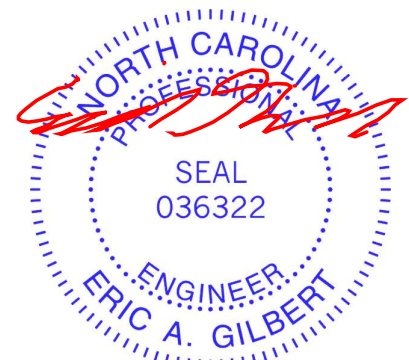
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.80	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) 0.16 2-5 >550 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.17	Vert(CT) -0.13 4-5 >647 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 57 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (size) 4=Mechanical, 2=0-3-0, 5=0-3-8  
 Max Horz 2=110(LC 11)  
 Max Uplift 4=-46(LC 15), 2=-49(LC 14)  
 Max Grav 4=284(LC 2), 2=346(LC 2), 5=575(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-5=-360/79

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 7-3-0, Exterior(2) 7-3-0 to 10-3-0, Interior(1) 10-3-0 to 14-5-4 zone; cantilever left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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.



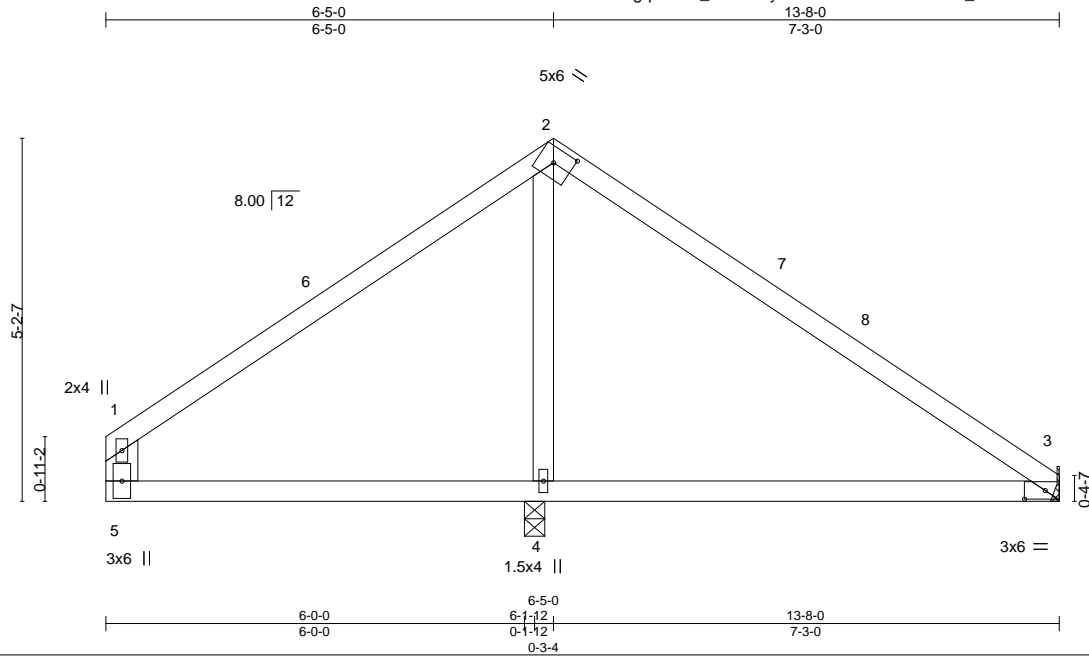
August 10, 2022

Job 33067-33067A	Truss A3	Truss Type COMMON	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559245
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84 Components (Dunn), Dunn, NC - 28334,

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ID:W17b1Gclgq2WNY\_TbTxie4yHe28-BWCmdSdHnPSrh\_ZSdt4AhsN84346OvMqPJ7?sZypdDm



Scale = 1:33.0

Plate Offsets (X, Y)-- [2:0-3-4,0-2-8], [3:0-3-9,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.81	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.52	Vert(LL) 0.11 3-4 >767 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.34	Vert(CT) -0.14 3-4 >609 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 53 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 1-5: 2x6 SP No.2

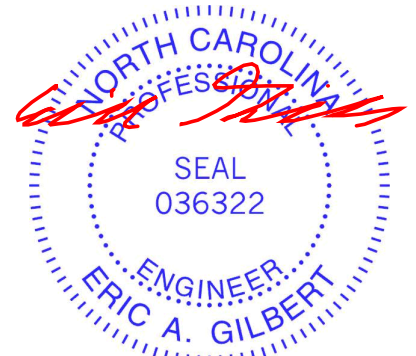
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 4=0-3-8  
 Max Horz 4=-101(LC 10)  
 Max Uplift 3=-52(LC 29), 4=-37(LC 14)  
 Max Grav 3=194(LC 30), 4=976(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-165/412, 2-3=-171/381  
 WEBS 2-4=-746/309

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 6-5-0, Exterior(2) 6-5-0 to 9-5-0, Interior(1) 9-5-0 to 13-7-4 zone; cantilever left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 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) 3.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.



August 10, 2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

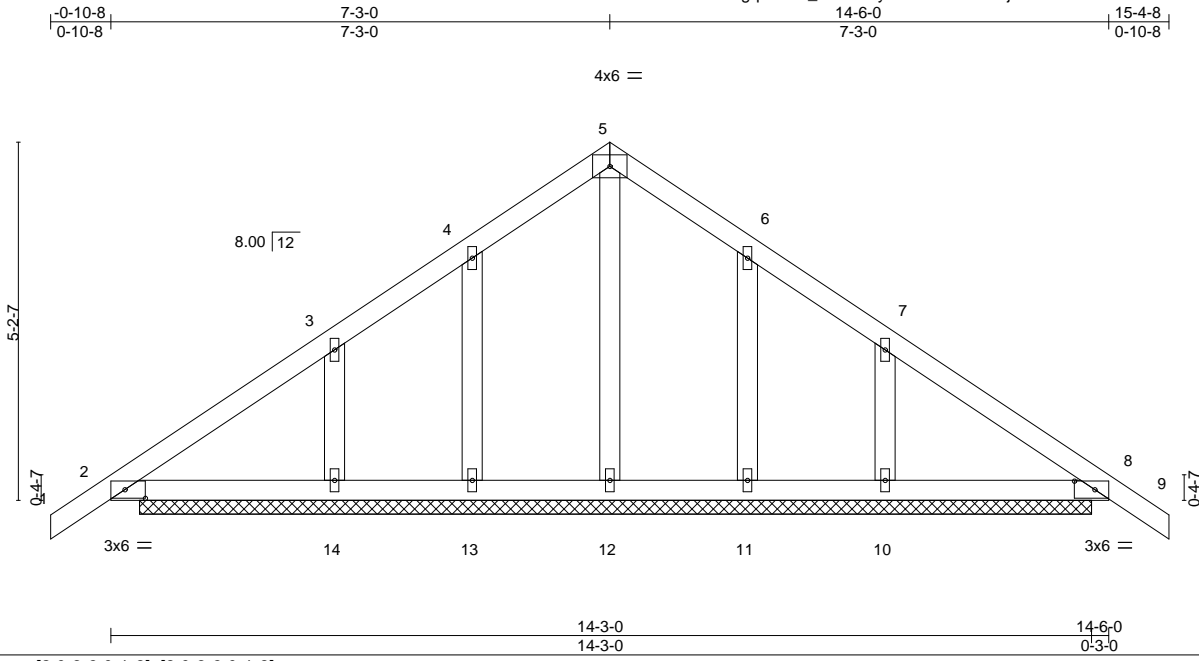


818 Soundside Road  
 Edenton, NC 27932

Job 33067-33067A	Truss AE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559246
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:14 2022 Page 1  
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Scale = 1:33.5

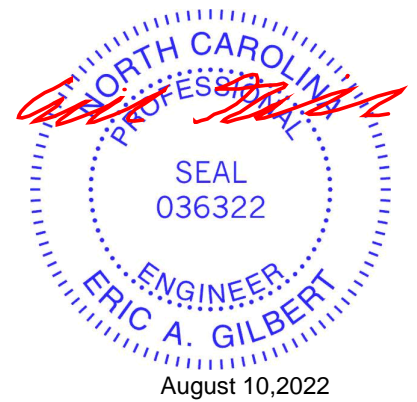
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	0.00	9	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.00	9	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	-0.00	8	n/a	n/a		
BCLL	0.0 *	Code IRC2015/TPI2014		Matrix-S								
BCDL	10.0										Weight: 74 lb	FT = 20%

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

**REACTIONS.** All bearings 13-10-0.  
 (lb) - Max Horz 14=114(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 8, 13, 14, 11, 10  
 Max Grav All reactions 250 lb or less at joint(s) 8, 13, 11 except 12=464(LC 2), 14=293(LC 26), 10=261(LC 27)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-88/337, 3-4=-11/295, 4-5=0/305, 5-6=0/303, 6-7=-11/300, 7-8=-89/333  
 WEBS 5-12=-412/0

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 7-3-0, Corner(3) 7-3-0 to 10-3-0, Exterior(2) 10-3-0 to 15-4-8 zone; cantilever left and right exposed ; 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 6) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 7) Gable studs spaced at 2-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 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.
  - 10) n/a
  - 11) Non Standard bearing condition. Review required.



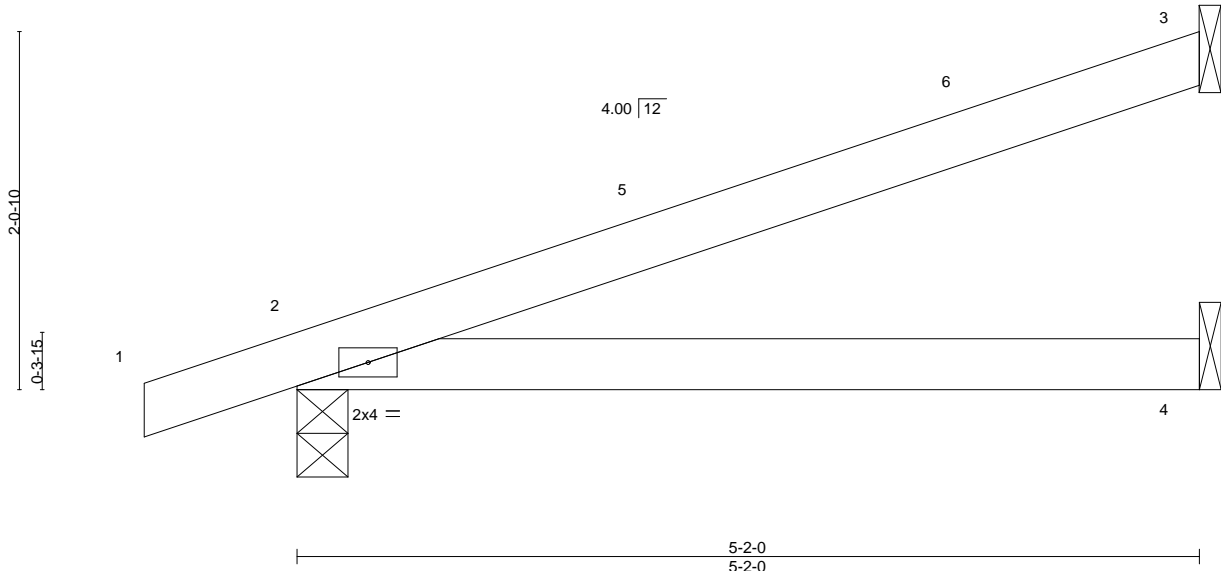
Job 33067-33067A	Truss B1	Truss Type MONOPICH	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	153559247
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:15 2022 Page 1  
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Scale = 1:13.2



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.44	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.52	Vert(LL) -0.04 2-4 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.08 2-4 >762 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 17 lb	FT = 20%

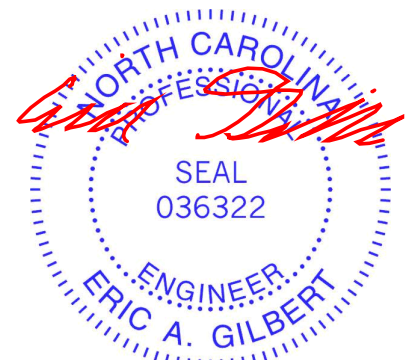
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-2-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
 Max Horz 2=69(LC 12)  
 Max Uplift 3=60(LC 16), 2=-48(LC 12)  
 Max Grav 3=142(LC 2), 2=266(LC 2), 4=99(LC 7)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-1-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 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) 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) 3.
- 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.



August 10, 2022

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 33067-33067A	Truss BE	Truss Type MONOPITCH SUPPORTED	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	153559248
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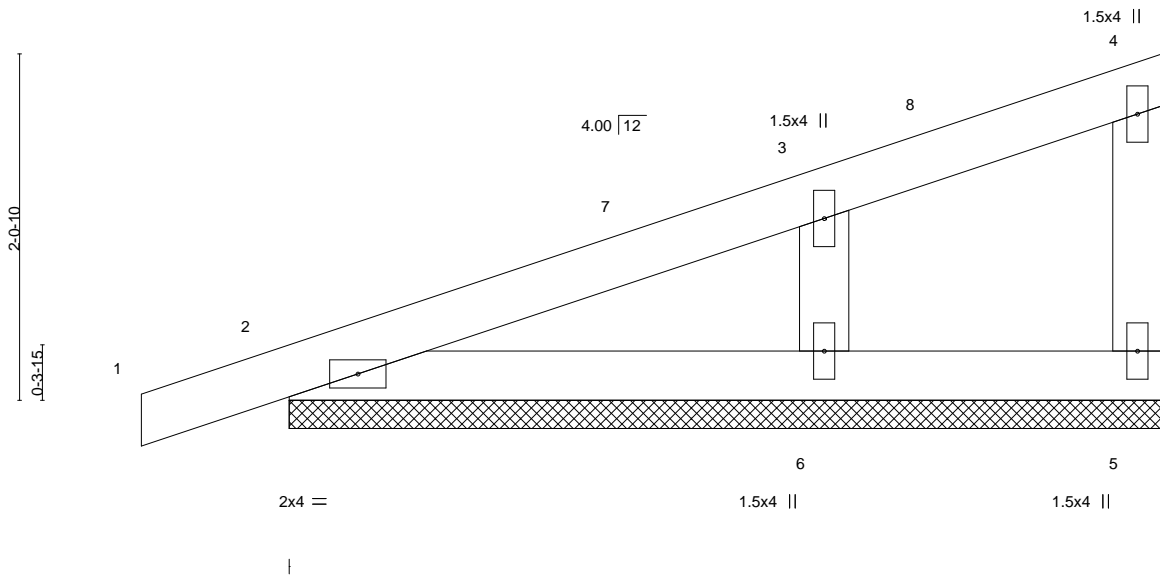
84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:16 2022 Page 1

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Scale = 1:13.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.13	Vert(LL) -0.00 1 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 21 lb	FT = 20%

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

**REACTIONS.** (size) 5=5-2-0, 2=5-2-0, 6=5-2-0  
 Max Horz 2=68(LC 12)  
 Max Uplift 5=-8(LC 12), 2=-31(LC 12), 6=-38(LC 16)  
 Max Grav 5=37(LC 2), 2=165(LC 2), 6=252(LC 2)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-0-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 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.



August 10, 2022

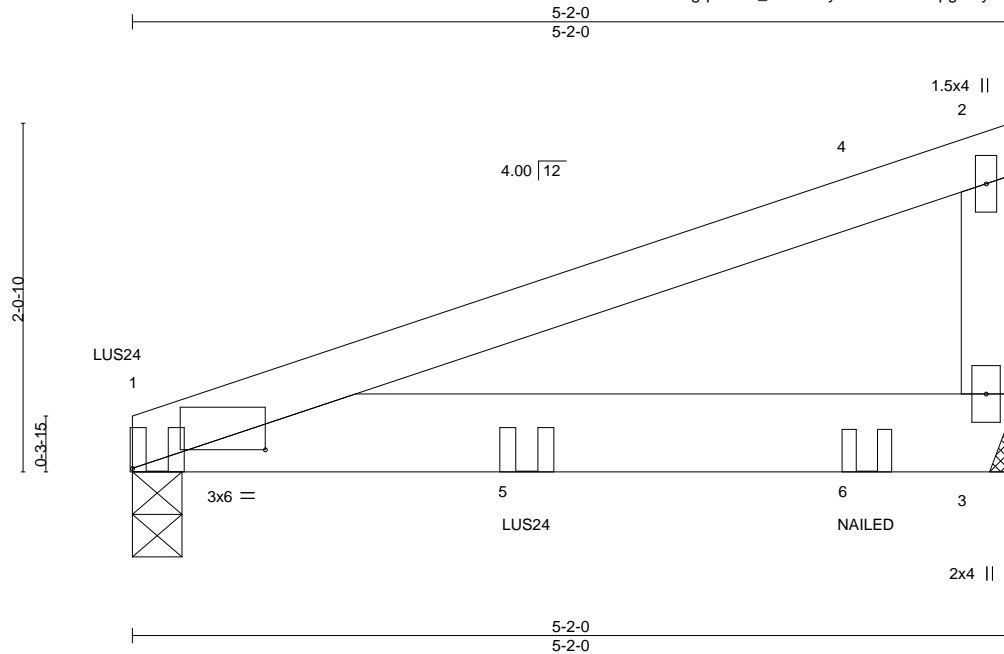
Job 33067-33067A	Truss BG	Truss Type MONOPITCH GIRDER	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559249
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:17 2022 Page 1

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Scale = 1:13.6

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

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 2-0-0	TC 0.90	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Lumber DOL 1.15	BC 0.53	Vert(LL) -0.03 1-3 >999 240		
TCDL 10.0	Rep Stress Incr NO	WB 0.00	Vert(CT) -0.06 1-3 >999 180		
BCLL 0.0 *	Code IRC2015/TPI2014	Matrix-P	Horz(CT) 0.00 n/a n/a		
BCDL 10.0				Weight: 22 lb	FT = 20%

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

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

**REACTIONS.** (size) 1=0-3-8, 3=Mechanical  
 Max Horz 1=53(LC 8)  
 Max Uplift 1=-104(LC 8), 3=-91(LC 8)  
 Max Grav 1=639(LC 2), 3=464(LC 2)

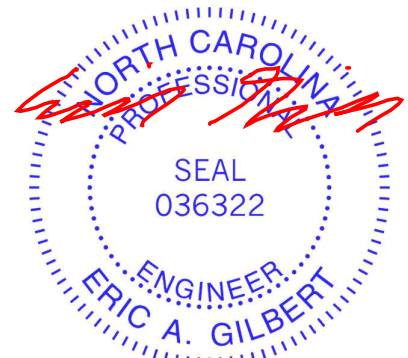
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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) 3.
- 8) 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.
- 9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-2-1 oc max. starting at 0-1-12 from the left end to 2-3-13 to connect truss(es) to back face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
 Vert: 1-2=-43, 1-3=-20
- Concentrated Loads (lb)  
 Vert: 1=-208(B) 5=-200(B) 6=-57(B)



August 10, 2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

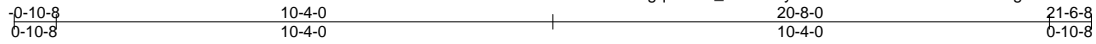


Job 33067-33067A	Truss CE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	I53559250
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84 Components (Dunn), Dunn, NC - 28334,

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Scale: 1/4"=1'

Plate Offsets (X,Y)--	[2:0-3-15,0-0-6], [14:0-3-15,0-0-6]							
<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 (roof) 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00	14	n/r	120	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Lumber DOL 1.15	BC 0.04	Vert(CT) 0.00	14	n/r	120		
TCDL 10.0	Rep Stress Incr YES	WB 0.11	Horz(CT) 0.00	14	n/a	n/a		
BCLL 0.0 *	Code IRC2015/TPI2014	Matrix-S						
BCDL 10.0							Weight: 130 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3 *Except*	
8-20: 2x4 SP No.2	
SLIDER Left 2x4 SP No.3 1-6-9, Right 2x4 SP No.3 1-6-9	

**REACTIONS.** All bearings 20-8-0.  
 (lb) - Max Horz 2=-157(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 25, 19, 18, 17, 16  
 Max Grav All reactions 250 lb or less at joint(s) 2, 20, 22, 23, 24, 25, 19, 18, 17, 16, 14

**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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-4-0, Exterior(2) 2-4-0 to 10-4-0, Corner(3) 10-4-0 to 13-4-0, Exterior(2) 13-4-0 to 21-6-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 6) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 7) Gable requires continuous bottom chord bearing.
  - 8) Gable studs spaced at 2-0-0 oc.
  - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 10) \* This truss has been designed for a live load of 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.
  - 11) n/a
  - 12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



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<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 33067-33067A	Truss CG	Truss Type COMMON GIRDER	Qty 1	Ply 2	180 BIRCHWOOD GROVE - ROOF	153559251
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:20 2022 Page 1

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4x6 ||

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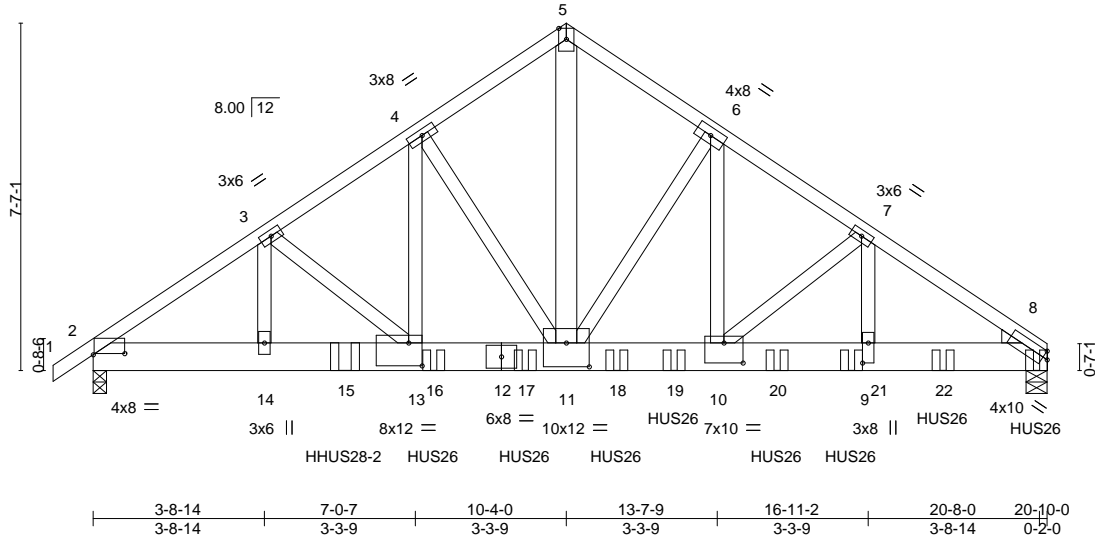


Plate Offsets (X,Y)-- [2:0-8-4,0-0-5], [8:Edge,0-1-15], [9:0-5-4,0-1-8], [10:0-5-0,0-5-4], [11:0-6-0,0-6-4], [13:0-3-8,0-6-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.77	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.12 10-11 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.73	Vert(CT) -0.23 10-11 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.05 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 335 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x8 SP DSS  
 WEBS 2x4 SP No.3 \*Except\*  
 5-11: 2x6 SP No.2

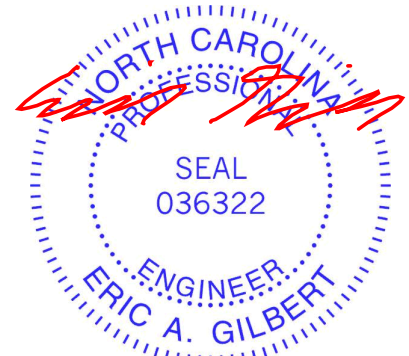
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-11-10 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**WEDGE**  
 Right: 2x4 SP No.3

**REACTIONS.** (size) 8=0-5-8, 2=(0-3-8 + TBE4 Simpson Strong-Tie) (req. 0-5-0)  
 Max Horz 2=155(LC 31)  
 Max Uplift 8=-607(LC 11), 2=-595(LC 10)  
 Max Grav 8=9107(LC 2), 2=6363(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-10072/954, 3-4=-9329/815, 4-5=-7505/621, 5-6=-7505/620, 6-7=-9568/704,  
 7-8=-11495/790  
 BOT CHORD 2-14=-806/7980, 13-14=-806/7980, 11-13=-645/7725, 10-11=-498/7925, 9-10=-583/9208,  
 8-9=-583/9208  
 WEBS 5-11=-623/8043, 6-11=-3071/278, 6-10=-216/3513, 7-10=-1675/172, 7-9=-114/2366,  
 4-11=-2713/448, 4-13=-417/3085, 3-13=-346/208, 3-14=-187/899

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



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Continued on page 2

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



818 Soundside Road  
 Edenton, NC 27932

Job 33067-33067A	Truss CG	Truss Type COMMON GIRDER	Qty 1	Ply <b>2</b>	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	I53559251
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:20 2022 Page 2  
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**NOTES-**

- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) TBE4 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) Two H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
- 11) Use Simpson Strong-Tie HHUS28-2 (22-10d Girder, 4-10d Truss) or equivalent at 5-6-0 from the left end to connect truss(es) to back face of bottom chord.
- 12) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-3-0 oc max. starting at 7-5-4 from the left end to 20-7-4 to connect truss(es) to back face of bottom chord.
- 13) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-5=-43, 5-8=-43, 2-8=-20

Concentrated Loads (lb)

Vert: 8=-1121(B) 15=-2034(B) 16=-1303(B) 17=-1382(B) 18=-1424(B) 19=-1452(B) 20=-1111(B) 21=-1111(B) 22=-1111(B)

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

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



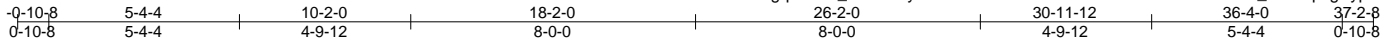
818 Soundside Road  
Edenton, NC 27932

Job 33067-33067A	Truss H1	Truss Type HIP	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559252
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:22 2022 Page 1

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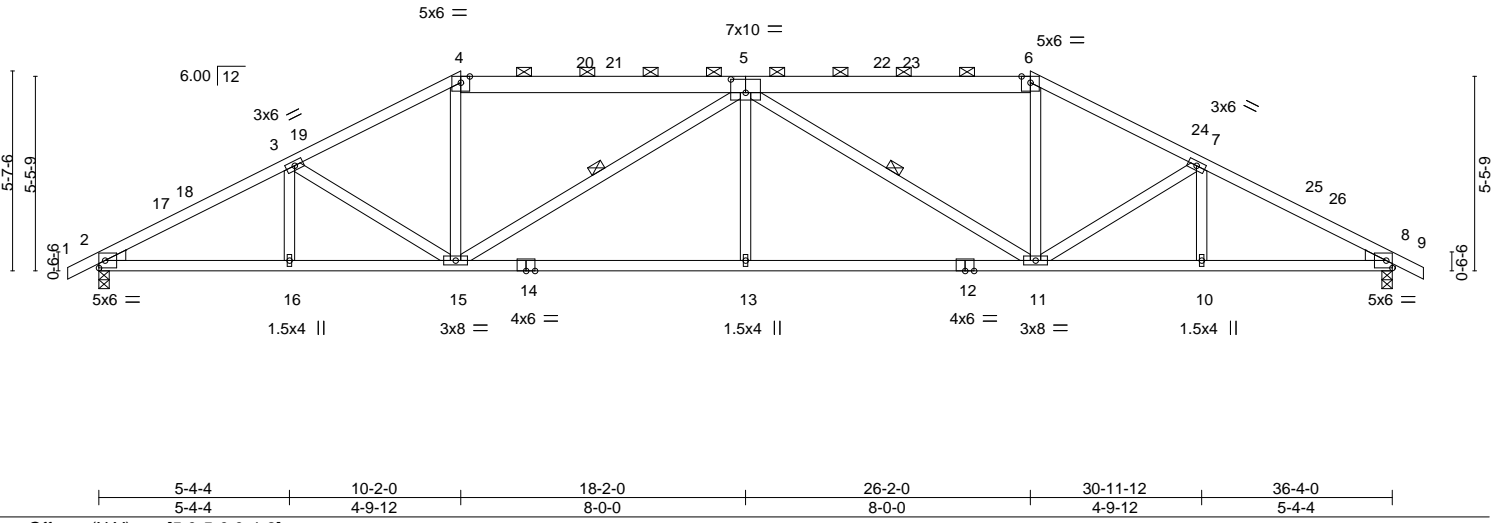


Plate Offsets (X,Y)-- [5:0-5-0,0-4-8]										
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	<b>L/d</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	13	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.89	13-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.37	8	n/a	n/a		
BCLL	0.0 *	Code IRC2015/TPI2014		Matrix-S						
BCDL	10.0								Weight: 203 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2 *Except* 4-5,5-6: 2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-1-14 oc purlins, except
BOT CHORD	2x4 SP No.2		2-0-0 oc purlins (4-7-13 max.): 4-6.
WEBS	2x4 SP No.3 *Except* 5-15,5-11: 2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE		WEBS	1 Row at midpt 5-15, 5-11
Left: 2x4 SP No.3 , Right: 2x4 SP No.3			

<b>REACTIONS.</b>	(size) 2=0-3-8, 8=0-3-8
	Max Horz 2=-77(LC 21)
	Max Uplift 2=-39(LC 16), 8=-39(LC 17)
	Max Grav 2=1503(LC 2), 8=1503(LC 2)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2648/210, 3-4=-2326/220, 4-5=-2025/226, 5-6=-2025/226, 6-7=-2326/220, 7-8=-2648/210
BOT CHORD	2-16=-133/2254, 15-16=-133/2254, 13-15=-107/2687, 11-13=-107/2687, 10-11=-131/2254, 8-10=-131/2254
WEBS	3-15=-384/121, 4-15=0/659, 5-15=-878/128, 5-13=0/345, 5-11=-878/128, 6-11=0/659, 7-11=-384/122

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 10-2-0, Exterior(2) 10-2-0 to 14-4-15, Interior(1) 14-4-15 to 26-2-0, Exterior(2) 26-2-0 to 30-4-15, Interior(1) 30-4-15 to 37-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 H2.5A Simpson Strong-Tie 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.



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

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

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

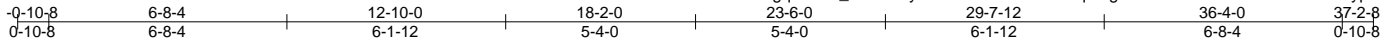
818 Soundside Road  
 Edenton, NC 27932

Job 33067-33067A	Truss H2	Truss Type HIP	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	I53559253
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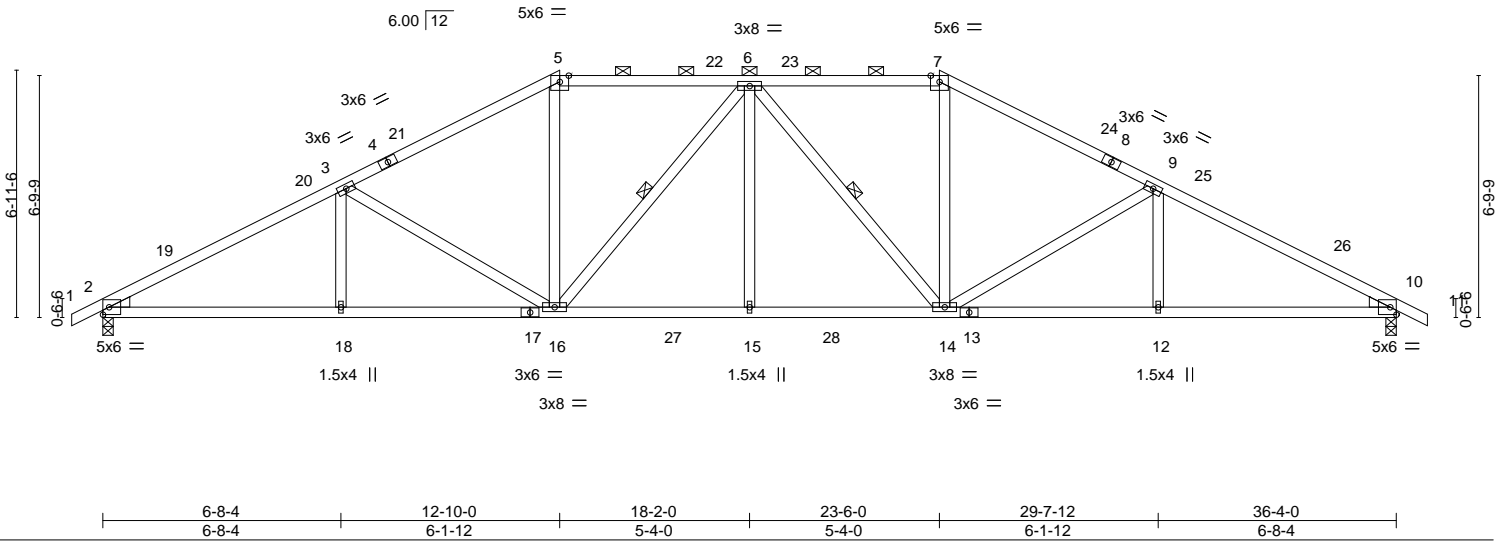
84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:24 2022 Page 1

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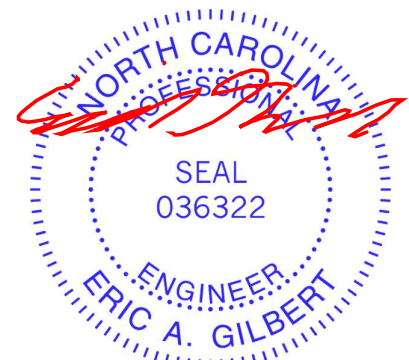
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.98	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.78	Vert(LL) -0.15 15 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.51	Vert(CT) -0.30 15-16 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.13 10 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 199 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 4-5,7-8: 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-0-9 max.): 5-7.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 3-18,9-12: 2x4 SP No.3	WEBS 1 Row at midpt 6-16, 6-14
WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.3	

<b>REACTIONS.</b>	(size) 2=0-3-8, 10=0-3-8 Max Horz 2=-97(LC 17) Max Uplift 2=-61(LC 16), 10=-61(LC 17) Max Grav 2=1503(LC 2), 10=1503(LC 2)
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<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2635/196, 3-5=-2125/218, 5-6=-1814/230, 6-7=-1814/230, 7-9=-2125/218, 9-10=-2635/196
BOT CHORD	2-18=-112/2241, 16-18=-112/2241, 15-16=-45/2023, 14-15=-45/2023, 12-14=-109/2241, 10-12=-109/2241
WEBS	3-18=0/277, 3-16=-608/145, 5-16=0/611, 6-16=-456/83, 6-15=0/266, 6-14=-456/83, 7-14=0/611, 9-14=-608/146, 9-12=0/277

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 12-10-0, Exterior(2) 12-10-0 to 17-0-15, Interior(1) 17-0-15 to 23-6-0, Exterior(2) 23-6-0 to 27-8-15, Interior(1) 27-8-15 to 37-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 H2.5A Simpson Strong-Tie 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.



August 10, 2022

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

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

**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job 33067-33067A	Truss H3	Truss Type HIP	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559254
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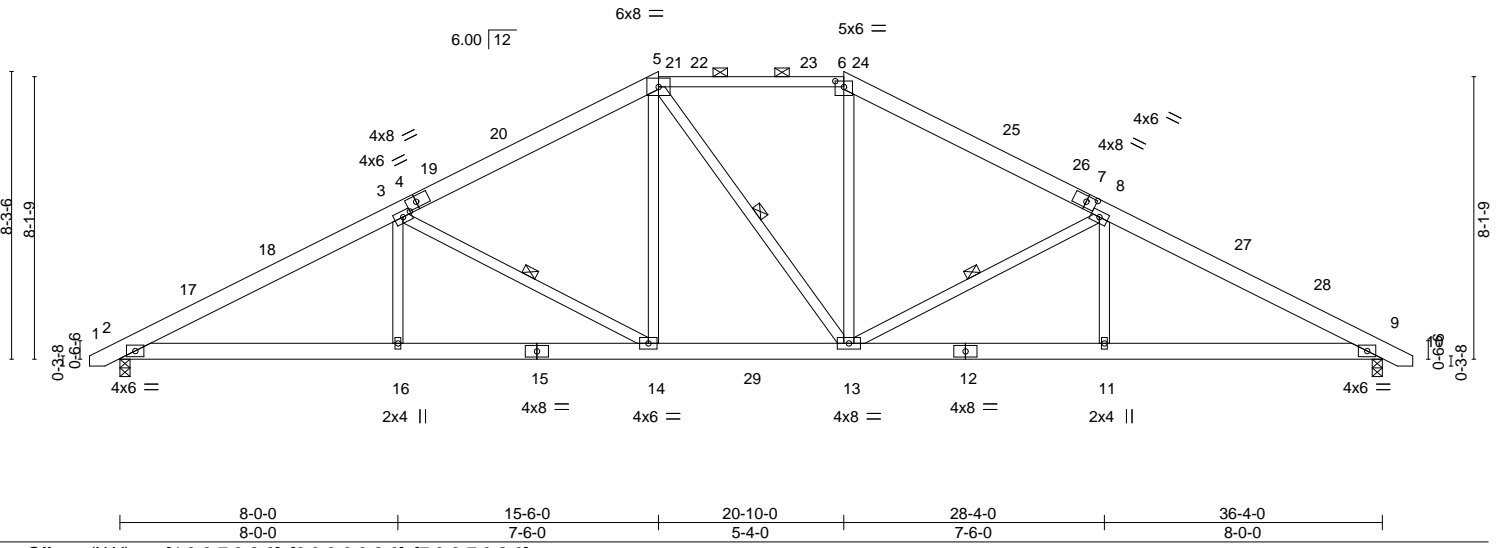
84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:25 2022 Page 1

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0-10-8 8-0-0 15-6-0 20-10-0 28-4-0 36-4-0 37-2-8  
0-10-8 8-0-0 7-6-0 5-4-0 7-6-0 8-0-0 0-10-8

Scale = 1:66.3



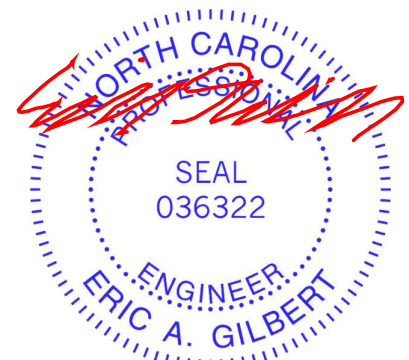
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.93	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.55	Vert(LL) -0.10 14 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.21 14-16 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.09 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 249 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 5-6: 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 4-2-3 oc purlins, except 2-0-0 oc purlins (2-2-0 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.2 *Except* 3-16,8-11: 2x4 SP No.3	WEBS 1 Row at midpt 3-14, 5-13, 8-13

**REACTIONS.** (size) 2=0-3-8, 9=0-3-8  
 Max Horz 2=115(LC 20)  
 Max Uplift 2=-78(LC 16), 9=-78(LC 17)  
 Max Grav 2=1490(LC 2), 9=1490(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2751/186, 3-5=-2023/212, 5-6=-1672/229, 6-8=-2024/212, 8-9=-2750/186  
 BOT CHORD 2-16=-127/2399, 14-16=-127/2399, 13-14=0/1670, 11-13=-93/2398, 9-11=-93/2398  
 WEBS 3-16=0/336, 3-14=-820/180, 5-14=-12/532, 6-13=0/523, 8-13=-818/181, 8-11=0/334

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-7-14 to 2-4-2, Interior(1) 2-4-2 to 15-6-0, Exterior(2) 15-6-0 to 19-8-15, Interior(1) 19-8-15 to 20-10-0, Exterior(2) 20-10-0 to 25-0-15, Interior(1) 25-0-15 to 36-11-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 6) Provide adequate drainage to prevent water ponding.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. 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.



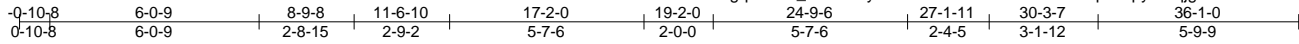
August 10, 2022

Job 33067-33067A	Truss H6	Truss Type ROOF TRUSS	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559255
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:27 2022 Page 1

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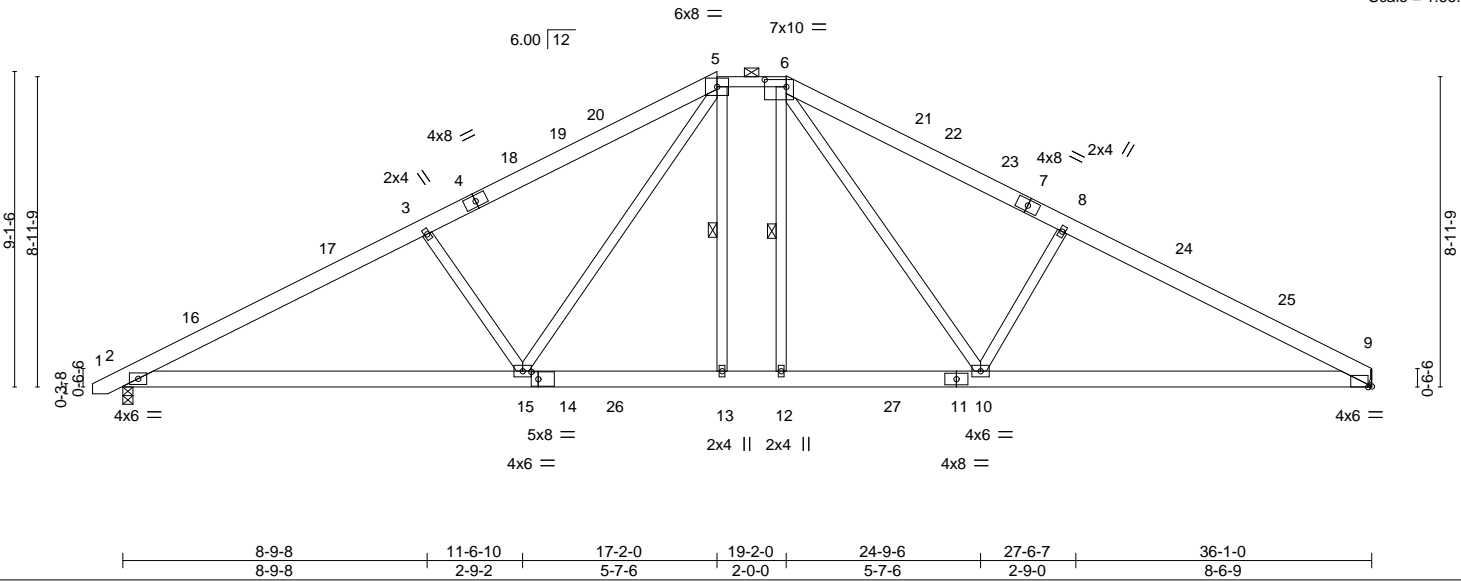


Plate Offsets (X, Y)--	[6:0-7-8,0-2-8], [9:0-1-4,Edge], [14:0-2-6,0-2-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.69	Vert(LL) -0.14 2-15 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.30	Vert(CT) -0.33 2-15 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.08 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 247 lb	FT = 20%

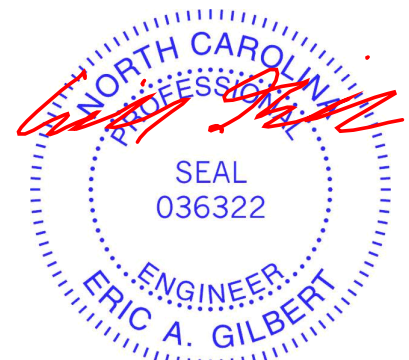
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 5-6: 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except 2-0-0 oc purlins (3-5-10 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 3-15,8-10: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

**REACTIONS.** (size) 2=0-3-8, 9=Mechanical  
 Max Horz 2=130(LC 16)  
 Max Uplift 2=-88(LC 16), 9=-74(LC 17)  
 Max Grav 2=1504(LC 40), 9=1472(LC 40)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2742/194, 3-5=-2489/218, 5-6=-1637/217, 6-8=-2538/233, 8-9=-2757/196  
 BOT CHORD 2-15=-182/2398, 13-15=0/1635, 12-13=0/1636, 10-12=0/1636, 9-10=-94/2413  
 WEBS 3-15=-572/255, 5-15=-119/820, 5-13=-122/283, 6-10=-134/888, 8-10=-597/258

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-7-14 to 2-4-2, Interior(1) 2-4-2 to 17-2-0, Exterior(2) 17-2-0 to 23-4-15, Interior(1) 23-4-15 to 36-0-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.
- 11) 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.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



August 10, 2022

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

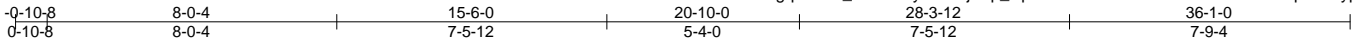
**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 33067-33067A	Truss H7	Truss Type HIP	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	I53559256
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:29 2022 Page 1

ID:W17blGclgq2WNY\_TbTxie4yHe28-jbAp\_wpJ0KTacRnXZENwLE1zkWU88BiA5p?rQeypdDW



Scale: 3/16"=1'

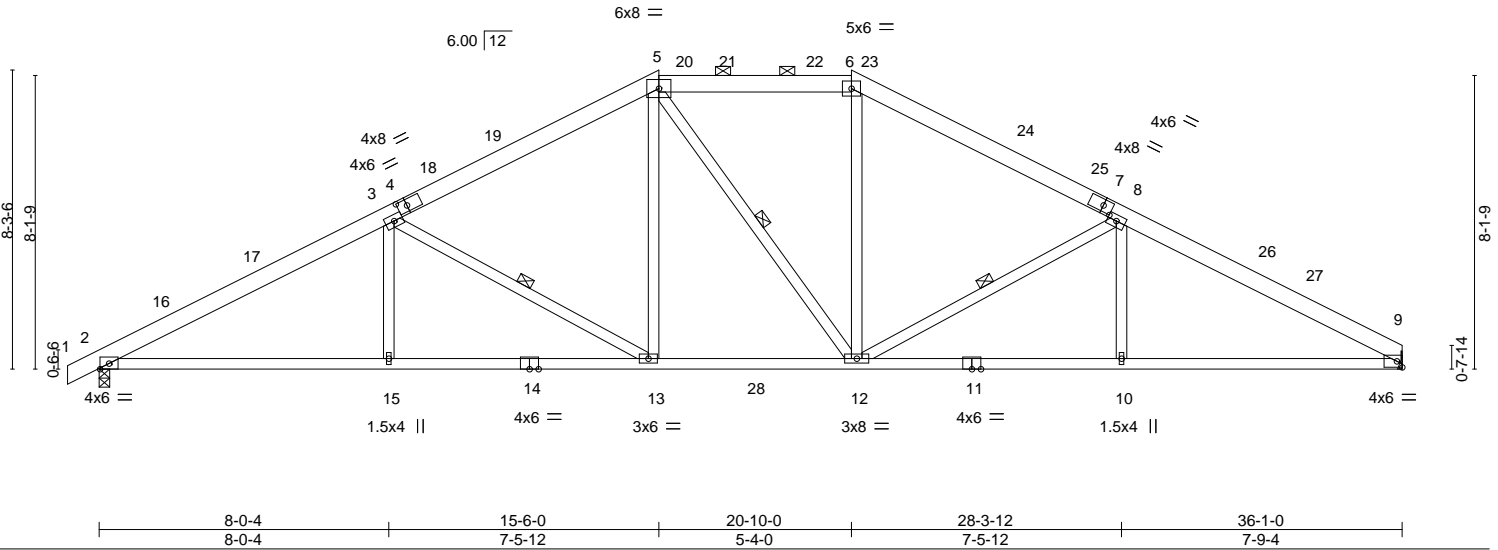


Plate Offsets (X, Y)-- [4:0-3-2,0-2-0], [7:0-3-2,0-2-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.44	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.82	Vert(LL) -0.12 12-13 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.26	Vert(CT) -0.26 13-15 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.13 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 221 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-11-10 oc purlins, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (5-7-12 max.): 5-6.
WEBS 2x4 SP No.2 *Except* 3-15,8-10: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
	WEBS 1 Row at midpt 3-13, 5-12, 8-12

<b>REACTIONS.</b>	(size) 2=0-3-8, 9=Mechanical
	Max Horz 2=120(LC 20)
	Max Uplift 2=-81(LC 16), 9=-63(LC 17)
	Max Grav 2=1497(LC 2), 9=1444(LC 39)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2694/184, 3-5=-1996/213, 5-6=-1652/229, 6-8=-1993/215, 8-9=-2669/182
BOT CHORD	2-15=-127/2339, 13-15=-127/2339, 12-13=-14/1654, 10-12=-92/2307, 9-10=-92/2307
WEBS	3-15=0/335, 3-13=-776/174, 5-13=-11/518, 6-12=0/495, 8-12=-743/175, 8-10=0/332

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 15-6-0, Exterior(2) 15-6-0 to 19-8-15, Interior(1) 19-8-15 to 20-10-0, Exterior(2) 20-10-0 to 25-0-15, Interior(1) 25-0-15 to 36-0-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 6) Provide adequate drainage to prevent water ponding.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) Refer to girder(s) for truss to truss connections.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.
  - 11) 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.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 10, 2022

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job 33067-33067A	Truss H8	Truss Type HIP	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559257
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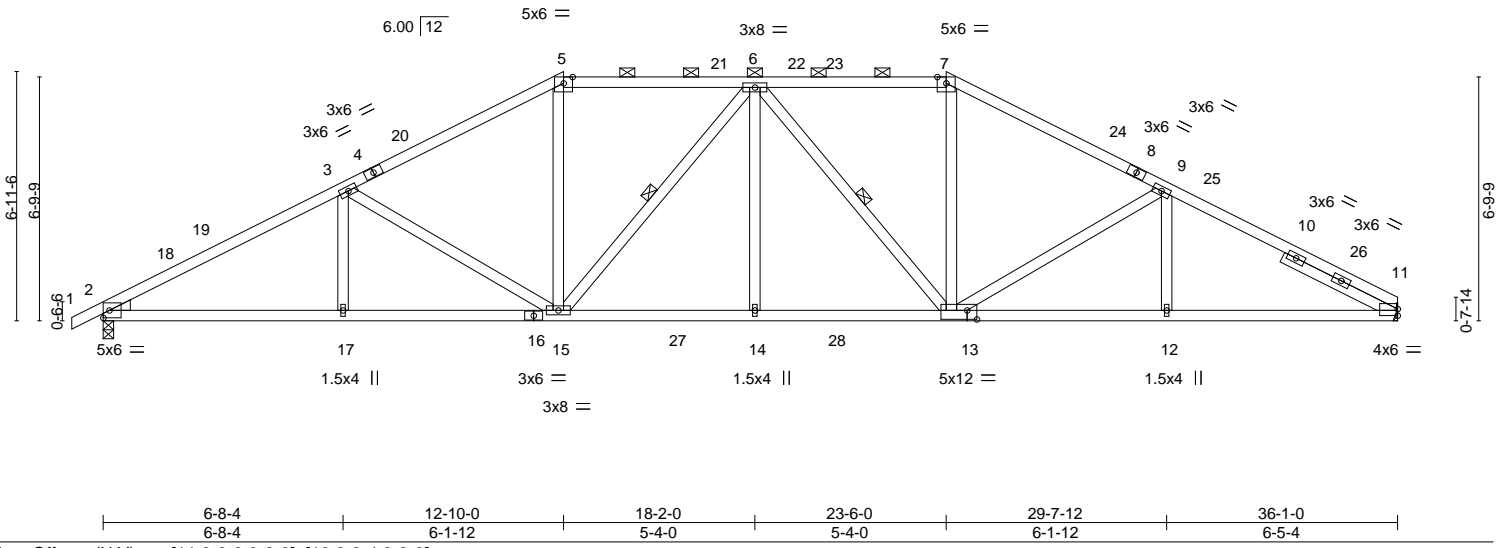
84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:30 2022 Page 1

ID:W17blGclgg2WNY\_TbTxie4yHe28-BnjBCGqxnDbRDbMj7yu9tSa0Pwp?ta\_KKTIpy4ypdDV



Scale: 3/16"=1'



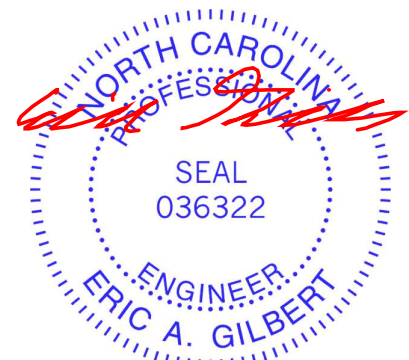
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.14	14	>999	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	Vert(CT)	-0.29	13-14	>999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.13	11	n/a		
BCLL	0.0 *	Code IRC2015/TPI2014		Matrix-S						
BCDL	10.0								Weight: 201 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-0-9 max.): 5-7.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2 *Except* 3-17,9-12: 2x4 SP No.3	WEBS	1 Row at midpt 6-15, 6-13
<b>WEDGE</b>			
Left:	2x4 SP No.3		
<b>SLIDER</b>	Right 2x4 SP No.3 3-6-7		

**REACTIONS.** (size) 2=0-3-8, 11=Mechanical  
 Max Horz 2=100(LC 16)  
 Max Uplift 2=62(LC 16), 11=44(LC 17)  
 Max Grav 2=1500(LC 2), 11=1437(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2628/199, 3-5=-2118/221, 5-6=-1808/233, 6-7=-1786/231, 7-9=-2126/218, 9-11=-2547/195  
 BOT CHORD 2-17=-118/2236, 15-17=-118/2236, 14-15=-53/2013, 13-14=-53/2013, 12-13=-110/2170, 11-12=-110/2170  
 WEBS 3-17=0/277, 3-15=-608/145, 5-15=0/607, 6-15=-452/82, 6-14=0/273, 6-13=-476/81, 7-13=-2/591, 9-13=-520/143

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 12-10-0, Exterior(2) 12-10-0 to 17-0-15, Interior(1) 17-0-15 to 23-6-0, Exterior(2) 23-6-0 to 27-8-15, Interior(1) 27-8-15 to 36-1-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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) 11.
  - 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.



August 10, 2022

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

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

Job 33067-33067A	Truss H8	Truss Type HIP	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF  Job Reference (optional)	I53559257
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:31 2022 Page 2  
ID:W17bIGclgq2WNY\_TbTxie4yHe28-g\_HZPcrZYxjlrXvhfPOQf6B9J9Ec0ETY7UyVXypdDU

**NOTES-**

12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

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



818 Soundside Road  
Edenton, NC 27932

Job 33067-33067A	Truss H9	Truss Type HIP	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559258
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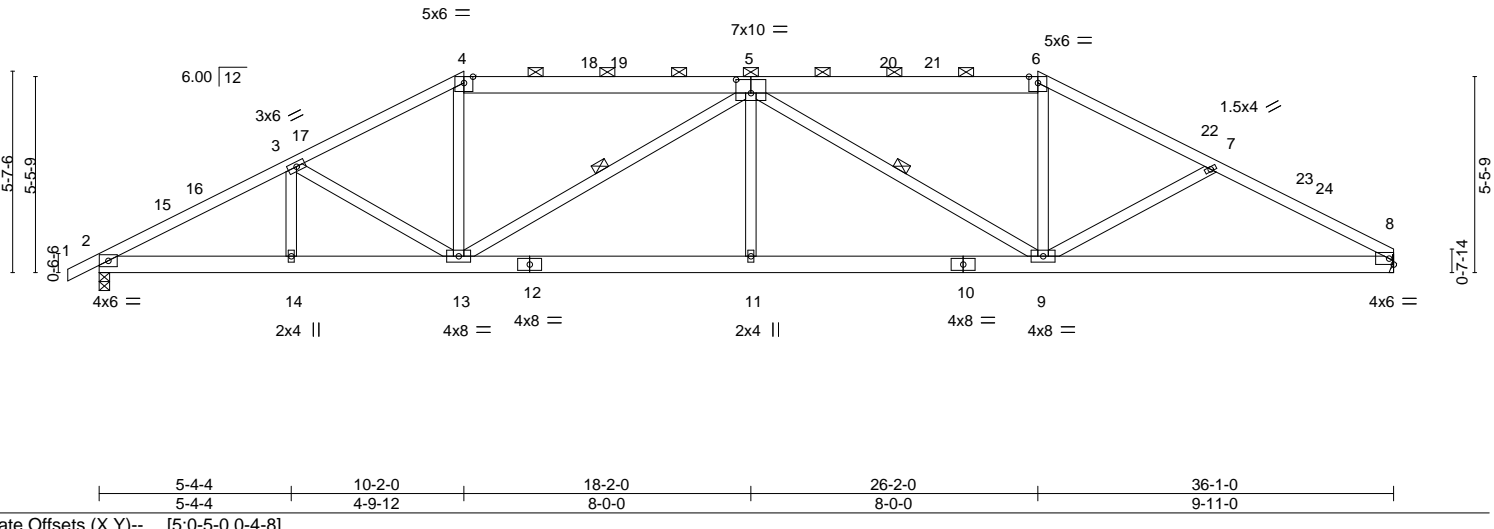
84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MITek Industries, Inc. Tue Aug 9 09:24:32 2022 Page 1

ID:W17blGclgq2WNY\_TbTxie4yHe28-8ArxdysCJFr8TuW6ENwdytfPnjX8LVpdnmEV1zypdDT



Scale: 3/16"=1'



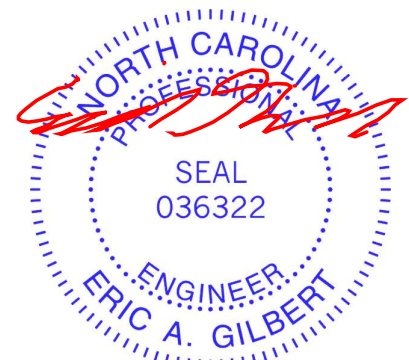
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.71	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.14 11 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.36	Vert(CT) -0.28 11-13 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.09 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 224 lb	FT = 20%

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

**REACTIONS.** (size) 8=Mechanical, 2=0-3-8  
 Max Horz 2=81(LC 20)  
 Max Uplift 8=-21(LC 17), 2=-39(LC 16)  
 Max Grav 8=1434(LC 2), 2=1497(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2670/216, 3-4=-2353/223, 4-5=-2049/229, 5-6=-2043/216, 6-7=-2349/206,  
 7-8=-2564/251  
 BOT CHORD 2-14=-146/2286, 13-14=-146/2286, 11-13=-123/2705, 9-11=-123/2705, 8-9=-174/2196  
 WEBS 3-13=-389/122, 4-13=0/672, 5-13=-867/133, 5-11=0/305, 5-9=-874/144, 6-9=0/667,  
 7-9=-290/171

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 10-2-0, Exterior(2) 10-2-0 to 14-4-15, Interior(1) 14-4-15 to 26-2-0, Exterior(2) 26-2-0 to 30-4-15, Interior(1) 30-4-15 to 36-0-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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) 8.
  - 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.



August 10, 2022

Job 33067-33067A	Truss HG1	Truss Type HIP GIRDER	Qty 1	Ply 2	180 BIRCHWOOD GROVE - ROOF	I53559259
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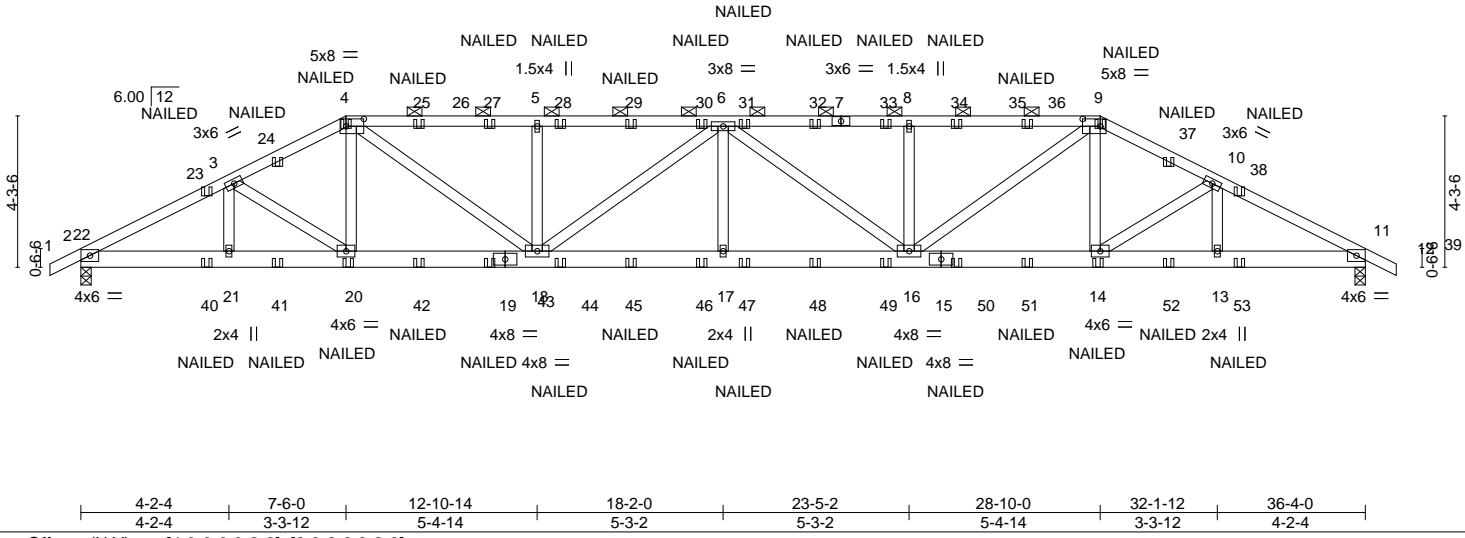
84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:40 2022 Page 1

ID:W17blGclgq2WNY\_TbTxie4yHe28-viKzlhYDQir0Q77ei23VHZ\_oUyHoD9aod0AwJVypDL

-0-10-8	4-2-4	7-6-0	12-10-14	18-2-0	23-5-2	28-10-0	32-1-12	36-4-0	37-2-8
0-10-8	4-2-4	3-3-12	5-4-14	5-3-2	5-3-2	5-4-14	3-3-12	4-2-4	0-10-8

Scale = 1:65.2



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.60	Vert(LL) 0.20 17 >999 240	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Lumber DOL 1.15	BC 0.62	Vert(CT) -0.38 17 >999 180		
TCDL 10.0	Rep Stress Incr NO	WB 0.25	Horz(CT) 0.09 11 n/a n/a		
BCLL 0.0 *	Code IRC2015/TPI2014	Matrix-S			
BCDL 10.0					

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (4-8-2 max.); 4-9.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
4-18,6-18,6-16,9-16: 2x4 SP No.2	

REACTIONS.
(size) 2=0-3-8, 11=0-3-8
Max Horz 2=-60(LC 59)
Max Uplift 2=-477(LC 12), 11=-477(LC 13)
Max Grav 2=2558(LC 2), 11=2558(LC 2)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4770/971, 3-4=-4505/1035, 4-5=-5588/1382, 5-6=-5588/1382, 6-8=-5588/1382, 8-9=-5588/1382, 9-10=-4505/1035, 10-11=-4770/972
BOT CHORD 2-21=-855/4118, 20-21=-855/4118, 18-20=-889/3984, 17-18=-1487/6146, 16-17=-1487/6146, 14-16=-854/3984, 13-14=-817/4118, 11-13=-817/4118
WEBS 3-20=-253/103, 4-20=0/474, 4-18=-575/2006, 5-18=-599/349, 6-18=-720/208, 6-17=0/429, 6-16=-720/208, 8-16=-599/349, 9-16=-575/2006, 9-14=0/474, 10-14=-253/104

- 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 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 11. This connector is for uplift only and does not consider lateral forces.



August 10, 2022

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

Job 33067-33067A	Truss HG1	Truss Type HIP GIRDER	Qty 1	Ply <b>2</b>	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	I53559259
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:40 2022 Page 2  
ID:W17blGclgq2WNY\_TbTxie4yHe28-viKzIhyDQir0Q77ei23VHZ\_oUyHoD9aod0AwJVypdDL

**NOTES-**

- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-43, 4-9=-53, 9-12=-43, 2-11=-20

Concentrated Loads (lb)

Vert: 4=-63(B) 9=-63(B) 20=-33(B) 14=-33(B) 23=-77(B) 24=-76(B) 25=-58(B) 27=-58(B) 28=-58(B) 29=-58(B) 30=-58(B) 31=-58(B) 32=-58(B) 33=-58(B) 34=-58(B) 36=-58(B) 37=-76(B) 38=-77(B) 40=-69(B) 41=-38(B) 42=-33(B) 43=-33(B) 44=-33(B) 45=-33(B) 46=-33(B) 47=-33(B) 48=-33(B) 49=-33(B) 50=-33(B) 51=-33(B) 52=-38(B) 53=-69(B)

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

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818 Soundside Road  
Edenton, NC 27932

Job 33067-33067A	Truss HG2	Truss Type HIP GIRDER	Qty 1	Ply 2	180 BIRCHWOOD GROVE - ROOF	153559260
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MITek Industries, Inc. Tue Aug 9 09:24:48 2022 Page 1

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Scale = 1:67.1

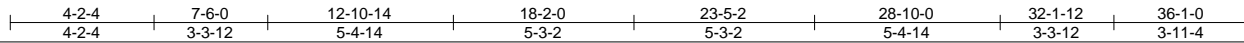
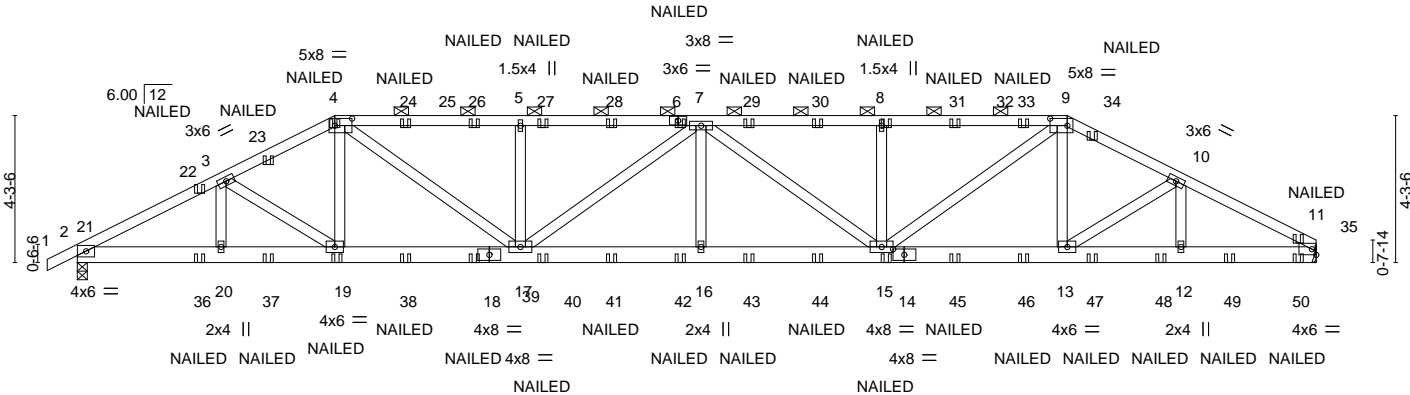


Plate Offsets (X,Y)-- [4:0-6-0,0-2-8], [9:0-6-0,0-2-8], [14:0-3-14,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	0.19	16	>999	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.36	16	>999		
TCDL 10.0	Rep Stress Incr	NO	WB 0.25	Horz(CT)	0.08	11	n/a		
BCLL 0.0 *	Code IRC2015/TPI2014		Matrix-S						
BCDL 10.0								Weight: 443 lb	FT = 20%

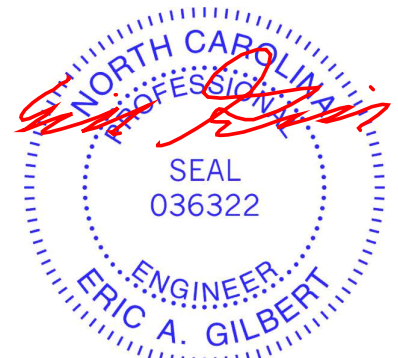
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 4-17,7-17,7-15,9-15: 2x4 SP No.2

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

**REACTIONS.** (size) 11=Mechanical, 2=0-3-8  
 Max Horz 2=64(LC 12)  
 Max Uplift 11=-488(LC 8), 2=-459(LC 9)  
 Max Grav 11=2465(LC 2), 2=2506(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-4666/935, 3-4=-4395/997, 4-5=-5421/1324, 5-7=-5420/1324, 7-8=-5347/1315, 8-9=-5347/1315, 9-10=-4210/969, 10-11=-4391/892  
 BOT CHORD 2-20=-830/4027, 19-20=-830/4027, 17-19=-861/3886, 16-17=-1409/5907, 15-16=-1409/5907, 13-15=-793/3731, 12-13=-721/3713, 11-12=-721/3713  
 WEBS 3-19=-260/96, 4-19=0/476, 4-17=-548/1921, 5-17=-601/350, 7-17=-631/178, 7-16=0/403, 7-15=-733/198, 8-15=-604/352, 9-15=-571/2033, 9-13=0/419, 10-13=-281/179

- 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 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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)



August 10, 2022

Continued on page 2

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



818 Soundside Road  
 Edenton, NC 27932

Job 33067-33067A	Truss HG2	Truss Type HIP GIRDER	Qty 1	Ply <b>2</b>	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	I53559260
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:48 2022 Page 2  
ID:W17bIGclgq2WNY\_TbTxie4yHe28-gFp\_\_Q2EX9stNMkBAKNCfJAoAz85nVzSG6Mb2ypdDD

**NOTES-**

- 13) 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.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-43, 4-9=-53, 9-11=-43, 2-11=-20

Concentrated Loads (lb)

Vert: 4=-63(F) 6=-58(F) 19=-33(F) 8=-58(F) 15=-33(F) 22=-77(F) 23=-76(F) 24=-58(F) 26=-58(F) 27=-58(F) 28=-58(F) 29=-58(F) 30=-58(F) 31=-58(F) 33=-58(F) 34=-67(F) 35=-80(F) 36=-69(F) 37=-38(F) 38=-33(F) 39=-33(F) 40=-33(F) 41=-33(F) 42=-33(F) 43=-33(F) 44=-33(F) 45=-33(F) 46=-33(F) 47=-33(F) 48=-33(F) 49=-33(F) 50=-39(F)

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

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



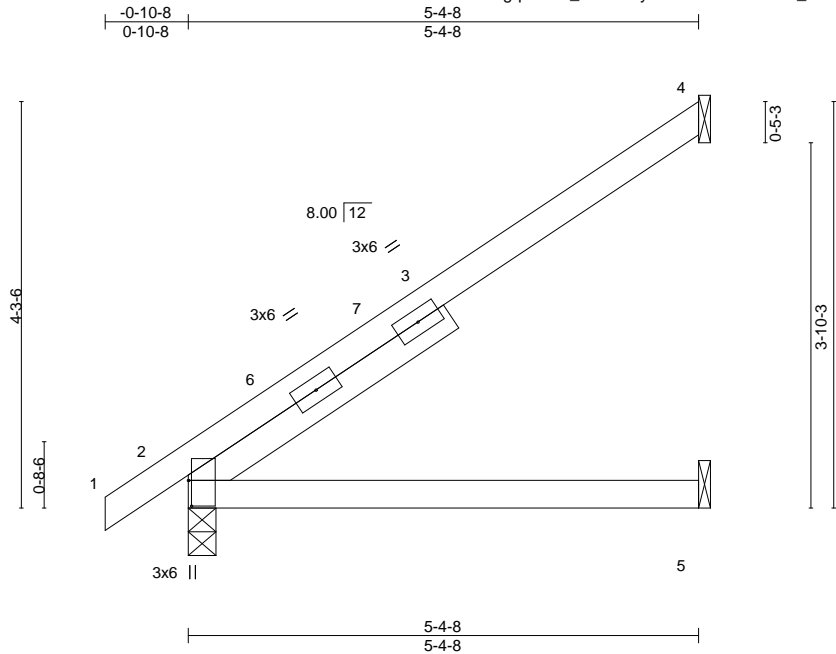
818 Soundside Road  
Edenton, NC 27932

Job 33067-33067A	Truss J1	Truss Type JACK-OPEN	Qty 27	Ply 1	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	153559261
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:49 2022 Page 1

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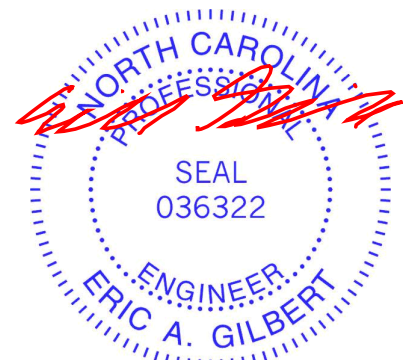
Plate Offsets (X,Y)--	[2:0-3-4,0-0-6]				
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.54	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.60	Vert(LL) -0.05 2-5 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.10 2-5 >620 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 24 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER Left 2x4 SP No.3 3-3-2	

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
 Max Horz 2=135(LC 14)  
 Max Uplift 4=102(LC 14)  
 Max Grav 4=165(LC 26), 2=269(LC 2), 5=106(LC 5)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-3-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 3) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 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) 4=102.



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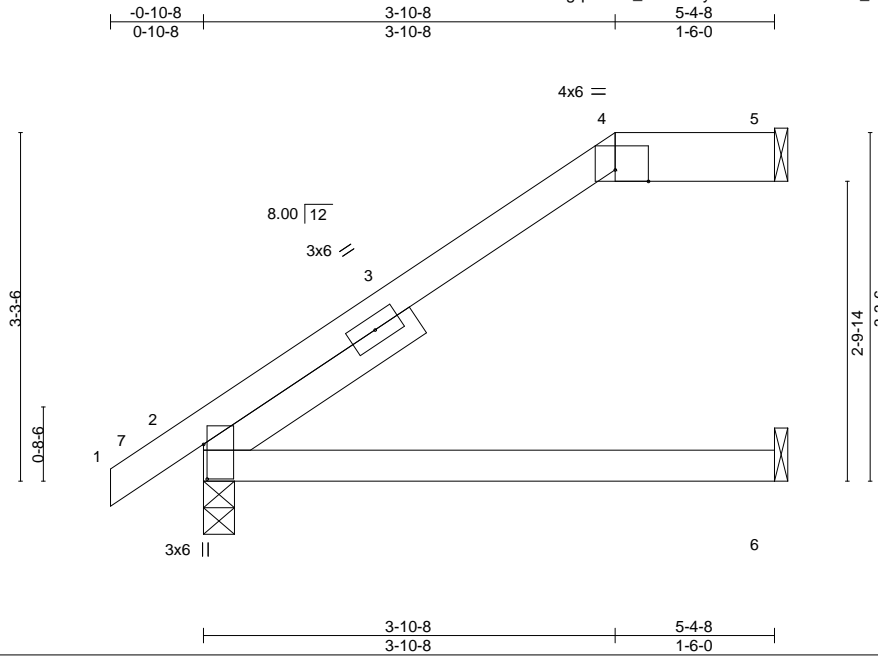


Job 33067-33067A	Truss J2	Truss Type JACK-OPEN	Qty 3	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559262
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:49 2022 Page 1

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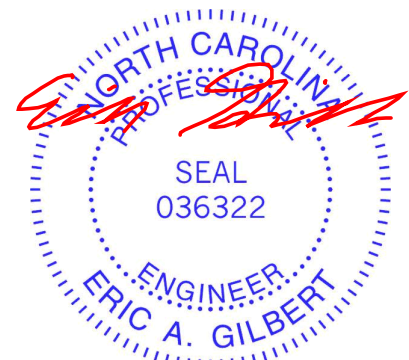
Plate Offsets (X,Y)--	[2:0-3-15,0-0-6], [4:0-3-12,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.77	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.48	Vert(LL) 0.04 2-6 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.08 2-6 >837 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.08 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 24 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.3 *Except* 4-5: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except 2-0-0 oc purlins: 4-5.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER Left 2x4 SP No.3 2-4-5	

**REACTIONS.** (size) 5=Mechanical, 2=0-3-8, 6=Mechanical  
 Max Horz 2=102(LC 14)  
 Max Uplift 5=47(LC 14), 2=-10(LC 14)  
 Max Grav 5=146(LC 2), 2=269(LC 2), 6=95(LC 5)

**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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 3-10-8, Exterior(2) 3-10-8 to 5-3-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
  - 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 2. This connection is for uplift only and does not consider lateral forces.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 10, 2022

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 33067-33067A	Truss J3	Truss Type JACK-OPEN GIRDER	Qty 3	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559263
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84 Components (Dunn),

Dunn, NC - 28334,

8,610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:50 2022 Page 1

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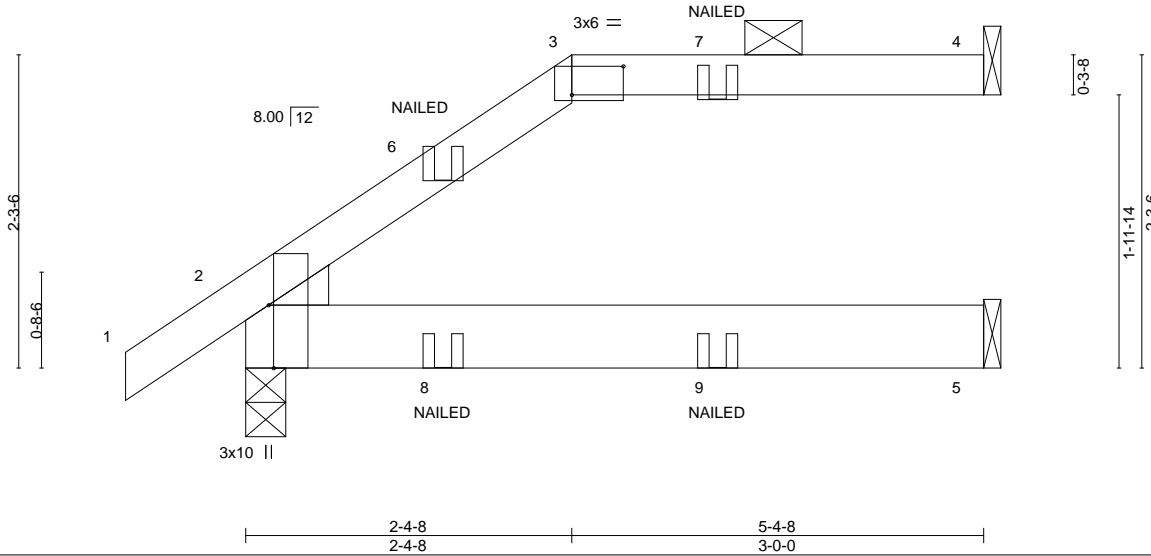


Plate Offsets (X, Y)-- [2:0-5-8,Edge], [3:0-4-8,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.77	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.23	Vert(LL) -0.01 2-5 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.03 2-5 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-P	Horz(CT) 0.08 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 24 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x6 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
 Max Horz 2=71(LC 35)  
 Max Uplift 4=-59(LC 7), 2=-29(LC 10)  
 Max Grav 4=144(LC 2), 2=321(LC 2), 5=131(LC 5)

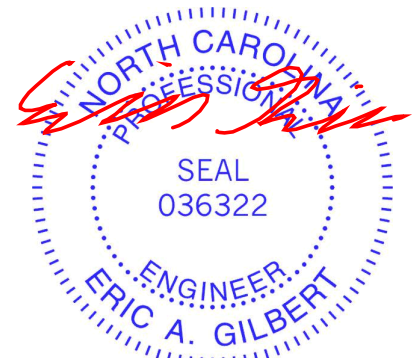
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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 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.
- 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.
- "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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-43, 3-4=-53, 2-5=-20



August 10, 2022

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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818 Soundside Road  
 Edenton, NC 27932

Job 33067-33067A	Truss J3	Truss Type JACK-OPEN GIRDER	Qty 3	Ply 1	180 BIRCHWOOD GROVE - ROOF  Job Reference (optional)	I53559263
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:50 2022 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 6=-44(F) 7=-11(F) 8=-16(F) 9=-13(F)

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

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



818 Soundside Road  
Edenton, NC 27932

Job 33067-33067A	Truss J4	Truss Type JACK-OPEN	Qty 3	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559264
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:51 2022 Page 1

ID:W17blGclgq2WNY\_TbTxie4yHe28-4qV7cS56q4ESFpTlssm4EtmmN7nIA8Q9EK0CNypdDA



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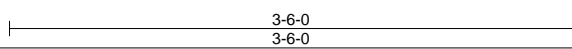
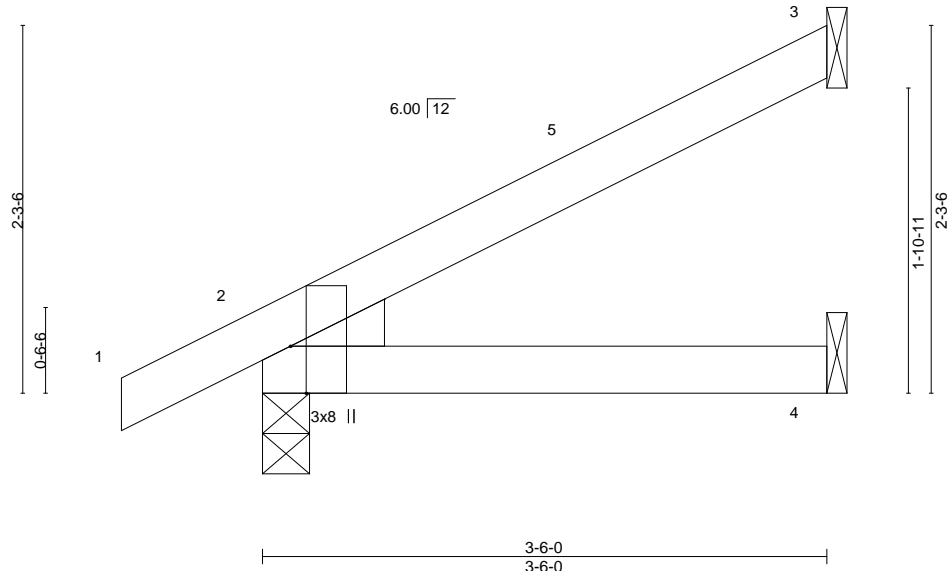


Plate Offsets (X,Y)--	[2:0-3-8,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.28	Vert(LL) -0.01	2-4	>999	240	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Lumber DOL 1.15		BC 0.21	Vert(CT) -0.02	2-4	>999	180		
TCDL 10.0	Rep Stress Incr YES		WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCLL 0.0 *	Code IRC2015/TPI2014		Matrix-P						
BCDL 10.0								Weight: 14 lb	FT = 20%

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

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
 Max Horz 2=70(LC 16)  
 Max Uplift 3=-51(LC 16), 2=-15(LC 16)  
 Max Grav 3=89(LC 2), 2=202(LC 2), 4=66(LC 7)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 3-5-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 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) 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) 3.
  - 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.



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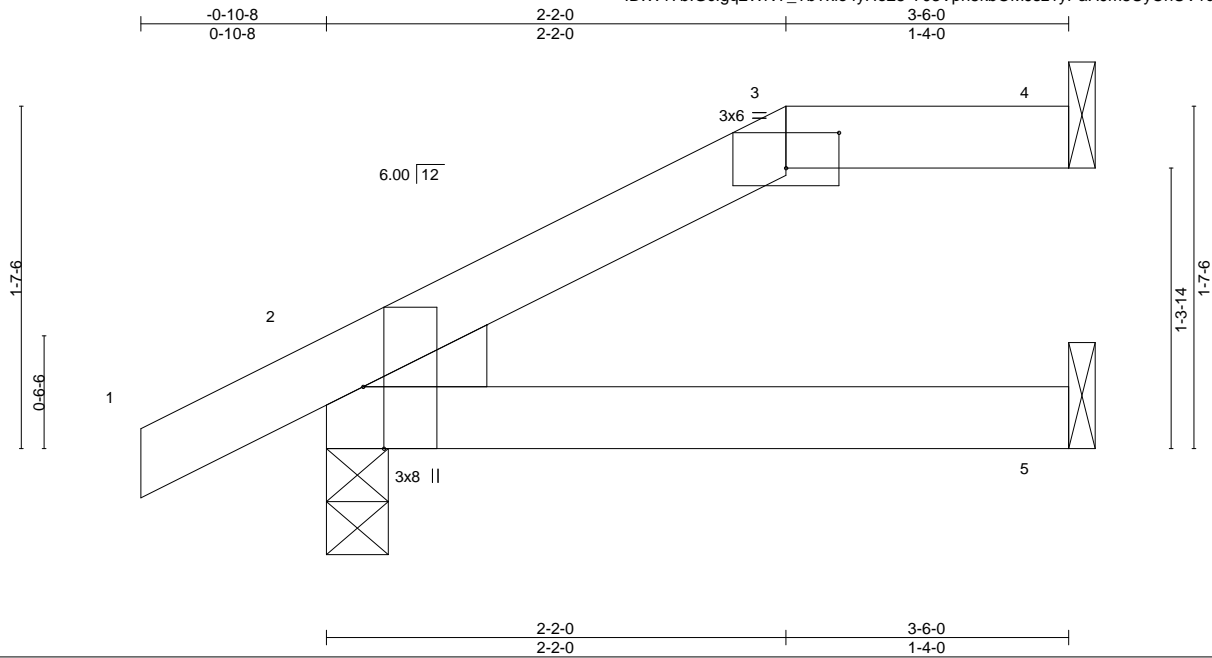
Job 33067-33067A	Truss J5	Truss Type JACK-OPEN	Qty 3	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559265
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:52 2022 Page 1

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Scale = 1:10.9

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.23	in (loc) l/def L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.18	Vert(LL) -0.01 2-5 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.01 2-5 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 13 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-6-0 oc purlins, except 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
 Max Horz 2=50(LC 16)  
 Max Uplift 4=-25(LC 13), 2=-22(LC 16)  
 Max Grav 4=87(LC 35), 2=235(LC 36), 5=61(LC 7)

**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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4.
- 11) 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.
- 12) 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 10, 2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

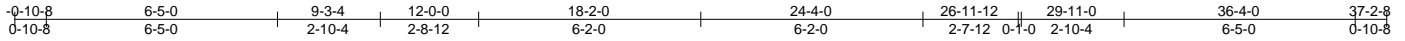
Job 33067-33067A	Truss T4	Truss Type ROOF TRUSS	Qty 2	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559266
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84 Components (Dunn), Dunn, NC - 28334,

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Job Reference (optional)



Scale: 3/16"=1'

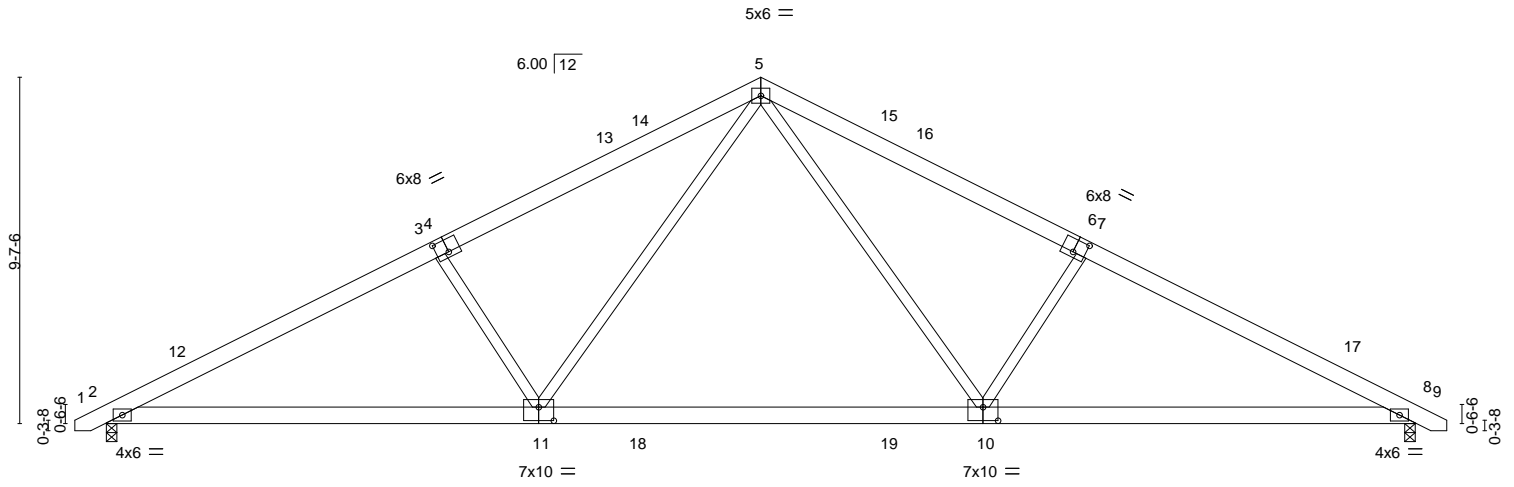


Plate Offsets (X,Y)--	[4:0-4-0,0-4-4], [6:0-4-0,0-4-4], [10:0-5-0,0-4-8], [11:0-5-0,0-4-8]
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<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.32	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.47	10-11	>928	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.07	8	n/a	n/a		
BCLL	0.0 *	Code IRC2015/TPI2014		Matrix-S								
BCDL	10.0											
												Weight: 231 lb FT = 20%

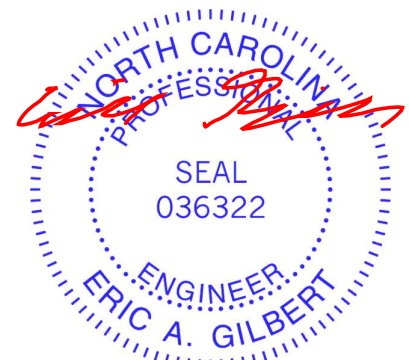
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-0-1 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2 *Except* 7-10,3-11: 2x4 SP No.3		

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=134(LC 21)  
 Max Uplift 2=93(LC 16), 8=93(LC 17)  
 Max Grav 2=1490(LC 2), 8=1490(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2547/167, 3-5=-2280/193, 5-7=-2280/193, 7-8=-2547/168  
 BOT CHORD 2-11=-183/2198, 10-11=0/1432, 8-10=-49/2198  
 WEBS 5-10=-94/928, 7-10=-549/266, 5-11=-94/928, 3-11=-549/266

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-7-14 to 2-4-2, Interior(1) 2-4-2 to 18-2-0, Exterior(2) 18-2-0 to 21-2-0, Interior(1) 21-2-0 to 36-11-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 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.
- 8) One H2.5A Simpson Strong-Tie 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.
- 9) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



August 10, 2022

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job 33067-33067A	Truss T5	Truss Type ROOF TRUSS	Qty 4	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559267
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:55 2022 Page 1

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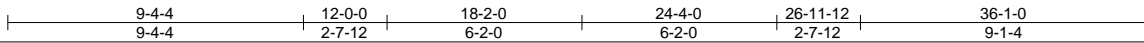
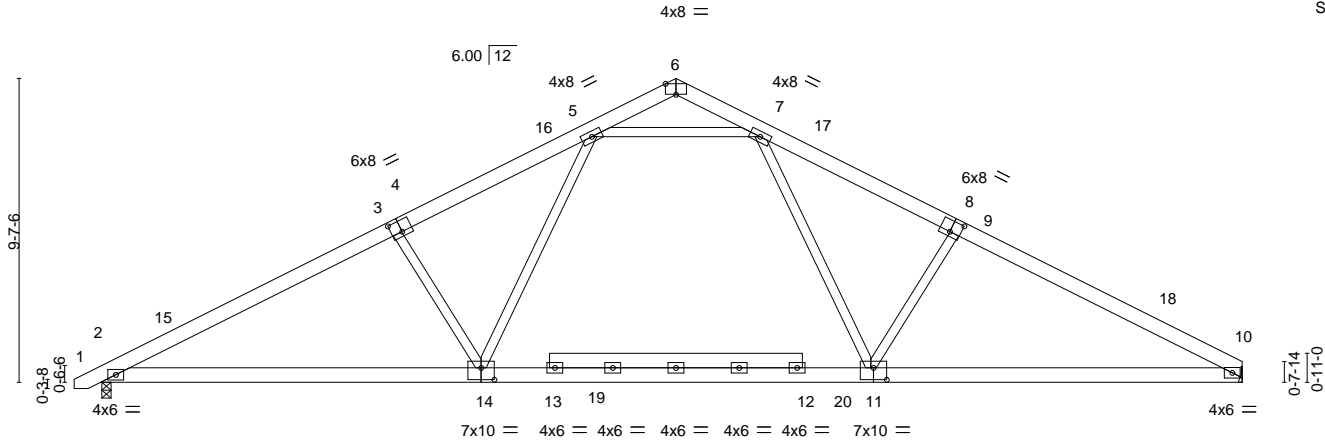


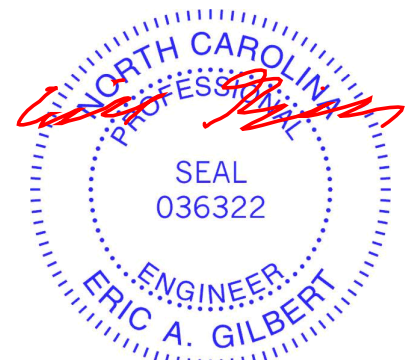
Plate Offsets (X, Y)--	[4:0-4-0,0-4-4], [6:0-4-0,Edge], [8:0-4-0,0-4-4], [11:0-5-0,0-4-8], [14:0-5-0,0-4-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.64	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Lumber DOL 1.15	BC 0.76	Vert(LL) -0.20 2-14 >999 240		
TCDL 10.0	Rep Stress Incr YES	WB 0.75	Vert(CT) -0.38 2-14 >999 180		
BCLL 0.0 *	Code IRC2015/TPI2014	Matrix-S	Horz(CT) 0.07 10 n/a n/a		
BCDL 10.0				Weight: 248 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-6-10 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 *Except* 7-11,5-14: 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 10=Mechanical  
 Max Horz 2=138(LC 16)  
 Max Uplift 2=94(LC 16), 10=79(LC 17)  
 Max Grav 2=1484(LC 2), 10=1434(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2508/157, 3-5=-2272/176, 7-9=-2257/183, 9-10=-2487/160  
 BOT CHORD 2-14=-176/2158, 11-14=-11/1625, 10-11=-48/2133  
 WEBS 7-11=-74/822, 9-11=-538/266, 5-14=-75/846, 3-14=-562/264, 5-7=-1465/155

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-7-14 to 2-4-2, Interior(1) 2-4-2 to 18-2-0, Exterior(2) 18-2-0 to 20-11-3, Interior(1) 20-11-3 to 36-0-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 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.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10.
  - 10) 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.
  - 11) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

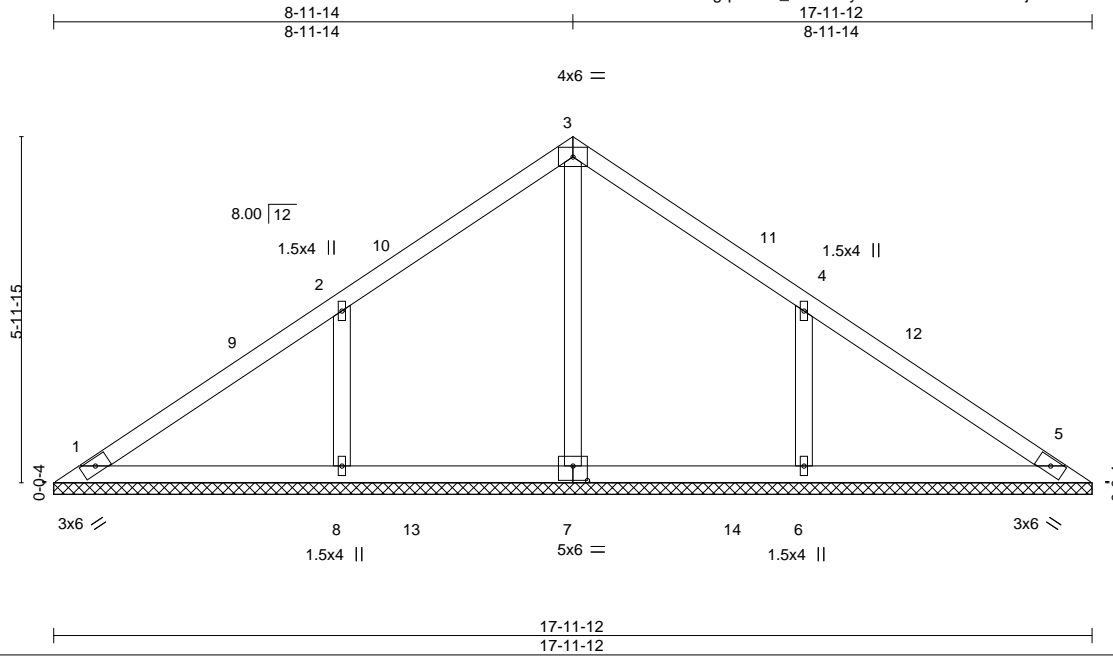


August 10, 2022

Job 33067-33067A	Truss V1	Truss Type GABLE	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	153559268
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:56 2022 Page 1  
ID:W17b1Gclgq2WNY\_TbTxie4yHe28-Rnl0f98FfcsLbLjePMFxfcyOrmzQq9lV2ntaypdD5



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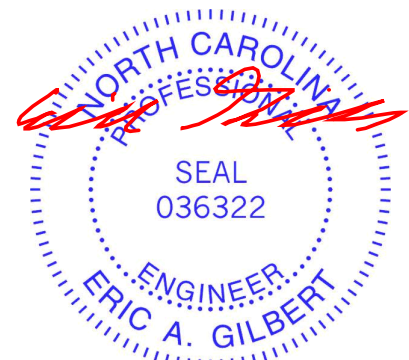
Plate Offsets (X,Y)-- [7:0-3-0,0-3-0]												
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2015/TPI2014		Matrix-S								
BCDL	10.0											
												Weight: 73 lb FT = 20%

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

**REACTIONS.** All bearings 17-11-12.  
 (lb) - Max Horz 1=120(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=125(LC 14), 6=125(LC 15)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=340(LC 28), 8=448(LC 25), 6=448(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-316/176, 4-6=-316/176

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 8-11-14, Exterior(2) 8-11-14 to 11-11-14, Interior(1) 11-11-14 to 17-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 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.



August 10, 2022

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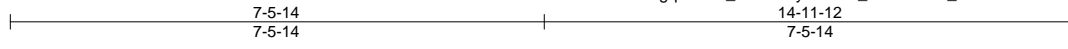


Job 33067-33067A	Truss V2	Truss Type Valley	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF	153559269
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:57 2022 Page 1

ID:W17blGclgq2WNY\_TbTxie4yHe28-v\_sOsV9tQw\_bzkwvC7tUT8BjocuiuelX9nKP0ypdD4



Scale: 3/8"=1'

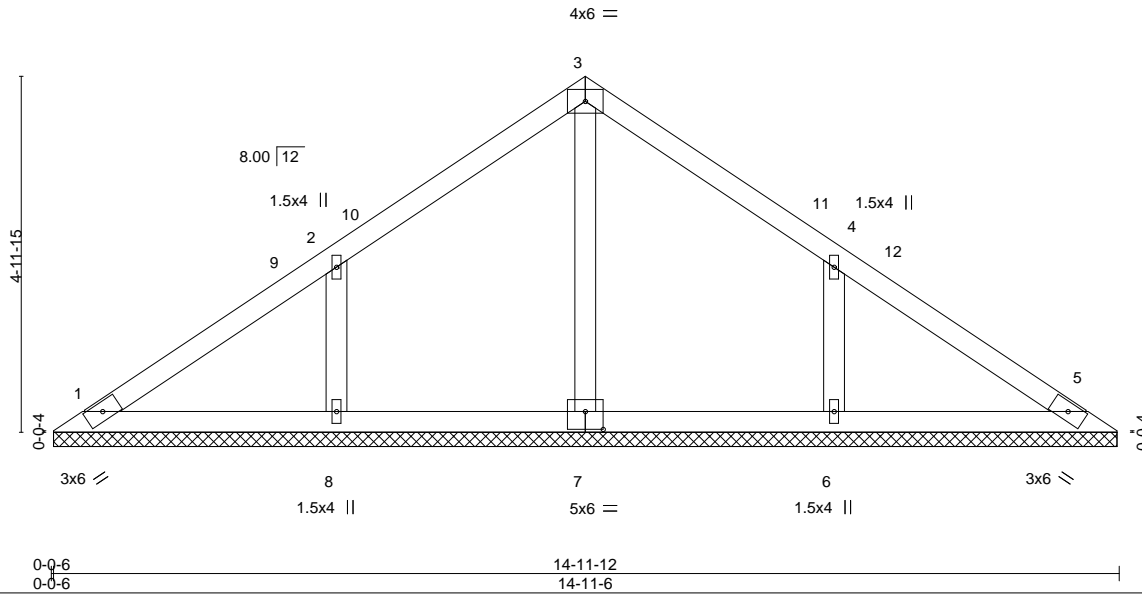


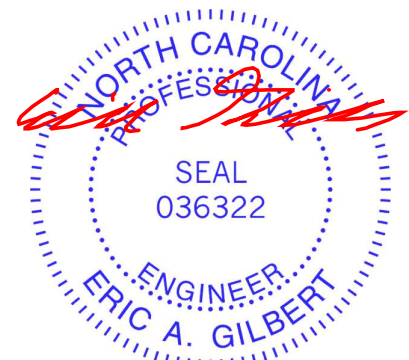
Plate Offsets (X,Y)-- [7:0-3-0,0-3-0]								
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>
TCLL (roof) 20.0		Plate Grip DOL 2-0-0		TC 0.18		in (loc) l/defl L/d		MT20
Snow (Pf/Pg) 11.6/15.0		Lumber DOL 1.15		BC 0.10		Vert(LL) n/a - n/a 999		GRIP 244/190
TCDL 10.0		Rep Stress Incr YES		WB 0.06		Vert(CT) n/a - n/a 999		
BCLL 0.0 *		Code IRC2015/TPI2014		Matrix-S		Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0								Weight: 60 lb FT = 20%

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

**REACTIONS.** All bearings 14-11-0.  
 (lb) - Max Horz 1=98(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 6=-102(LC 15), 8=-102(LC 14)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=345(LC 26), 8=345(LC 25)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 4-6=-259/144, 2-8=-259/144

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 7-5-14, Exterior(2) 7-5-14 to 10-5-14 to 14-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 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.



August 10, 2022

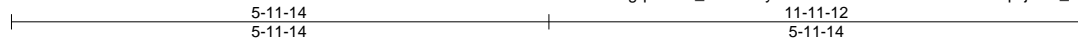
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY  <b>TRENCO</b>          A MiTek Affiliate</p> <p>818 Soundside Road          Edenton, NC 27932</p>
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Job 33067-33067A	Truss V3	Truss Type GABLE	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	153559270
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84 Components (Dunn), Dunn, NC - 28334,

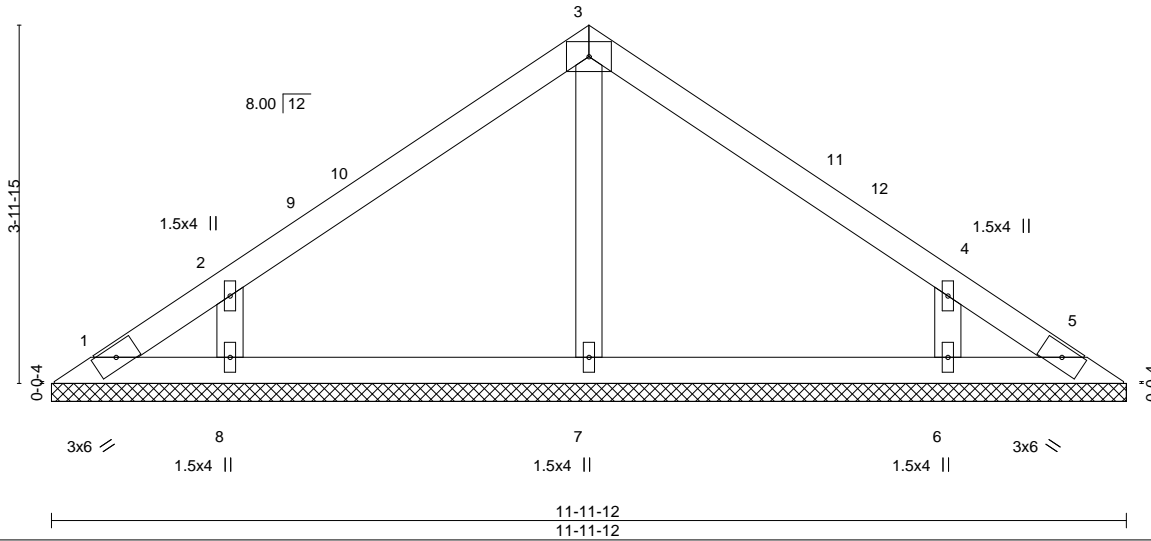
8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:58 2022 Page 1

ID:W17blGclgq2WNY\_TbTxie4yHe28-NAQm4rAVBE6SauV6mqOj0Mk\_TCYrRL0SmpXtyTypdD3



4x6 =

Scale = 1:25.7



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.18	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.12	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 45 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 11-11-12.  
(lb) - Max Horz 1=77(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=266(LC 2), 8=302(LC 25), 6=302(LC 26)

**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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 5-11-14, Exterior(2) 5-11-14 to 8-11-14, Interior(1) 8-11-14 to 11-5-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 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.



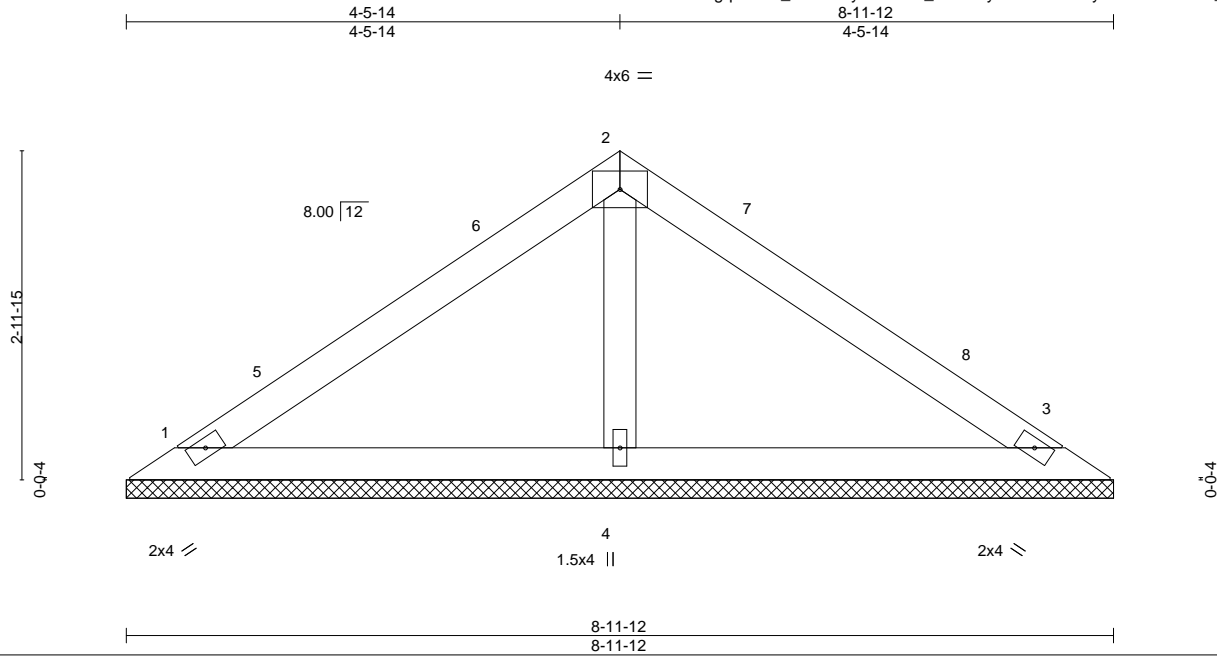
August 10, 2022

Job 33067-33067A	Truss V4	Truss Type GABLE	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	153559271
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:24:59 2022 Page 1

ID:W17blGclgq2WNY\_TbTxie4yHe28-rM\_9HBB7yXEJC24IKYvYZG3tctSAoQb\_TGRUvypdD2



Scale = 1:21.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.53	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P					Weight: 31 lb	FT = 20%
BCDL 10.0	Code IRC2015/TPI2014							

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 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.** (size) 1=8-11-12, 3=8-11-12, 4=8-11-12  
 Max Horz 1=-56(LC 10)  
 Max Uplift 1=-26(LC 14), 3=-33(LC 15)  
 Max Grav 1=172(LC 2), 3=172(LC 2), 4=297(LC 2)

**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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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 4-5-14, Exterior(2) 4-5-14 to 7-5-14, Interior(1) 7-5-14 to 8-5-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 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.



August 10, 2022

Job 33067-33067A	Truss V5	Truss Type VALLEY	Qty 1	Ply 1	180 BIRCHWOOD GROVE - ROOF Job Reference (optional)	153559272
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84 Components (Dunn), Dunn, NC - 28334,

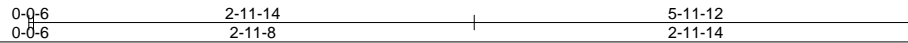
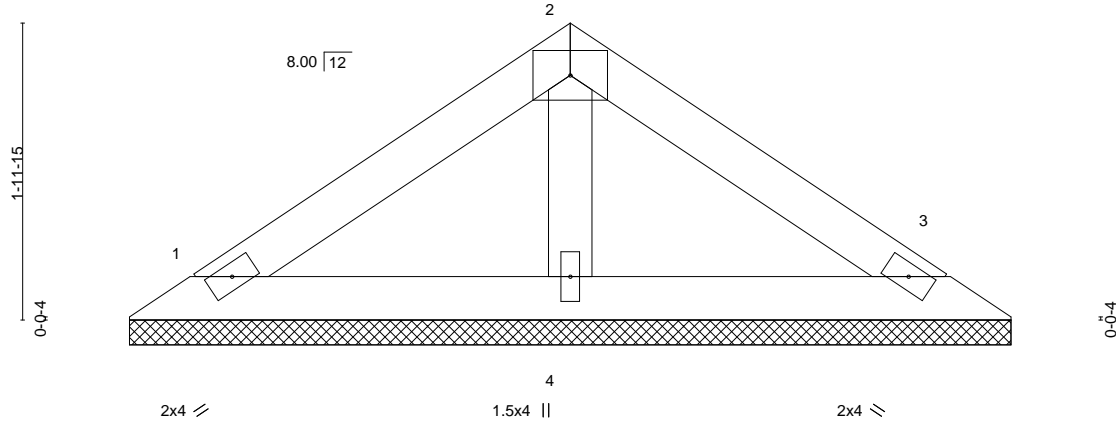
8.610 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 9 09:25:00 2022 Page 1

ID:W17blGclgq2WNY\_TbTxie4yHe28-JZXXVWBmjrNAqCfUfQB5npKs0EXvFzkD70\_0LypdD1



4x6 =

Scale = 1:15.5



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.19	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.11	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 20 lb	FT = 20%

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

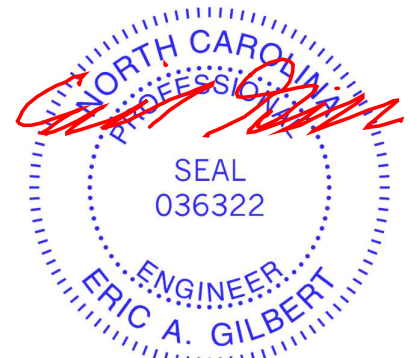
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-11-12 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-11-0, 3=5-11-0, 4=5-11-0  
 Max Horz 1=35(LC 11)  
 Max Uplift 1=-16(LC 14), 3=-21(LC 15)  
 Max Grav 1=107(LC 2), 3=107(LC 2), 4=186(LC 2)

**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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; 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
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 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.



August 10, 2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

**4 X 4**

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

## LATERAL BRACING LOCATION



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

## BEARING



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

### Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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



# General Safety Notes

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

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