

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 21689A  
240.2596.D.10x20cvp.tray

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: I38015620 thru I38015662

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



August 2, 2019

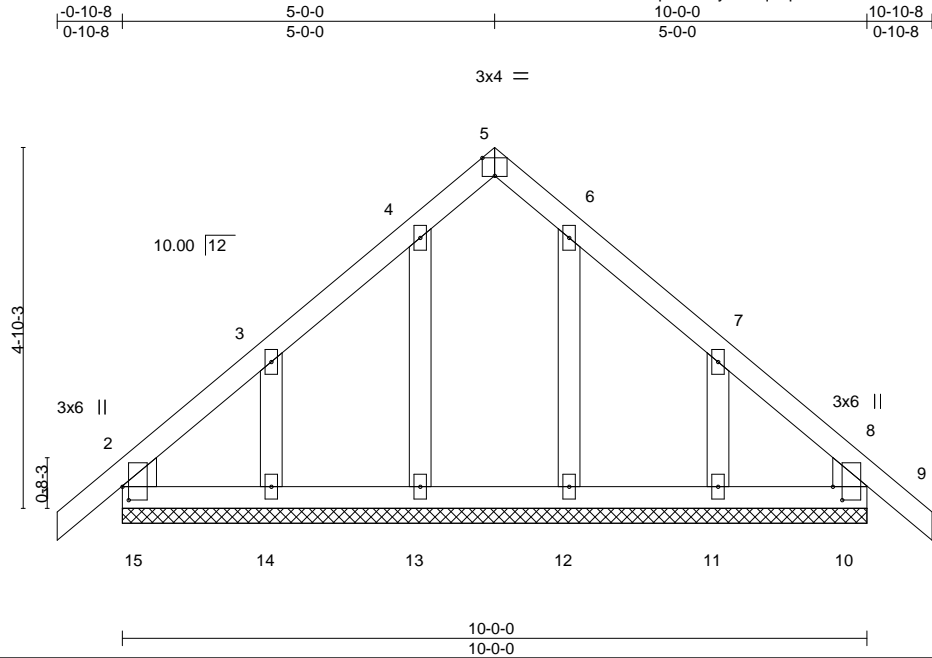
Sevier, Scott

**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 21689A	Truss AE	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015620
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84 Components, Dunn, NC 28334

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8.310 s Jul 27 2019 MITek Industries, Inc. Thu Aug 1 15:35:38 2019 Page 1



Scale = 1:30.9

Plate Offsets (X,Y)-- [2:0-2-2,0-1-0], [2:0-2-5,0-2-12], [5:0-2-0,Edge], [8:0-2-2,0-1-8], [8:0-2-5,0-2-12], [10:0-0-0,0-2-12], [15:0-0-0,0-2-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL)	-0.00	9	n/r	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT)	-0.00	9	n/r		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT)	-0.00	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 56 lb	FT = 20%

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

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

**REACTIONS.** All bearings 10'-0-0.  
 (lb) - Max Horz 15=121(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 15, 12 except 10=125(LC 12), 14=111(LC 12), 11=127(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 10, 15, 14, 13, 12, 11

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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 2-0-0, Exterior(2) 2-0-0 to 5-0-0, Corner(3) 5-0-0 to 8-0-0, Exterior(2) 8-0-0 to 10-10-8 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) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 7) Gable studs spaced at 2'-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" tall by 2'-0" wide will fit between the bottom chord and any other members.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 12 except (jt=lb) 10=125, 14=111, 11=127.
  - 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

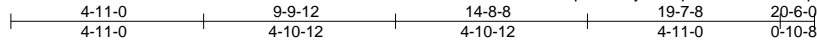


818 Soundside Road  
 Edenton, NC 27932

Job 21689A	Truss BG	Truss Type GABLE	Qty 1	Ply 3	240.2596.D.10x20cvp.tray	138015621
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MITek Industries, Inc. Thu Aug 1 15:35:39 2019 Page 1  
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Scale = 1:58.8

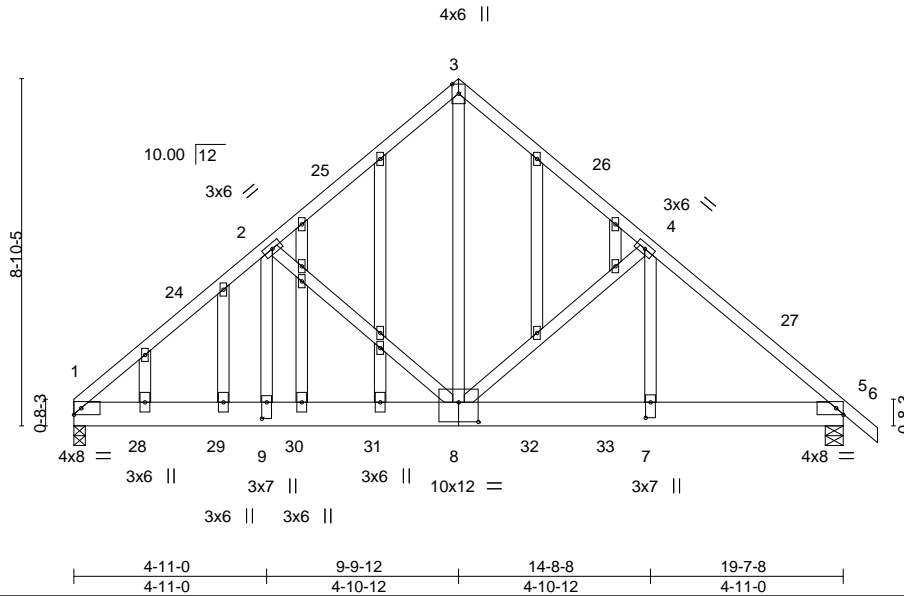


Plate Offsets (X,Y)--	[7:0-4-12,0-1-8], [8:0-6-0,0-6-0], [9:0-5-0,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL) 0.09	7-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.90	Vert(CT) -0.16	7-8	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.63	Horz(CT) -0.03	1	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 520 lb	FT = 20%

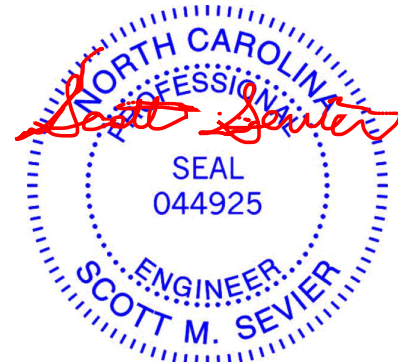
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x8 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 3-8: 2x4 SP No.2  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** (lb/size) 1=7370/0-3-8 (min. 0-2-14), 5=5942/0-5-8 (min. 0-2-5)  
 Max Horz 5=-216(LC 31)  
 Max Uplift 1=-1186(LC 12), 5=-1394(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-24=-9083/1531, 2-24=-8982/1552, 2-25=-6312/1311, 3-25=-6219/1343, 3-26=-6219/1335,  
 4-26=-6307/1312, 4-27=-8674/2142, 5-27=-8778/2120  
 BOT CHORD 1-28=-1080/6712, 28-29=-1080/6712, 9-29=-1080/6712, 9-30=-1080/6712,  
 30-31=-1080/6712, 8-31=-1080/6712, 8-32=-1606/6402, 32-33=-1606/6402,  
 7-33=-1606/6402, 5-7=-1606/6402  
 WEBS 2-9=-304/3432, 2-8=-2584/411, 3-8=-1591/7657, 4-8=-2173/976, 4-7=-1105/3031

- NOTES-**
- 3-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: 2x8 - 4 rows staggered at 0-5-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-9-12, Exterior(2) 9-9-12 to 12-9-12, Interior(1) 12-9-12 to 20-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1186, 5=1394.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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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. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job 21689A	Truss BG	Truss Type GABLE	Qty 1	Ply <b>3</b>	240.2596.D.10x20cvp.tray  Job Reference (optional)	I38015621
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:39 2019 Page 2  
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**NOTES-**

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1419 lb down and 188 lb up at 1-7-8, 1419 lb down and 188 lb up at 3-7-8, 1419 lb down and 188 lb up at 5-7-8, 1419 lb down and 189 lb up at 7-7-8, 1419 lb down and 182 lb up at 9-7-8, and 1419 lb down and 156 lb up at 11-7-8, and 3190 lb down and 1379 lb up at 13-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-6=-60, 1-5=-20

Concentrated Loads (lb)

Vert: 8=-1419(B) 28=-1419(B) 29=-1419(B) 30=-1419(B) 31=-1419(B) 32=-1419(B) 33=-3190(B)

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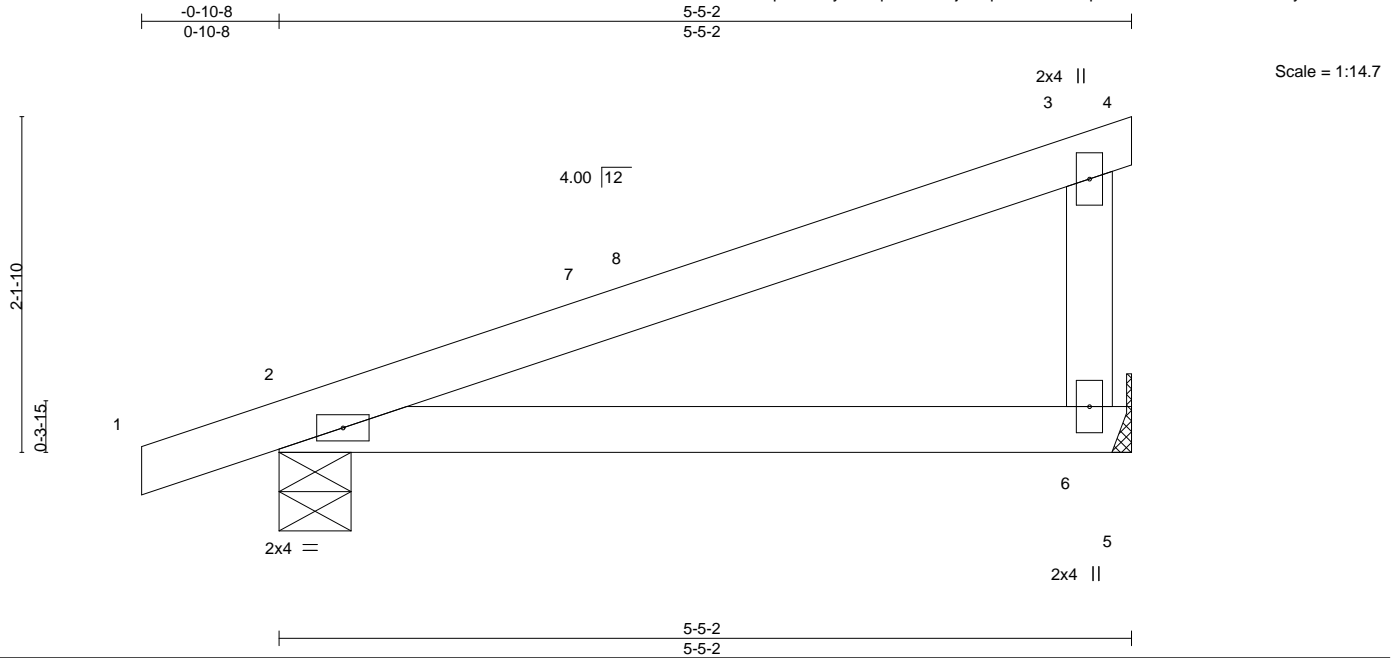


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss D1	Truss Type Monopitch	Qty 10	Ply 1	240.2596.D.10x20cvp.tray	138015622
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-oDVehTjmAqKRAs7KEQcpOWmQA52RaMh6E8oQHysAXX  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:40 2019 Page 1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.30	Vert(LL) -0.04 2-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.07 2-6 >841 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 n/a n/a		
	Code IRC2015/TPI2014			Weight: 20 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 6=201/Mechanical, 2=271/0-5-8 (min. 0-1-8)  
Max Horz 2=84(LC 8)  
Max Uplift 6=-49(LC 12), 2=-72(LC 8)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 5-5-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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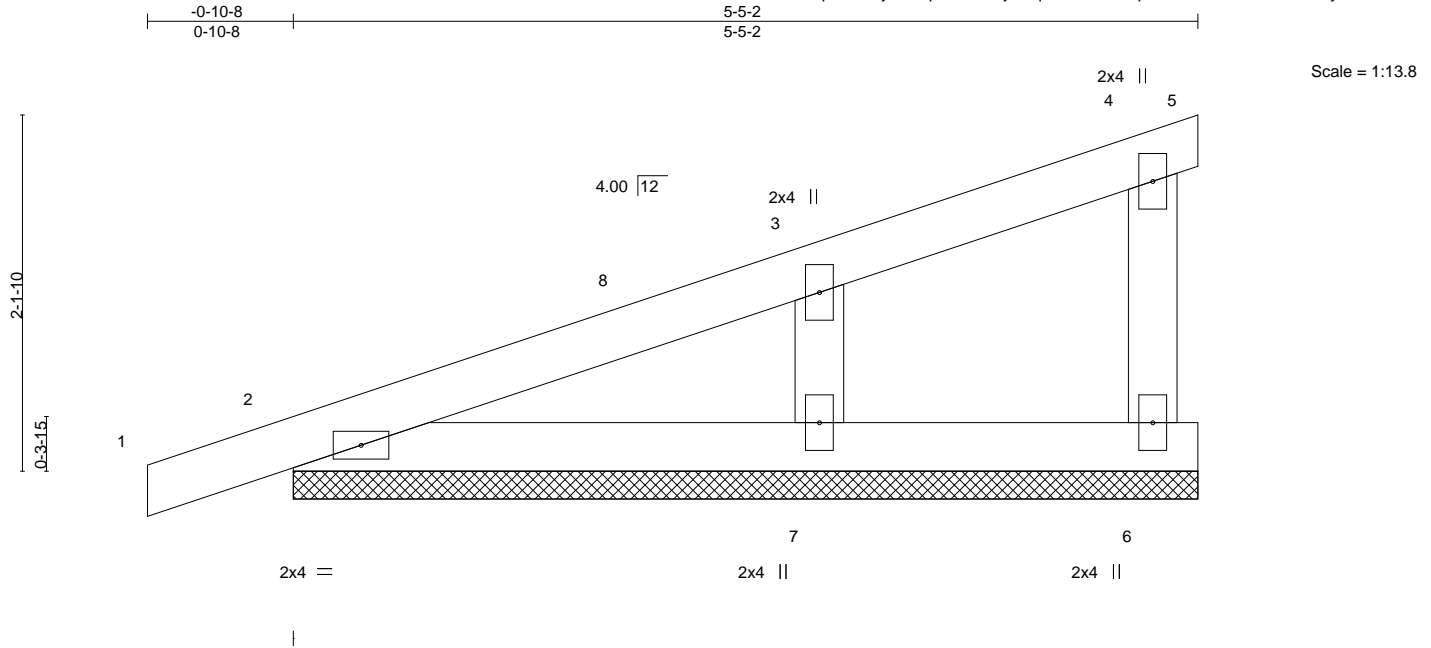


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss D1E	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	I38015623
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-oDVehfTjmAqKRAs7KEQcpOWrPA8YRaVh6E8oQHysAXX  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:40 2019 Page 1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 5 n/a n/a		
	Code IRC2015/TPI2014			Weight: 22 lb	FT = 20%

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

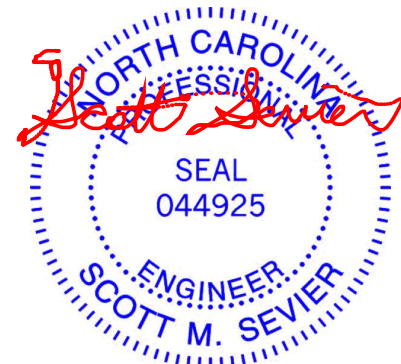
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-5-2 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-5-2.  
 (lb) - Max Horz 2=85(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 5, 6, 2, 7  
 Max Grav All reactions 250 lb or less at joint(s) 5, 6, 2 except 7=254(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=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 5-5-2 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) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6, 2, 7.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

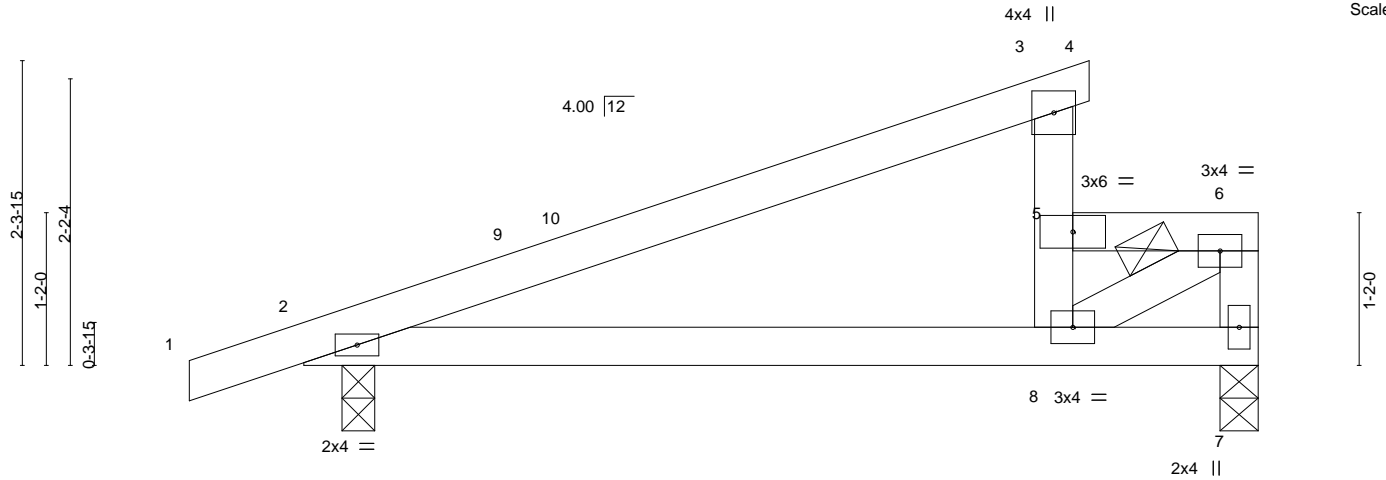
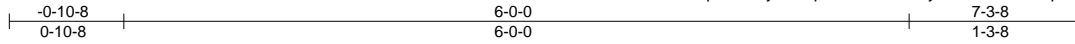
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 21689A	Truss D2	Truss Type Half Hip	Qty 5	Ply 1	240.2596.D.10x20cvp.tray	138015624
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-GP20v?ULXUyA3KRKuxxrLb3p6aQ8A\_jqKuuLyjysAXW  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:41 2019 Page 1



Scale = 1:17.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.94	Vert(LL)	-0.03	2-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.08	2-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.25	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 29 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-8, 5-6. Except: 6-0-0 oc bracing: 3-5  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 7=452/0-3-8 (min. 0-1-8), 2=387/0-3-0 (min. 0-1-8)  
Max Horz 2=134(LC 12)  
Max Uplift 7=-70(LC 12), 2=-89(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-9=-463/74, 9-10=-424/75, 3-10=-416/89, 5-6=-558/228, 6-7=-447/174  
BOT CHORD 2-8=-179/394  
WEBS 6-8=-244/604

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 7-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-20, 5-6=-75(F=-15), 2-7=-20  
Concentrated Loads (lb)  
Vert: 5=-190(F)



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



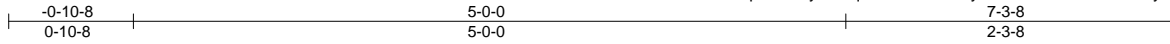
818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss D3	Truss Type Half Hip	Qty 4	Ply 1	240.2596.D.10x20cvp.tray	138015625
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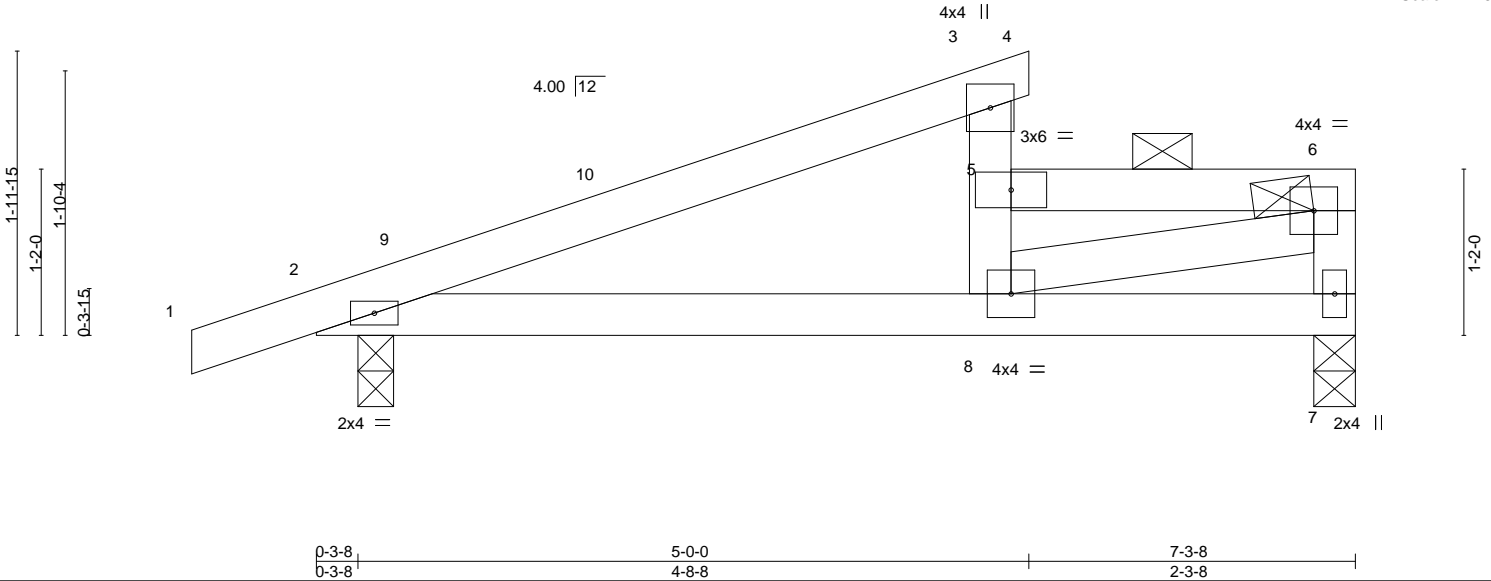
84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:41 2019 Page 1

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-GP20v?ULXUyA3KRKuxxrlB3tHaQuAyEqKuuLyjysAXW



Scale = 1:16.2



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	0.03	2-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.06	2-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.34	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 30 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 3-8: 2x4 SP No.2

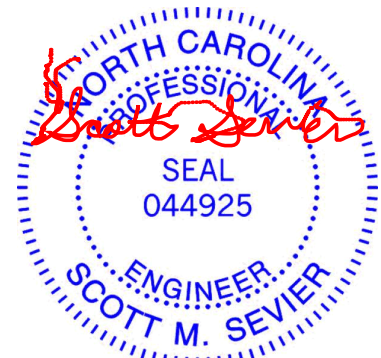
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-8, 5-6. Except: 10-0-0 oc bracing: 3-5  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 7=451/0-3-8 (min. 0-1-8), 2=427/0-3-0 (min. 0-1-8)  
 Max Horz 2=106(LC 12)  
 Max Uplift 7=-50(LC 9), 2=-92(LC 8)  
 Max Grav 7=458(LC 2), 2=427(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-9=-660/177, 9-10=-624/182, 3-10=-579/192, 5-6=-859/346, 6-7=-422/171  
 BOT CHORD 2-8=-256/589  
 WEBS 6-8=-337/833

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 7-1-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-4=-20, 5-6=-75(F=-15), 2-7=-20  
 Concentrated Loads (lb)  
 Vert: 5=-215(F)



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



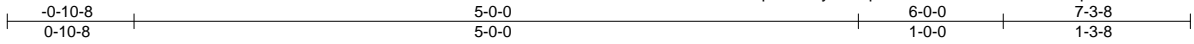
818 Soundside Road  
 Edenton, NC 27932



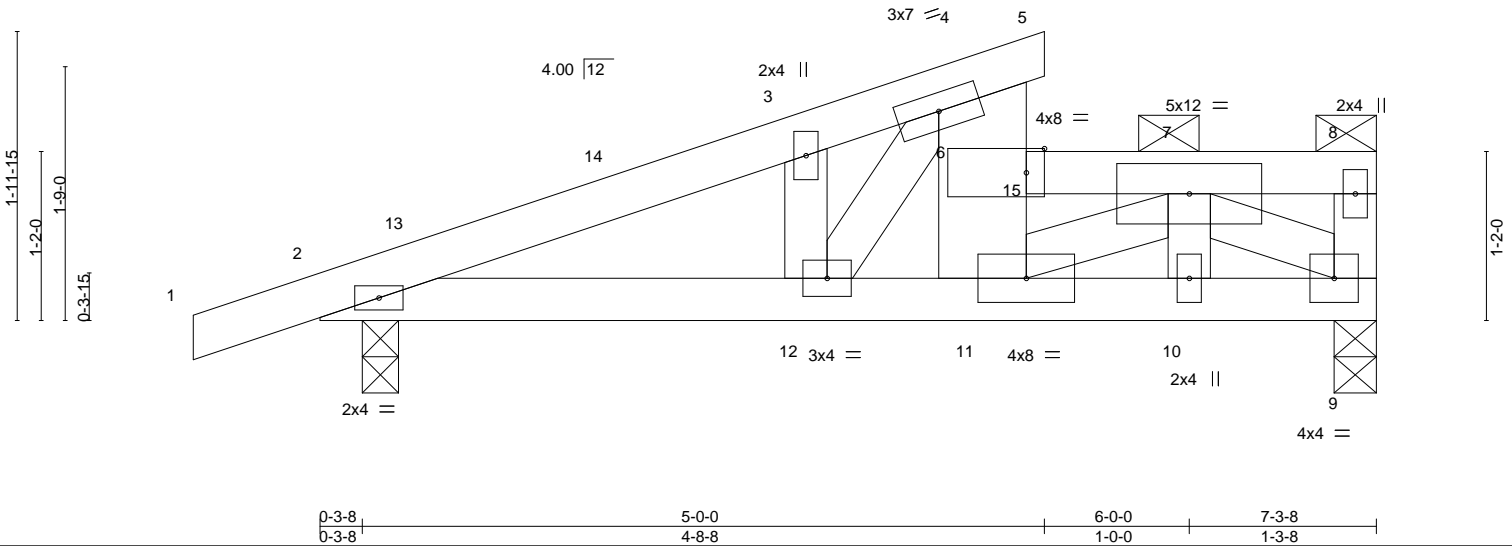
Job 21689A	Truss D3A	Truss Type Half Hip	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015626
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:42 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-kbcP6LUzlo41hU0WRfS4upb5BziSvORzZYdvVAysAXV



Scale: 3/4"=1'



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	0.03	11-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.05	11-12	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.41	Horz(CT)	0.02	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 36 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
4-11: 2x8 SP No.2

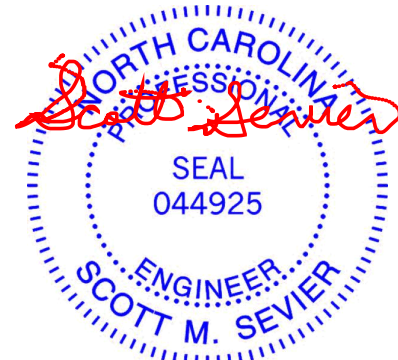
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-0-5 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-1 max.): 4-11, 6-8. Except: 10-0-0 oc bracing: 4-6  
BOT CHORD Rigid ceiling directly applied or 7-0-14 oc bracing.

**REACTIONS.** (lb/size) 9=1502/0-3-8 (min. 0-1-15), 2=628/0-3-0 (min. 0-1-8)  
Max Horz 2=103(LC 12)  
Max Uplift 9=-248(LC 9), 2=-128(LC 8)  
Max Grav 9=1616(LC 19), 2=628(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-13=-1302/440, 13-14=-1266/444, 3-14=-1262/450, 3-4=-1248/483, 6-15=-2009/795,  
7-15=-2009/795  
BOT CHORD 2-12=-507/1193, 11-12=-460/1134, 10-11=-693/1874, 9-10=-693/1874  
WEBS 7-9=-2221/823

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 7-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=248, 2=128.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-60, 4-5=-60, 6-15=-35(F=-15), 8-15=-75(F=-15), 2-9=-20  
Concentrated Loads (lb)  
Vert: 7=-1242(F) 15=-215(F)



August 2, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

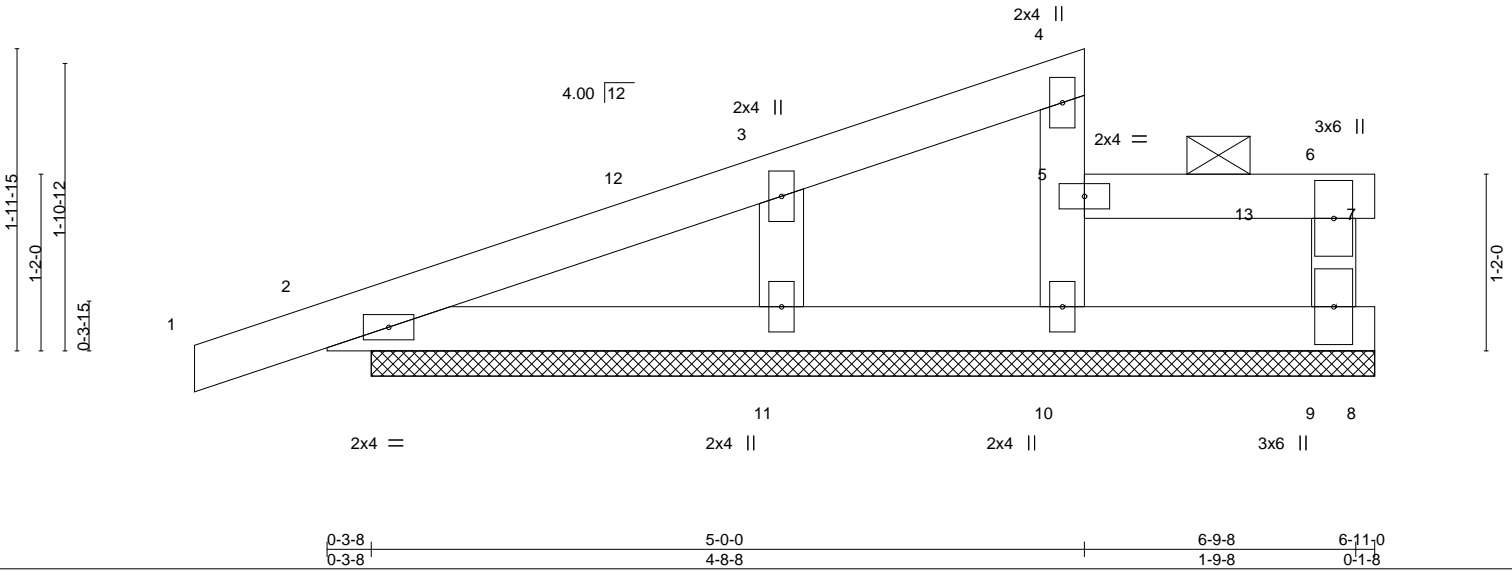
Job 21689A	Truss D3E	Truss Type Half Hip Supported	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015627
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-kbcP6LUzlo41hU0WRFS4upbAuzq1vSrZydvVAysAXV  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:42 2019 Page 1



Scale = 1:15.2



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/def	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	-0.00	7	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 27 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, except end verticals, and 2-0-0 oc purlins: 5-10, 5-7.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 6-7-8.  
 (lb) - Max Horz 2=106(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 10, 2, 8, 11, 9 except 7=-287(LC 19)  
 Max Grav All reactions 250 lb or less at joint(s) 7, 2, 11 except 10=292(LC 19), 9=690(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 5-10=-265/223  
 WEBS 6-9=-646/435

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 6-11-0 zone; C-C for members and floors & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 2, 8, 11, 9 except (jt=lb) 7=287.
  - Non Standard bearing condition. Review required.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 5-7=-75(F=-15), 2-8=-20



August 2, 2019

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss D3E	Truss Type Half Hip Supported	Qty 1	Ply 1	240.2596.D.10x20cvp.tray  Job Reference (optional)	I38015627
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:42 2019 Page 2  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-kbcP6LUzIo41hU0WRFs4upbAuzq1vSrZydvVAYSXV

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 5=-125(F) 13=-263(F)

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

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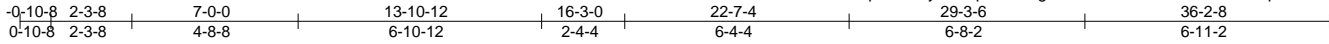


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss H1T	Truss Type Hip	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015628
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-CoAnKgVb35Culdbi?MzJQ08AxN?reqe7oCNS1cysAXU  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:43 2019 Page 1



Scale = 1:65.3

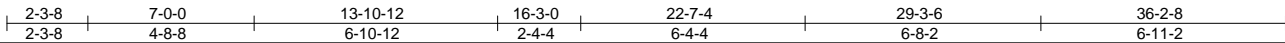
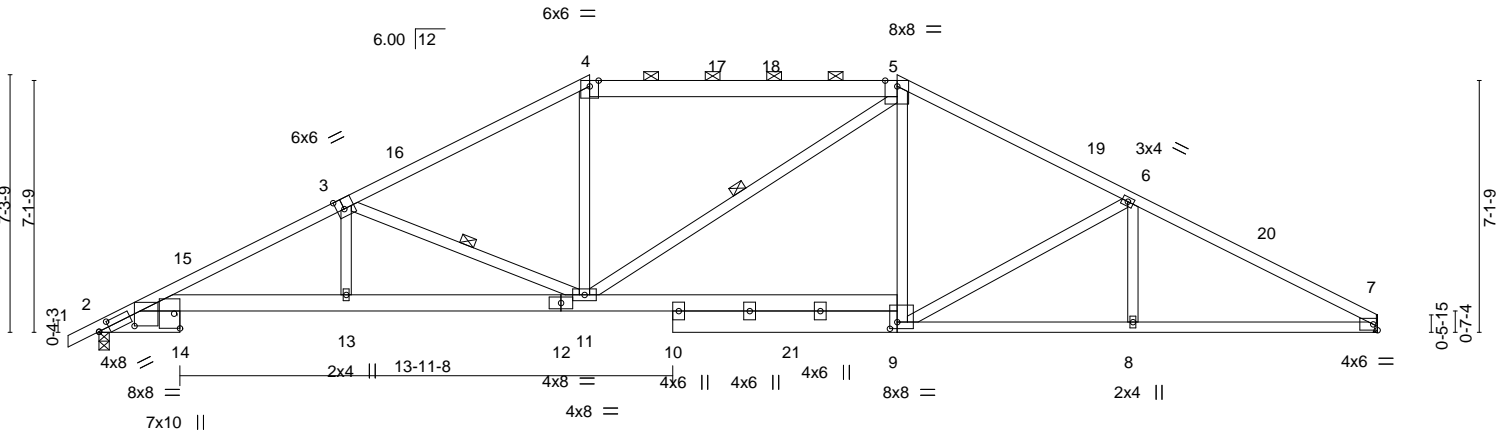


Plate Offsets (X,Y)-- [2:0-3-10,0-2-0], [2:1-0-1,0-1-15], [3:0-2-8,Edge], [5:0-4-2,Edge], [9:0-2-8,0-2-4]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.16	9-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.34	9-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.15	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 229 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 4-5: 2x6 SP No.2, 5-7: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-10-5 max.): 4-5.
BOT CHORD 2x8 SP No.2 *Except* 9-12: 2x6 SP No.2, 7-9: 2x4 SP No.2, 2-12: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 3-11, 5-11

**REACTIONS.** (lb/size) 7=1439/Mechanical, 2=1502/0-3-8 (min. 0-1-12)  
Max Horz 2=129(LC 16)  
Max Uplift 7=-136(LC 13), 2=-160(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-15=-3385/457, 3-15=-3305/479, 3-16=-2349/363, 4-16=-2252/396, 4-17=-2015/409,  
17-18=-2015/409, 5-18=-2015/409, 5-19=-2119/383, 6-19=-2214/352, 6-20=-2571/382,  
7-20=-2654/359  
BOT CHORD 2-14=-374/2936, 13-14=-370/2964, 12-13=-368/2982, 11-12=-368/2982, 10-11=-155/1909,  
10-21=-155/1911, 9-21=-157/1908, 8-9=-274/2297, 7-8=-272/2289  
WEBS 3-13=0/487, 3-11=-1031/269, 4-11=0/586, 5-11=-99/295, 5-9=-10/490, 6-9=-448/211

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-8-15, Interior(1) 2-8-15 to 13-10-12, Exterior(2) 13-10-12 to 19-0-3, Interior(1) 19-0-3 to 22-7-4, Exterior(2) 22-7-4 to 27-8-11, Interior(1) 27-8-11 to 36-1-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (t=lb) 7=136, 2=160.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

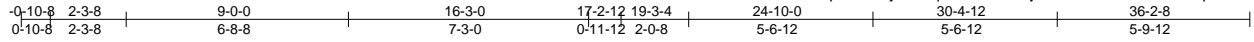


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss H2T	Truss Type Hip	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015629
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-9AIXkMXrajTcYx157n?nWRDVsBep6krQFWsZ5VysAXS  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:45 2019 Page 1



Scale = 1:69.5

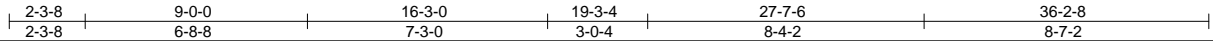
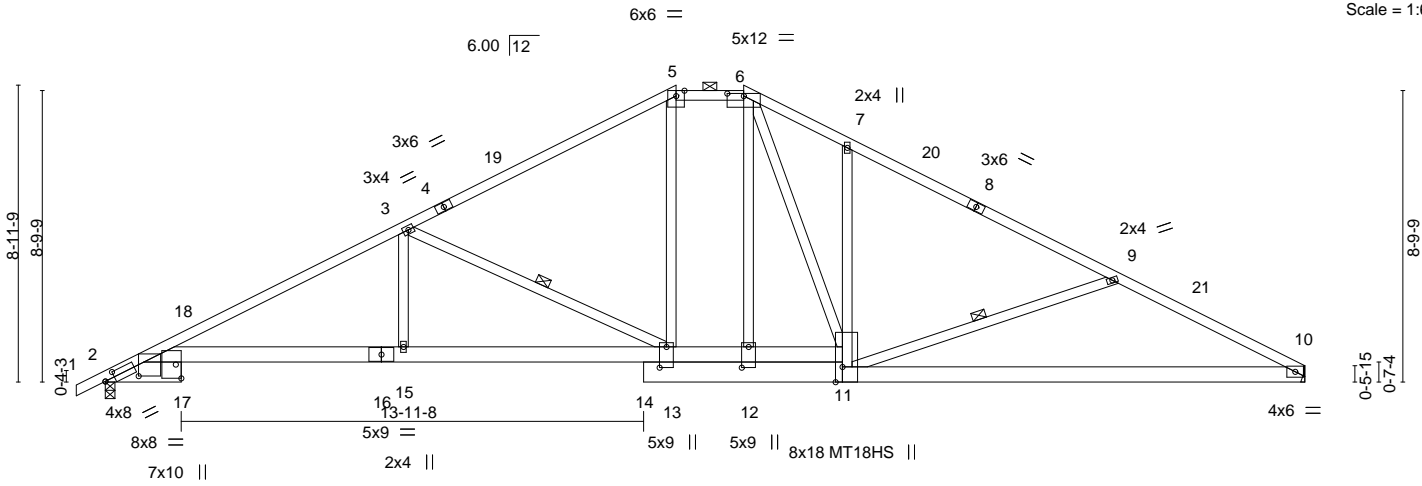


Plate Offsets (X,Y)-- [2:0-3-10,0-2-0], [2:1-0-1,0-1-15], [6:0-6-0,0-0-15], [11:0-5-8,Edge], [12:0-7-8,0-2-8], [13:0-7-8,0-2-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.90	Vert(LL)	-0.22	10-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.49	10-11	>885	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.15	10	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						
								Weight: 244 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1 \*Except\*  
5-6,8-10: 2x4 SP No.2  
BOT CHORD 2x8 SP No.2 \*Except\*  
2-16,10-11: 2x6 SP DSS, 11-16: 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (4-2-15 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
8-8-13 oc bracing: 2-15.  
WEBS 1 Row at midpt 3-13, 9-11

**REACTIONS.** (lb/size) 2=1502/0-3-8 (min. 0-1-12), 10=1439/Mechanical  
Max Horz 2=158(LC 16)  
Max Uplift 2=-186(LC 12), 10=-162(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-18=-3120/358, 3-18=-3012/391, 3-4=-1986/297, 4-19=-1902/309, 5-19=-1859/336,  
5-6=-1661/352, 6-7=-2187/413, 7-20=-2049/308, 8-20=-2131/287, 8-9=-2247/286,  
9-21=-2641/451, 10-21=-2765/433  
BOT CHORD 2-17=-362/2664, 16-17=-350/2699, 15-16=-350/2699, 14-15=-350/2699, 13-14=-352/2604,  
12-13=-71/1661, 11-12=-79/1669, 10-11=-333/2420  
WEBS 3-15=0/558, 3-13=-1154/326, 6-12=-262/456, 6-11=-232/896, 9-11=-541/340,  
5-13=-12/517, 7-11=-390/260

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-8-15, Interior(1) 2-8-15 to 17-2-12, Exterior(2) 17-2-12 to 24-4-11, Interior(1) 24-4-11 to 36-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=186, 10=162.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

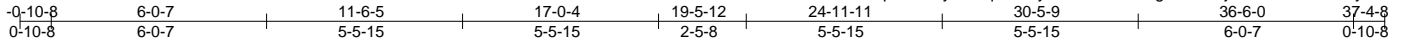


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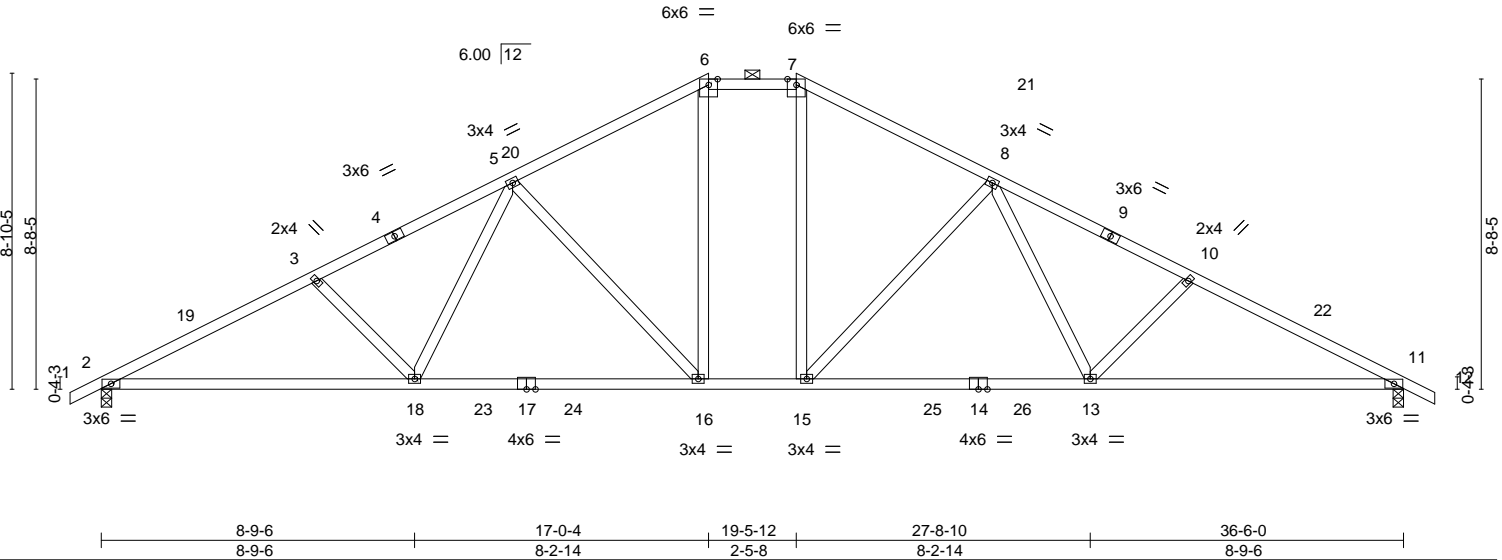
Job 21689A	Truss H4	Truss Type Hip	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015630
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-dNsvyIXUL0bTA5KHgUX02fmjXbz0r6iZUAb6exysAXR  
8.310 s Jul 27 2019 MITek Industries, Inc. Thu Aug 1 15:35:46 2019 Page 1



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 20.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.30 13-15	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.51 13-15	>857	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77	Horz(CT)	0.13 11	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 195 lb	FT = 20%

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

**REACTIONS.** (lb/size) 2=1510/0-3-8 (min. 0-1-12), 11=1510/0-3-8 (min. 0-1-12)  
Max Horz 2=-148(LC 13)  
Max Uplift 2=-184(LC 12), 11=-184(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-19=-2719/338, 3-19=-2662/356, 3-4=-2490/319, 4-5=-2354/346, 5-20=-1815/321,  
6-20=-1806/350, 6-7=-1551/340, 7-21=-1806/350, 8-21=-1815/321, 8-9=-2354/346,  
9-10=-2490/319, 10-22=-2662/356, 11-22=-2719/338  
BOT CHORD 2-18=-348/2366, 18-23=-197/1965, 17-23=-197/1965, 17-24=-197/1965, 16-24=-197/1965,  
15-16=-42/1551, 15-25=-162/1965, 14-25=-162/1965, 14-26=-162/1965, 13-26=-162/1965,  
11-13=-243/2366  
WEBS 3-18=-301/190, 5-18=-46/498, 5-16=-645/240, 6-16=-56/576, 7-15=-56/576,  
8-15=-645/240, 8-13=-47/498, 10-13=-301/190

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-8 to 2-9-5, Interior(1) 2-9-5 to 17-0-4, Exterior(2) 17-0-4 to 24-7-11, Interior(1) 24-7-11 to 37-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=184, 11=184.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

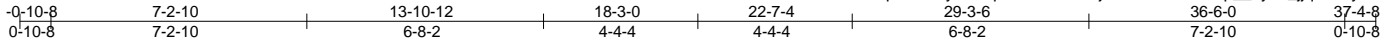


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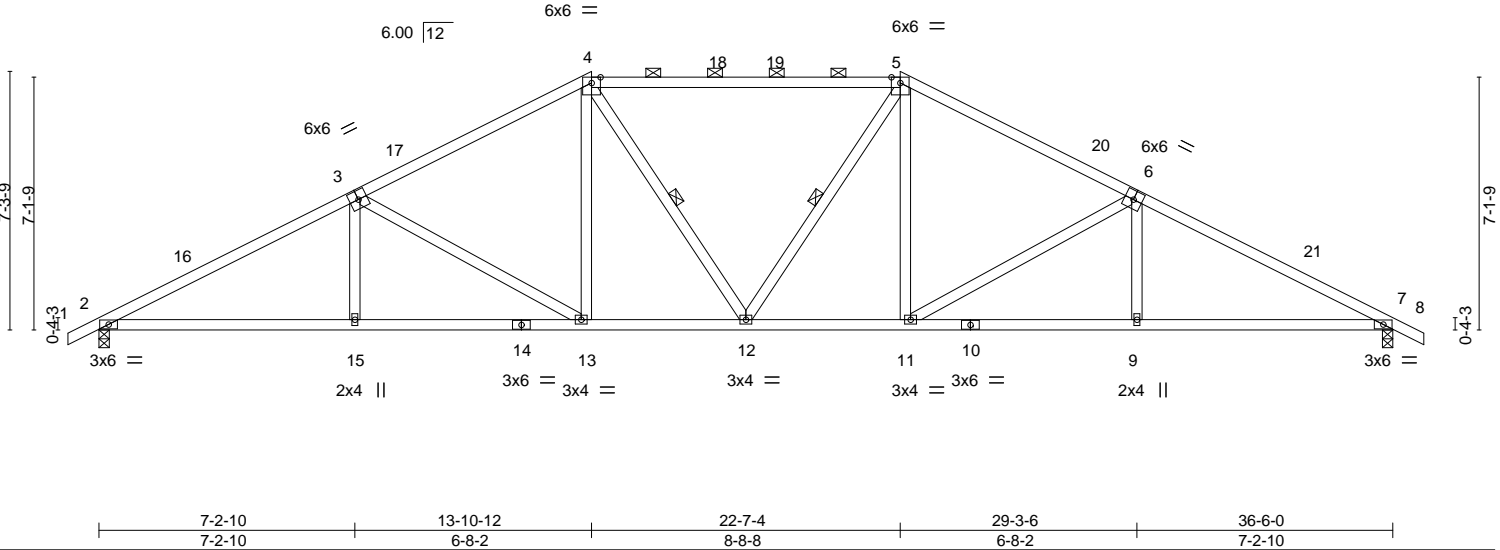
Job	Truss	Truss Type	Qty	Ply	240.2596.D.10x20cvp.tray	138015631
21689A	H5	Hip	1	1	Job Reference (optional)	

84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MITek Industries, Inc. Thu Aug 1 15:35:47 2019 Page 1  
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Scale = 1:65.0



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.98	Vert(LL)	-0.14	12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.29	9-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.13	7	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						
								Weight: 191 lb	FT = 20%

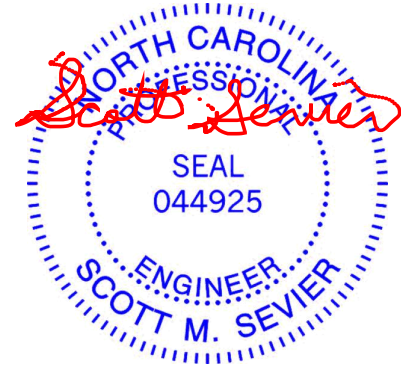
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 4-5: 2x4 SP DSS	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 4-5.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-12,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

**REACTIONS.** (lb/size) 2=1510/0-3-8 (min. 0-1-12), 7=1510/0-3-8 (min. 0-1-12)  
 Max Horz 2=-122(LC 17)  
 Max Uplift 2=-160(LC 12), 7=-160(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-16=-2728/363, 3-16=-2642/388, 3-17=-2122/348, 4-17=-2029/380, 4-18=-1840/363,  
 18-19=-1840/363, 5-19=-1840/363, 5-20=-2029/380, 6-20=-2122/348, 6-21=-2642/388,  
 7-21=-2728/363  
 BOT CHORD 2-15=-264/2348, 14-15=-265/2346, 13-14=-265/2346, 12-13=-137/1814, 11-12=-140/1814,  
 10-11=-268/2346, 9-10=-268/2346, 7-9=-267/2348  
 WEBS 3-15=0/306, 3-13=-607/213, 4-13=-36/441, 5-11=-36/441, 6-11=-607/214, 6-9=0/306

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-9-5, Interior(1) 2-9-5 to 13-10-12, Exterior(2) 13-10-12 to 19-0-11, Interior(1) 19-0-11 to 22-7-4, Exterior(2) 22-7-4 to 27-9-3, Interior(1) 27-9-3 to 37-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=160, 7=160.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

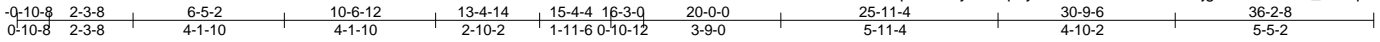


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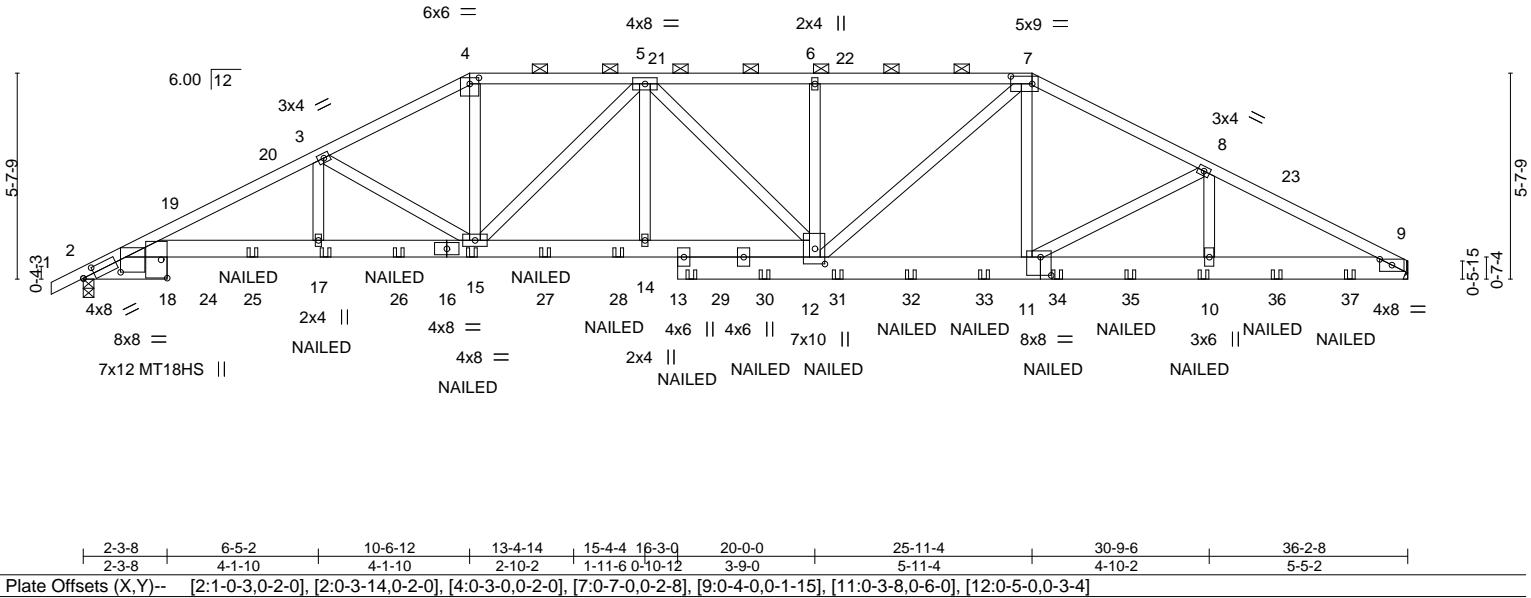
Job 21689A	Truss HG1	Truss Type HIP GIRDER	Qty 1	Ply 2	240.2596.D.10x20cvp.tray	138015632
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-1yX2akaMexz21Y2sMd4jgHODbo0A2Y\_?A7qmFGysAXO  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:49 2019 Page 1



Scale = 1:63.0



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	0.30	14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.94	Vert(CT)	-0.43	14-15	>999	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.49	Horz(CT)	0.15	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 498 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins, except
BOT CHORD 2x8 SP No.2 *Except*	2-0-0 oc purlins (4-6-5 max.): 4-7.
2-16: 2x6 SP DSS, 12-16: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-9-15 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 9=3210/Mechanical, 2=3219/0-3-8 (min. 0-1-14)  
Max Horz 2=105(LC 35)  
Max Uplift 9=-1359(LC 13), 2=-1112(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-19=-7751/3045, 19-20=-7692/3046, 3-20=-7627/3065, 3-4=-5884/2530, 4-5=-5277/2324, 5-21=-5911/2726, 6-21=-5911/2726, 6-22=-5920/2730, 7-22=-5921/2730, 7-8=-5305/2444, 8-23=-6039/2799, 9-23=-6138/2782  
BOT CHORD 2-18=-2670/6807, 18-24=-2698/6899, 24-25=-2698/6899, 17-25=-2698/6899, 17-26=-2698/6899, 16-26=-2698/6899, 15-16=-2698/6899, 15-27=-2625/6230, 27-28=-2625/6230, 14-28=-2625/6230, 13-14=-2625/6230, 13-29=-2642/6265, 29-30=-2630/6247, 12-30=-2621/6227, 12-31=-2060/4727, 31-32=-2055/4717, 32-33=-2050/4709, 11-33=-2045/4699, 11-34=-2441/5404, 34-35=-2441/5404, 10-35=-2441/5404, 10-36=-2441/5404, 36-37=-2441/5404, 9-37=-2441/5404  
WEBS 3-17=-423/1462, 3-15=-1977/684, 4-15=-1018/2356, 5-15=-1432/761, 5-12=-532/137, 6-12=-335/163, 7-12=-704/1642, 7-11=-581/1076, 8-11=-832/503, 8-10=-299/540, 5-14=-480/1037

- 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: 2x8 - 2 rows staggered at 0-9-0 oc, 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=130mph (3-second gust) Vasd=103mph; 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 2-8-15, Interior(1) 2-8-15 to 10-6-12, Exterior(2) 10-6-12 to 15-8-3, Interior(1) 15-8-3 to 25-11-4, Exterior(2) 25-11-4 to 30-9-6, Interior(1) 30-9-6 to 36-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.



August 2, 2019

Continued on page 2

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

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818 Soundside Road  
Edenton, NC 27932



Job 21689A	Truss HG1	Truss Type HIP GIRDER	Qty 1	Ply 2	240.2596.D.10x20cvp.tray Job Reference (optional)	I38015632
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:50 2019 Page 2  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-V85Qo4b\_Pf5veid2vKbyDVxOLCmpn?E9PnaKniiysAXN

**NOTES-**

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=1359, 2=1112.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 229 lb down and 106 lb up at 2-7-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 7-9=-60, 2-9=-20

Concentrated Loads (lb)

Vert: 17=-207(B) 15=-206(B) 10=-202(B) 24=-229(B) 25=-206(B) 26=-207(B) 27=-206(B) 28=-206(B) 29=-202(B) 30=-202(B) 31=-202(B) 32=-202(B) 33=-202(B)  
34=-202(B) 35=-202(B) 36=-202(B) 37=-202(B)

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

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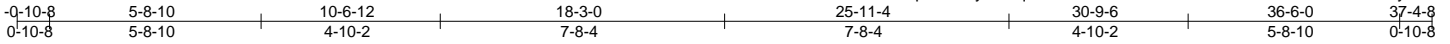


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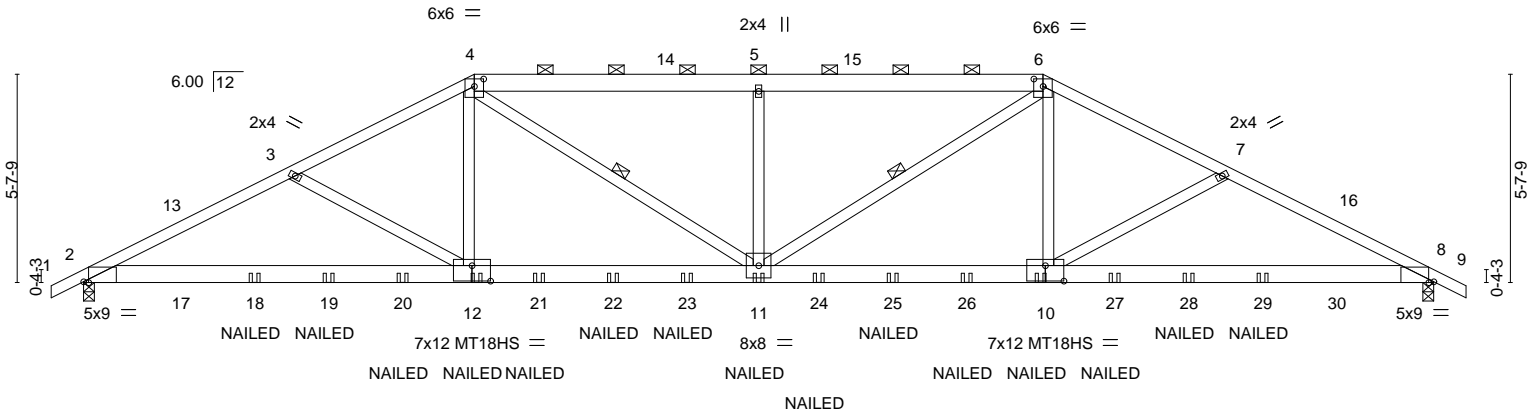
Job 21689A	Truss HG2	Truss Type HIP GIRDER	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015633
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:51 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-zkfo?QbcAZDmGsCFT26BlitYMchlWQSlcRjJtJ8ysAXM



Scale = 1:62.3



5-8-10	10-6-12	18-3-0	25-11-4	30-9-6	36-6-0
5-8-10	4-10-2	7-8-4	7-8-4	4-10-2	5-8-10

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

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	0.38	11-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.63	8-10	>686	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.62	Horz(CT)	0.14	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 223 lb	FT = 20%

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

**REACTIONS.** (lb/size) 2=3253/0-3-8 (min. 0-3-5), 8=3242/0-3-8 (min. 0-3-4)  
Max Horz 2=95(LC 16)  
Max Uplift 2=-1076(LC 12), 8=-1068(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-13=-5966/2366, 3-13=-5910/2383, 3-4=-5637/2310, 4-14=-5944/2625, 5-14=-5945/2625, 5-15=-5945/2625, 6-15=-5944/2625, 6-7=-5613/2292, 7-16=-5886/2365, 8-16=-5942/2348  
BOT CHORD 2-17=-2058/5295, 17-18=-2058/5295, 18-19=-2058/5295, 19-20=-2058/5295, 12-20=-2058/5295, 12-21=-1898/4972, 21-22=-1898/4972, 22-23=-1898/4972, 11-23=-1898/4972, 11-24=-1889/4951, 24-25=-1889/4951, 25-26=-1889/4951, 10-26=-1889/4951, 10-27=-2048/5274, 27-28=-2048/5274, 28-29=-2048/5274, 29-30=-2048/5274, 8-30=-2048/5274  
WEBS 3-12=-351/232, 4-12=-539/1492, 4-11=-726/1287, 5-11=-572/252, 6-11=-746/1313, 6-10=-520/1467, 7-10=-352/231

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-8 to 2-9-5, Interior(1) 2-9-5 to 10-6-12, Exterior(2) 10-6-12 to 15-8-11, Interior(1) 15-8-11 to 25-11-4, Exterior(2) 25-11-4 to 30-11-4, Interior(1) 30-11-4 to 37-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=1076, 8=1068.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 210 lb down and 74 lb up at 2-7-8, and 210 lb down and 74 lb up at 33-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



Continued on page 2  
**LOAD CASE(S) Standard**  
 Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.  
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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 21689A	Truss HG2	Truss Type HIP GIRDER	Qty 1	Ply 1	240.2596.D.10x20cvp.tray  Job Reference (optional)	I38015633
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:51 2019 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-6=-60, 6-9=-60, 2-8=-20

Concentrated Loads (lb)

Vert: 12=-202(F) 11=-202(F) 10=-202(F) 17=-210(F) 18=-206(F) 19=-206(F) 20=-206(F) 21=-202(F) 22=-202(F) 23=-202(F) 24=-202(F) 25=-202(F) 26=-202(F) 27=-206(F) 28=-206(F) 29=-206(F) 30=-210(F)

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

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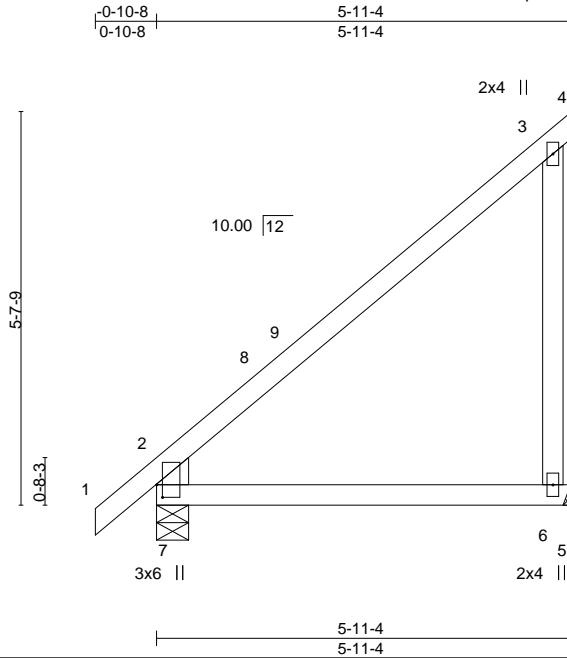


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Job 21689A	Truss J1	Truss Type Jack-Open	Qty 19	Ply 1	240.2596.D.10x20cvp.tray	138015634
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-RXDBCicExsLdu0nR1ldQlw0ns?A9F\_iSs53QrbysAXL  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:52 2019 Page 1



Scale = 1:32.9

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.53	Vert(LL) 0.06	6-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.10	6-7	>685	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.00		n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 31 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 7=290/0-5-8 (min. 0-1-8), 6=222/Mechanical  
Max Horz 7=213(LC 12)  
Max Uplift 6=-138(LC 12)  
Max Grav 7=290(LC 1), 6=251(LC 19)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 5-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=138.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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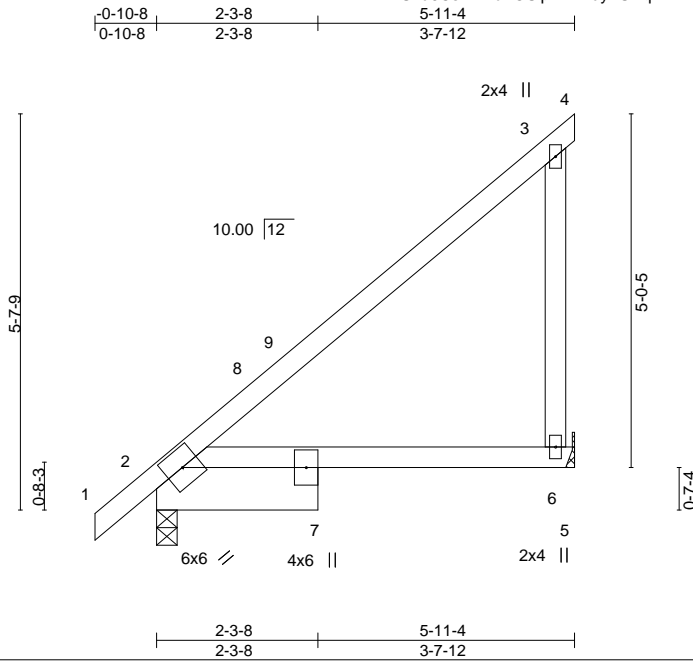


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss J1A	Truss Type Jack-Open	Qty 3	Ply 1	240.2596.D.10x20cvp.tray	138015635
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-RXDBClcExsLdu0nR1ldQlw0mJ?9YF\_xSs53QrbysAXL  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:52 2019 Page 1



Scale = 1:32.7

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.63	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.38	Vert(LL) -0.04 2-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.09	Vert(CT) -0.08 2-6 >832 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.01 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 35 lb	FT = 20%

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

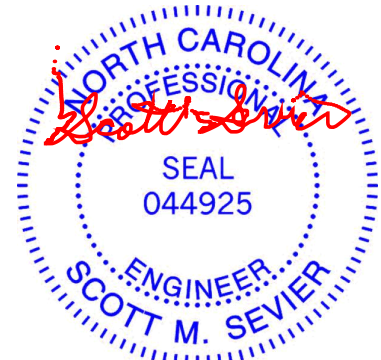
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=287/0-3-8 (min. 0-1-8), 6=226/Mechanical  
Max Horz 2=215(LC 12)  
Max Uplift 6=-131(LC 12)  
Max Grav 2=287(LC 1), 6=253(LC 19)

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

**NOTES-**  
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 5-11-4 zone; C-C for members and floors & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.  
4) Refer to girder(s) for truss to truss connections.  
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=131.  
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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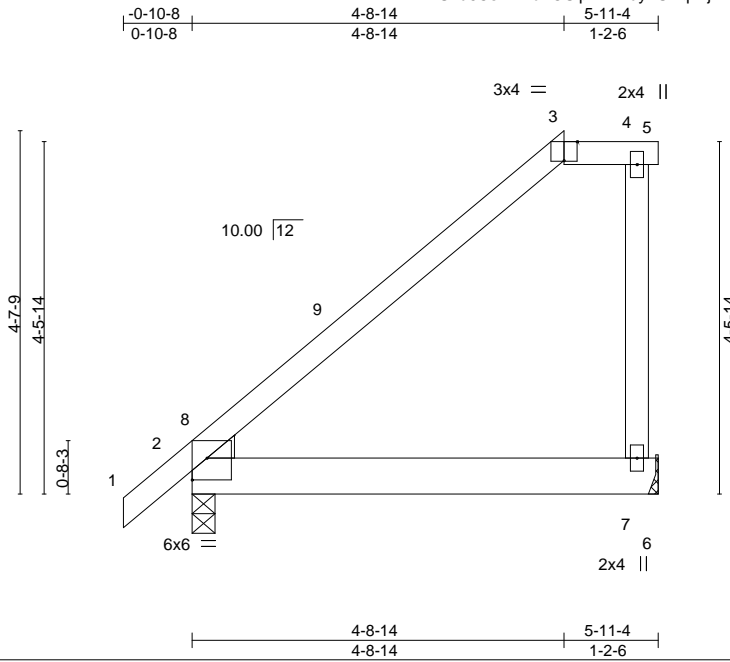


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss J2	Truss Type Jack-Open	Qty 2	Ply 1	240.2596.D.10x20cvp.tray	138015636
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-wjnZQ5dtiATTVAMdbS9fq7Y\_VPZr\_Spb5lo\_O1ysAXK  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:53 2019 Page 1



Scale = 1:29.4

Plate Offsets (X,Y)-- [2:Edge,0-3-5], [2:0-5-1,0-1-14], [2:0-1-2,0-0-15], [3:0-2-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.41	Vert(LL) 0.02	2-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT) -0.03	2-7	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) 0.00		n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 33 lb	FT = 20%

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

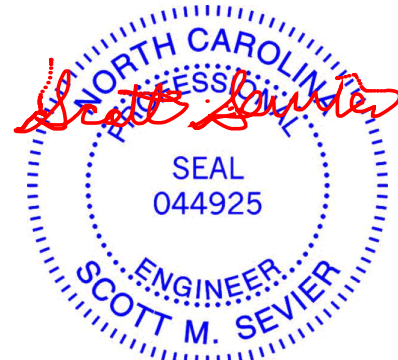
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except 2-0-0 oc purlins: 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=287/0-3-8 (min. 0-1-8), 7=226/Mechanical  
Max Horz 2=175(LC 12)  
Max Uplift 2=-4(LC 12), 7=-81(LC 12)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 4-8-14, Exterior(2) 4-8-14 to 5-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

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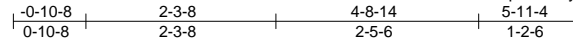


818 Soundside Road  
Edenton, NC 27932

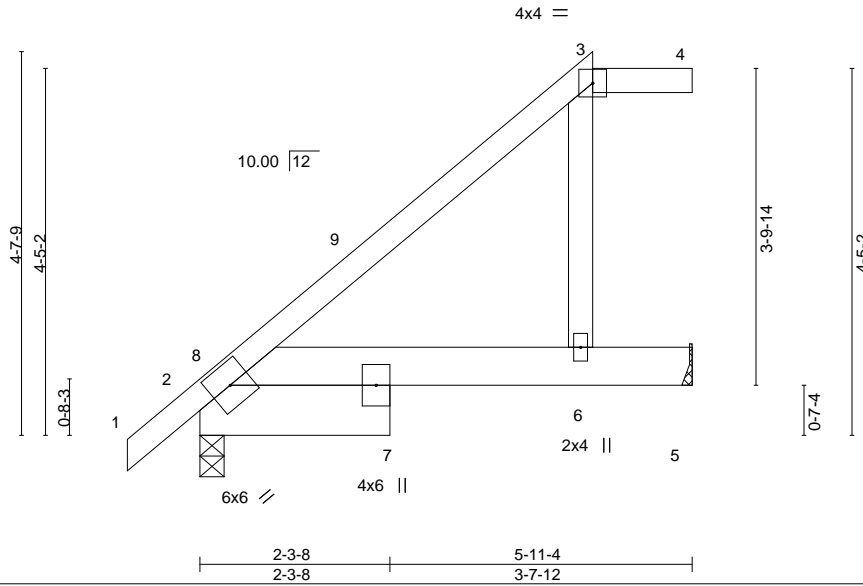
Job 21689A	Truss J2A	Truss Type Jack-Open	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015637
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-wjnZQ5dtiATTVAMdbS9fq7Y0UPX3\_Sib5lo\_O1ysAXK  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:53 2019 Page 1



Scale = 1:27.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.03	2-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.04	2-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.01	5	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 38 lb	FT = 20%

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

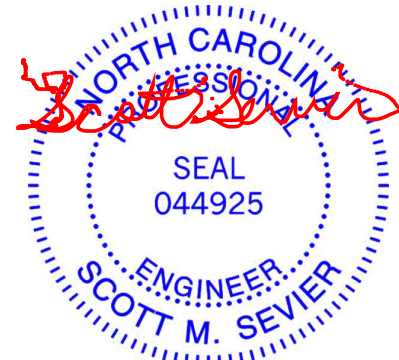
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except 2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=296/0-3-8 (min. 0-1-8), 5=227/Mechanical  
Max Horz 2=173(LC 12)  
Max Uplift 2=-9(LC 12), 5=-71(LC 12)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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 4-8-14, Exterior(2) 4-8-14 to 5-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

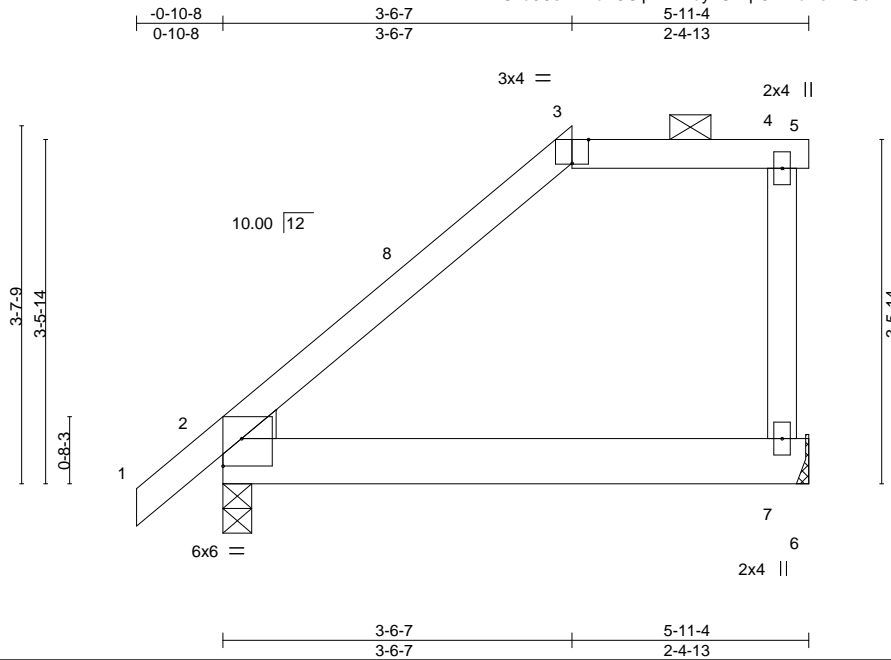


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss J3	Truss Type Jack-Open	Qty 2	Ply 1	240.2596.D.10x20cvp.tray	138015638
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-OvLxdReVTUbK7Kxq8AguNL59OputjvHKPYXwTysAXJ  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:54 2019 Page 1



Scale = 1:23.4

Plate Offsets (X,Y)--	[2:Edge,0-3-5], [2:0-5-1,0-1-14], [2:0-1-2,0-0-15], [3:0-2-0,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.40	Vert(LL) 0.02 2-7 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.03 2-7 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 31 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except 2-0-0 oc purlins: 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=287/0-3-8 (min. 0-1-8), 7=226/Mechanical  
Max Horz 2=136(LC 12)  
Max Uplift 2=-24(LC 12), 7=-44(LC 9)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 3-6-7, Exterior(2) 3-6-7 to 5-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

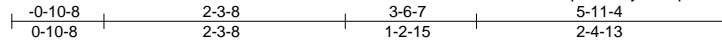
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932



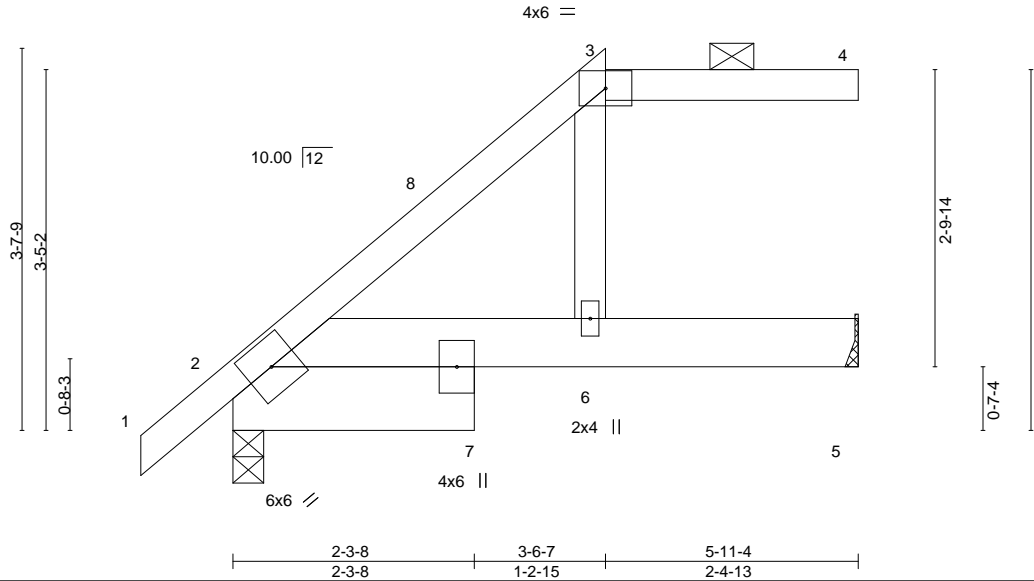
Job 21689A	Truss J3A	Truss Type Jack-Open	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015639
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:54 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-OvLxdReVTUbK7Kxq8AguNL594ppqujkkPYXwTysAXJ



Scale = 1:21.9



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	0.05	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.07	6	>978		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.01	5	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 36 lb	FT = 20%

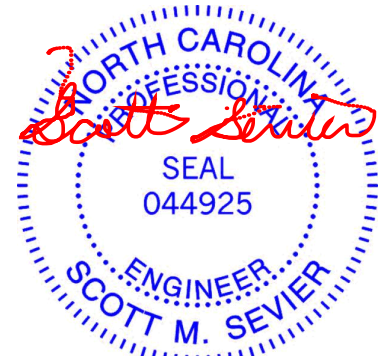
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except 2-0-0 oc purlins: 3-4.
BOT CHORD 2x8 SP No.2 *Except* 2-5: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=296/0-3-8 (min. 0-1-8), 5=227/Mechanical  
Max Horz 2=135(LC 12)  
Max Uplift 2=-25(LC 12), 5=-66(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-6=-318/242

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 3-6-7, Exterior(2) 3-6-7 to 5-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

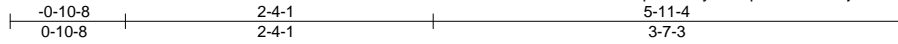


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss J4	Truss Type Jack-Open	Qty 2	Ply 1	240.2596.D.10x20cvp.tray	138015640
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-s6vJme7EnjBITW0itB7wYeKPDEBSMXuY3H5SvysAXI  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:55 2019 Page 1



Scale = 1:17.5

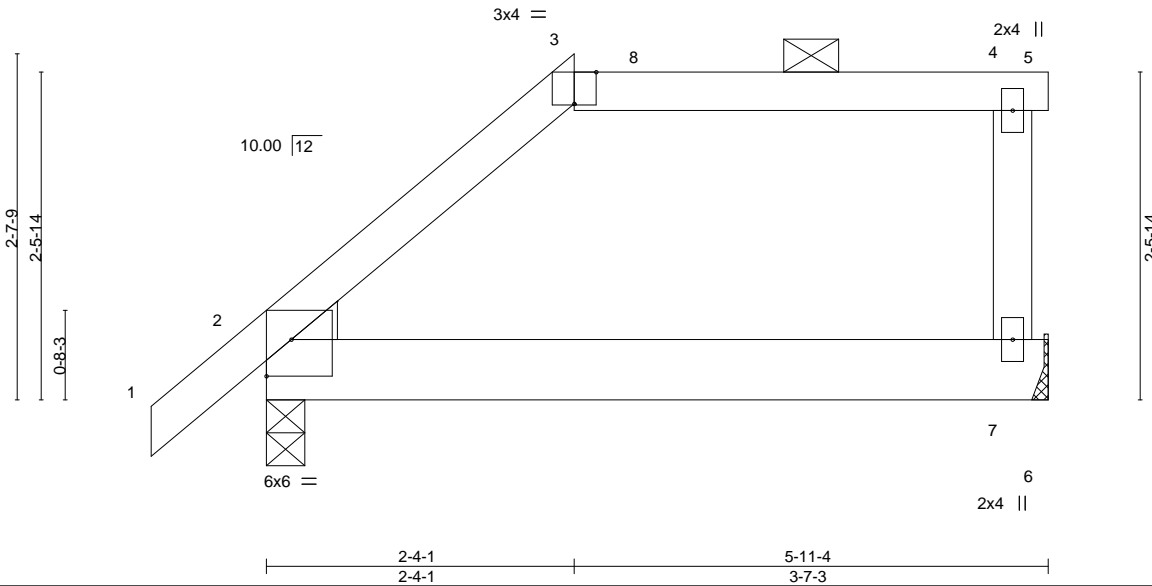


Plate Offsets (X,Y)-- [2:Edge,0-3-5], [2:0-5-1,0-1-14], [2:0-1-2,0-0-15], [3:0-2-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.44	Vert(LL) -0.01	2-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.03	2-7	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00		n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 29 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except 2-0-0 oc purlins: 3-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=287/0-3-8 (min. 0-1-8), 7=226/Mechanical  
 Max Horz 2=98(LC 12)  
 Max Uplift 2=-32(LC 12), 7=-44(LC 9)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

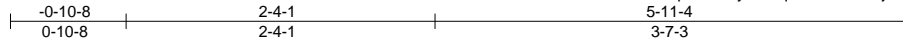


818 Soundside Road  
 Edenton, NC 27932

Job 21689A	Truss J4A	Truss Type Jack-Open	Qty 1	Ply 1	240.2596.D.10x20cp.tray	I38015641
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84 Components, Dunn, NC 28334

ID:RUvu6CsEmxbTOSip7BE4uyZSNq-s6vJrne7EnjBITW0itB7wYel7DEwSMZuY3H5SvysAXI  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:55 2019 Page 1



Scale = 1:17.4

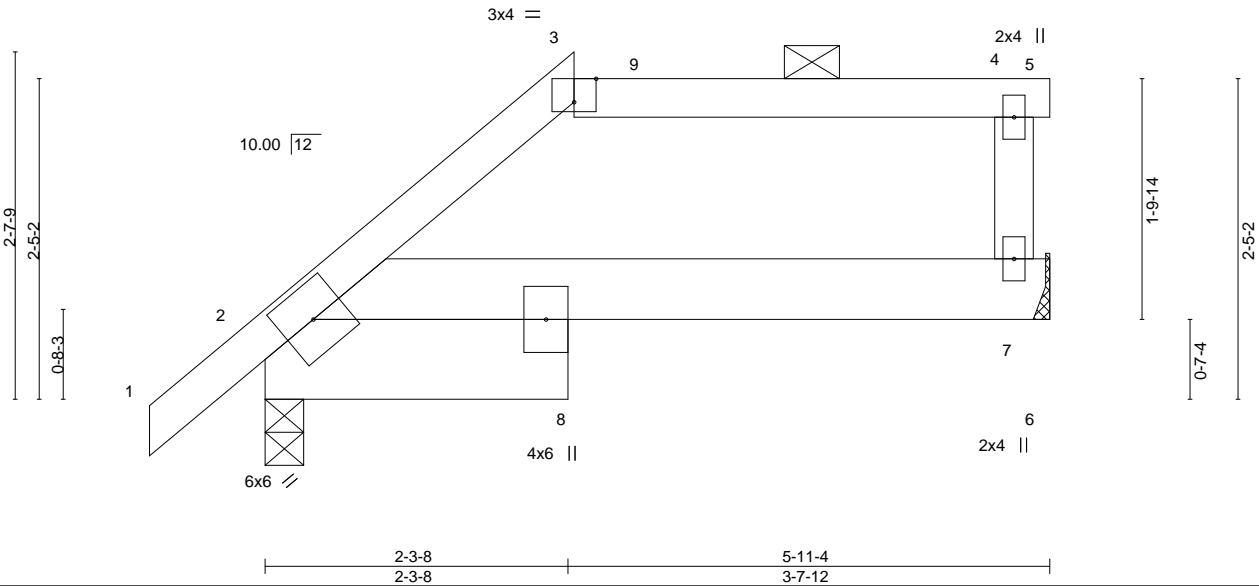


Plate Offsets (X,Y)--	[3:0-2-0,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.52	Vert(LL) -0.01	2-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.02	2-7	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 34 lb	FT = 20%

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

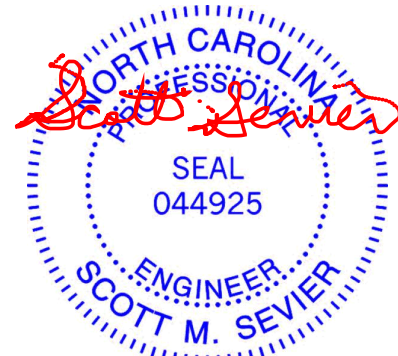
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except 2-0-0 oc purlins: 3-5.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=287/0-3-8 (min. 0-1-8), 7=226/Mechanical  
Max Horz 2=95(LC 12)  
Max Uplift 2=-34(LC 12), 7=-42(LC 9)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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
  - 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) 2, 7.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

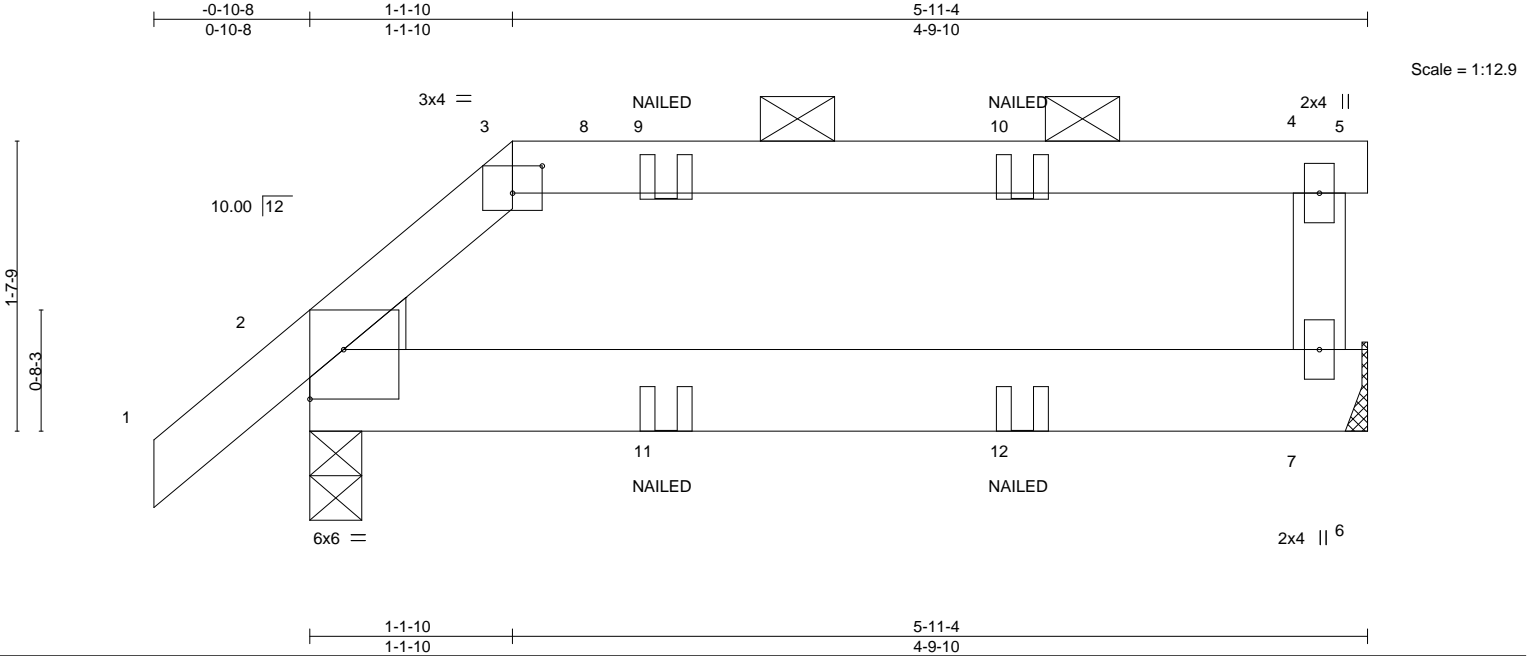


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss J5	Truss Type Jack-Open Girder	Qty 2	Ply 1	240.2596.D.10x20cvp.tray	138015642
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-oU03GTgNmOzv\_nfPqIDb?zjf00vZwG4B0NmBXoysAXG  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:57 2019 Page 1



Scale = 1:12.9

Plate Offsets (X,Y)--	[2:Edge,0-3-5], [2:0-5-1,0-1-14], [2:0-1-2,0-0-15], [3:0-2-0,0-1-13]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.48	Vert(LL) -0.01 2-7 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.03 2-7 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.03	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 27 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except 2-0-0 oc purlins: 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=291/0-3-8 (min. 0-1-8), 7=230/Mechanical  
Max Horz 2=64(LC 35)  
Max Uplift 2=53(LC 12), 7=54(LC 9)  
Max Grav 2=291(LC 1), 7=230(LC 24)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 4-5=-20, 2-6=-20  
Concentrated Loads (lb)  
Vert: 11=-4(B) 12=-4(B)



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

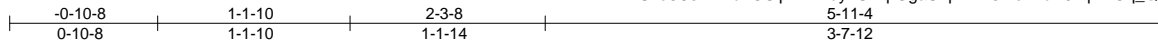


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss J5A	Truss Type Jack-Open Girder	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015643
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:58 2019 Page 1  
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Scale = 1:13.6

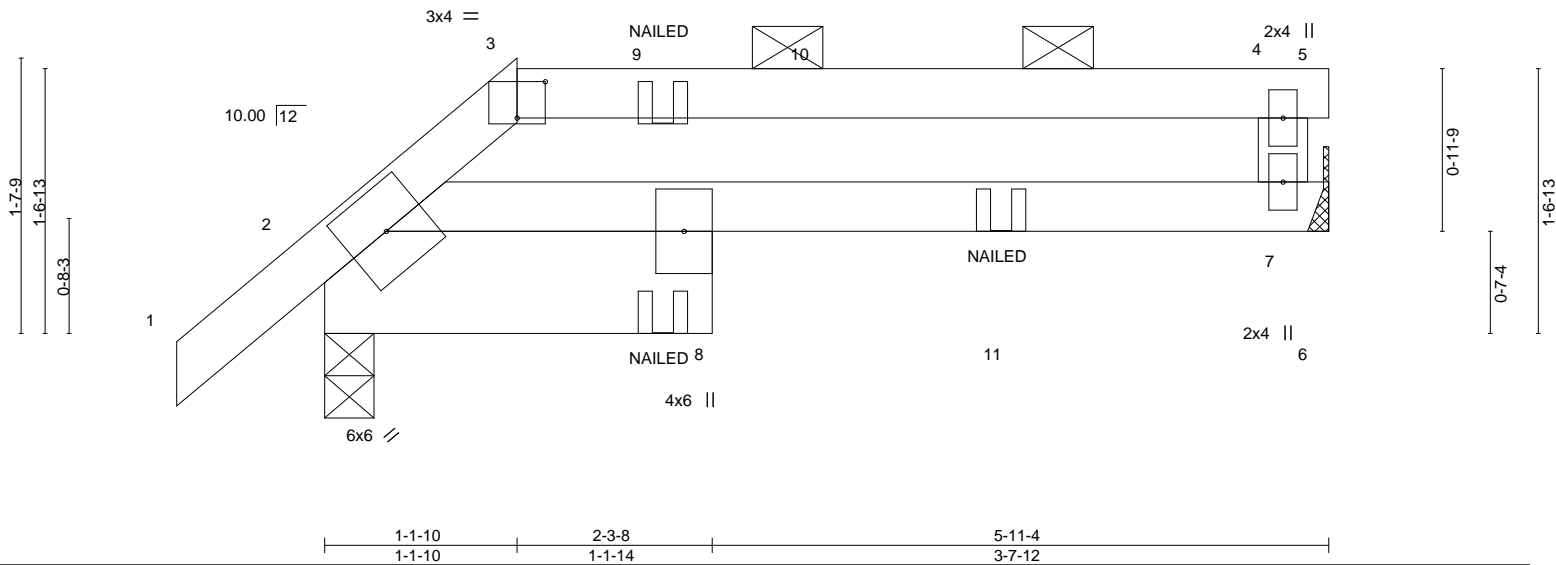


Plate Offsets (X,Y)--	[3:0-2-0,0-2-9]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	2-0-0	TC 0.49	Vert(LL) 0.05	2-7	>999	240	MT20	244/190	
TCDL 10.0	Plate Grip DOL 1.15	BC 0.50	Vert(CT) -0.08	2-7	>786	180			
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT) 0.02	7	n/a	n/a			
BCDL 10.0	Rep Stress Incr NO	Matrix-S							
	Code IRC2015/TPI2014						Weight: 27 lb	FT = 20%	

<b>LUMBER-</b>	<b>BRACING-</b>	
TOP CHORD 2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-11-4 oc purlins, except 2-0-0 oc purlins: 3-5.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
2-8: 2x8 SP No.2		
WEBS 2x4 SP No.3		

**REACTIONS.** (lb/size) 2=299/0-3-8 (min. 0-1-8), 7=249/Mechanical  
 Max Horz 2=61(LC 35)  
 Max Uplift 2=-63(LC 12), 7=-86(LC 9)  
 Max Grav 2=299(LC 1), 7=249(LC 24)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)  
 Vert: 1-3=-60, 3-4=-60, 4-5=-20, 2-6=-20  
 Concentrated Loads (lb)  
 Vert: 8=-4(F) 11=-30(F)

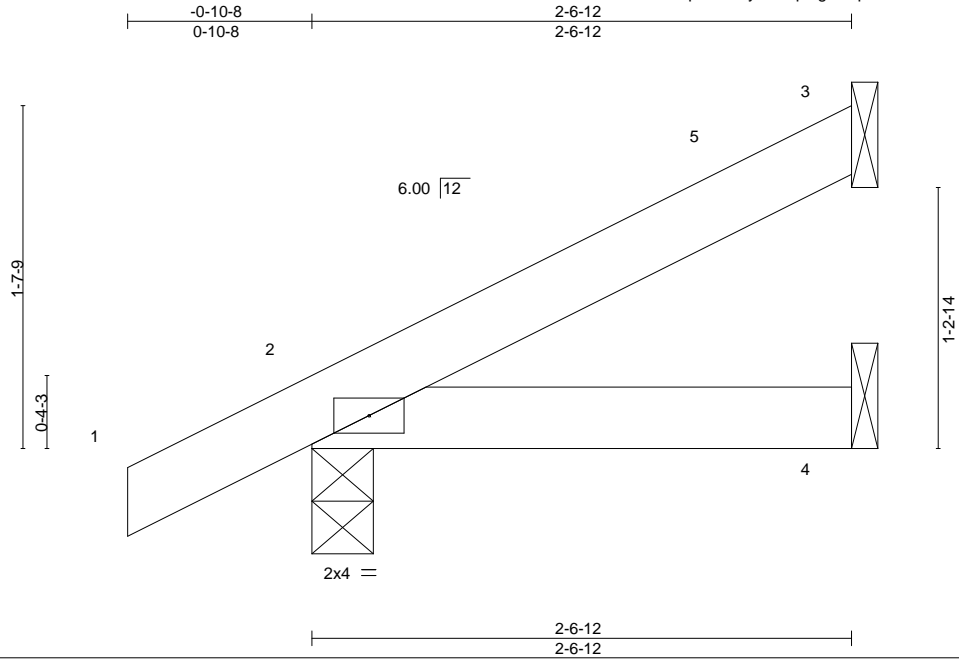


August 2, 2019

Job 21689A	Truss J6	Truss Type Jack-Open	Qty 5	Ply 1	240.2596.D.10x20cvp.tray	138015644
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84 Components, Dunn, NC 28334

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8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:58 2019 Page 1



Scale = 1:10.9

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	2-4	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	2-4	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 10 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=57/Mechanical, 2=169/0-3-8 (min. 0-1-8), 4=24/Mechanical  
Max Horz 2=63(LC 12)  
Max Uplift 3=-39(LC 12), 2=-31(LC 12)  
Max Grav 3=57(LC 1), 2=169(LC 1), 4=47(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 2-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss J6A	Truss Type Jack-Open	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015645
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84 Components, Dunn, NC 28334

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8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:35:59 2019 Page 1

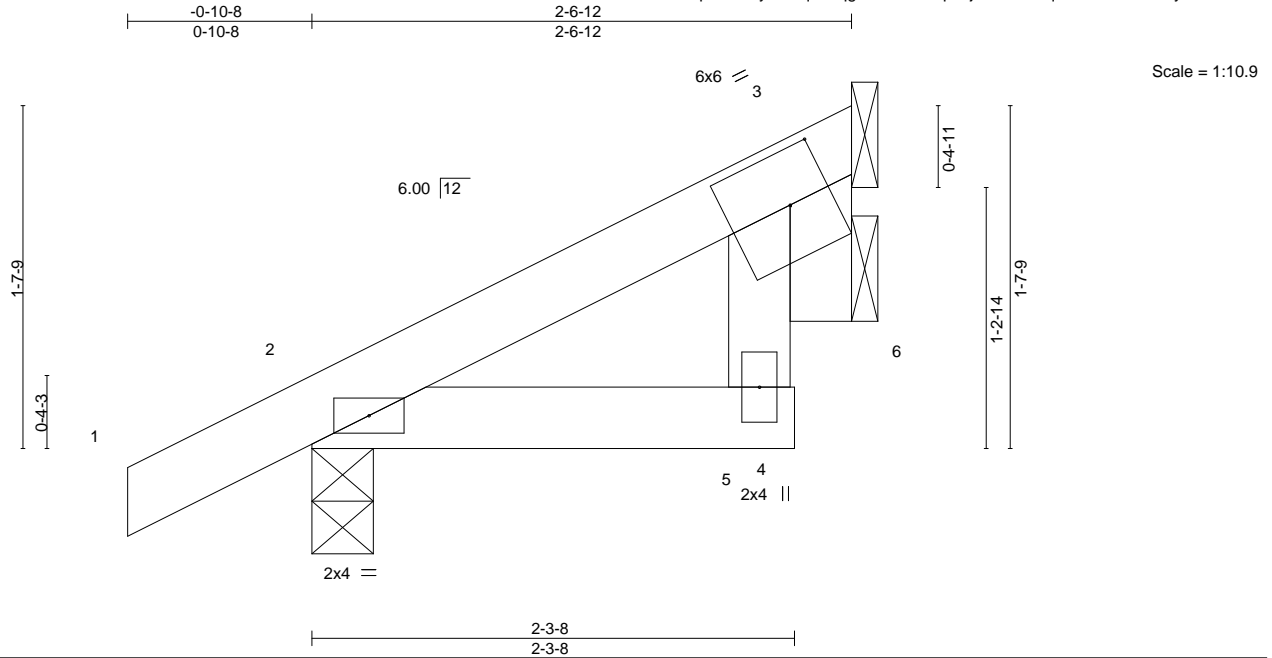


Plate Offsets (X,Y)-- [3:0-2-7,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	Vert(LL)	-0.00	2	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	-0.00	2-5	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2015/TPI2014						Weight: 12 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=45/Mechanical, 2=159/0-3-8 (min. 0-1-8), 6=28/Mechanical  
Max Horz 2=59(LC 12)  
Max Uplift 3=-47(LC 12), 2=-33(LC 12)  
Max Grav 3=45(LC 1), 2=159(LC 1), 6=48(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

**LOAD CASE(S)** Standard



August 2, 2019

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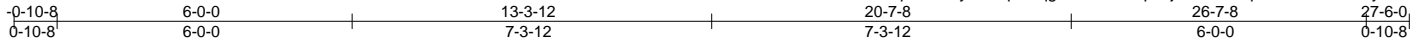


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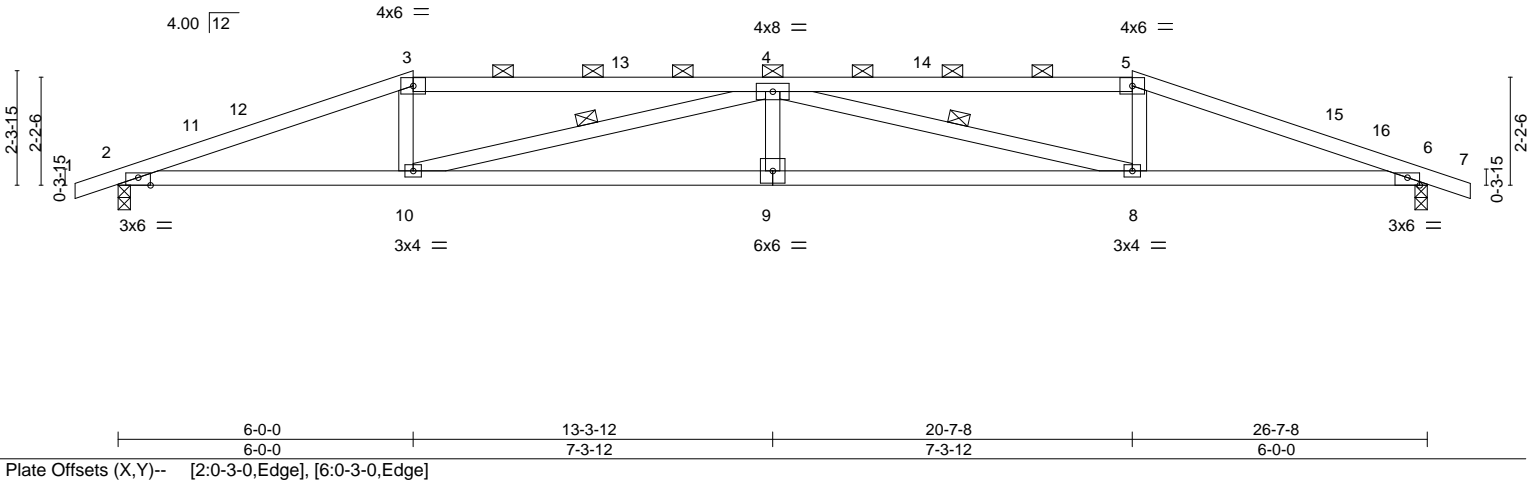
Job 21689A	Truss P1	Truss Type HIP	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015646
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MITek Industries, Inc. Thu Aug 1 15:35:59 2019 Page 1  
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Scale = 1:46.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.88	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.74	Vert(LL) 0.41 9-10 >774 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.50	Vert(CT) -0.58 8-9 >543 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.12 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 113 lb	FT = 20%

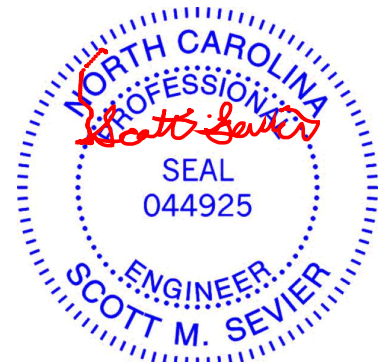
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 3-5: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-5-3 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 3-5.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 3-10-8 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt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

**REACTIONS.** (lb/size) 2=1115/0-3-0 (min. 0-1-8), 6=1115/0-3-0 (min. 0-1-8)  
 Max Horz 2=37(LC 12)  
 Max Uplift 2=-467(LC 8), 6=-467(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-11=-2736/1802, 11-12=-2698/1804, 3-12=-2682/1818, 3-13=-2507/1724,  
 4-13=-2509/1724, 4-14=-2509/1724, 5-14=-2507/1724, 5-15=-2682/1818,  
 15-16=-2698/1804, 6-16=-2736/1802  
 BOT CHORD 2-10=-1671/2544, 9-10=-2441/3800, 8-9=-2441/3800, 6-8=-1672/2544  
 WEBS 3-10=-429/533, 4-10=-1460/860, 4-9=-215/297, 4-8=-1460/860, 5-8=-429/533

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 6-0-0, Exterior(2) 6-0-0 to 10-2-15, Interior(1) 10-2-15 to 20-7-8, Exterior(2) 20-7-8 to 24-10-7, Interior(1) 24-10-7 to 27-6-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=467, 6=467.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



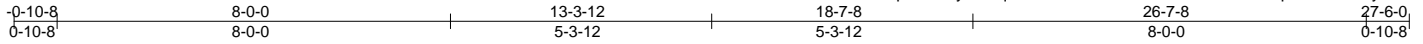
818 Soundside Road  
 Edenton, NC 27932



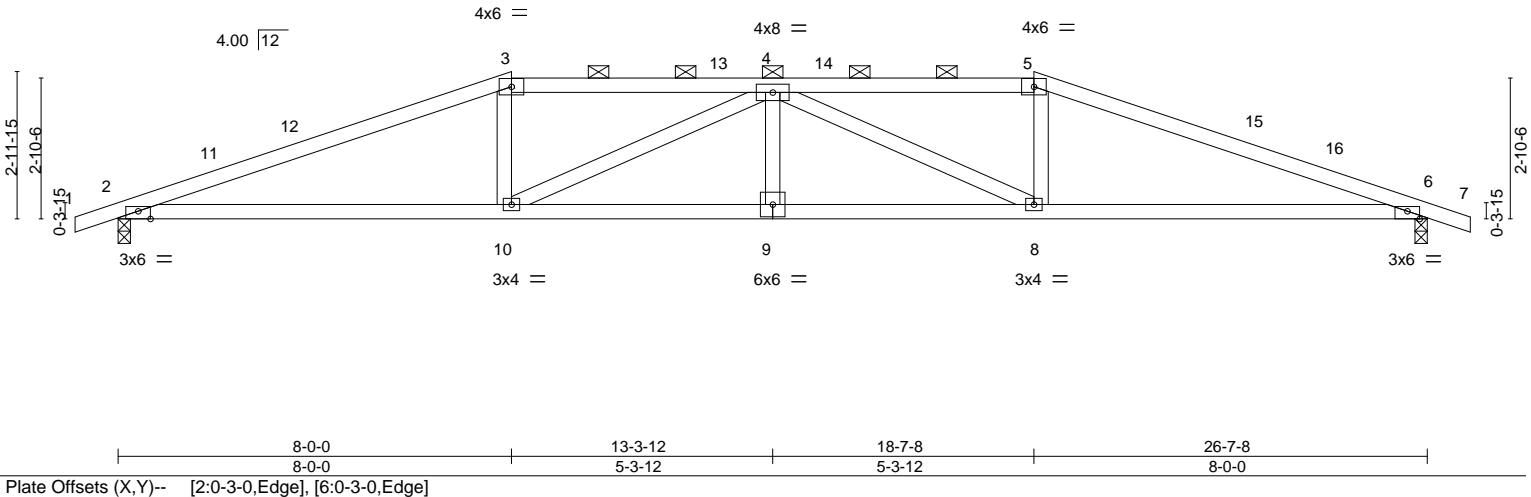
Job 21689A	Truss P2	Truss Type HIP	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015647
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:00 2019 Page 1  
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Scale = 1:46.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.75	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.93	Vert(LL) 0.28 6-8 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.45	Vert(CT) -0.36 9 >876 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.11 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 111 lb	FT = 20%

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

**REACTIONS.** (lb/size) 2=1115/0-3-0 (min. 0-1-8), 6=1115/0-3-0 (min. 0-1-8)  
Max Horz 2=48(LC 12)  
Max Uplift 2=-460(LC 8), 6=-460(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-11=-2508/1636, 11-12=-2439/1643, 3-12=-2435/1659, 3-13=-2288/1594,  
4-13=-2290/1593, 4-14=-2290/1593, 5-14=-2288/1594, 5-15=-2435/1659,  
15-16=-2439/1643, 6-16=-2508/1636  
BOT CHORD 2-10=-1509/2309, 9-10=-1744/2730, 8-9=-1744/2730, 6-8=-1511/2309  
WEBS 3-10=-372/460, 4-10=-644/323, 4-8=-644/323, 5-8=-372/460

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 8-0-0, Exterior(2) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 18-7-8, Exterior(2) 18-7-8 to 22-10-7, Interior(1) 22-10-7 to 27-6-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=460, 6=460.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



August 2, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

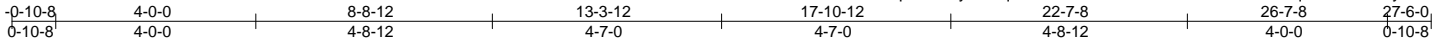


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss PG	Truss Type HIP GIRDER	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015648
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:03 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-deNLWWi8LEk3ii7YAZK?EEzZrRr2KqU3OJDWkSysAXA



Scale = 1:46.1

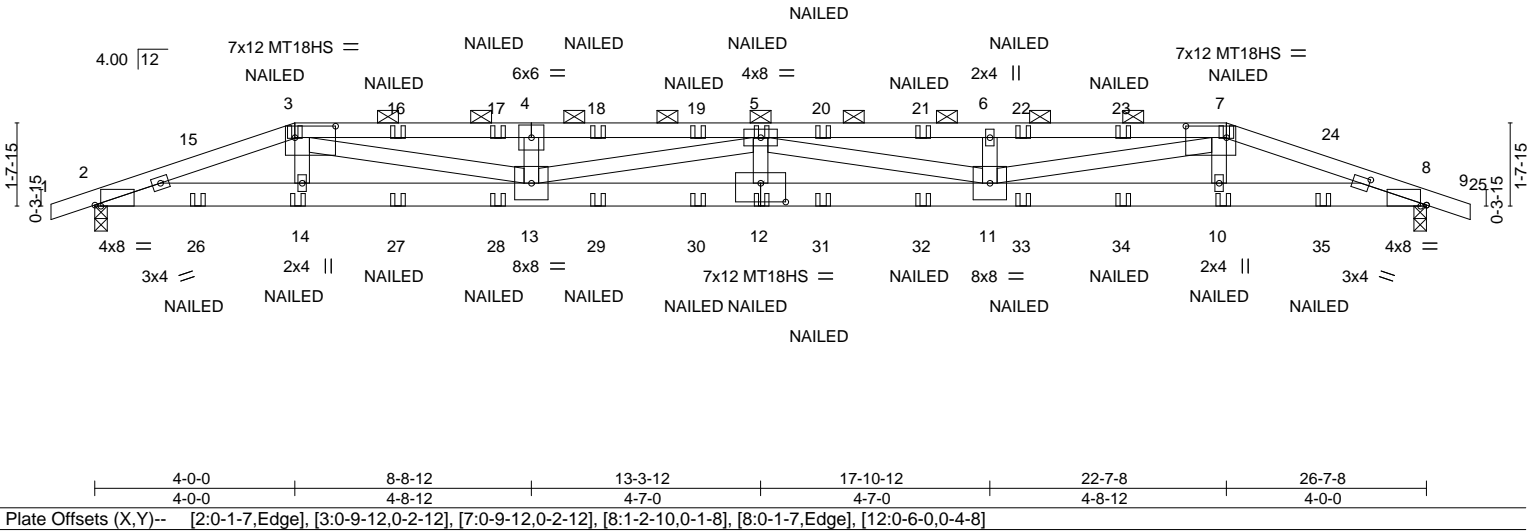


Plate Offsets (X,Y)--	[2:0-1-7,Edge], [3:0-9-12,0-2-12], [7:0-9-12,0-2-12], [8:1-2-10,0-1-8], [8:0-1-7,Edge], [12:0-6-0,0-4-8]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.93	Vert(LL) 0.81	12	>391	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.71	Vert(CT) -1.07	12	>297	180	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr NO		WB 0.68	Horz(CT) 0.11	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 138 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 3-4,4-7: 2x4 SP DSS	TOP CHORD Structural wood sheathing directly applied or 2-7-1 oc purlins, except 2-0-0 oc purlins (2-1-9 max.): 3-7.
BOT CHORD 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 4-0-13 oc bracing.
WEBS 2x4 SP No.3 *Except* 3-13,5-13,5-11,7-11: 2x4 SP No.2	
<b>REACTIONS.</b> (lb/size) 2=1599/0-3-0 (min. 0-1-10), 8=1599/0-3-0 (min. 0-1-10) Max Horz 2=27(LC 12) Max Uplift 2=-747(LC 8), 8=-747(LC 9)	

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-15=-4243/2389, 3-15=-4205/2397, 3-16=-6644/3752, 16-17=-6644/3752, 4-17=-6644/3752, 4-18=-6644/3752, 18-19=-6644/3752, 5-19=-6644/3752, 5-20=-6644/3752, 20-21=-6644/3752, 6-21=-6644/3752, 6-22=-6644/3752, 22-23=-6644/3752, 7-23=-6644/3752, 7-24=-4205/2396, 8-24=-4243/2389
BOT CHORD 2-26=-2224/3992, 14-26=-2224/3992, 14-27=-2247/4023, 27-28=-2247/4023, 13-28=-2247/4023, 13-29=-4344/7834, 29-30=-4344/7834, 12-30=-4344/7834, 12-31=-4344/7834, 31-32=-4344/7834, 11-32=-4344/7834, 11-33=-2251/4023, 33-34=-2251/4023, 10-34=-2251/4023, 10-35=-2229/3992, 8-35=-2229/3992
WEBS 3-14=-196/343, 3-13=-1513/2760, 4-13=-389/195, 5-13=-1259/684, 5-12=-159/362, 5-11=-1259/684, 6-11=-389/195, 7-11=-1513/2760, 7-10=-196/343

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 4-0-0, Exterior(2) 4-0-0 to 8-2-15, Interior(1) 8-2-15 to 22-7-8, Exterior(2) 22-7-8 to 26-10-7, Interior(1) 26-10-7 to 27-6-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (j=lb) 2=747, 8=747.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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).



August 2, 2019

**CONNECTIONS** - Standard

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss PG	Truss Type HIP GIRDER	Qty 1	Ply 1	240.2596.D.10x20cvp.tray  Job Reference (optional)	I38015648
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:03 2019 Page 2  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-deNLWWi8LEk3ii7YAZK?EEzZrRr2KqU3OJDWkSysAXA

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-7=-60, 7-9=-60, 2-8=-20

Concentrated Loads (lb)

Vert: 3=-47(B) 7=-47(B) 14=-18(B) 5=-47(B) 12=-18(B) 10=-18(B) 16=-47(B) 17=-47(B) 18=-47(B) 19=-47(B) 20=-47(B) 21=-47(B) 22=-47(B) 23=-47(B) 26=-128(B) 27=-18(B) 28=-18(B) 29=-18(B) 30=-18(B) 31=-18(B) 32=-18(B) 33=-18(B) 34=-18(B) 35=-128(B)

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

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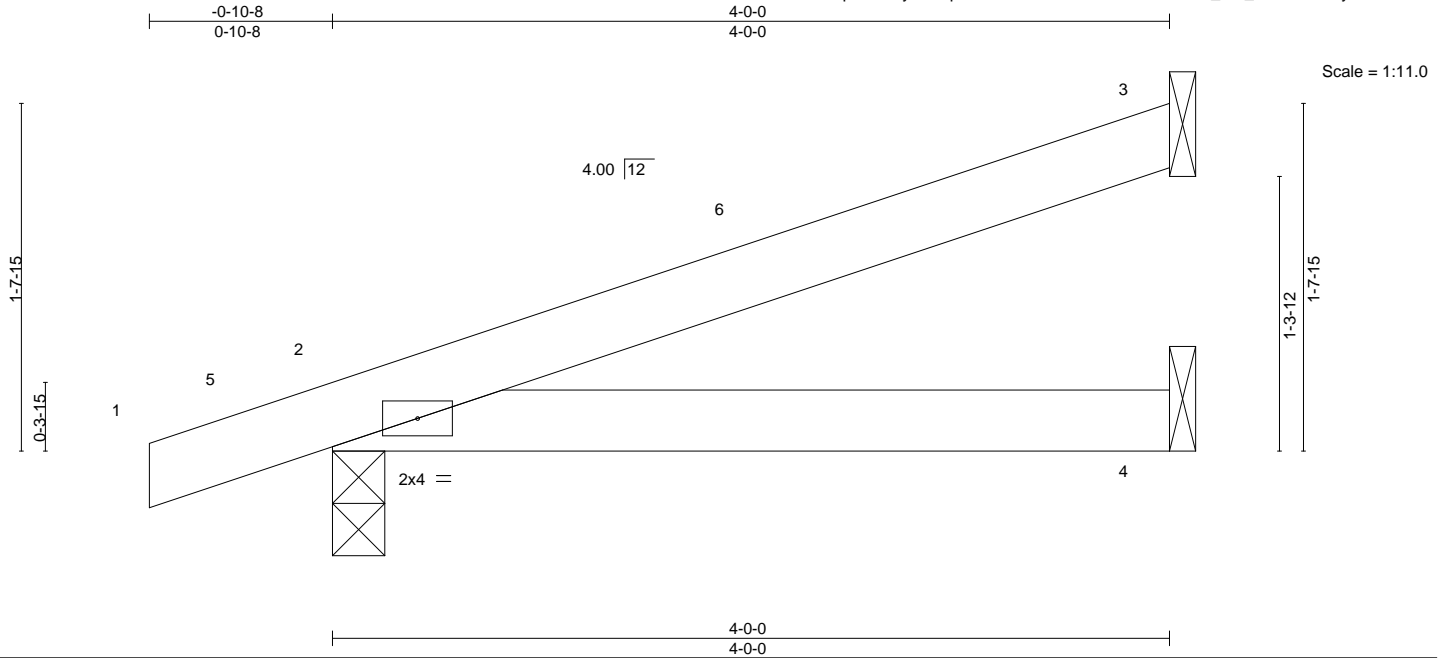


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss PJ1	Truss Type JACK-OPEN	Qty 11	Ply 1	240.2596.D.10x20cvp.tray	138015649
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-deNLWWi8LEk3ii7YAZK?EEzkcR\_QK\_33OJDWkSysAXA  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:03 2019 Page 1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) 0.02 2-4 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.03 2-4 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 14 lb	FT = 20%

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

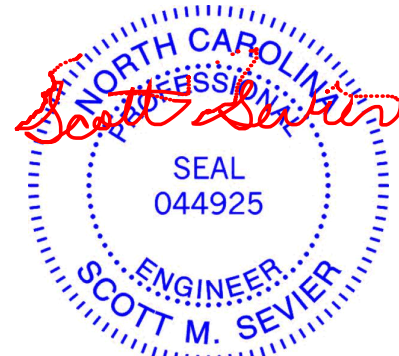
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=107/Mechanical, 2=220/0-3-0 (min. 0-1-8), 4=38/Mechanical  
Max Horz 2=65(LC 8)  
Max Uplift 3=-57(LC 12), 2=-99(LC 8), 4=-12(LC 8)  
Max Grav 3=107(LC 1), 2=220(LC 1), 4=76(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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 3-11-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

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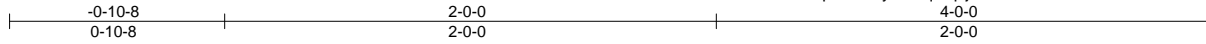
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss PJ2	Truss Type HALF HIP GIRDER	Qty 2	Ply 1	240.2596.D.10x20cvp.tray	138015650
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:04 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-5qxjkslm6YswKsilkGrEnSWlurEe3RJDdzz3GuysAX9



3x4 =

Scale = 1:9.4

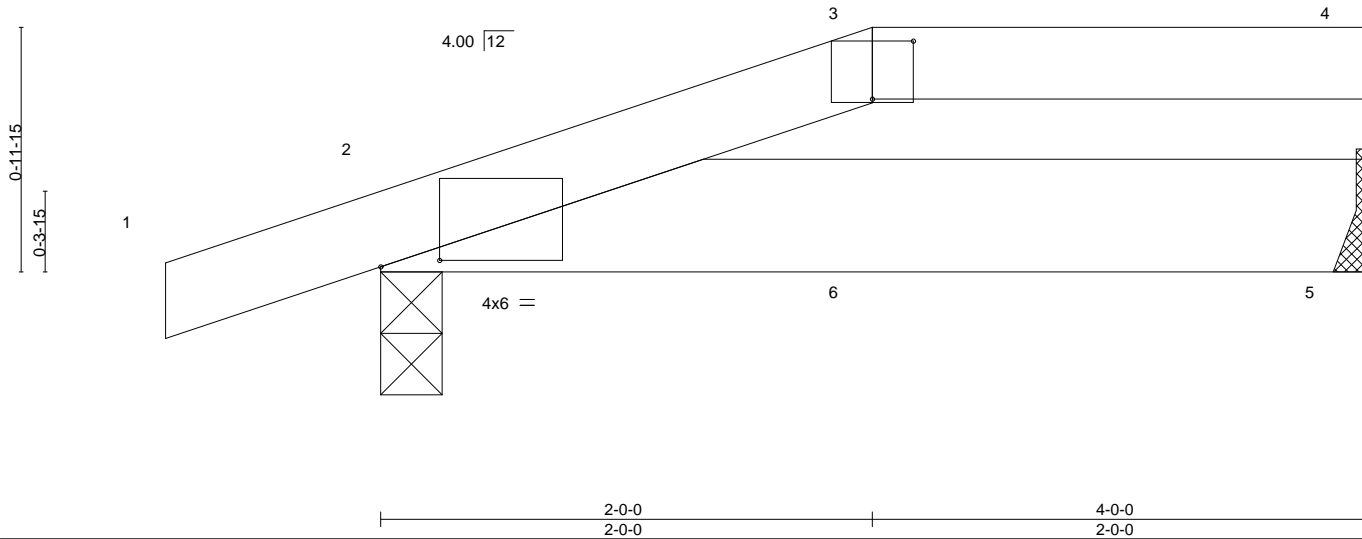


Plate Offsets (X,Y)--	[2:0-2-14,0-0-5], [3:0-2-0,0-2-13]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.84	Vert(LL) -0.02 2-5 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.49	Vert(CT) -0.03 2-5 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 17 lb	FT = 20%

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

**REACTIONS.** (lb/size) 2=220/0-3-0 (min. 0-1-8), 5=148/Mechanical  
Max Horz 2=42(LC 8)  
Max Uplift 2=-108(LC 8), 5=-82(LC 9)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=108.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 24 lb down and 110 lb up at 2-0-0 on top chord, and 16 lb down and 41 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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



August 2, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss PJ3	Truss Type JACK-OPEN	Qty 2	Ply 1	240.2596.D.10x20cvp.tray	138015651
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:04 2019 Page 1  
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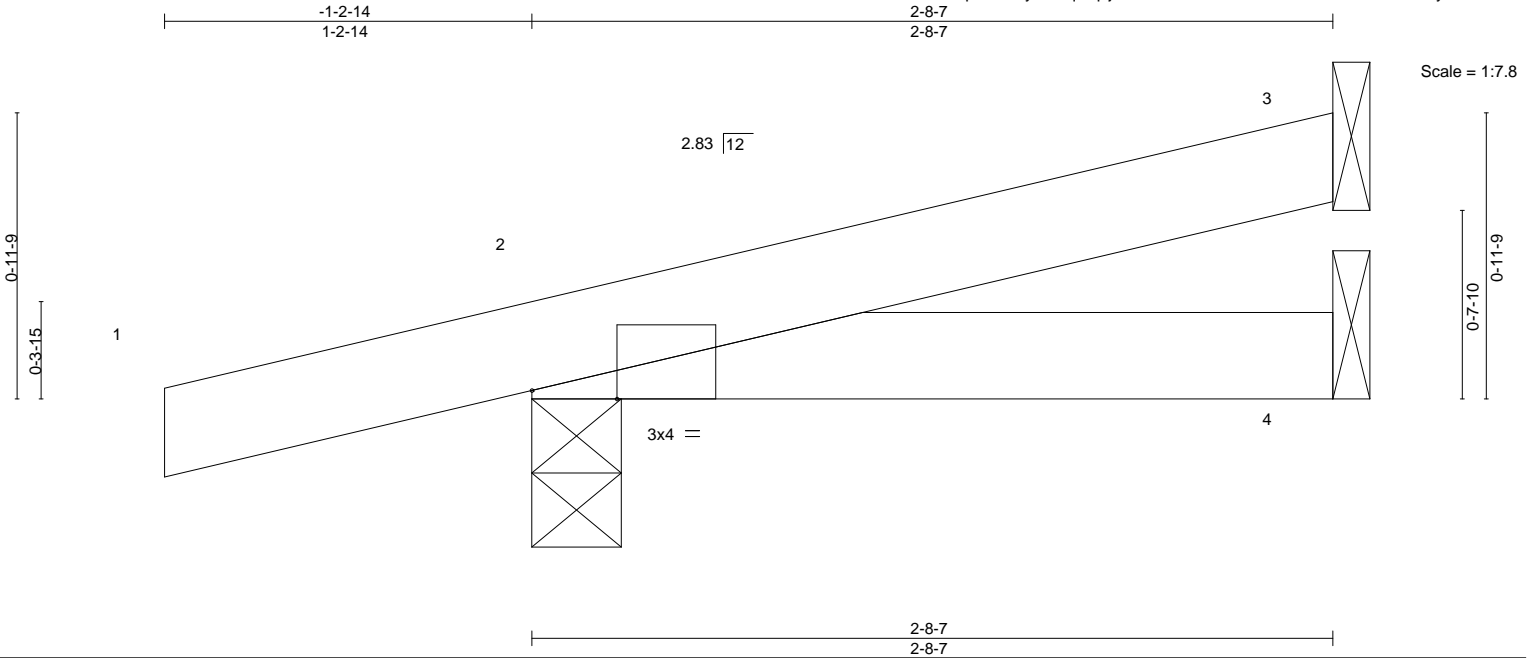


Plate Offsets (X,Y)-- [2:0-3-7,Edge]		CSI.		DEFL.				PLATES GRIP	
LOADING (psf)	SPACING-	2-0-0	TC	in	(loc)	l/defl	L/d	MT20	244/190
TCLL 20.0	Plate Grip DOL	1.15	BC	0.01	2-4	>999	240		
TCDL 10.0	Lumber DOL	1.15	WB	0.01	2-4	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	Matrix-P	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code	IRC2015/TPI2014						Weight: 10 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 3=51/Mechanical, 2=206/0-3-10 (min. 0-1-8), 4=25/Mechanical  
Max Horz 2=39(LC 8)  
Max Uplift 3=-28(LC 12), 2=-109(LC 8), 4=-8(LC 8)  
Max Grav 3=51(LC 1), 2=206(LC 1), 4=50(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=109.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

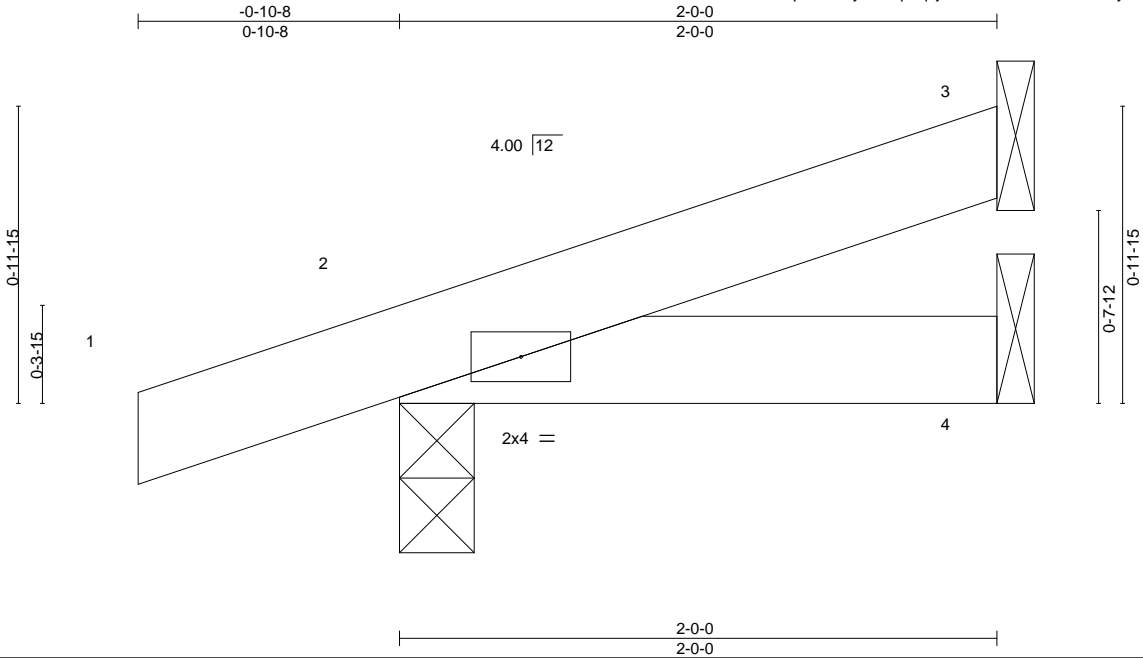
**LOAD CASE(S)** Standard



Job 21689A	Truss PJ4	Truss Type JACK-OPEN	Qty 2	Ply 1	240.2596.D.10x20cvp.tray	138015652
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-5qxjkslm6YswKsilkGrEnSWyDrLj3RJDdzz3GuysAX9  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:04 2019 Page 1



Scale = 1:7.7

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) -0.00 2 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 2-4 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 8 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 3=46/Mechanical, 2=145/0-3-0 (min. 0-1-8), 4=20/Mechanical  
Max Horz 2=40(LC 8)  
Max Uplift 3=-26(LC 12), 2=-72(LC 8), 4=-6(LC 8)  
Max Grav 3=46(LC 1), 2=145(LC 1), 4=39(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

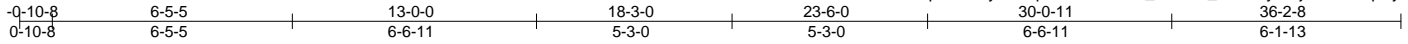


818 Soundside Road  
Edenton, NC 27932

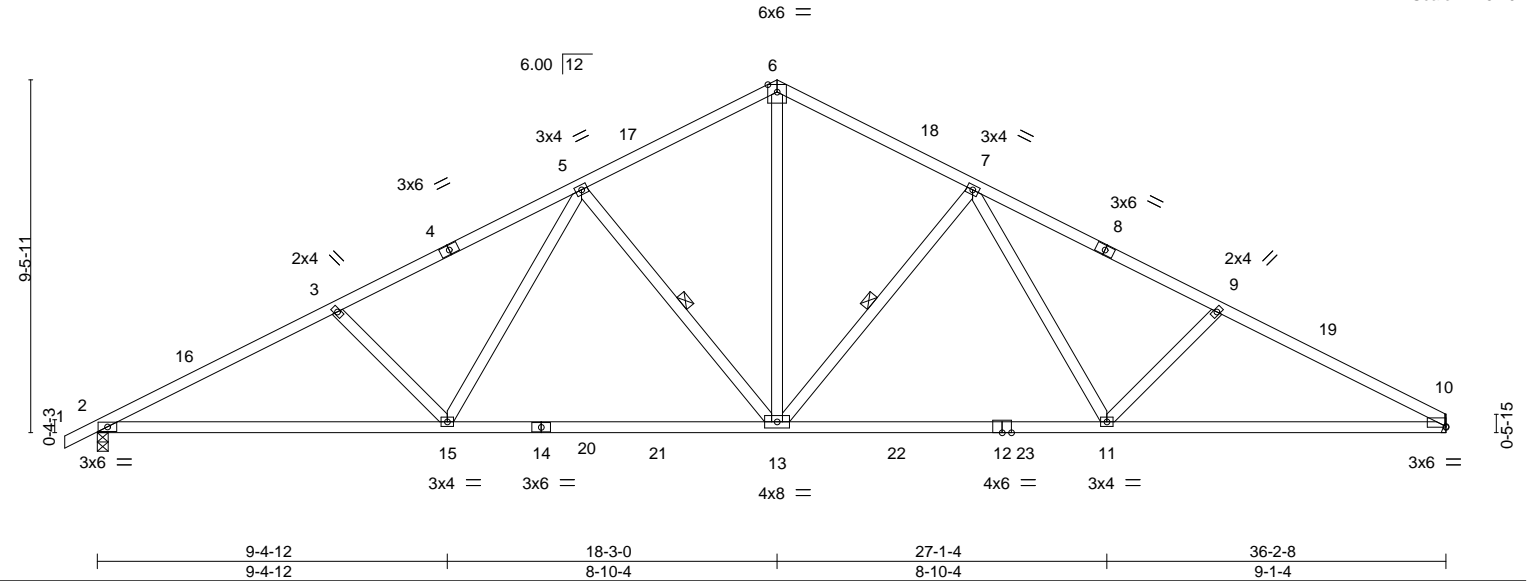
Job 21689A	Truss T1	Truss Type Common	Qty 3	Ply 1	240.2596.D.10x20cvp.tray	138015653
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:05 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-Z1V5xCmOts\_nx0GxI\_MTKf2yIFTJonrMsdicpKysAX8



Scale = 1:61.9



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.74	Plate(LL)	-0.24	13-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-0.44	13-15	>989		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.11	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 187 lb	FT = 20%

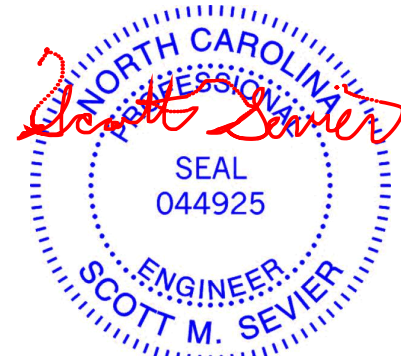
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.1 *Except* 12-14: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-13, 5-13

**REACTIONS.** (lb/size) 2=1502/0-3-8 (min. 0-1-12), 10=1439/Mechanical  
Max Horz 2=166(LC 16)  
Max Uplift 2=192(LC 12), 10=168(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-16=-2689/318, 3-16=-2635/338, 3-4=-2433/293, 4-5=-2340/312, 5-17=-1682/280,  
6-17=-1602/306, 6-18=-1602/310, 7-18=-1682/285, 7-8=-2308/327, 8-9=-2400/294,  
9-19=-2557/340, 10-19=-2642/321  
BOT CHORD 2-15=-380/2341, 15-20=-197/1838, 14-20=-197/1838, 14-21=-197/1838, 13-21=-197/1838,  
13-22=-102/1826, 12-22=-102/1826, 12-23=-102/1826, 11-23=-102/1826, 10-11=-224/2285  
WEBS 6-13=-148/1191, 7-13=-639/243, 7-11=-54/526, 9-11=-330/224, 5-13=-656/245,  
5-15=-55/555, 3-15=-364/225

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-8-15, Interior(1) 2-8-15 to 18-3-0, Exterior(2) 18-3-0 to 21-10-7, Interior(1) 21-10-7 to 36-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 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) 2=192, 10=168.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



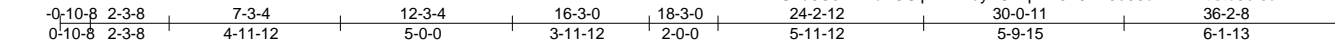
818 Soundside Road  
Edenton, NC 27932



Job 21689A	Truss T1T	Truss Type Roof Special	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015654
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-1D3T8Yn0e96dZAr7rhtistb5ofsuXAVW4HSALnysAX7  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:06 2019 Page 1



6x6 =

Scale = 1:67.0

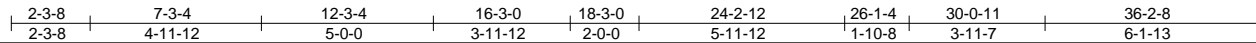
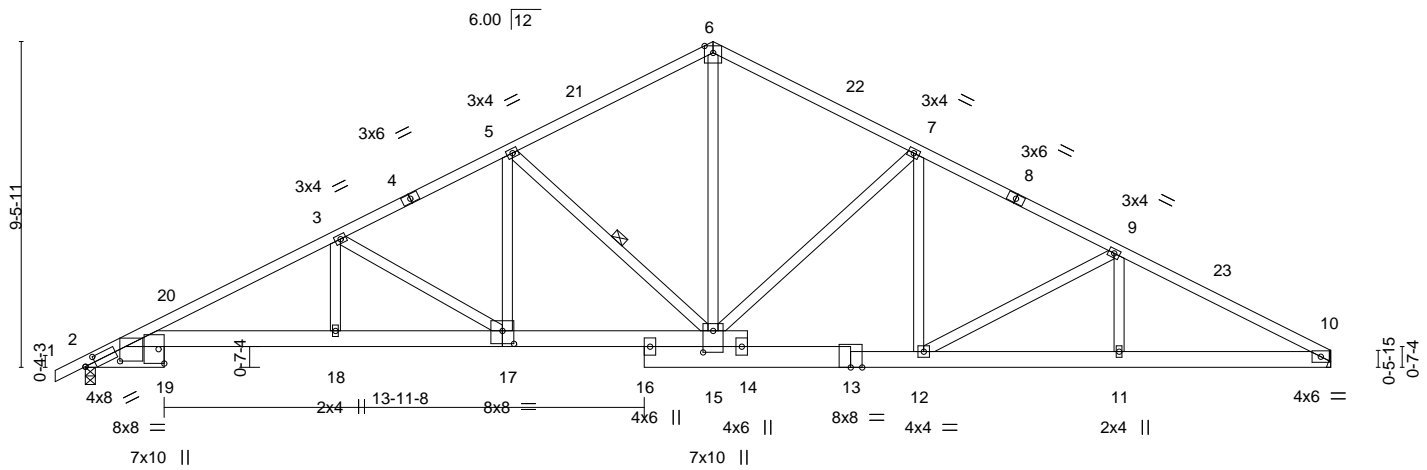


Plate Offsets (X,Y)-- [2:0-3-10,0-2-0], [2:1-0-1,0-1-15], [15:0-7-8,0-3-8], [17:0-4-0,0-4-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	-0.19 15-17	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.76	Vert(CT)	-0.39 15-17	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.72	Horz(CT)	0.14 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 239 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP No.2 \*Except\*  
14-17,10-13: 2x6 SP No.2, 2-17: 2x6 SP DSS  
WEBS 2x4 SP No.3

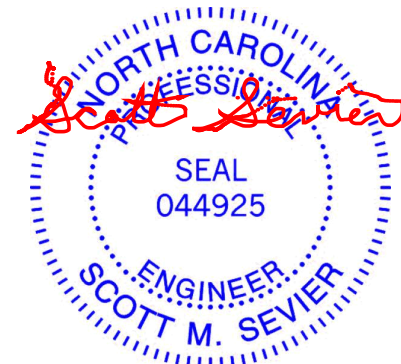
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-1-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-15

**REACTIONS.** (lb/size) 2=1502/0-3-8 (min. 0-1-12), 10=1439/Mechanical  
Max Horz 2=168(LC 16)  
Max Uplift 2=193(LC 12), 10=169(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-20=-3323/367, 3-20=-3229/391, 3-4=-2471/295, 4-5=-2350/319, 5-21=-1770/282,  
6-21=-1687/302, 6-22=-1687/308, 7-22=-1772/288, 7-8=-2062/312, 8-9=-2202/283,  
9-23=-2637/317, 10-23=-2738/298  
BOT CHORD 2-19=-420/2869, 18-19=-412/2895, 17-18=-412/2895, 16-17=-227/2147, 15-16=-231/2140,  
14-15=-93/1875, 13-14=-106/1904, 12-13=-106/1900, 11-12=-204/2360, 10-11=-204/2360  
WEBS 3-18=0/477, 3-17=-871/215, 9-11=0/278, 5-17=-47/600, 6-15=-119/1169, 5-15=-883/242,  
7-12=-14/286, 7-15=-585/228, 9-12=-527/165

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-8-15, Interior(1) 2-8-15 to 18-3-0, Exterior(2) 18-3-0 to 21-10-7, Interior(1) 21-10-7 to 36-1-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 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) 2=193, 10=169.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



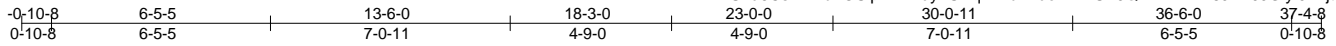
818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss T2	Truss Type ROOF TRUSS	Qty 5	Ply 1	240.2596.D.10x20cvp.tray	138015655
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:07 2019 Page 1  
ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-VPdrMuofPTEUBJQKPPPpP48JN29JGiyfJxBjtDysAX6

Job Reference (optional)



6x6 =

Scale = 1:67.8

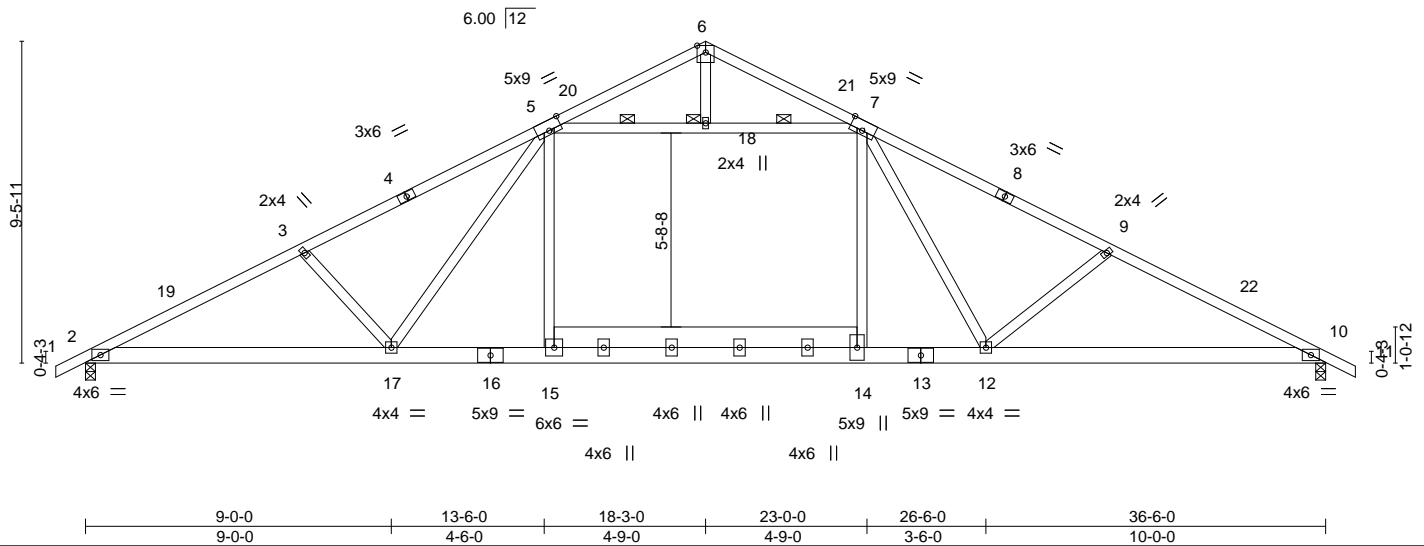


Plate Offsets (X,Y)--	[5:0-4-8,Edge], [7:0-4-8,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.70	Vert(LL)	-0.28	15-17	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.94	Vert(CT)	-0.41	15-17	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.39	Horz(CT)	0.08	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Attic	-0.20	14-15	543	360	
									Weight: 247 lb FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\*  
14-15: 2x8 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-6-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
2-2-0 oc bracing: 12-14.  
WEBS 1 Row at midpt 5-18, 7-18  
JOINTS 1 Brace at Jt(s): 18  
This truss requires both edges of the bottom chord be sheathed in the room area.

**REACTIONS.** (lb/size) 2=1556/0-3-8 (min. 0-1-15), 10=1556/0-3-8 (min. 0-1-15)  
Max Horz 2=-160(LC 13)  
Max Uplift 2=-165(LC 12), 10=-165(LC 13)  
Max Grav 2=1641(LC 2), 10=1641(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-19=-3118/283, 3-19=-3058/302, 3-4=-2902/261, 4-5=-2818/284, 5-20=-440/63,  
6-20=-414/86, 6-21=-414/86, 7-21=-440/63, 7-8=-2750/248, 8-9=-2834/226,  
9-22=-3049/309, 10-22=-3108/290  
BOT CHORD 2-17=-343/2730, 16-17=-66/2269, 14-15=-66/2269, 13-14=-66/2269,  
12-13=-66/2269, 10-12=-190/2723  
WEBS 7-12=-199/766, 9-12=-429/256, 5-17=-211/761, 3-17=-403/242, 5-18=-1963/236,  
7-18=-1963/236, 5-15=-158/650, 7-14=-246/679

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-9-5, Interior(1) 2-9-5 to 18-3-0, Exterior(2) 18-3-0 to 21-10-13, Interior(1) 21-10-13 to 37-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (5.0 psf) on member(s). 5-18, 7-18
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=165, 10=165.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

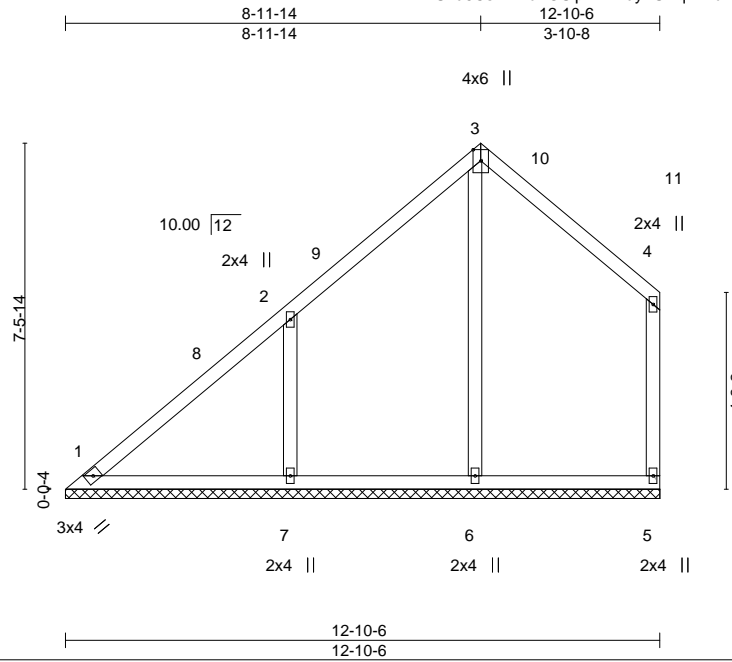


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss V1	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015656
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-VPrMuofPTEUBJQKPPPpP48P12L3GlsfJxBjtDysAX6  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:07 2019 Page 1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/def	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 65 lb	FT = 20%

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

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

**REACTIONS.** All bearings 12-10-6.  
(lb) - Max Horz 1=208(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 7=220(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=431(LC 19), 7=503(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-7=361/266

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 8-11-14, Exterior(2) 8-11-14 to 11-11-14, Interior(1) 11-11-14 to 12-8-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 7=220.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

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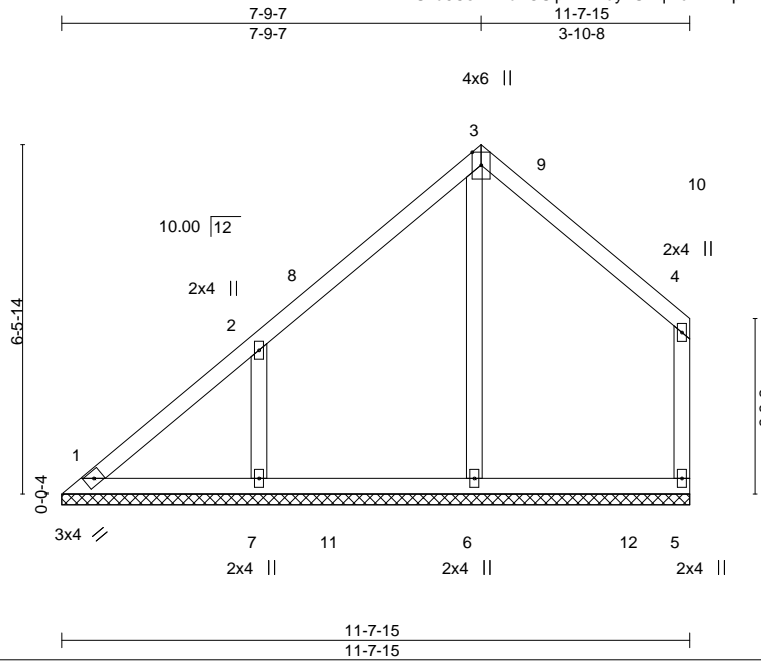


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss V2	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015657
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-zcBEZEpHAnMLoT?Wz6wAxIgbhShW?DuoYbxHQfysAX5  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:08 2019 Page 1



Scale = 1:42.8

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/def	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 56 lb	FT = 20%

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

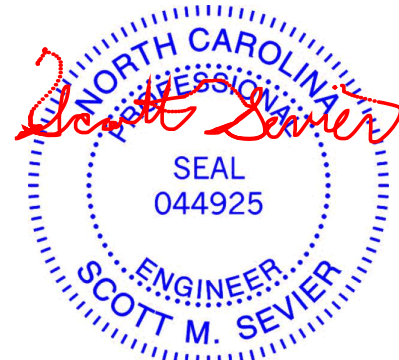
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 11-7-15.  
(lb) - Max Horz 1=170(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 7=189(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=431(LC 19), 7=401(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-7=312/231

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-7-15, Interior(1) 3-7-15 to 7-9-7, Exterior(2) 7-9-7 to 10-9-7, Interior(1) 10-9-7 to 11-6-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 7=189.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

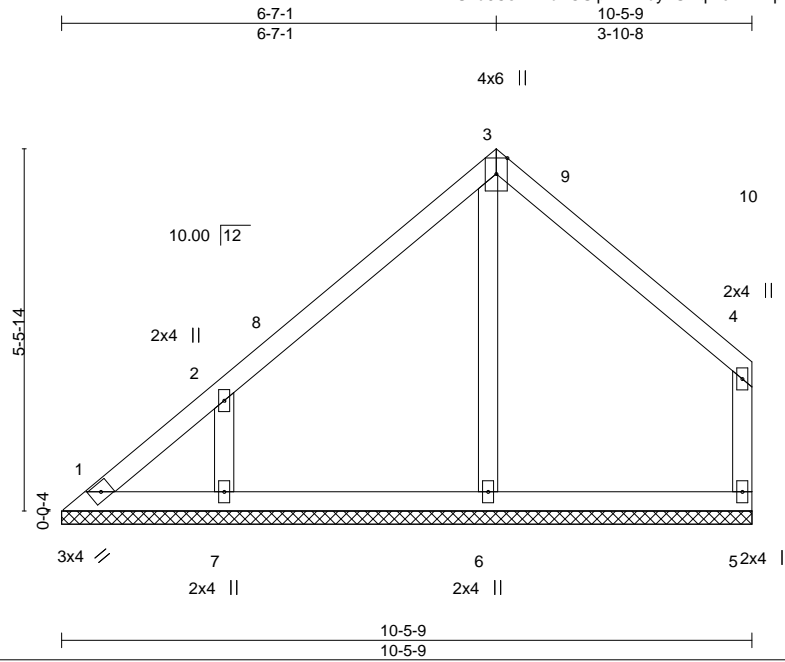


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss V3	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015658
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:08 2019 Page 1  
 ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-zcBEZEpHAnMLoT?Wz6wAxlgc5ShH?EdoYbxHQfysAX5



Scale = 1:34.9

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 48 lb	FT = 20%

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

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

**REACTIONS.** All bearings 10-5-9.  
 (lb) - Max Horz 1=131(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 7=170(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=307(LC 19), 7=334(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-7=-284/212

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 6-7-1, Exterior(2) 6-7-1 to 9-7-1, Interior(1) 9-7-1 to 10-3-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 7=170.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

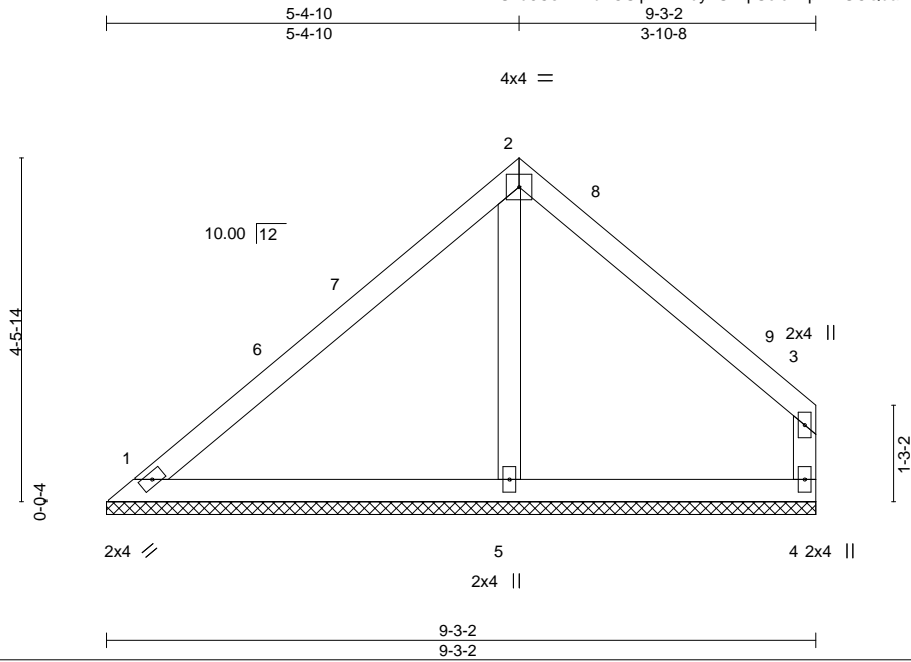


818 Soundside Road  
 Edenton, NC 27932

Job 21689A	Truss V4	Truss Type GABLE	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015659
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84 Components, Dunn, NC 28334

8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:09 2019 Page 1  
 ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-SolcnZpvx4UCQdaiXqRPUVDk7s0QkhEymFgqy5ysAX4



Scale = 1:30.1

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 38 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=197/9-3-2 (min. 0-1-8), 4=157/9-3-2 (min. 0-1-8), 5=343/9-3-2 (min. 0-1-8)  
 Max Horz 1=100(LC 9)  
 Max Uplift 1=-70(LC 13), 4=-91(LC 13), 5=-31(LC 12)  
 Max Grav 1=203(LC 20), 4=182(LC 20), 5=386(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-5=-263/77

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 5-4-10, Exterior(2) 5-4-10 to 8-4-10, Interior(1) 8-4-10 to 9-1-6 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

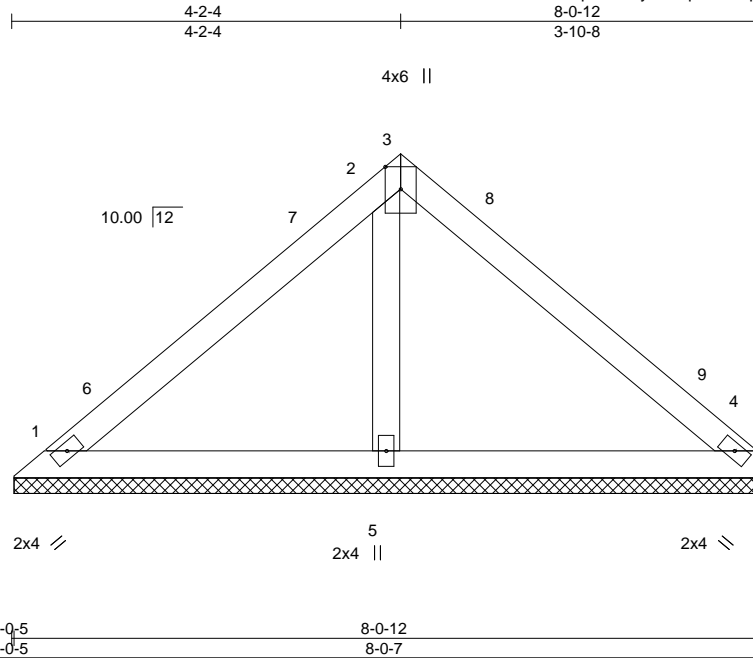


818 Soundside Road  
 Edenton, NC 27932

Job 21689A	Truss V5	Truss Type Valley	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015660
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-SolcnZpvx4UCQdaiXqRPUVDIHs1JkhBymFgqy5ysAX4  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:09 2019 Page 1



Scale = 1:24.8

Plate Offsets (X,Y)--	[2:0-1-7,0-1-12], [3:0-2-4,0-0-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.29	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 31 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 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=71/8-3-14 (min. 0-1-8), 4=86/8-3-14 (min. 0-1-8), 5=443/8-3-14 (min. 0-1-8)  
Max Horz 1=-78(LC 10)  
Max Uplift 1=-12(LC 8), 4=-20(LC 8), 5=-183(LC 12)  
Max Grav 1=94(LC 20), 4=143(LC 24), 5=464(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-5=-380/255

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 4-2-4, Exterior(2) 4-2-4 to 7-2-4, Interior(1) 7-2-4 to 7-11-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=183.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

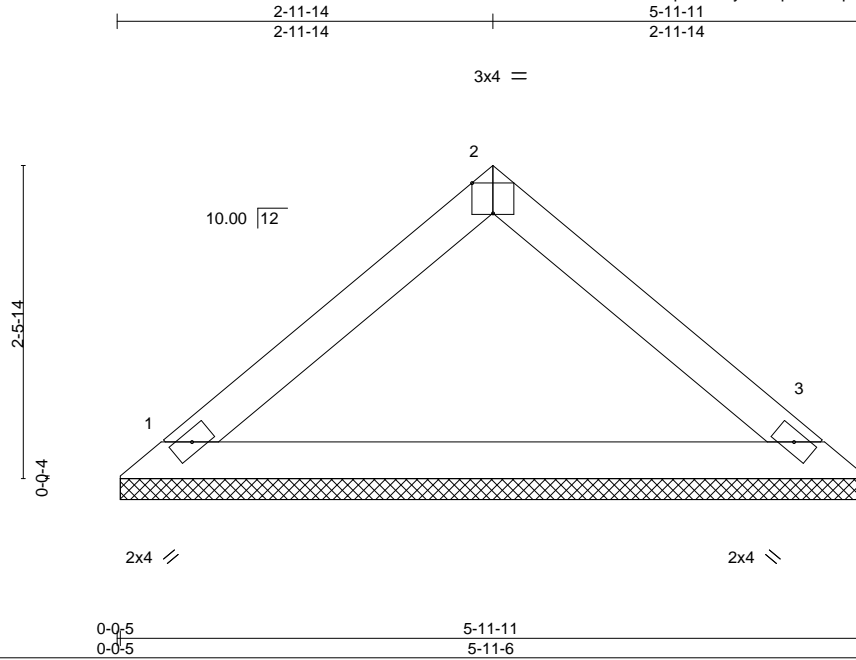


818 Soundside Road  
Edenton, NC 27932

Job 21689A	Truss V6	Truss Type Valley	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	138015661
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-SolcnZpvx4UCQdaiXqRPUVDous\_BkiYymFgqy5ysAX4  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:09 2019 Page 1  
Job Reference (optional)



Scale = 1:18.3

Plate Offsets (X,Y)--	[2:0-2-0,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.12	Vert(LL) n/a	-	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.34	Vert(CT) n/a	-	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.00	Horz(CT) 0.00	3	n/a	n/a			
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 19 lb	FT = 20%

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

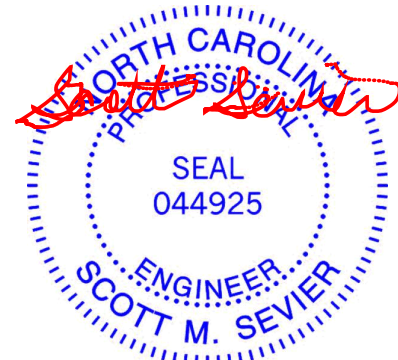
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=207/5-11-2 (min. 0-1-8), 3=207/5-11-2 (min. 0-1-8)  
Max Horz 1=53(LC 8)  
Max Uplift 1=20(LC 12), 3=20(LC 13)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



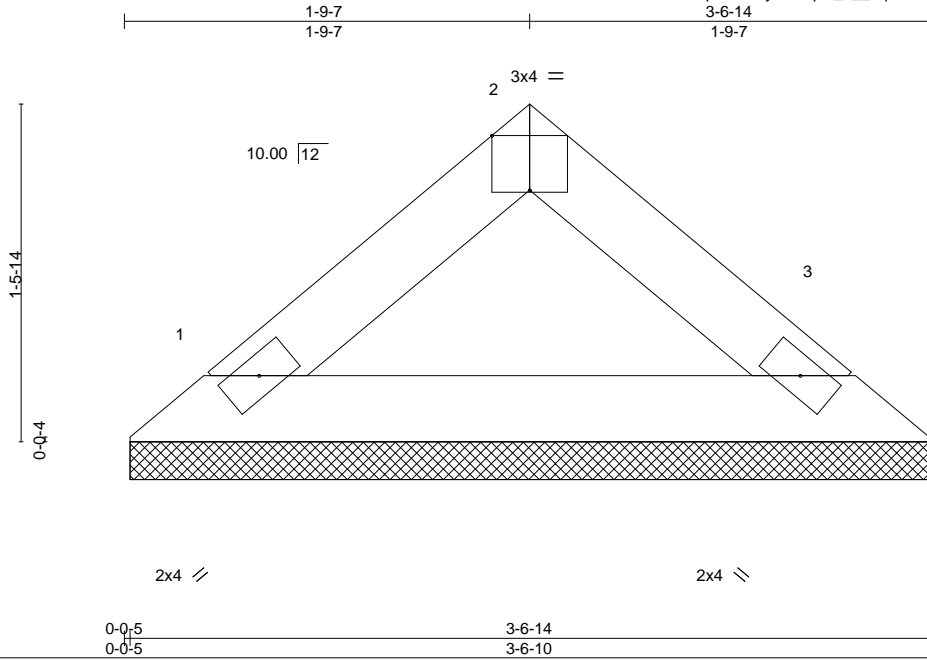
818 Soundside Road  
Edenton, NC 27932



Job 21689A	Truss V7	Truss Type Valley	Qty 1	Ply 1	240.2596.D.10x20cvp.tray	I38015662
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84 Components, Dunn, NC 28334

ID:IRUvu6CsEmxbTOSip7BE4uyZSNq-w\_J\_vqXiOc32n9u4Xye1jm\_iGMNT8o5?vQNUYysAX3  
8.310 s Jul 27 2019 MiTek Industries, Inc. Thu Aug 1 15:36:10 2019 Page 1



Scale = 1:10.2

Plate Offsets (X,Y)--	[2:0-2-0,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P						Weight: 11 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=111/3-6-5 (min. 0-1-8), 3=111/3-6-5 (min. 0-1-8)  
Max Horz 1=29(LC 11)  
Max Uplift 1=-10(LC 12), 3=-10(LC 13)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



August 2, 2019

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

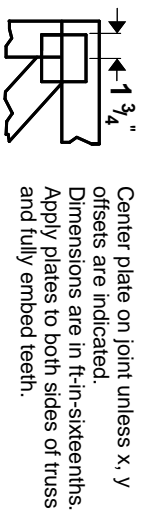
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



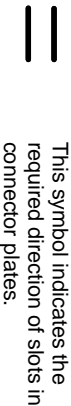
818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0-  $\frac{1}{16}$ " from outside edge of truss.



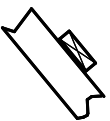
\* Plate location details available in **MITrak 20/20 software or upon request.**

## PLATE SIZE

4 X 4

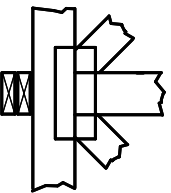
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

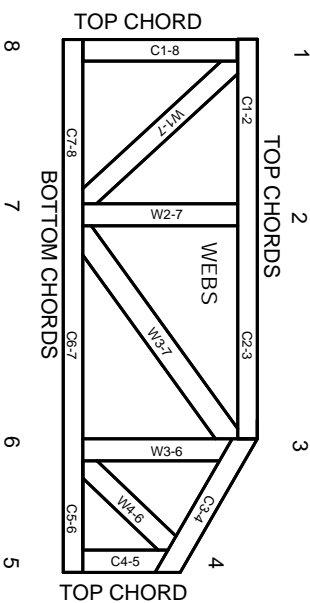


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System



**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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# 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.