

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: P-5824-1  
Rob Grissom V2-Roof

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Peak Truss Builders, LLC.

Pages or sheets covered by this seal: E12751955 thru E12751981

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

North Carolina COA: C-0844



February 28, 2019

Gilbert, Eric

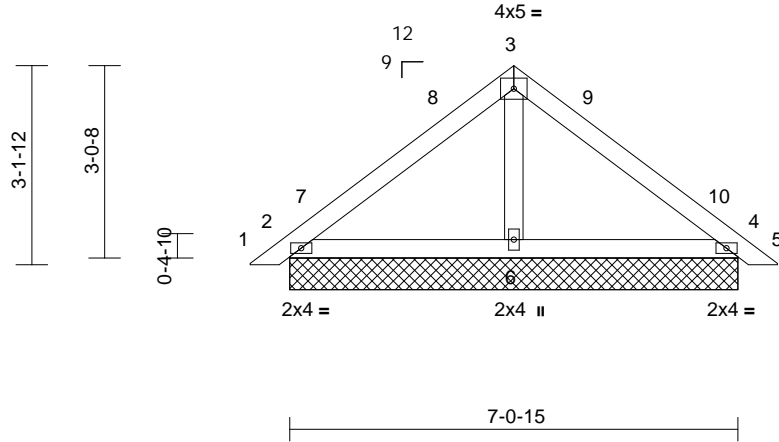
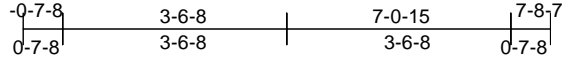
**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job P-5824-1	Truss CAP1	Truss Type Piggyback	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751955
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:00  
ID:elqgJoiPHf6cNpEgFtywOLzL\_OJ-6g5fnRkdmqOtSPFEEFnj9qyRmpFPQAQqhMblfAzgqF

Page: 1



Scale = 1:36.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-P							Weight: 30 lb	FT = 20%

- LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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) 2=186/7-0-15, 4=186/7-0-15, 6=242/7-0-15  
Max Horiz 2=59 (LC 8)  
Max Uplift 2=43 (LC 10), 4=43 (LC 10)

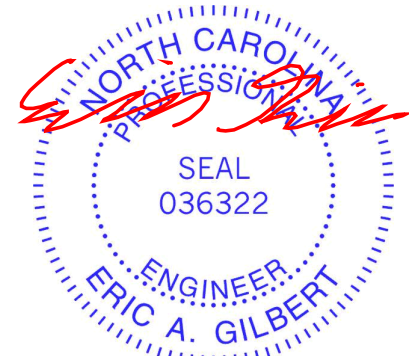
- FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/12, 2-7=-99/34, 7-8=-46/43, 3-8=-30/53, 3-9=-21/55, 9-10=-46/44, 4-10=-99/35, 4-5=0/12  
BOT CHORD 2-6=-14/37, 4-6=-14/37  
WEBS 3-6=-154/46

- NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-3-7 to 3-3-7, Interior (1) 3-3-7 to 4-2-10, Exterior (2) 4-2-10 to 7-2-10, Interior (1) 7-2-10 to 8-1-14 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) 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) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.

- 5) Gable requires continuous bottom chord bearing.  
6) Gable studs spaced at 4-0-0 oc.  
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.  
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 2 and 43 lb uplift at joint 4.  
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

These truss designs are based upon the building code shown. This code has been specified by the project engineer/architect, or building designer. The applicability of this code in any particular jurisdiction should be confirmed with the building official prior to truss fabrication. This determination is not the responsibility of the component/truss designer. This applies to all truss design drawings in this job.



February 28, 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.



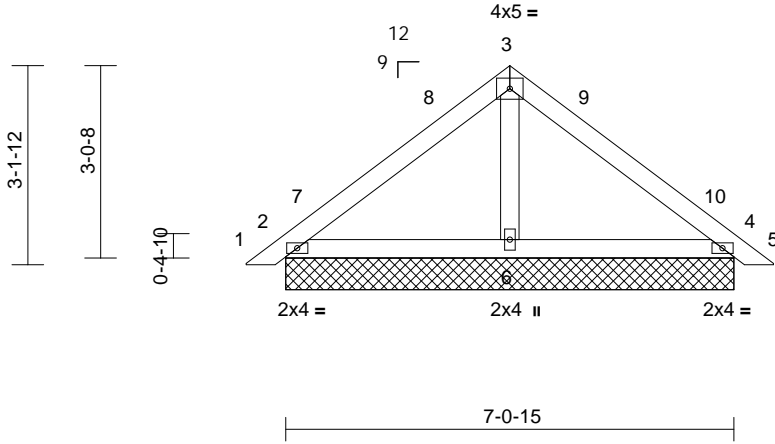
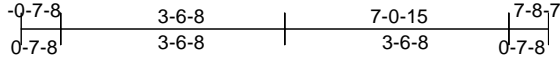
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss CAP2	Truss Type Piggyback	Qty 18	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751956
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:02  
ID:elgqJoiPHf6cNpEgFtywOLzL\_OJ-?RLAcon8q3ulw1Z?T5rfJg77IRcLM\_QQc\_ZVoxzgfqB

Page: 1



Scale = 1:36.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-P							Weight: 30 lb	FT = 20%

- LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

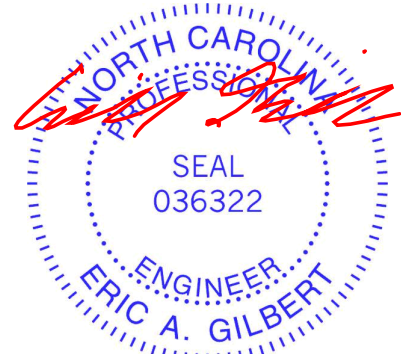
- BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

- REACTIONS** (lb/size) 2=186/7-0-15, 4=186/7-0-15, 6=242/7-0-15  
Max Horiz 2=59 (LC 8)  
Max Uplift 2=43 (LC 10), 4=43 (LC 10)

- FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/12, 2-7=-99/34, 7-8=-46/43, 3-8=-30/53, 3-9=-21/55, 9-10=-46/44, 4-10=-99/35, 4-5=0/12  
BOT CHORD 2-6=-14/37, 4-6=-14/37  
WEBS 3-6=-154/46

- NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-3-7 to 3-3-7, Interior (1) 3-3-7 to 4-2-10, Exterior (2) 4-2-10 to 7-2-10, Interior (1) 7-2-10 to 8-1-14 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) 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) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.

- 5) Gable requires continuous bottom chord bearing.  
6) Gable studs spaced at 4-0-0 oc.  
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.  
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 2 and 43 lb uplift at joint 4.  
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.  
**LOAD CASE(S)** Standard



February 28, 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.



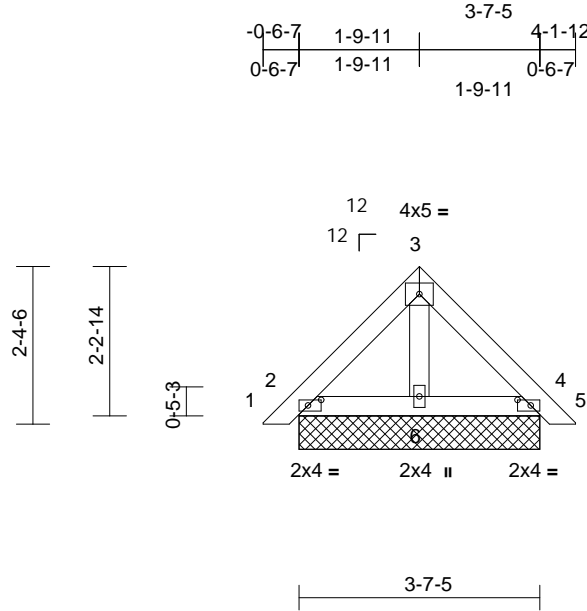
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss CAP3	Truss Type Piggyback	Qty 7	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751957
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:02  
ID:elggJoiPH6cNpEgFtywOLzL\_OJ-?RLAcon8q3ulw1Z?T5rfJg79oRdQM\_nQc\_ZVoxzfgqB

Page: 1



Scale = 1:34.5

Plate Offsets (X, Y): [2:0-2-6,0-1-0], [4:0-2-6,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-P							Weight: 18 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**LOAD CASE(S)** Standard

**REACTIONS**

(lb/size) 2=111/3-7-5, 4=111/3-7-5, 6=108/3-7-5  
Max Horiz 2=46 (LC 8)  
Max Grav 2=111 (LC 1), 4=111 (LC 1), 6=111 (LC 3)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/12, 2-3=-62/33, 3-4=-62/34, 4-5=0/12  
BOT CHORD 2-6=-16/38, 4-6=-16/38  
WEBS 3-6=-62/15

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.



February 28, 2019

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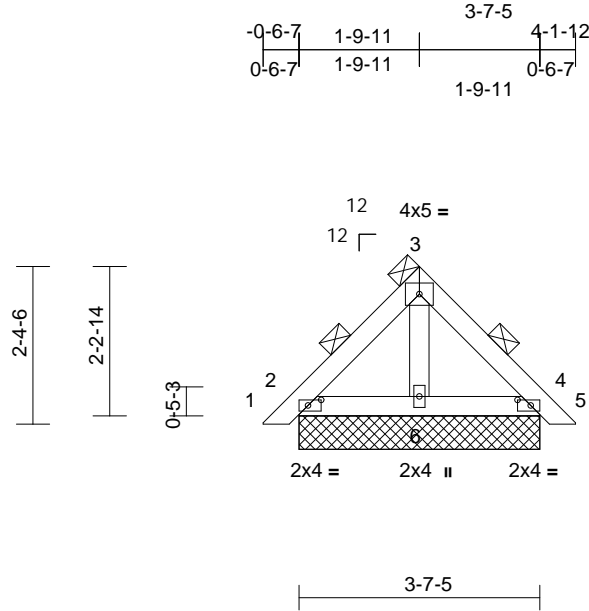
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss CAP4	Truss Type Piggyback	Qty 2	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751958
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:03  
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Page: 1



Scale = 1:34.5

Plate Offsets (X, Y): [2:0-2-6,0-1-0], [4:0-2-6,0-1-0]

Loading	(psf)	Spacing	6-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.04	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-P							Weight: 18 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(lb/size) 2=333/3-7-5, 4=333/3-7-5,  
6=323/3-7-5  
Max Horiz 2=-137 (LC 8)  
Max Grav 2=333 (LC 1), 4=333 (LC 1), 6=333  
(LC 3)

**FORCES**

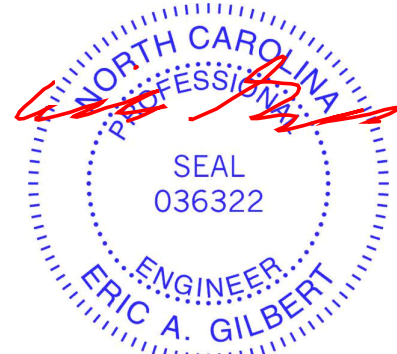
(lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-2=0/37, 2-3=-185/93, 3-4=-185/96,  
4-5=0/37  
BOT CHORD 2-6=-48/110, 4-6=-48/110  
WEBS 3-6=-187/42

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 5) Gable requires continuous bottom chord bearing.

- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



February 28, 2019

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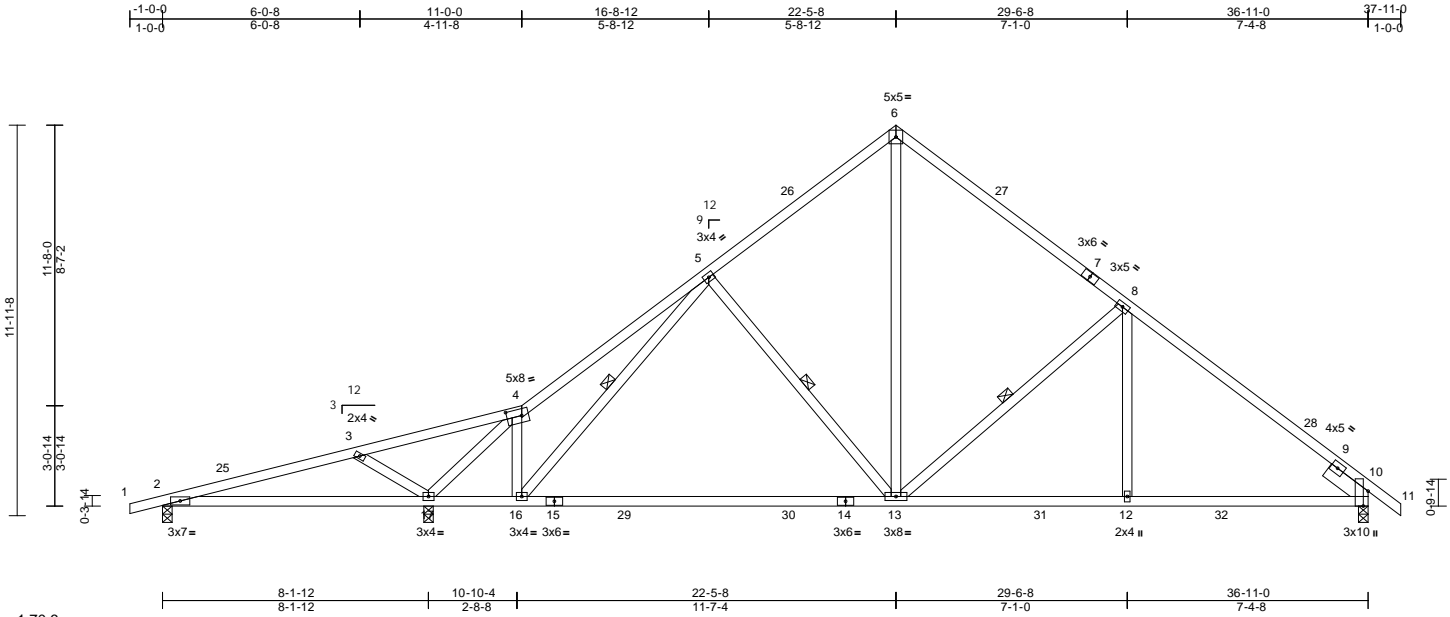
Job P-5824-1	Truss T1	Truss Type Roof Special	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751959
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:03

Page: 1

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Scale = 1:70.6  
Plate Offsets (X, Y): [4:0-5-8,0-2-8], [10:0-5-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.47	13-16	>737	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(TL)	-0.99	13-16	>349	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.66	Horiz(TL)	0.05	10	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 205 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Right 2x6 SP No.2 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-10-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-17.

**WEBS** 1 Row at midpt 5-16, 5-13, 8-13

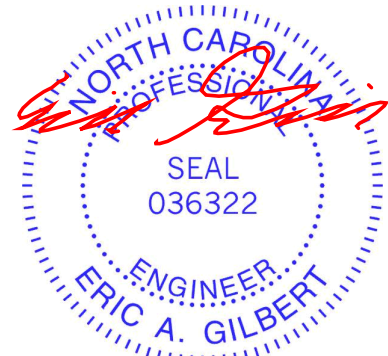
**REACTIONS** (lb/size) 2=242/0-3-8, 10=1164/0-3-8, 17=1668/0-3-8  
Max Horiz 2=235 (LC 8)  
Max Uplift 2=-16 (LC 5)  
Max Grav 2=260 (LC 14), 10=1177 (LC 2), 17=1668 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/15, 2-25=-555/341, 3-25=0/388, 3-4=-83/733, 4-5=-1015/153, 5-26=-995/197, 6-26=-903/229, 6-27=-896/221, 7-27=-903/198, 7-8=-1019/175, 8-28=-1273/174, 9-28=-1446/135, 9-10=-480/0, 10-11=0/36  
BOT CHORD 2-17=-338/581, 16-17=0/778, 15-16=0/860, 15-29=0/860, 29-30=0/860, 14-30=0/860, 13-14=0/860, 13-31=-9/1083, 12-31=-9/1083, 12-32=-9/1083, 10-32=-9/1083  
WEBS 3-17=-485/131, 4-17=-2043/136, 4-16=0/460, 5-16=-253/44, 5-13=-280/176, 6-13=-124/790, 8-13=-486/180, 8-12=0/257

- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 22-5-8, Exterior (2) 22-5-8 to 25-5-8, Interior (1) 25-5-8 to 37-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 16 lb uplift at joint 2.

**LOAD CASE(S)** Standard

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.



February 28, 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.



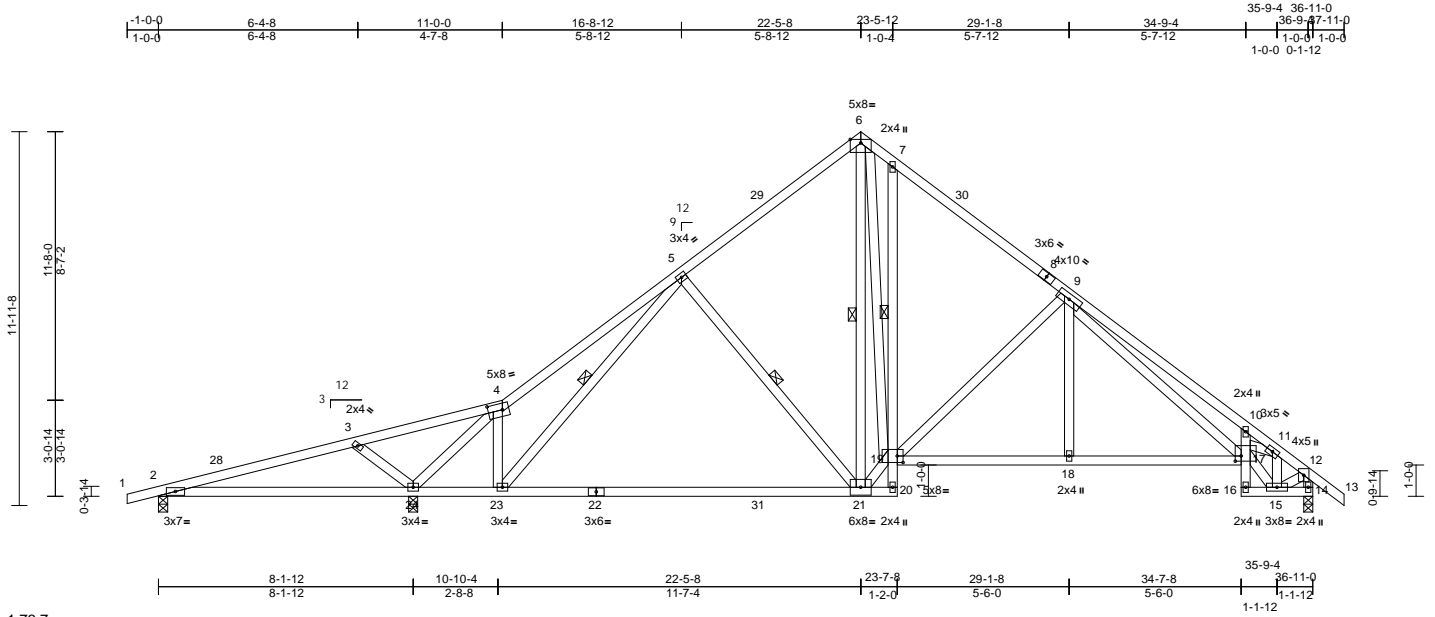
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T1A	Truss Type Roof Special	Qty 3	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751960
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:04  
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Page: 1



Scale = 1:73.7

Plate Offsets (X, Y): [4:0-5-8,0-2-8], [17:0-2-4,0-2-0], [19:0-2-4,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.40	21-23	>861	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(TL)	-0.86	21-23	>401	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horiz(TL)	0.13	14	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 250 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1 \*Except\* 20-7,10-16:2x4 SP No.3  
WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:

1 Row at midpt 7-19  
WEBS 1 Row at midpt 5-23, 6-21, 5-21

**REACTIONS (lb/size)**

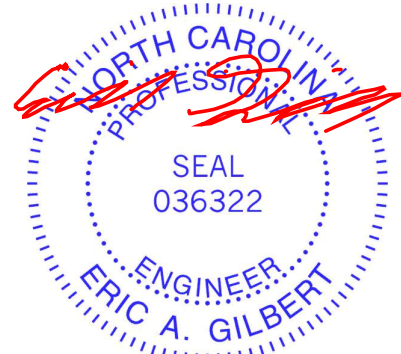
2=232/0-3-8, 14=1163/0-3-8, 24=1676/0-3-8  
Max Horiz 2=248 (LC 8)  
Max Uplift 2=14 (LC 5)  
Max Grav 2=260 (LC 14), 14=1163 (LC 1), 24=1676 (LC 1)

**FORCES (lb) - Maximum Compression/Maximum Tension**

TOP CHORD 1-2=0/15, 2-28=-610/392, 3-28=-31/443, 3-4=-94/732, 4-5=-926/142, 5-29=-972/192, 6-29=-857/226, 6-7=-964/289, 7-30=-964/212, 8-30=-982/194, 8-9=-1097/176, 9-10=-2328/292, 10-11=-2137/144, 11-12=-951/90, 12-13=0/41, 12-14=-1097/154  
BOT CHORD 2-24=-391/644, 23-24=0/708, 22-23=0/838, 22-31=0/838, 21-31=0/838, 20-21=-76/34, 19-20=-543/0, 7-19=-186/139, 18-19=0/1180, 17-18=0/1179, 16-17=0/69, 10-17=-284/178, 15-16=-21/132, 14-15=0/85  
WEBS 3-24=-439/120, 4-24=-1937/138, 4-23=0/456, 9-19=-541/130, 9-17=-145/845, 11-17=-75/1101, 11-15=-1018/16, 15-17=0/790, 12-15=-26/707, 9-18=0/154, 5-23=-318/54, 6-21=-91/365, 19-21=0/969, 6-19=-156/932, 5-21=-274/177

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 22-5-8, Exterior (2) 22-5-8 to 25-5-8, Interior (1) 25-5-8 to 37-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 14 lb uplift at joint 2.

**LOAD CASE(S)** Standard



February 28, 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.



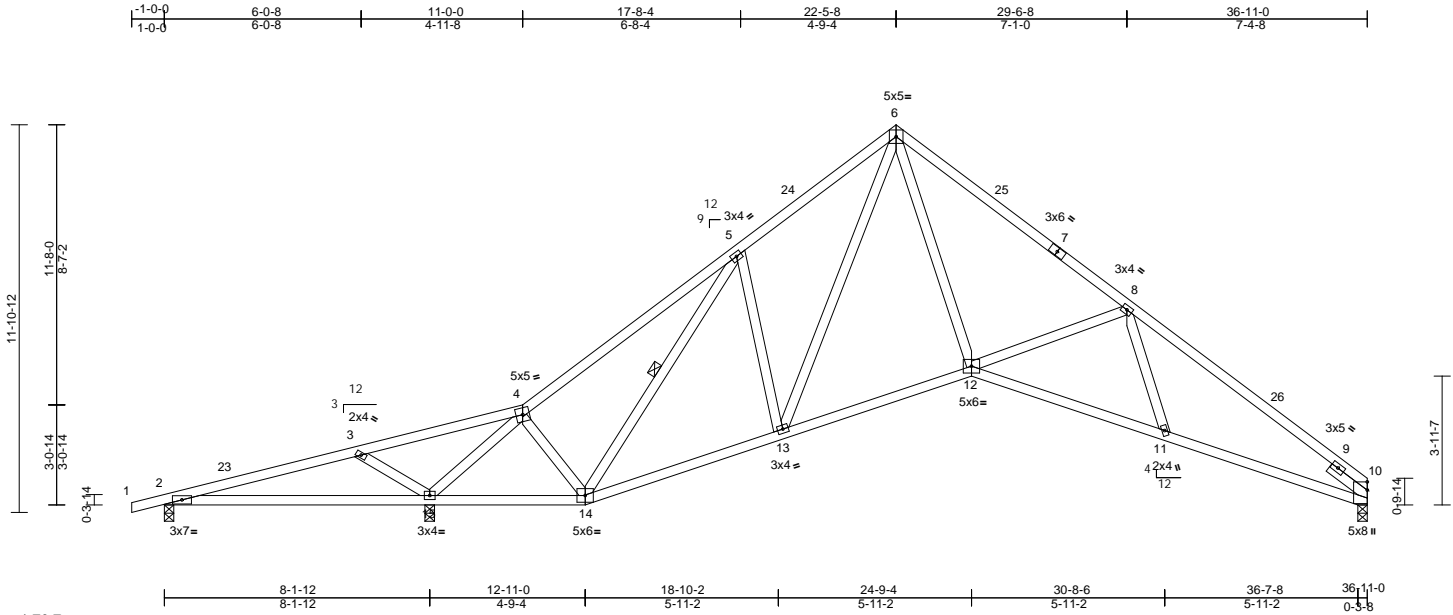
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T1B	Truss Type Roof Special	Qty 3	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751961
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:04  
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Page: 1



Scale = 1:70.7

<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.14	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(TL)	-0.39	11-12	>879	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horiz(TL)	0.26	10	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 201 lb	FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.1
- BOT CHORD 2x4 SP No.1
- WEBS 2x4 SP No.3
- SLIDER Right 2x4 SP No.3 -- 1-6-0

**BRACING**

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

- WEBS 1 Row at midpt 5-14

- REACTIONS** (lb/size)
- 2=123/0-3-8, 10=1070/0-3-8, 15=1821/0-3-8
  - Max Horiz 2=229 (LC 9)
  - Max Uplift 2=46 (LC 6)
  - Max Grav 2=178 (LC 15), 10=1070 (LC 1), 15=1821 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-2=0/15, 2-23=-438/704, 3-23=-5/761, 3-4=-84/1162, 4-5=-853/185, 5-24=-1299/252, 6-24=-1143/283, 6-25=-1525/190, 7-25=-1537/168, 7-8=-1672/144, 8-26=-1924/195, 9-26=-2132/163, 9-10=-441/0
- BOT CHORD 2-15=-693/467, 14-15=-32/345, 13-14=0/1044, 12-13=0/946, 11-12=-76/1701, 10-11=-62/1686
- WEBS 3-15=-481/126, 4-15=-2009/219, 4-14=0/441, 6-12=0/1164, 8-12=-424/215, 8-11=0/205, 5-14=-717/0, 5-13=-135/216, 6-13=-180/338

**NOTES**

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 22-5-8, Exterior (2) 22-5-8 to 25-5-8, Interior (1) 25-5-8 to 36-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 2.

**LOAD CASE(S)** Standard



February 28, 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.



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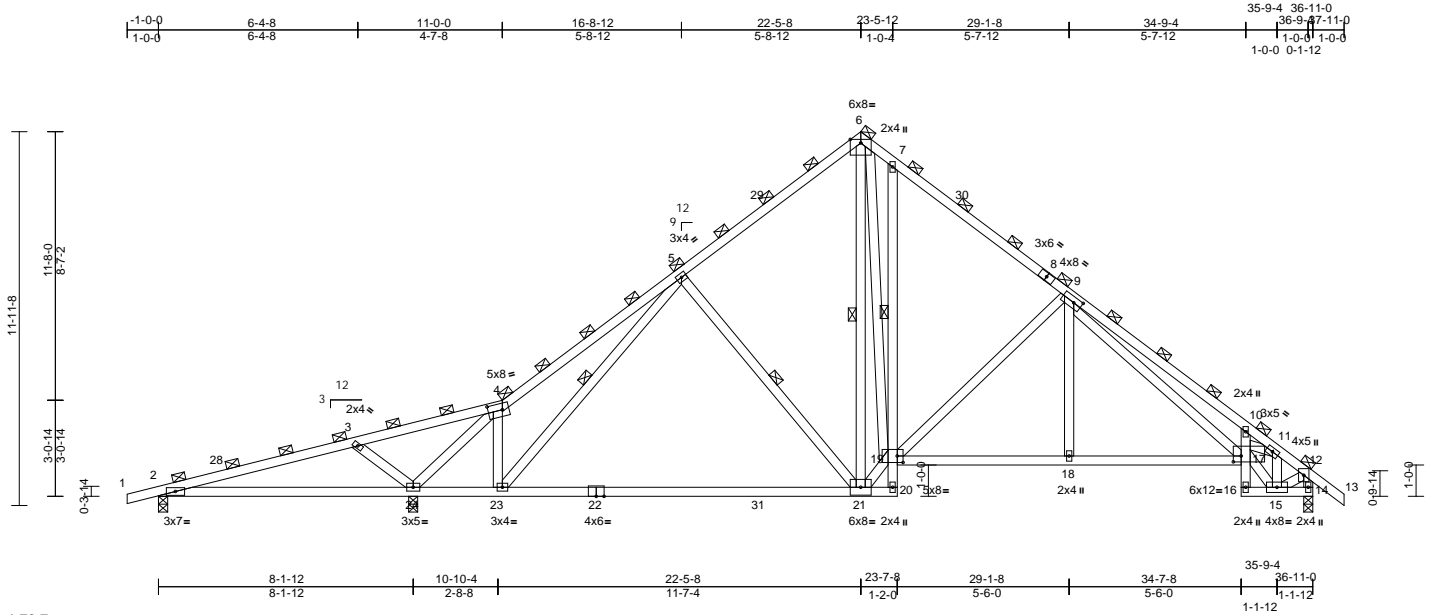


Job P-5824-1	Truss T1C	Truss Type Roof Special	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751962
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:05  
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Page: 1



Scale = 1:73.7

Plate Offsets (X, Y): [4:0-5-8,0-2-8], [9:0-3-1,0-2-0], [17:0-3-0,0-2-4], [19:0-2-4,0-2-8]

Loading	(psf)	Spacing	2-6-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.44	21-23	>777	240
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(TL)	-0.95	21-23	>360	180
BCLL	0.0*	Rep Stress Incr	NO	WB	0.78	Horiz(TL)	0.17	14	n/a	n/a
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS						
										Weight: 250 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1 \*Except\* 20-7,10-16:2x4 SP No.3, 22-20:2x4 SP DSS  
WEBS 2x4 SP No.3

**BRACING**  
TOP CHORD 2-0-0 oc purlins (3-3-2 max.), except end verticals  
(Switched from sheeted: Spacing > 2-0-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 2-24,20-21,19-20.

1 Row at midpt 7-19  
WEBS 1 Row at midpt 5-23, 6-21, 5-21

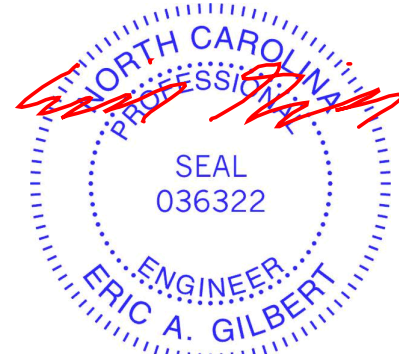
**REACTIONS** (lb/size)  
2=293/0-3-8, 14=1455/0-3-8,  
24=2091/0-3-8  
Max Horiz 2=309 (LC 8)  
Max Uplift 2=-17 (LC 5)  
Max Grav 2=327 (LC 14), 14=1455 (LC 1),  
24=2091 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/18, 2-28=-764/475, 3-28=-41/539,  
3-4=-120/903, 4-5=-1154/180,  
5-29=-1218/239, 6-29=-1073/282,  
6-7=-1207/361, 7-30=-1206/265,  
8-30=-1229/242, 8-9=-1372/220,  
9-10=-2911/364, 10-11=-2673/180,  
11-12=-1189/112, 12-13=0/52,  
12-14=-1372/193  
BOT CHORD 2-24=-474/806, 23-24=0/882, 22-23=0/1049,  
22-31=0/1049, 21-31=0/1049, 20-21=-89/47,  
19-20=-687/0, 7-19=-233/174, 18-19=0/1476,  
17-18=0/1475, 16-17=0/86, 10-17=-356/222,  
15-16=-26/165, 14-15=0/107

**WEBS** 3-24=-549/150, 4-24=-2395/179, 4-23=0/557,  
9-19=-676/163, 9-17=-181/1057,  
11-17=-93/1377, 11-15=-1274/20,  
15-17=0/988, 12-15=-33/884, 9-18=0/192,  
5-23=-398/64, 6-21=-110/471,  
5-21=-342/222, 19-21=0/1207,  
6-19=-198/1157

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 22-5-8, Exterior (2) 22-5-8 to 25-5-8, Interior (1) 25-5-8 to 37-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.  
4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.  
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 2.  
6) 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



February 28, 2019

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818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T1D	Truss Type Roof Special	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751963
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:05  
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Page: 1

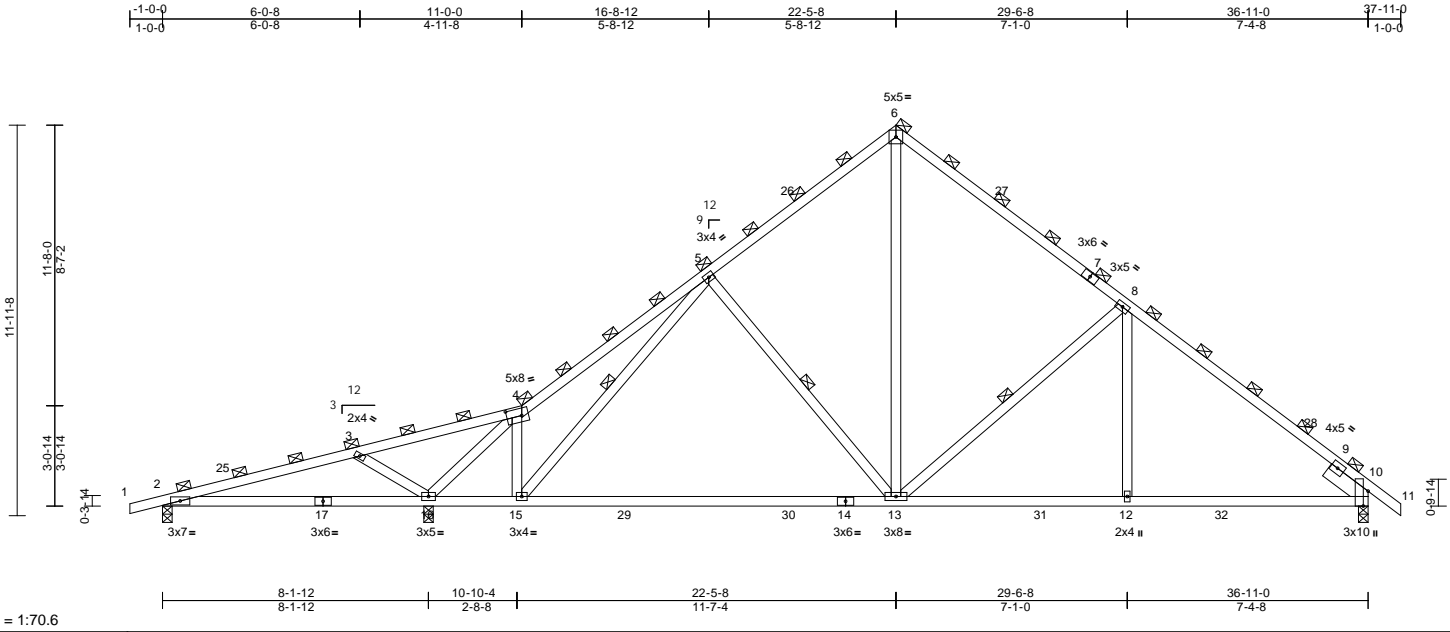


Plate Offsets (X, Y): [4:0-5-8,0-2-12], [10:0-5-8,Edge]

Loading	(psf)	Spacing	2-6-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.50	13-15	>695	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(TL)	-1.06	13-15	>327	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.82	Horiz(TL)	0.05	10	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 205 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP DSS \*Except\* 2-17:2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Right 2x6 SP No.2 -- 1-6-0

**BRACING**  
TOP CHORD 2-0-0 oc purlins (4-2-10 max.)  
(Switched from sheeted: Spacing > 2-0-0).  
Rigid ceiling directly applied or 10-0-0 oc  
bracing, Except:  
6-0-0 oc bracing: 2-16.  
WEBS 1 Row at midpt 5-15, 5-13, 8-13

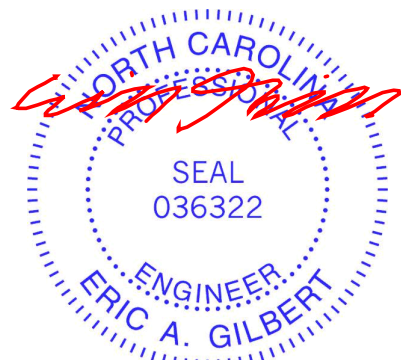
**REACTIONS** (lb/size) 2=307/0-3-8, 10=1456/0-3-8,  
16=2079/0-3-8  
Max Horiz 2=294 (LC 8)  
Max Uplift 2=18 (LC 5)  
Max Grav 2=328 (LC 14), 10=1473 (LC 2),  
16=2079 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-2=0/18, 2-25=-686/403, 3-25=0/461,  
3-4=-107/891, 4-5=-1283/189,  
5-26=-1247/246, 6-26=-1131/286,  
6-27=-1123/275, 7-27=-1131/247,  
7-8=-1276/218, 8-28=-1592/218,  
9-28=-1809/169, 9-10=-610/0, 10-11=0/45  
BOT CHORD 2-17=-400/718, 16-17=-400/60, 15-16=0/983,  
15-29=0/1078, 29-30=0/1078, 14-30=0/1078,  
13-14=0/1078, 13-31=-11/1355,  
12-31=-11/1355, 12-32=-11/1355,  
10-32=-11/1355  
WEBS 3-16=-605/165, 4-16=-2533/173, 4-15=0/559,  
5-15=-304/56, 5-13=-353/219,  
6-13=-154/990, 8-13=-608/225, 8-12=0/320

- Wind: ASCE 7-05; 100mph; TCDL=6.0psf;  
BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II;  
Exp B; Enclosed; MWFRS (all heights) and C-C Exterior  
(2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 22-5-8, Exterior  
(2) 22-5-8 to 25-5-8, Interior (1) 25-5-8 to 37-11-0 zone;  
cantilever left and right exposed ; end vertical left and  
right exposed;C-C for members and forces & MWFRS  
for reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60
- This truss has been designed for basic load  
combinations, which include cases with reductions for  
multiple concurrent live loads.
- \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 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 18 lb uplift at joint  
2.
- 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

**NOTES**  
1) Unbalanced roof live loads have been considered for  
this design.



February 28, 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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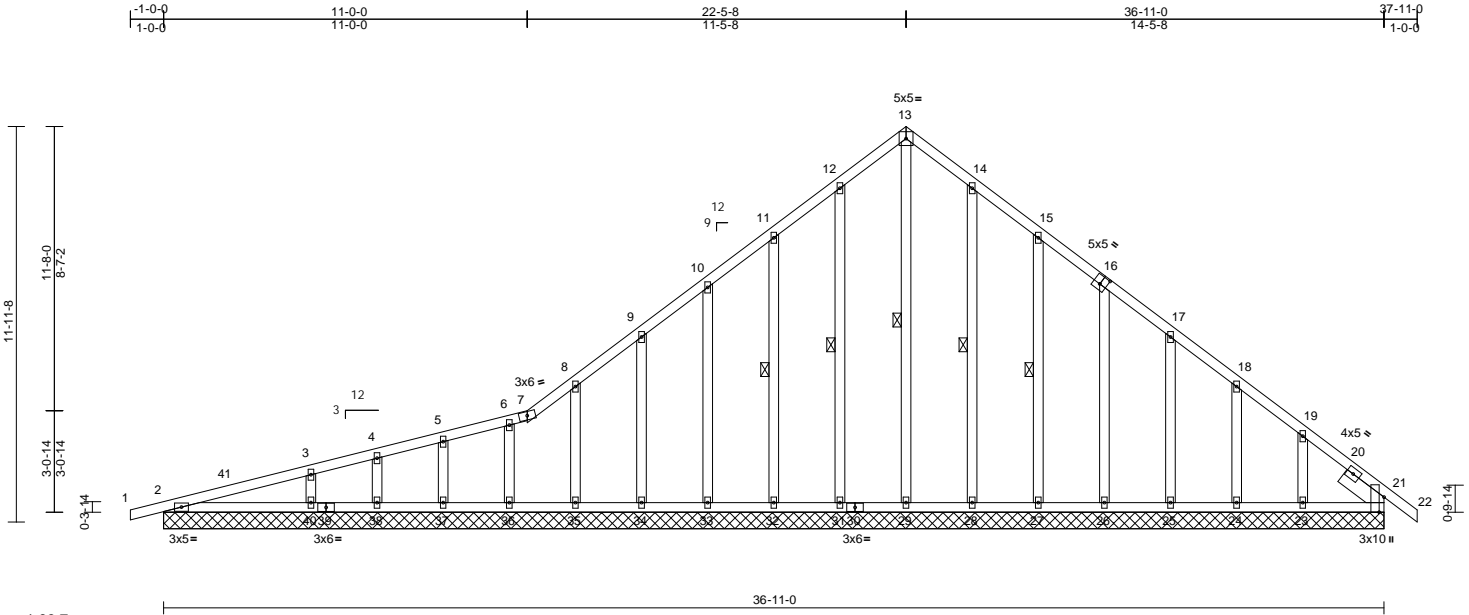
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T1GE	Truss Type Roof Special Supported Gable	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751964
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:06  
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Page: 1



Scale = 1:69.7

Plate Offsets (X, Y): [16:0-2-8,0-3-0], [21:0-5-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.01	21	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-S							Weight: 255 lb	FT = 20%

LOADING	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
<b>LOADING</b>											
<b>TOP CHORD</b>											
<b>BOT CHORD</b>											
<b>WEBS</b>											
<b>REACTIONS</b>	(lb/size)										
<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension										

**TOP CHORD** 1-2=0/13, 2-41=-169/137, 3-41=-163/145, 3-4=-139/133, 4-5=-134/136, 5-6=-130/130, 6-7=-140/136, 7-8=-145/148, 8-9=-145/135, 9-10=-127/109, 10-11=-112/146, 11-12=-97/217, 12-13=-78/275, 13-14=-62/275, 14-15=-58/217, 15-16=-58/147, 16-17=-59/80, 17-18=-60/53, 18-19=-74/72, 19-20=-160/117, 20-21=-170/107, 21-22=0/15

**BOT CHORD** 2-40=-97/175, 39-40=-97/175, 38-39=-97/175, 37-38=-97/175, 36-37=-97/175, 35-36=-97/175, 34-35=-97/175, 33-34=-97/175, 32-33=-97/175, 31-32=-97/175, 30-31=-97/175, 29-30=-97/175, 28-29=-97/175, 27-28=-97/175, 26-27=-97/175, 25-26=-97/176, 24-25=-97/176, 23-24=-97/176, 21-23=-97/176

**WEBS** 13-29=-260/44, 12-31=-127/71, 11-32=-120/97, 10-33=-120/87, 9-34=-120/91, 8-35=-123/79, 6-36=-127/43, 5-37=-132/77, 4-38=-62/36, 3-40=-252/145, 14-28=-127/71, 15-27=-117/95, 16-26=-120/87, 17-25=-123/93, 18-24=-117/77, 19-23=-131/141

- 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) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 2, 20 lb uplift at joint 29, 3 lb uplift at joint 31, 8 lb uplift at joint 32, 5 lb uplift at joint 33, 9 lb uplift at joint 34, 5 lb uplift at joint 36, 9 lb uplift at joint 27, 5 lb uplift at joint 26, 8 lb uplift at joint 25, 37 lb uplift at joint 23 and 18 lb uplift at joint 21.

**LOAD CASE(S)** Standard

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Corner (3) -1-0-0 to 2-0-0, Exterior (2) 2-0-0 to 22-5-8, Corner (3) 22-5-8 to 25-5-8, Exterior (2) 25-5-8 to 37-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



February 28, 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



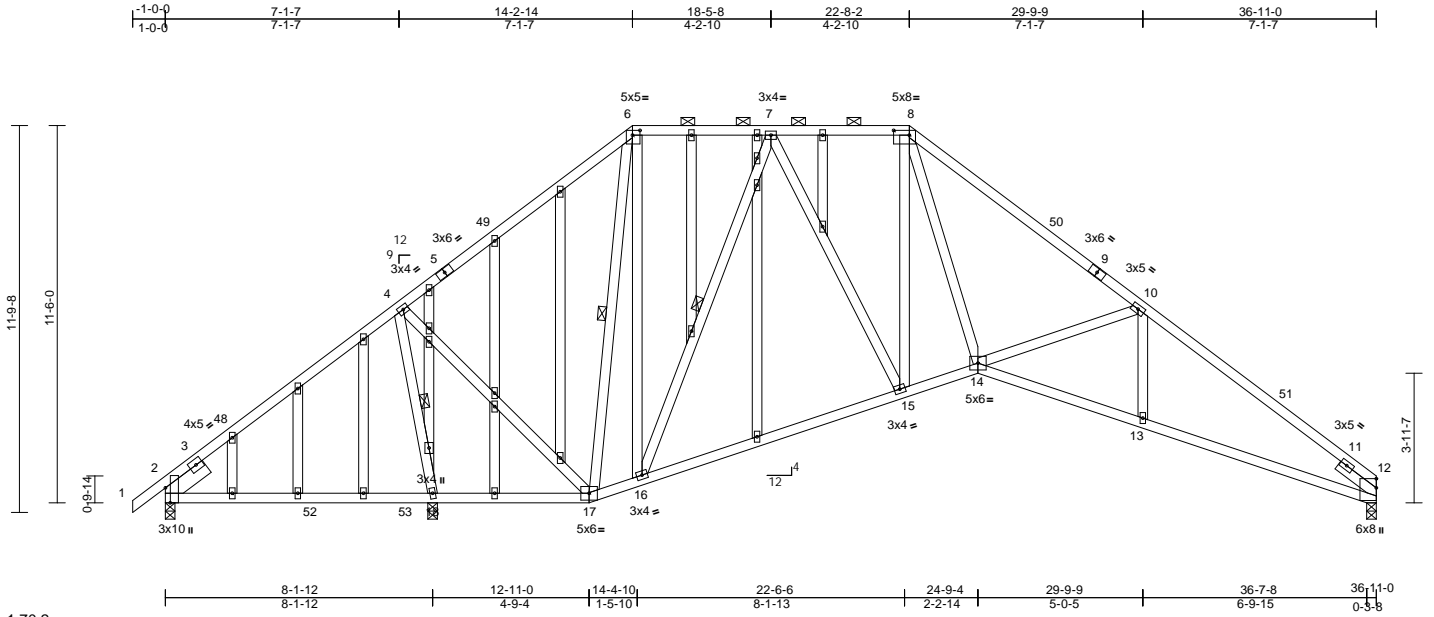
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T2	Truss Type Piggyback Base	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751965
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 S Feb 11 2019 Print: 8.240 S Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:07  
ID:elqgJoiPHf6cNpEgFtywOLzL\_OJ-MP83gWrHebWb1oRyGeRq0jqo6S8D16P9IGGGT8zgfq6

Page: 1



Scale = 1:70.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.15	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(TL)	-0.38	13-14	>910	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.56	Horiz(TL)	0.28	12	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 322 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 9-12:2x4 SP DSS  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-18,17-18.  
WEBS 1 Row at midpt 7-16, 4-18, 6-17

**REACTIONS** (lb/size) 2=229/0-3-8, 12=1104/0-3-8, 18=1681/0-3-8  
Max Horiz 2=237 (LC 8)  
Max Uplift 2=49 (LC 15)  
Max Grav 2=344 (LC 14), 12=1104 (LC 1), 18=1681 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/36, 2-3=-294/54, 3-48=-157/281, 4-48=-43/342, 4-5=-576/215, 5-49=-471/231, 6-49=-428/262, 6-7=-439/260, 7-8=-978/257, 8-50=-1624/275, 9-50=-1653/244, 9-10=-1756/228, 10-51=-2030/285, 11-51=-2230/256, 11-12=-355/0  
BOT CHORD 2-52=-225/241, 52-53=-225/195, 18-53=-225/195, 17-18=-451/111, 16-17=0/470, 15-16=0/786, 14-15=0/1031, 13-14=-143/1787, 12-13=-144/1770  
WEBS 6-16=0/799, 7-16=-825/54, 7-15=0/582, 8-15=-454/52, 4-18=-1513/187, 6-17=-844/0, 4-17=0/966, 8-14=-73/1115, 10-14=-423/198, 10-13=0/87

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 14-2-14, Exterior (2) 14-2-14 to 18-5-8, Interior (1) 18-5-8 to 22-8-2, Exterior (2) 22-8-2 to 26-11-1, Interior (1) 26-11-1 to 36-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 2.
- 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



February 28, 2019

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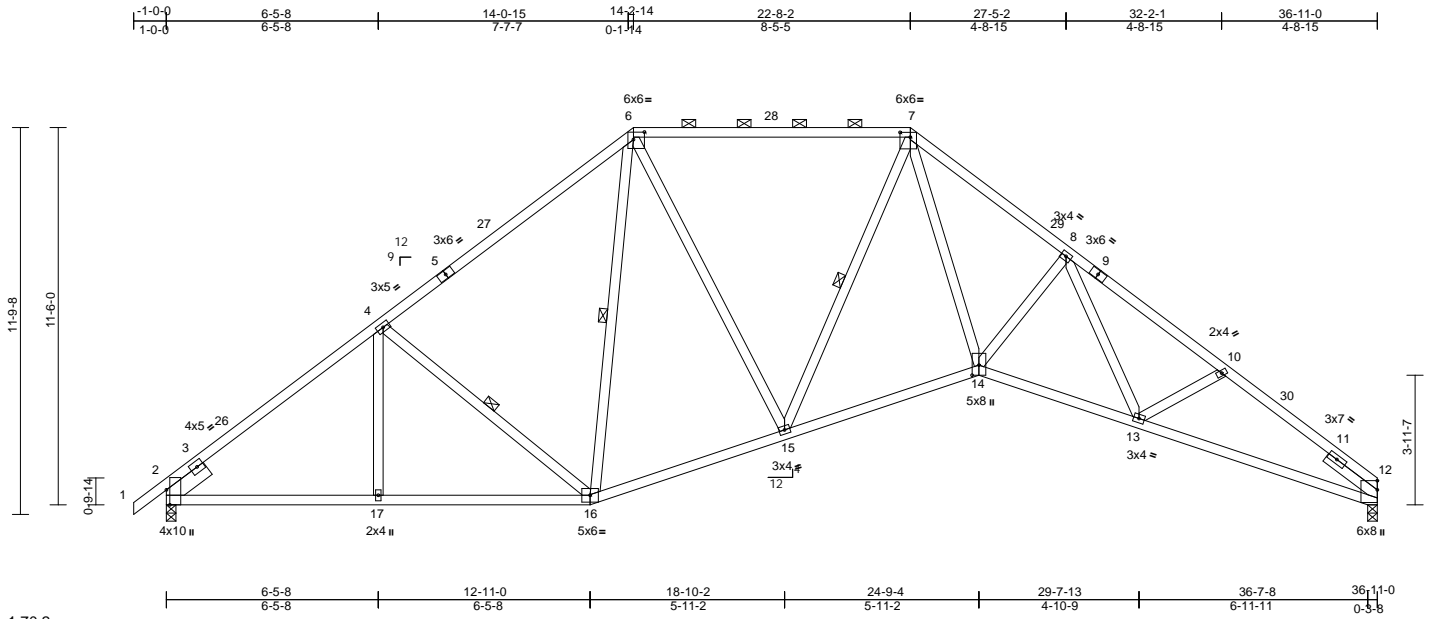
Job P-5824-1	Truss T2A	Truss Type Piggyback Base	Qty 6	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751966
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:07

Page: 1

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Scale = 1:70.2

Plate Offsets (X, Y): [2:0-5-8,Edge], [6:0-4-0,0-2-12], [7:0-3-12,0-1-12], [14:0-3-11,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.20	13-14	>999	240
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(TL)	-0.50	13-14	>879	180
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horiz(TL)	0.37	12	n/a	n/a
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS						
									Weight: 226 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 6-7,9-12:2x4 SP DSS  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -- 1-6-0, Right 2x4 SP No.2 -- 2-0-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (4-2-13 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
2-2-0 oc bracing: 12-13.  
WEBS 1 Row at midpt 6-16, 4-16, 7-15

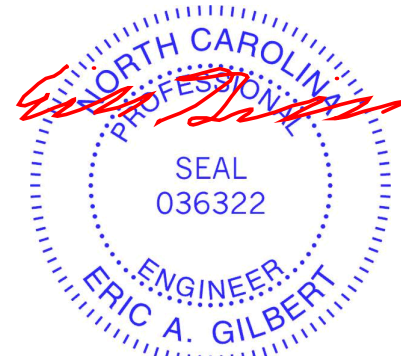
**REACTIONS** (lb/size) 2=1537/0-3-8, 12=1476/0-3-8  
Max Horiz 2=237 (LC 9)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/36, 2-3=1019/11, 3-26=1991/223, 4-26=1813/255, 4-5=1660/271, 5-27=1533/291, 6-27=1522/322, 6-28=1446/296, 7-28=1446/296, 7-29=2595/367, 8-29=2750/336, 8-9=2792/350, 9-10=2933/331, 10-30=2962/361, 11-30=3066/337, 11-12=332/0  
BOT CHORD 2-17=121/1509, 16-17=121/1509, 15-16=0/1305, 14-15=0/1744, 13-14=115/2452, 12-13=226/2434  
WEBS 6-16=113/109, 7-14=108/1752, 4-16=396/165, 4-17=0/223, 6-15=0/554, 7-15=561/44, 8-14=317/165, 8-13=24/151, 10-13=53/124

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 14-2-14, Exterior (2) 14-2-14 to 18-5-12, Interior (1) 18-5-12 to 22-8-2, Exterior (2) 22-8-2 to 26-11-1, Interior (1) 26-11-1 to 36-11-0 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 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



February 28, 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



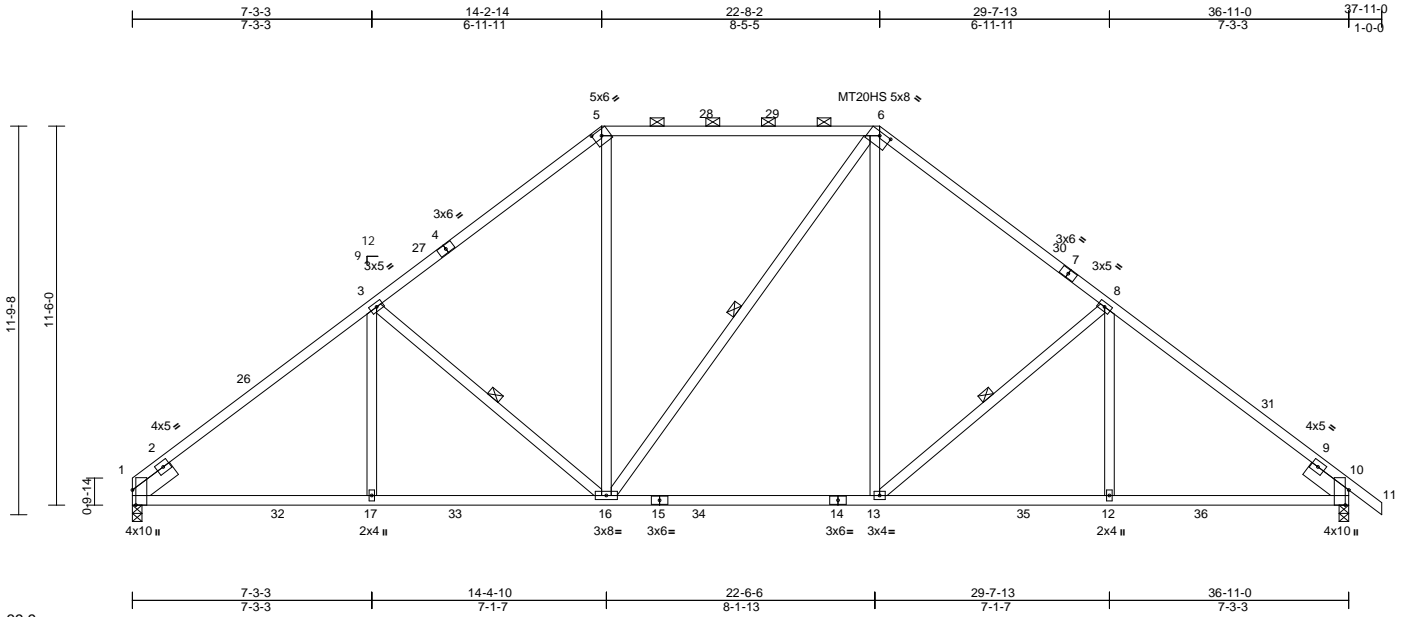
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T2B	Truss Type Piggyback Base	Qty 5	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751967
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:08  
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Page: 1



Scale = 1:69.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.19	13-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(TL)	-0.39	13-16	>999	180	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	0.12	10	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 226 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 5-6:2x4 SP DSS  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-11-10 oc purlins, except 2-0-0 oc purlins (4-10-14 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 3-16, 8-13, 6-16

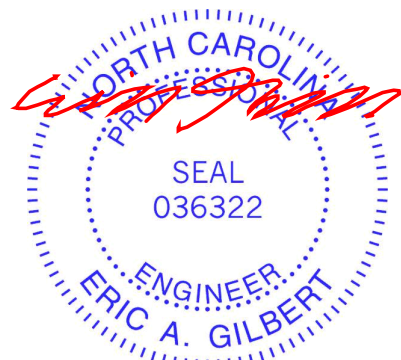
**REACTIONS** (lb/size) 1=1476/0-3-8, 10=1537/0-3-8  
Max Horiz 1=244 (LC 8)  
Max Uplift 1=82 (LC 10), 10=113 (LC 10)  
Max Grav 1=1527 (LC 2), 10=1590 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1082/0, 2-26=-2069/248, 3-26=-1899/276, 3-27=-1646/283, 4-27=-1578/295, 4-5=-1544/329, 5-28=-1238/322, 28-29=-1238/322, 6-29=-1238/322, 6-30=-1563/326, 7-30=-1614/284, 7-8=-1666/280, 8-31=-1913/268, 9-31=-2083/235, 9-10=-635/0, 10-11=0/36  
BOT CHORD 1-32=-154/1571, 17-32=-80/1571, 17-33=-80/1571, 16-33=-80/1571, 15-16=0/1254, 15-34=0/1254, 14-34=0/1254, 13-14=0/1254, 13-35=-92/1581, 12-35=-92/1581, 12-36=-92/1581, 10-36=-92/1581  
WEBS 3-17=0/271, 3-16=-452/171, 5-16=-20/542, 6-13=-15/581, 8-13=-443/170, 8-12=0/264, 6-16=-142/145

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-0-0 to 3-8-5, Interior (1) 3-8-5 to 14-2-14, Exterior (2) 14-2-14 to 19-5-8, Interior (1) 19-5-8 to 22-8-2, Exterior (2) 22-8-2 to 27-10-13, Interior (1) 27-10-13 to 37-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 6 = 12%
- 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 3-06-00 tall by 2-00-00 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 82 lb uplift at joint 1 and 113 lb uplift at joint 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



February 28, 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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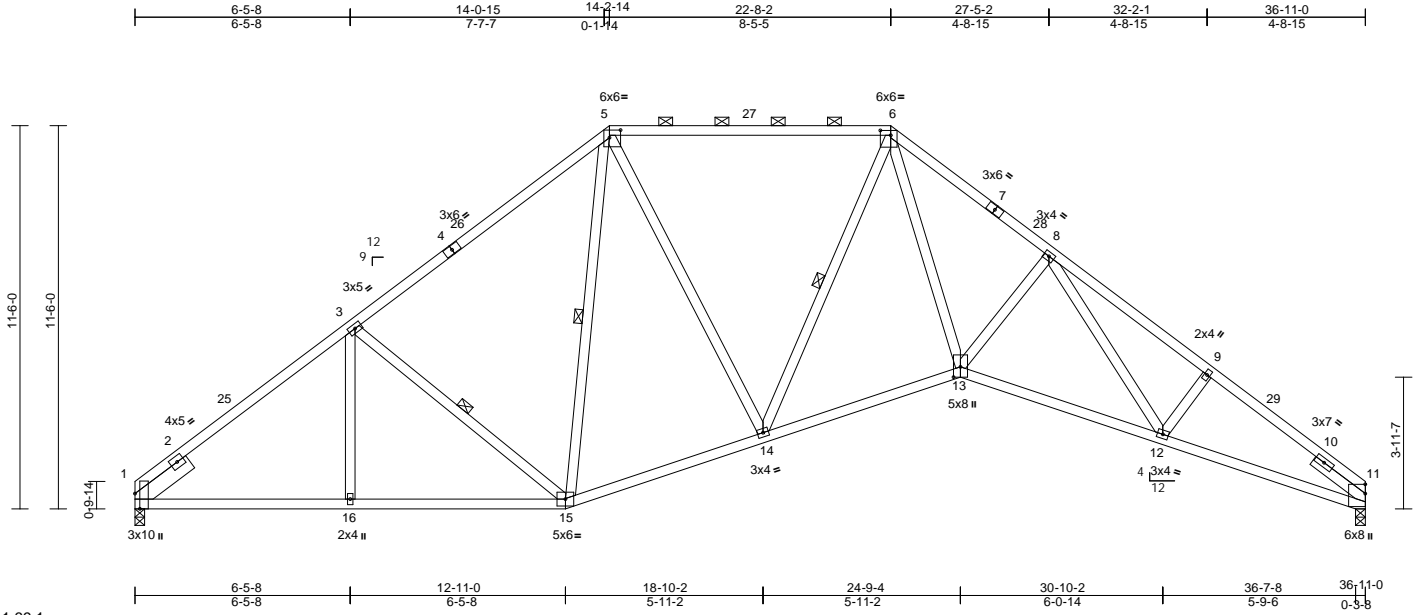
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T2C	Truss Type Piggyback Base	Qty 4	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751968
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:08  
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Page: 1



Scale = 1:69.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.20	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(TL)	-0.52	12-13	>850	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horiz(TL)	0.35	11	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 226 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP DSS \*Except\* 4-5,6-7:2x4 SP No.1
  - BOT CHORD 2x4 SP No.1 \*Except\* 13-11:2x4 SP DSS
  - WEBS 2x4 SP No.3
  - SLIDER Left 2x6 SP No.2 -- 2-0-0, Right 2x4 SP No.2 -- 2-0-0
- 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.
  - WEBS 1 Row at midpt 5-15, 3-15, 6-14
- REACTIONS** (lb/size) 1=1477/0-3-8, 11=1477/0-3-8  
Max Horiz 1=228 (LC 9)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-906/37, 2-25=-1990/237, 3-25=-1826/263, 3-4=-1663/292, 4-26=-1536/296, 5-26=-1525/326, 5-27=-1447/297, 6-27=-1447/297, 6-7=-2603/367, 7-28=-2739/336, 8-28=-2757/336, 8-9=-2925/384, 9-29=-2958/345, 10-29=-3064/331, 10-11=-340/8
  - BOT CHORD 1-16=-124/1519, 15-16=-123/1519, 14-15=0/1306, 13-14=0/1747, 12-13=-124/2456, 11-12=-212/2430
  - WEBS 5-15=-113/110, 3-15=-405/168, 3-16=0/231, 5-14=0/554, 6-14=-564/42, 6-13=-108/1762, 8-13=-307/174, 9-12=-49/121, 8-12=-62/132

- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 14-2-14, Exterior (2) 14-2-14 to 18-5-12, Interior (1) 18-5-12 to 22-8-2, Exterior (2) 22-8-2 to 26-11-1, Interior (1) 26-11-1 to 36-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 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



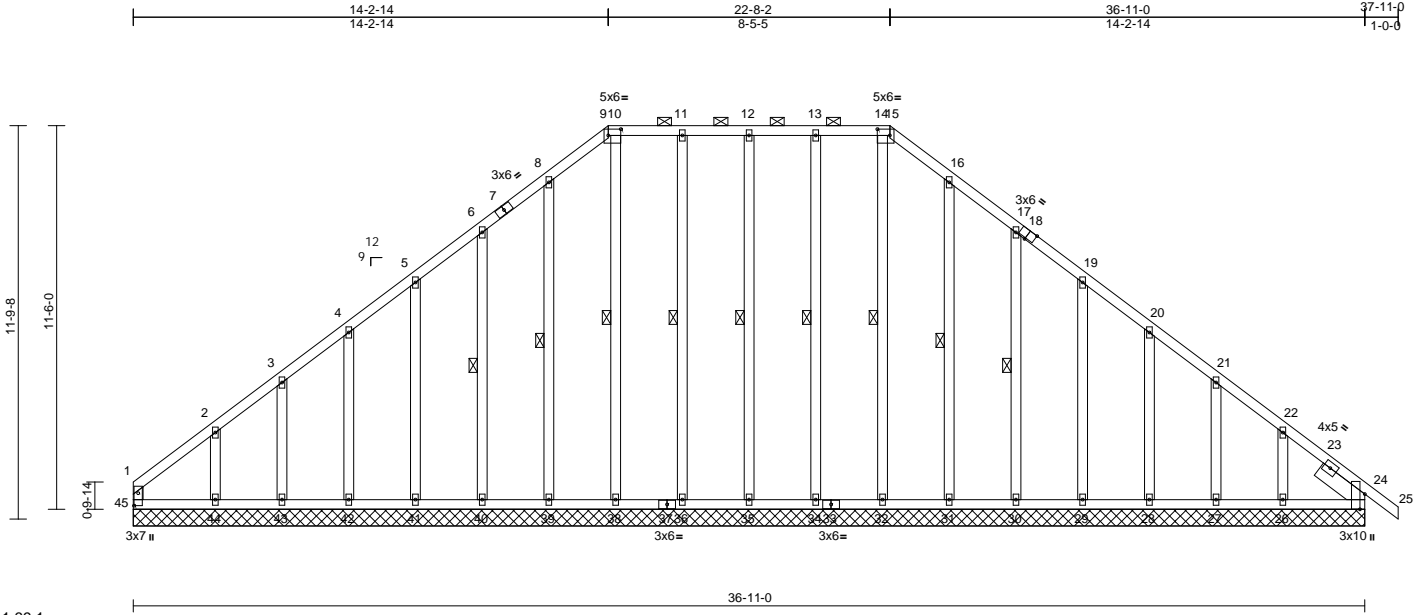
February 28, 2019

Job P-5824-1	Truss T2GE	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751969
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:09  
ID:elqgJoiPHf6cNpEgFtywOLzL\_OJ-InGp4BtXACmJG6bLO3T158vKgf?PV7?SDaINX1zgfq4

Page: 1



Scale = 1:69.1

Plate Offsets (X, Y): [9:0-4-8,0-2-4], [15:0-4-8,0-2-4], [18:0-3-0,Edge], [24:0-5-8,Edge], [45:0-4-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.01	24	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-S							Weight: 313 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3  
SLIDER Right 2x6 SP No.2 -- 1-7-13

**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.): 9-15.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 12-35, 11-36, 10-38, 8-39, 6-40, 13-34, 14-32, 16-31, 17-30

**REACTIONS** (lb/size)  
24=181/36-11-0, 26=179/36-11-0, 27=155/36-11-0, 28=161/36-11-0, 29=160/36-11-0, 30=161/36-11-0, 31=159/36-11-0, 32=140/36-11-0, 34=162/36-11-0, 35=160/36-11-0, 36=162/36-11-0, 38=140/36-11-0, 39=159/36-11-0, 40=161/36-11-0, 41=159/36-11-0, 42=162/36-11-0, 43=152/36-11-0, 44=189/36-11-0, 45=101/36-11-0  
Max Horiz 45=255 (LC 8)  
Max Uplift 24=-48 (LC 9), 26=-68 (LC 10), 27=-35 (LC 10), 28=42 (LC 10), 29=-39 (LC 10), 30=-48 (LC 10), 31=-22 (LC 10), 34=-9 (LC 10), 35=-13 (LC 10), 36=-9 (LC 10), 39=-22 (LC 10), 40=-49 (LC 10), 41=-39 (LC 10), 42=-44 (LC 10), 43=-27 (LC 10), 44=-89 (LC 10), 45=-81 (LC 8)

Max Grav 24=181 (LC 1), 26=181 (LC 16), 27=155 (LC 1), 28=161 (LC 16), 29=160 (LC 16), 30=161 (LC 1), 31=160 (LC 16), 32=145 (LC 16), 34=165 (LC 15), 35=160 (LC 1), 36=165 (LC 16), 38=143 (LC 15), 39=159 (LC 15), 40=161 (LC 1), 41=159 (LC 1), 42=162 (LC 15), 43=152 (LC 1), 44=191 (LC 15), 45=134 (LC 9)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-45=-101/70, 1-2=-153/146, 2-3=-119/102, 3-4=-103/85, 4-5=-86/129, 5-6=-68/195, 6-7=-67/259, 7-8=-37/267, 8-9=-67/320, 9-10=-25/282, 10-11=-25/282, 11-12=-25/282, 12-13=-25/282, 13-14=-25/282, 14-15=-25/282, 15-16=-67/320, 16-17=-67/267, 17-18=-62/196, 18-19=-74/188, 19-20=-92/129, 20-21=-110/91, 21-22=-125/109, 22-23=-156/156, 23-24=-167/148, 24-25=0/15  
BOT CHORD 44-45=-124/136, 43-44=-124/136, 42-43=-124/136, 41-42=-124/136, 40-41=-124/136, 39-40=-124/136, 38-39=-124/136, 37-38=-124/136, 36-37=-124/136, 35-36=-124/136, 34-35=-124/136, 33-34=-124/136, 32-33=-124/136, 31-32=-124/136, 30-31=-124/136, 29-30=-124/136, 28-29=-124/136, 27-28=-124/136, 26-27=-124/136, 24-26=-124/136

**WEBS** 12-35=-120/60, 11-36=-125/55, 10-38=-137/0, 8-39=-119/64, 6-40=-121/98, 5-41=-120/86, 4-42=-121/91, 3-43=-114/78, 2-44=-142/127, 13-34=-125/55, 14-32=-131/2, 16-31=-120/64, 17-30=-121/98, 19-29=-120/86, 20-28=-121/91, 21-27=-118/81, 22-26=-130/131

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=37ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Corner (3) 0-1-12 to 3-10-1, Exterior (2) 3-10-1 to 14-2-14, Corner (3) 14-2-14 to 17-11-3, Exterior (2) 17-11-3 to 22-8-2, Corner (3) 22-8-2 to 26-5-8, Exterior (2) 26-5-8 to 37-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



February 28, 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	Truss	Truss Type	Qty	Ply	Rob Grissom V2-Roof	E12751969
P-5824-1	T2GE	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:09  
 ID:elgqJoiPHf6cNpEgFtywOLzL\_OJ-InGp4BtXACmJG6bLO3T158vKgF?PV7?SDaINX1zgfq4

Page: 2

- 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) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 45, 48 lb uplift at joint 24, 13 lb uplift at joint 35, 9 lb uplift at joint 36, 22 lb uplift at joint 39, 49 lb uplift at joint 40, 39 lb uplift at joint 41, 44 lb uplift at joint 42, 27 lb uplift at joint 43, 89 lb uplift at joint 44, 9 lb uplift at joint 34, 22 lb uplift at joint 31, 48 lb uplift at joint 30, 39 lb uplift at joint 29, 42 lb uplift at joint 28, 35 lb uplift at joint 27 and 68 lb uplift at joint 26.
- 12) 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

**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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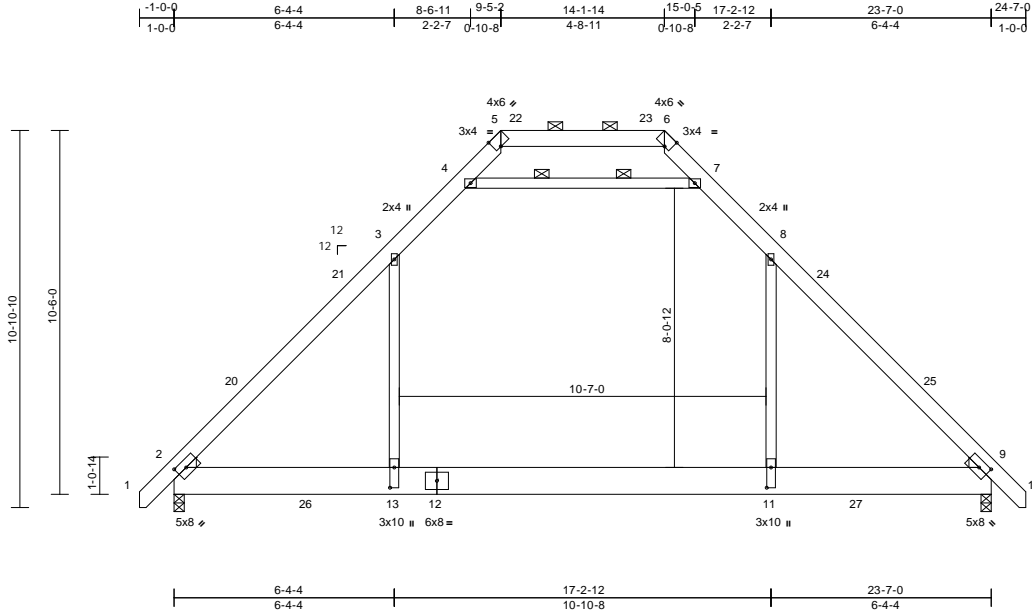
818 Soundside Road  
 Edenton, NC 27932

Job P-5824-1	Truss T3	Truss Type Attic	Qty 7	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751970
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.23 S Nov 4 2018 Print: 8.240 S Jan 22 2019 MiTek Industries, Inc. Thu Feb 28 16:59:17  
ID:elqJoiPHf6cNpEgFtywOLzL\_OJ-0N8RXRKT3ReEXKfWo?jtm6MMLJ4fNd0ApsP1zozgZDB

Page: 1



Scale = 1:66.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.19	11-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(TL)	-0.40	11-13	>716	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.47	Horiz(TL)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS	Attic		-0.10	11-13	>999	360	Weight: 203 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.1 \*Except\* 5-6:2x6 SP No.2  
BOT CHORD 2x10 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-4-9 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 2 Rows at 1/3 pts 4-7

**REACTIONS** (lb/size) 2=1228/0-3-8, 9=1228/0-3-8  
Max Horiz 2=222 (LC 8)  
Max Grav 2=1502 (LC 2), 9=1502 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/38, 2-3=-1832/0, 3-4=-1031/108, 4-5=0/454, 5-6=0/722, 6-7=0/454, 7-8=-1031/108, 8-9=-1832/0, 9-10=0/38  
BOT CHORD 2-13=-23/1129, 11-13=0/1131, 9-11=0/1129  
WEBS 3-13=0/983, 8-11=0/983, 4-7=-1756/39, 2-14=-544/0, 15-16=-750/304, 14-15=-675/0, 2-16=0/586, 9-17=-544/0, 18-19=-750/304, 17-18=-675/0, 9-19=0/586

- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) -0-10-14 to 2-1-2, Interior (1) 2-1-2 to 9-5-2, Exterior (2) 9-5-2 to 13-8-1, Interior (1) 13-8-1 to 14-1-14, Exterior (2) 14-1-14 to 18-4-12, Interior (1) 18-4-12 to 24-5-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Ceiling dead load (5.0 psf) on member(s). 3-4, 7-8, 4-7; Wall dead load (5.0psf) on member(s).3-13, 8-11
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.
- LOAD CASE(S)** Standard

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.



February 28, 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 P-5824-1	Truss T3B	Truss Type Attic	Qty 2	Ply 3	Rob Grissom V2-Roof Job Reference (optional)	E12751971
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.23 S Nov 4 2018 Print: 8.240 S Jan 22 2019 MiTek Industries, Inc. Thu Feb 28 16:59:32

Page: 1

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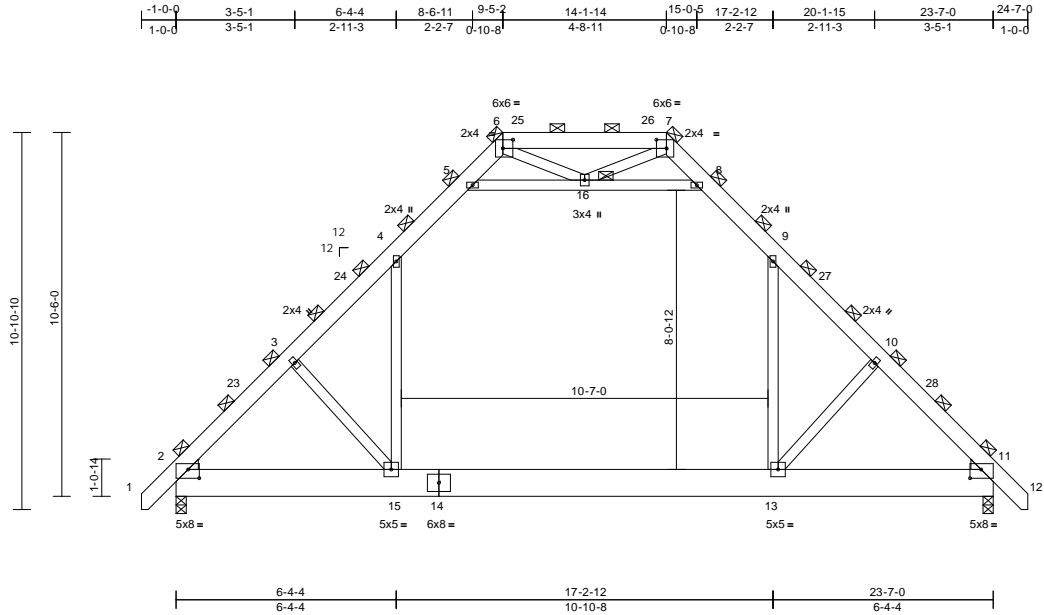


Plate Offsets (X, Y): [2:0-3-13,0-3-0], [6:0-3-8,0-3-0], [7:0-3-8,0-3-0], [11:0-3-13,0-3-0]

Loading	(psf)	Spacing	5-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.17	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(TL)	-0.35	13-15	>801	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.42	Horiz(TL)	0.02	11	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS	Attic	-0.09	13-15	>999	360	Weight: 670 lb	FT = 20%	

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x10 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

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

**JOINTS**  
1 Brace at Jt(s): 6,  
7, 16

**REACTIONS** (lb/size) 2=3274/0-3-8, 11=3274/0-3-8  
Max Horiz 2=591 (LC 9)  
Max Grav 2=3806 (LC 2), 11=3806 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension

**TOP CHORD**  
1-2=0/102, 2-3=-4805/0, 3-4=-4616/0,  
4-5=-2610/268, 5-6=-248/845, 6-7=0/1322,  
7-8=-248/845, 8-9=-2610/268, 9-10=-4616/0,  
10-11=-4805/0, 11-12=0/102

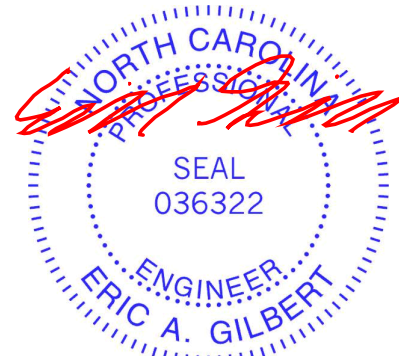
**BOT CHORD**  
2-15=-39/3280, 13-15=0/2818, 11-13=0/3280

**WEBS**  
4-15=0/2655, 9-13=0/2655, 5-16=-4012/19,  
8-16=-4012/19, 3-15=-755/320,  
10-13=-755/320, 6-16=-74/299,  
7-16=-74/299, 2-17=-2833/0,  
18-19=-220/179, 17-18=-1710/0,  
2-19=0/1706, 11-20=-2833/0,  
21-22=-220/193, 20-21=-1710/0,  
11-22=0/1706

**NOTES**

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows  
staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x10 - 2 rows  
staggered at 0-9-0 oc.  
Web 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 7-05; 100mph; TCDL=6.0psf;  
BCDL=6.0psf; h=0ft; B=45ft; L=24ft; eave=4ft; Cat. II;  
Exp B; Enclosed; MWFRS (all heights) and C-C Exterior  
(2) -0-10-14 to 2-1-2, Interior (1) 2-1-2 to 9-5-2, Exterior  
(2) 9-5-2 to 13-8-1, Interior (1) 13-8-1 to 14-1-14,  
Exterior (2) 14-1-14 to 18-4-12, Interior (1) 18-4-12 to  
24-5-14 zone; cantilever left and right exposed; end  
vertical left and right exposed; C-C for members and  
forces & MWFRS for reactions shown; Lumber  
DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load  
combinations, which include cases with reductions for  
multiple concurrent live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.
- Ceiling dead load (5.0 psf) on member(s). 4-5, 8-9, 5-16,  
8-16; Wall dead load (5.0psf) on member(s).4-15, 9-13
- Bottom chord live load (40.0 psf) and additional bottom  
chord dead load (10.0 psf) applied only to room. 13-15
- Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard



February 28, 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.



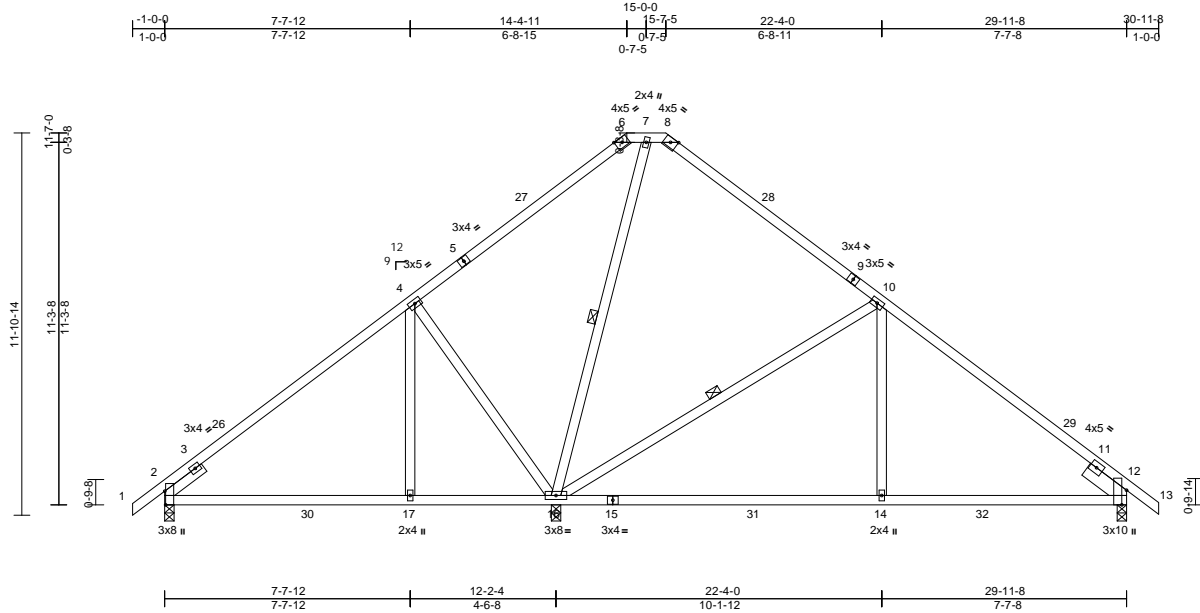
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T4	Truss Type Common	Qty 5	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751972
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:11  
ID:elqgJoiPHf6cNpEgFtywOLzL\_OJ-EANZVtuniq01VPIkVUWmBZ?Z83a3zwakguEUcwzqfg2

Page: 1



Scale = 1:71.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.14	14-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(TL)	-0.42	14-16	>504	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.55	Horiz(TL)	0.03	2	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 174 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 7-16, 10-16

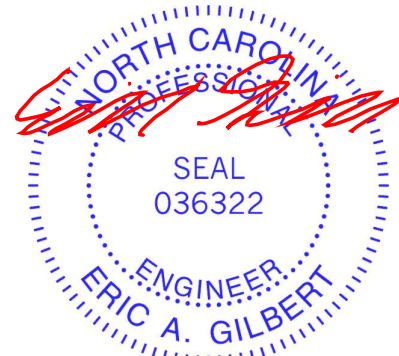
**REACTIONS** (lb/size) 2=670/0-3-8, 12=857/0-3-8, 16=989/0-3-8  
Max Horiz 2=-246 (LC 7)  
Max Grav 2=695 (LC 14), 12=857 (LC 1), 16=1057 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/36, 2-3=-304/3, 3-26=-681/185, 4-26=-545/233, 4-5=-375/265, 5-27=-238/287, 6-27=-227/309, 8-28=-241/268, 9-28=-242/247, 9-10=-378/225, 10-29=-788/215, 11-29=-968/175, 11-12=-226/0, 12-13=0/36, 6-7=-182/307, 7-8=-193/263  
BOT CHORD 2-30=-199/467, 17-30=-108/467, 16-17=-108/467, 15-16=-27/700, 15-31=-27/700, 14-31=-27/700, 14-32=-27/700, 12-32=-27/700  
WEBS 4-17=0/217, 4-16=-488/187, 7-16=-205/54, 10-16=-665/157, 10-14=0/444

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 14-5-4, Exterior (2) 14-5-4 to 18-6-12, Interior (1) 18-6-12 to 30-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) 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



February 28, 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.



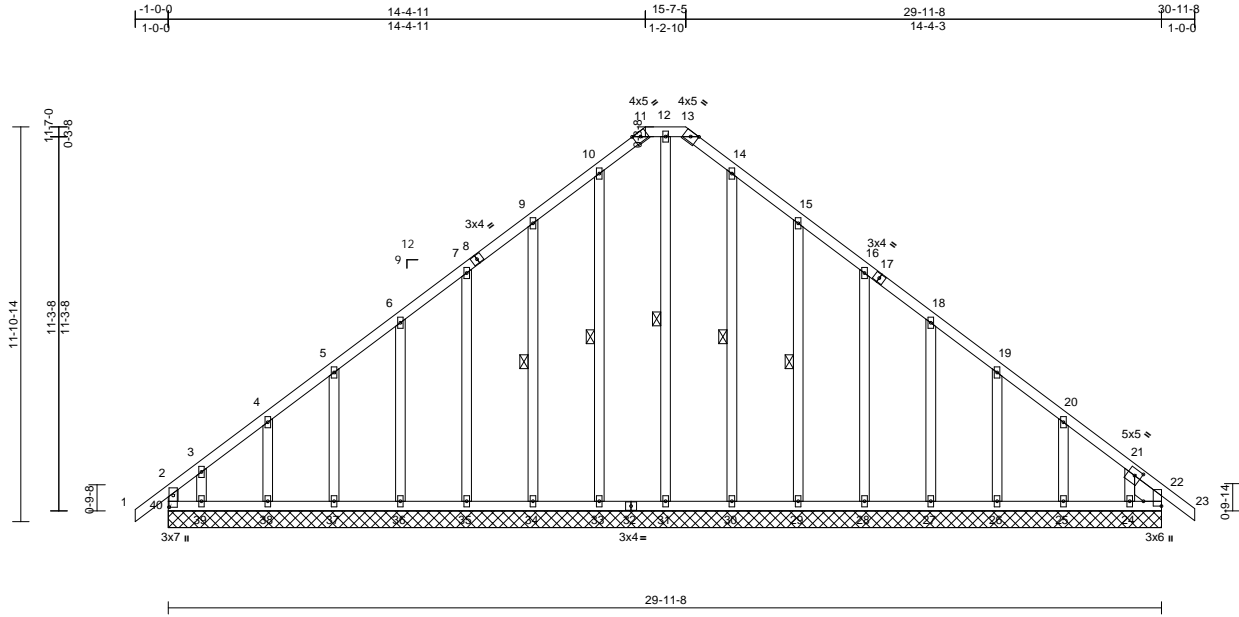
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T4GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751973
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:11  
ID:elgqJoiPHf6cNpEgFtywOLzL\_OJ-EANZVtuniq01VPlkVUWmBZ?fQ3hpz0ykguEUcwzgfq2

Page: 1



Scale = 1:69.5

Plate Offsets (X, Y): [21:0-2-5,0-2-4], [22:Edge,0-6-8], [40:0-4-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.01	22	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-S							Weight: 239 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3  
SLIDER Right 2x6 SP No.2 -- 1-1-6

**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.): 11-13.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 12-31, 10-33, 9-34, 14-30, 15-29

**REACTIONS** (lb/size)  
22=127/29-11-8, 24=101/29-11-8, 25=162/29-11-8, 26=159/29-11-8, 27=160/29-11-8, 28=160/29-11-8, 29=161/29-11-8, 30=156/29-11-8, 31=141/29-11-8, 33=156/29-11-8, 34=161/29-11-8, 35=160/29-11-8, 36=161/29-11-8, 37=158/29-11-8, 38=170/29-11-8, 39=65/29-11-8, 40=157/29-11-8  
Max Horiz 40=256 (LC 8)  
Max Uplift 22=99 (LC 9), 24=63 (LC 6), 25=6 (LC 6), 26=6 (LC 6), 27=6 (LC 6), 28=5 (LC 6), 29=10 (LC 6), 34=10 (LC 7), 35=5 (LC 7), 36=6 (LC 7), 37=8 (LC 7), 39=109 (LC 7), 40=159 (LC 8)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-40=-138/110, 1-2=0/41, 2-3=-203/193, 3-4=-142/150, 4-5=-127/126, 5-6=-112/102, 6-7=-97/93, 7-8=-81/146, 8-9=-72/159, 9-10=-67/233, 10-11=-55/269, 13-14=-56/269, 14-15=-58/233, 15-16=-57/159, 16-17=-53/93, 17-18=-66/85, 18-19=-81/70, 19-20=-96/94, 20-21=-130/120, 21-22=-239/174, 22-23=0/15, 11-12=-32/242, 12-13=-32/242  
BOT CHORD 39-40=-117/178, 38-39=-117/178, 37-38=-117/178, 36-37=-117/178, 35-36=-117/178, 34-35=-117/178, 33-34=-117/178, 32-33=-117/178, 31-32=-117/178, 30-31=-117/178, 29-30=-117/178, 28-29=-117/178, 27-28=-117/178, 26-27=-117/178, 25-26=-117/178, 24-25=-117/178, 22-24=-117/178  
WEBS 12-31=-222/10, 10-33=-121/42, 9-34=-121/102, 7-35=-120/86, 6-36=-120/89, 5-37=-118/88, 4-38=-127/90, 3-39=-95/120, 14-30=-120/42, 15-29=-121/102, 16-28=-120/86, 18-27=-120/89, 19-26=-120/88, 20-25=-121/91, 21-24=-100/144

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=30ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Corner (3) -1-0-0 to 2-0-0, Exterior (2) 2-0-0 to 14-5-4, Corner (3) 14-5-4 to 18-6-12, Exterior (2) 18-6-12 to 30-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.



February 28, 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 P-5824-1	Truss T4GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751973
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:11  
ID:elgqJoiPHf6cNpEgFtywOLzL\_OJ-EANZVtuniq01VPikVUWmBZ?fQ3hpz0ykguEUcwzgfq2

Page: 2

- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 40, 10 lb uplift at joint 34, 5 lb uplift at joint 35, 6 lb uplift at joint 36, 8 lb uplift at joint 37, 109 lb uplift at joint 39, 10 lb uplift at joint 29, 5 lb uplift at joint 28, 6 lb uplift at joint 27, 6 lb uplift at joint 26, 6 lb uplift at joint 25, 63 lb uplift at joint 24 and 99 lb uplift at joint 22.
- 11) 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

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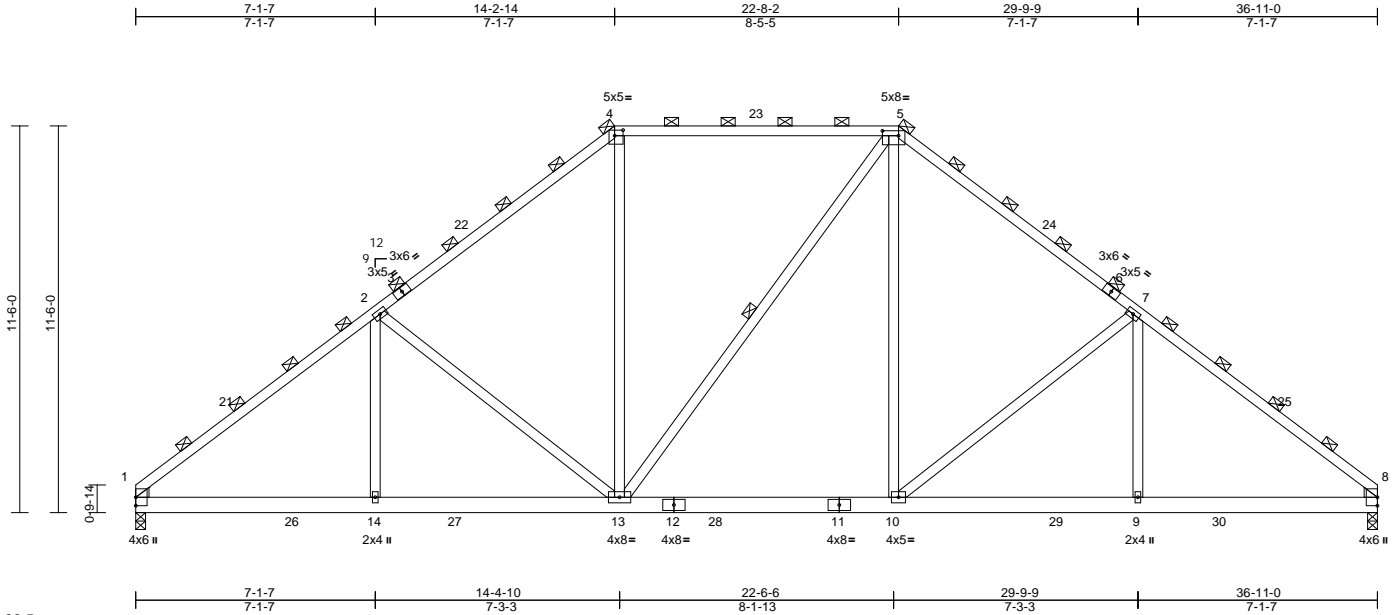
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T15A	Truss Type Piggyback Base	Qty 1	Ply 2	Rob Grissom V2-Roof Job Reference (optional)	E12751974
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.23 S Nov 4 2018 Print: 8.240 S Jan 22 2019 MiTek Industries, Inc. Thu Feb 28 16:59:55  
ID:elgqJoiPHf6cNpEgFtywOLzL\_OJ-JF6x8SqBP1pQyeHPh6yVwIZMbr8qUIHDEkrivwzgzCY

Page: 1



Scale = 1:68.5

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

Loading	(psf)	Spacing	3-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.08	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(TL)	-0.17	10-13	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.24	Horiz(TL)	0.06	8	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 496 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
(Switched from sheeted: Spacing > 2-0-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.  
WEBS 1 Row at midpt 5-13

**REACTIONS** (lb/size) 1=2215/0-3-8, 8=2215/0-3-8  
Max Horiz 1=342 (LC 8)  
Max Grav 1=2266 (LC 2), 8=2284 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-2=-3119/398, 2-4=-2474/475,  
4-5=-1855/471, 5-7=-2505/475,  
7-8=-3146/398  
BOT CHORD 1-14=-167/2371, 13-14=-167/2371,  
10-13=0/1880, 9-10=-158/2393,  
8-9=-158/2393  
WEBS 2-14=0/366, 2-13=-683/251, 4-13=-19/814,  
5-10=-13/870, 7-10=-680/250, 7-9=0/359,  
5-13=-214/217, 8-15=-1355/0,  
16-17=-402/471, 15-16=-1494/124,  
8-17=-48/1318, 1-18=-1339/0,  
19-20=-401/471, 18-19=-1481/124,  
1-20=-48/1305

- 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 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 14-2-14, Exterior (2) 14-2-14 to 18-5-12, Interior (1) 18-5-12 to 22-8-2, Exterior (2) 22-8-2 to 26-11-1, Interior (1) 26-11-1 to 36-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-0-0-0 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 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

**NOTES**  
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.



February 28, 2019

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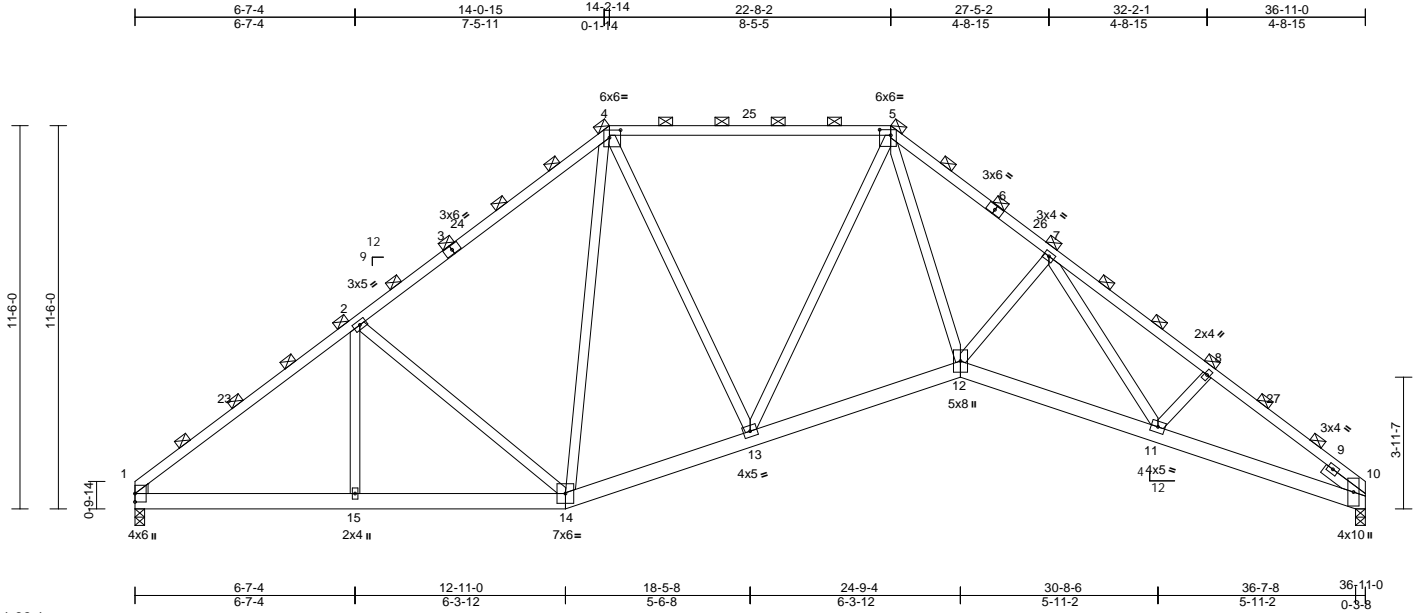
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss T57A	Truss Type Piggyback Base	Qty 1	Ply 2	Rob Grissom V2-Roof Job Reference (optional)	E12751975
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.23 S Nov 4 2018 Print: 8.240 S Jan 22 2019 MiTek Industries, Inc. Thu Feb 28 17:00:08  
ID:elqgJoiPHf6cNpEgFtywOLzL\_OJ-RIOssv\_LL0Sa0enuyKhYyVba05UU15c7DFUusgzgZCL

Page: 1



Scale = 1:69.1

Plate Offsets (X, Y): [4:0-4-0,0-2-12], [5:0-4-0,0-2-0], [10:0-4-7,0-2-4]

Loading	(psf)	Spacing	3-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.13	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(TL)	-0.33	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.56	Horiz(TL)	0.21	10	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-MS							Weight: 504 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
SLIDER Right 2x4 SP No.3 -- 1-6-0

**BRACING**  
TOP CHORD 2-0-0 oc purlins (5-4-1 max.)  
(Switched from sheeted: Spacing > 2-0-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.

**REACTIONS** (lb/size) 1=2215/0-3-8, 10=2215/0-3-8  
Max Horiz 1=342 (LC 9)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-2=-3033/396, 2-4=-2516/491,  
4-5=-2163/446, 5-7=-4188/549,  
7-8=-4491/572, 8-10=-4725/529  
BOT CHORD 1-15=-181/2299, 14-15=-181/2299,  
13-14=0/1973, 12-13=0/2651,  
11-12=-185/3733, 10-11=-327/3795  
WEBS 4-14=-163/162, 4-13=0/832, 5-13=-874/60,  
5-12=-156/2684, 2-14=-620/249, 2-15=0/320,  
7-12=-437/257, 7-11=-83/222,  
8-11=-189/186, 1-16=-1331/0,  
17-18=-229/362, 16-17=-1445/133,  
1-18=-66/1267, 10-19=-1919/119,  
21-22=0/186, 20-22=-22/1002,  
10-22=-99/1849, 19-22=-1513/172,  
9-22=-2508/335

- 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 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 14-2-14, Exterior (2) 14-2-14 to 18-5-12, Interior (1) 18-5-12 to 22-8-2, Exterior (2) 22-8-2 to 26-11-1, Interior (1) 26-11-1 to 36-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 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

- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.



February 28, 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

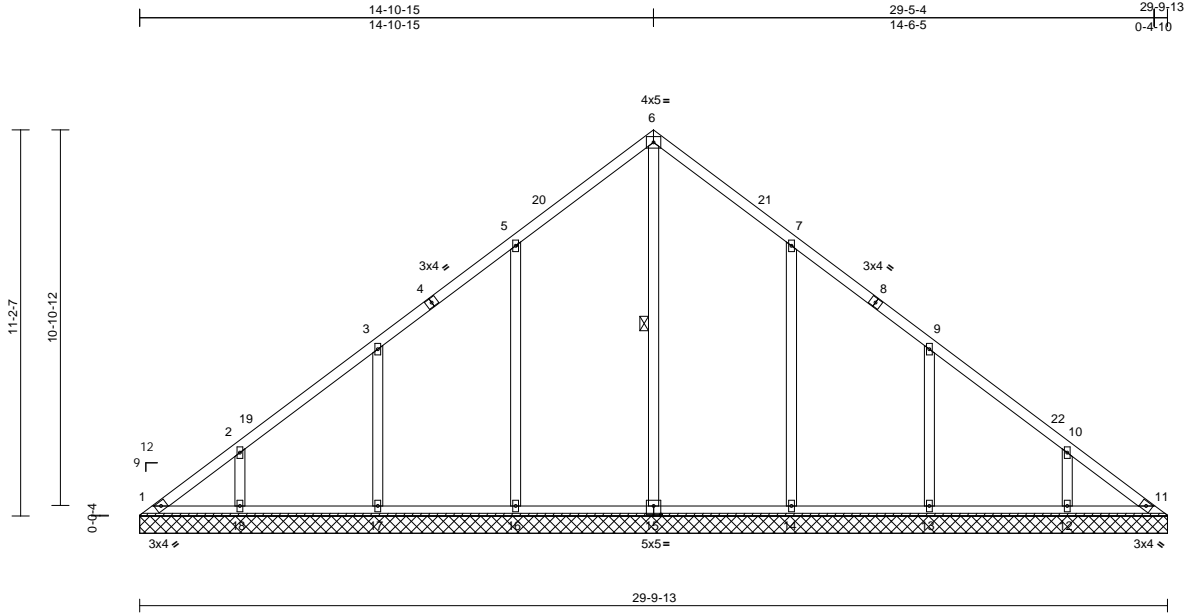


Job P-5824-1	Truss V1	Truss Type Valley	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751976
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:13  
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Page: 1



Scale = 1:66.8

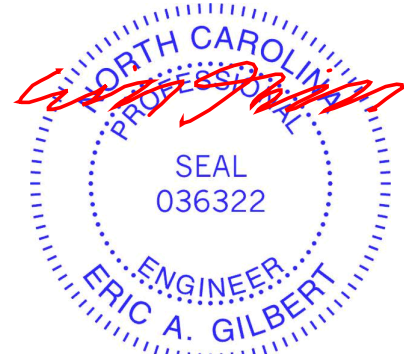
Plate Offsets (X, Y): [15:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-S							Weight: 156 lb	FT = 20%

LUMBER	WEBS
TOP CHORD 2x4 SP No.1	6-15=-160/20, 5-16=-258/157,
BOT CHORD 2x4 SP No.1	3-17=-242/141, 2-18=-217/141,
OTHERS 2x4 SP No.3	7-14=-258/157, 9-13=-242/141,
	10-12=-217/141

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-5-4 to 3-5-4, Interior (1) 3-5-4 to 14-11-4, Exterior (2) 14-11-4 to 17-11-4, Interior (1) 17-11-4 to 29-5-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 75 lb uplift at joint 1, 18 lb uplift at joint 16, 11 lb uplift at joint 17, 11 lb uplift at joint 18, 17 lb uplift at joint 14, 11 lb uplift at joint 13, 11 lb uplift at joint 12 and 31 lb uplift at joint 11.

LOAD CASE(S)	Standard
<b>FORCES</b> (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-176/186, 2-19=-157/119, 3-19=-141/145, 3-4=-126/70, 4-5=-101/96, 5-20=-127/177, 6-20=-66/203, 6-21=-48/203, 7-21=-127/177, 7-8=-32/88, 8-9=-119/63, 9-22=-69/73, 10-22=-118/47, 10-11=-163/114
BOT CHORD	1-18=-89/145, 17-18=-89/145, 16-17=-89/145, 15-16=-89/145, 14-15=-89/145, 13-14=-89/145, 12-13=-89/145, 11-12=-89/145



February 28, 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.



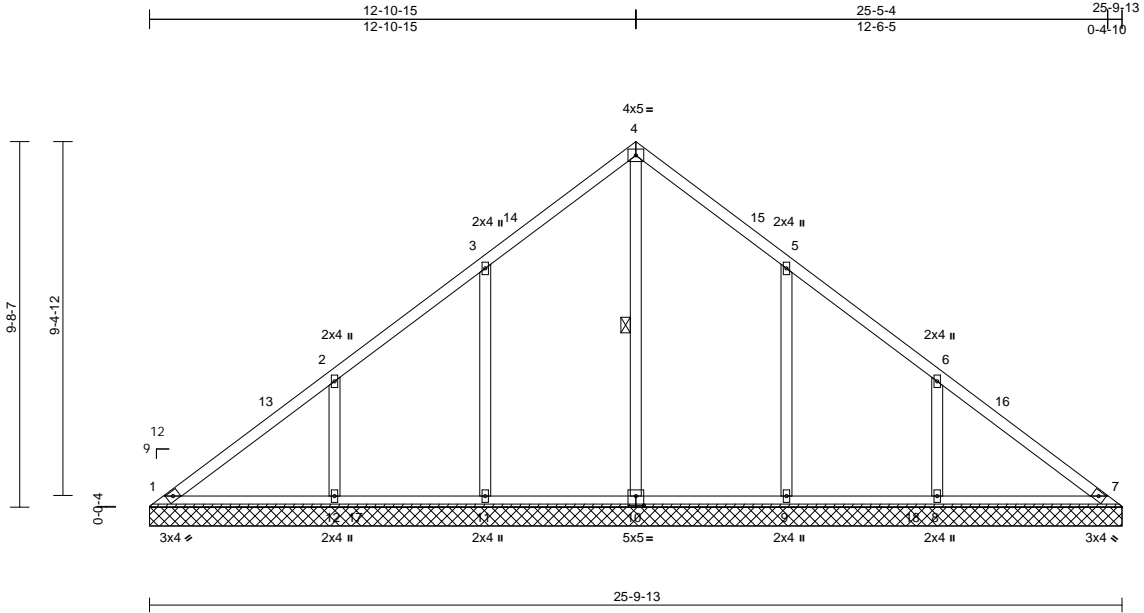
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss V2	Truss Type Valley	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751977
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:14  
ID:elgqJoiPHf6cNpEgFtywOLzL\_OJ-el3i8vvg?IPbNiTIAc3ToCdATGihAmvBNsT8DEzgfq?

Page: 1



Scale = 1:61.2

Plate Offsets (X, Y): [10:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-S							Weight: 126 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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.  
WEBS 1 Row at midpt 4-10

**REACTIONS** (lb/size)

1=174/25-9-13, 7=174/25-9-13, 8=390/25-9-13, 9=312/25-9-13, 10=249/25-9-13, 11=312/25-9-13, 12=390/25-9-13  
Max Horiz 1=199 (LC 8)  
Max Uplift 1=14 (LC 7), 8=13 (LC 5), 9=17 (LC 5), 11=17 (LC 6), 12=13 (LC 6)  
Max Grav 1=174 (LC 1), 7=174 (LC 1), 8=390 (LC 1), 9=405 (LC 17), 10=337 (LC 2), 11=405 (LC 16), 12=390 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-13=-153/133, 2-13=-125/152, 2-3=-125/90, 3-14=-126/148, 4-14=-59/174, 4-15=-49/174, 5-15=-126/148, 5-6=-125/65, 6-16=-89/89, 7-16=-118/71  
BOT CHORD 1-12=-76/122, 12-17=-76/122, 11-17=-76/122, 10-11=-76/122, 9-10=-76/122, 9-18=-76/122, 8-18=-76/122, 7-8=-76/122  
WEBS 4-10=-164/11, 3-11=-247/152, 2-12=-282/173, 5-9=-247/152, 6-8=-282/173

**NOTES**

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=26ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-5-4 to 3-5-4, Interior (1) 3-5-4 to 12-11-4, Exterior (2) 12-11-4 to 15-11-4, Interior (1) 15-11-4 to 25-5-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 14 lb uplift at joint 1, 17 lb uplift at joint 11, 13 lb uplift at joint 12, 17 lb uplift at joint 9 and 13 lb uplift at joint 8.

**LOAD CASE(S)** Standard



February 28, 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.



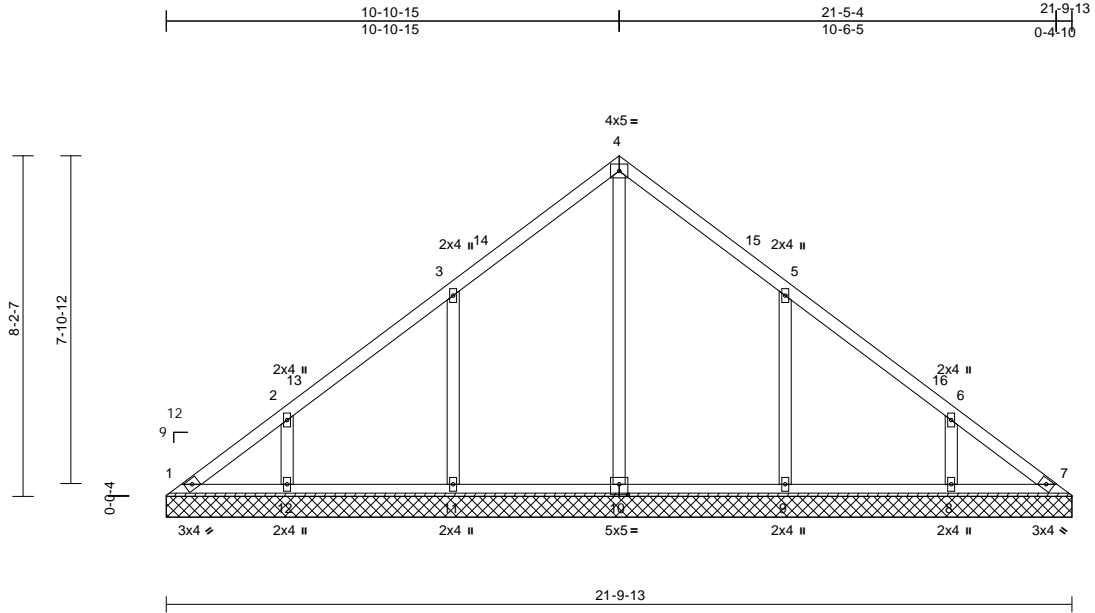
818 Soundside Road  
Edenton, NC 27932

Job P-5824-1	Truss V3	Truss Type Valley	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751978
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:14  
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Page: 1



Scale = 1:55.5

Plate Offsets (X, Y): [10:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-S							Weight: 102 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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=94/21-9-13, 7=94/21-9-13, 8=285/21-9-13, 9=342/21-9-13, 10=237/21-9-13, 11=342/21-9-13, 12=285/21-9-13  
Max Horiz 1=167 (LC 8)  
Max Uplift 1=41 (LC 7), 7=-10 (LC 8), 8=9 (LC 5), 9=-18 (LC 5), 11=-18 (LC 6), 12=-9 (LC 6)  
Max Grav 1=94 (LC 1), 7=94 (LC 1), 8=285 (LC 1), 9=361 (LC 17), 10=346 (LC 2), 11=361 (LC 16), 12=285 (LC 1)

**FORCES**

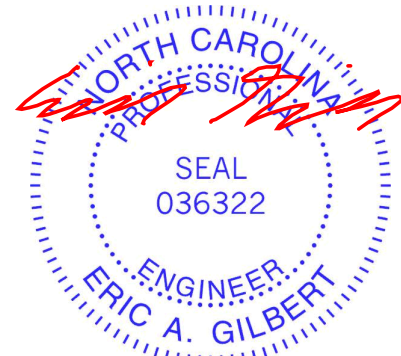
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-131/131, 2-13=-115/67, 3-13=-86/93, 3-14=-127/122, 4-14=-52/148, 4-15=-48/148, 5-15=-127/122, 5-16=-33/46, 6-16=-115/14, 6-7=-106/79  
BOT CHORD 1-12=-62/100, 11-12=-62/100, 10-11=-62/100, 9-10=-62/100, 8-9=-62/100, 7-8=-62/100  
WEBS 4-10=-157/4, 3-11=-266/163, 2-12=-211/140, 5-9=-266/163, 6-8=-211/140

**NOTES**

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-5-4 to 3-5-4, Interior (1) 3-5-4 to 10-11-4, Exterior (2) 10-11-4 to 13-11-4, Interior (1) 13-11-4 to 21-5-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 41 lb uplift at joint 1, 10 lb uplift at joint 7, 18 lb uplift at joint 11, 9 lb uplift at joint 12, 18 lb uplift at joint 9 and 9 lb uplift at joint 8.

**LOAD CASE(S)** Standard



February 28, 2019

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Edenton, NC 27932

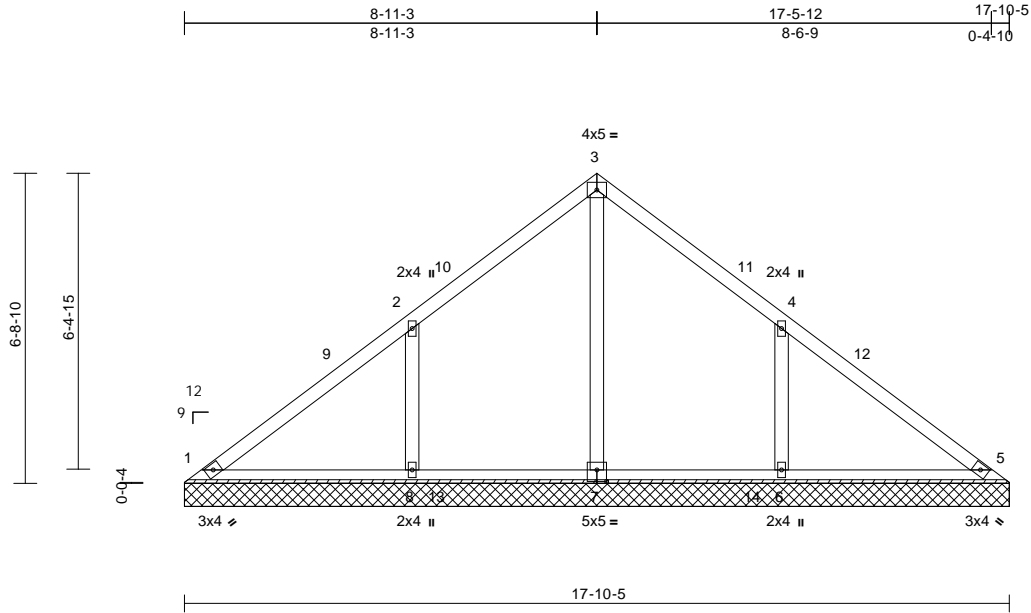
Job P-5824-1	Truss V4	Truss Type Valley	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751979
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:15

Page: 1

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Scale = 1:49.9

Plate Offsets (X, Y): [4:0-0-0,Edge], [7:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-S							Weight: 77 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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=169/17-10-5, 5=169/17-10-5, 6=409/17-10-5, 7=208/17-10-5, 8=409/17-10-5  
Max Horiz 1=-136 (LC 7)  
Max Uplift 6=-19 (LC 5), 8=-19 (LC 6)  
Max Grav 1=169 (LC 1), 5=169 (LC 1), 6=413 (LC 15), 7=320 (LC 2), 8=413 (LC 14)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-9=-106/82, 2-9=-77/101, 2-10=-128/95, 3-10=-44/121, 3-11=-43/121, 4-11=-128/95, 4-12=-34/67, 5-12=-94/39  
BOT CHORD 1-8=-50/81, 8-13=-50/81, 7-13=-50/81, 7-14=-50/81, 6-14=-50/81, 5-6=-50/81  
WEBS 3-7=-144/0, 2-8=-304/183, 4-6=-304/183

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-5-4 to 3-5-4, Interior (1) 3-5-4 to 8-11-8, Exterior (2) 8-11-8 to 11-11-8, Interior (1) 11-11-8 to 17-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Gable requires continuous bottom chord bearing.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 19 lb uplift at joint 8 and 19 lb uplift at joint 6.

LOAD CASE(S) Standard



February 28, 2019

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

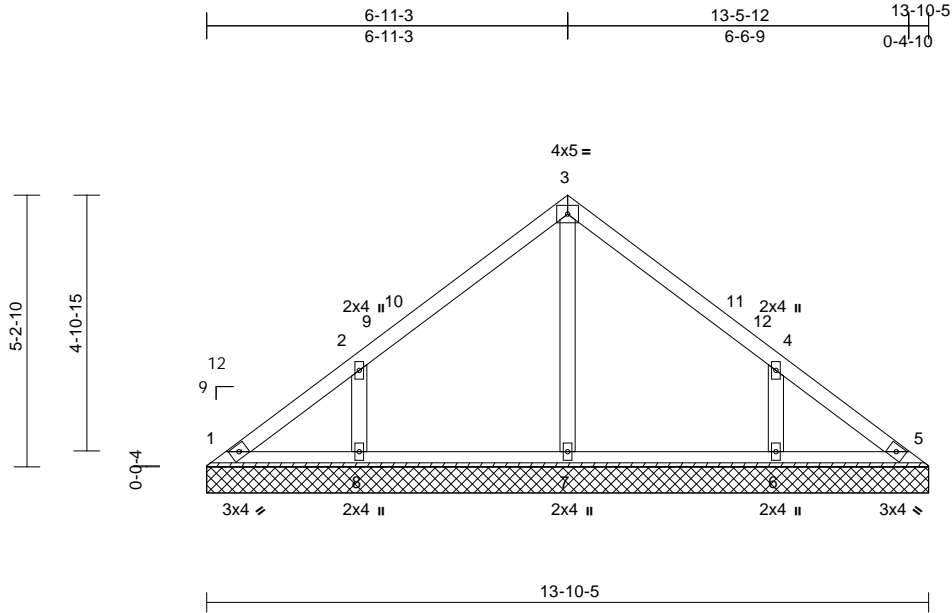
Job P-5824-1	Truss V5	Truss Type Valley	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751980
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:15

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Scale = 1:44.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-S							Weight: 57 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 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=92/13-10-5, 5=92/13-10-5,  
 6=306/13-10-5, 7=247/13-10-5,  
 8=306/13-10-5  
 Max Horiz 1=104 (LC 8)  
 Max Uplift 1=13 (LC 8), 6=18 (LC 6), 8=18 (LC 7)  
 Max Grav 1=92 (LC 1), 5=92 (LC 1), 6=313 (LC 16), 7=247 (LC 1), 8=313 (LC 15)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

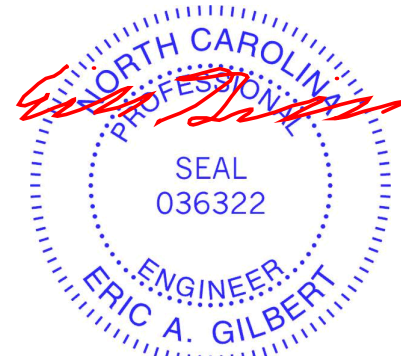
TOP CHORD 1-2=-86/80, 2-9=-127/70, 9-10=-110/70,  
 3-10=-51/96, 3-11=-51/96, 11-12=-110/70,  
 4-12=-127/70, 4-5=-69/47  
 BOT CHORD 1-8=-34/56, 7-8=-34/56, 6-7=-34/56,  
 5-6=-34/56  
 WEBS 3-7=-164/0, 2-8=-240/156, 4-6=-240/156

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-5-4 to 3-5-4, Interior (1) 3-5-4 to 6-11-8, Exterior (2) 6-11-8 to 9-11-8, Interior (1) 9-11-8 to 13-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1, 18 lb uplift at joint 8 and 18 lb uplift at joint 6.

**LOAD CASE(S)** Standard



February 28, 2019

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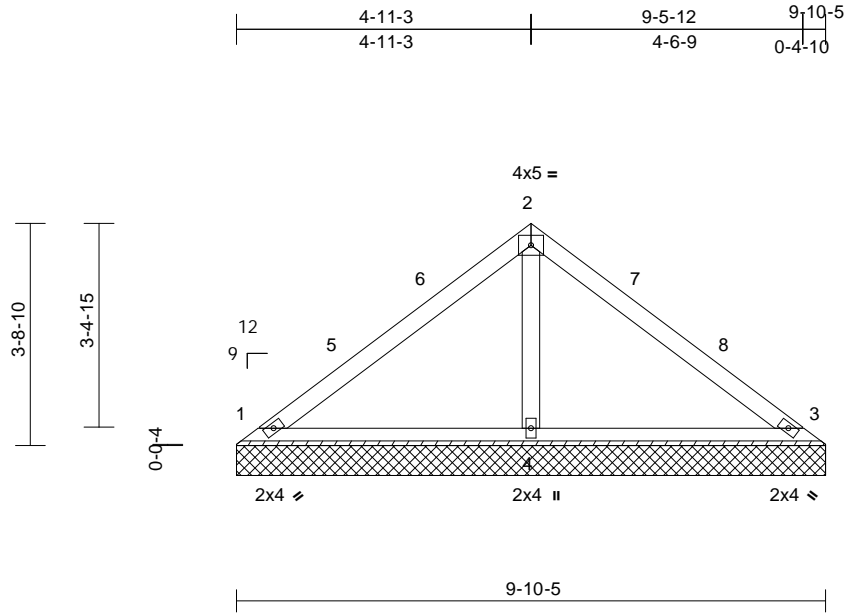
Job P-5824-1	Truss V6	Truss Type Valley	Qty 1	Ply 1	Rob Grissom V2-Roof Job Reference (optional)	E12751981
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Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.24 E Feb 11 2019 Print: 8.240 E Feb 11 2019 MiTek Industries, Inc. Thu Feb 28 08:28:16

Page: 1

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<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IBC2009/TPI2007	Matrix-S							Weight: 36 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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=188/9-10-5, 3=188/9-10-5, 4=346/9-10-5  
Max Horiz 1=72 (LC 9)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-5=-141/42, 5-6=-66/46, 2-6=-35/64, 2-7=-33/64, 7-8=-66/46, 3-8=-141/42  
BOT CHORD 1-4=-17/53, 3-4=-17/53  
WEBS 2-4=-212/66

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=0ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior (2) 0-5-4 to 3-5-4, Interior (1) 3-5-4 to 4-11-8, Exterior (2) 4-11-8 to 7-11-8, Interior (1) 7-11-8 to 9-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.

**LOAD CASE(S)** Standard



February 28, 2019

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

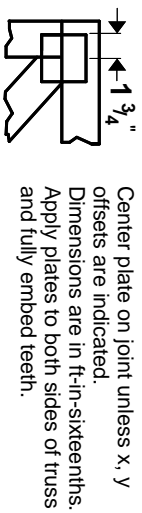
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



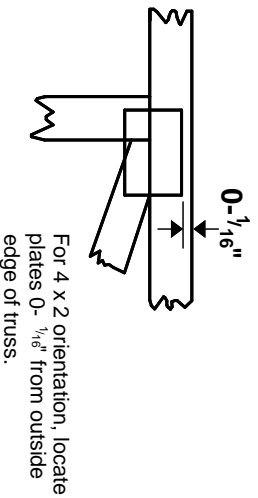
818 Soundside Road  
Edenton, NC 27932

# Symbols

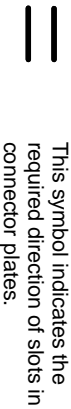
## PLATE LOCATION AND ORIENTATION



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



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



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

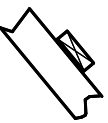
\* Plate location details available in **MITrak 20/20 software or upon request.**

## PLATE SIZE

4 X 4

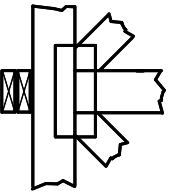
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

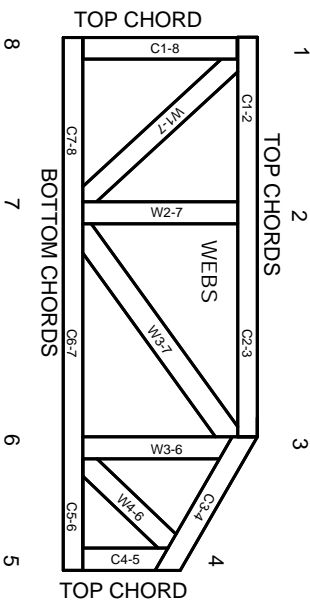


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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



# General Safety Notes

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

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