

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: NC1-94-R  
Caruso-Davidson-OYL NC1 94

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

Pages or sheets covered by this seal: I56510930 thru I56511001

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



February 7, 2023

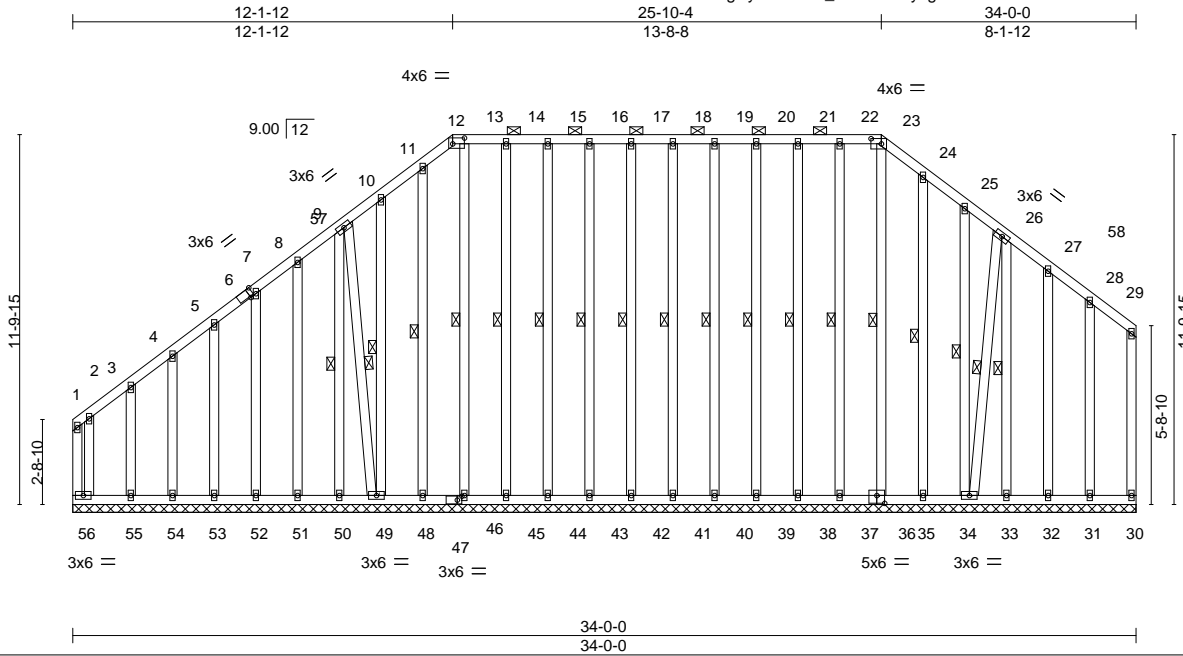
Gilbert, Eric

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

Job NC1-94-R	Truss A01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510930
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:47:50 2023 Page 1

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Scale = 1:73.7

Plate Offsets (X, Y)--	[6:0-1-9,Edge], [12:0-4-8,0-2-4], [23:0-4-0,0-2-0], [36:0-3-0,0-3-0], [47:0-1-12,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	-0.01	30	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 480 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 12-23.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 33-34,32-33,31-32,30-31.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 23-36, 22-37, 21-38, 20-39, 19-40, 18-41, 17-42, 16-43, 15-44, 14-45, 13-46, 11-48, 10-49, 9-50, 24-35, 25-34, 26-33, 9-49, 26-34
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 34-0-0.  
 (lb) - Max Horz 56=281(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 30, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 51, 52, 53, 54, 35, 32, 31 except 56=-180(LC 8), 49=-349(LC 9), 50=-250(LC 8), 55=-251(LC 9), 34=-316(LC 8), 33=-320(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 30, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 51, 52, 53, 54, 35, 32, 31 except 56=258(LC 11), 49=396(LC 10), 50=349(LC 11), 55=304(LC 10), 34=432(LC 11), 33=348(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-56=-269/292  
 WEBS 9-50=-333/277, 2-56=-470/394, 26-33=-323/340, 9-49=-376/408, 26-34=-416/364

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-2-4, Interior(1) 3-2-4 to 12-1-12, Exterior(2) 12-1-12 to 16-6-4, Interior(1) 16-6-4 to 25-10-4, Exterior(2) 25-10-4 to 29-11-5, Interior(1) 29-11-5 to 33-10-4 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
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 30, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 51, 52, 53, 54, 35, 32, 31 except (jt=lb) 56=180, 49=349, 50=250, 55=251, 34=316, 33=320.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job NC1-94-R	Truss A02	Truss Type HIP	Qty 5	Ply 1	Caruso-Davidson-OYL NC1 94	I56510931
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:47:52 2023 Page 1  
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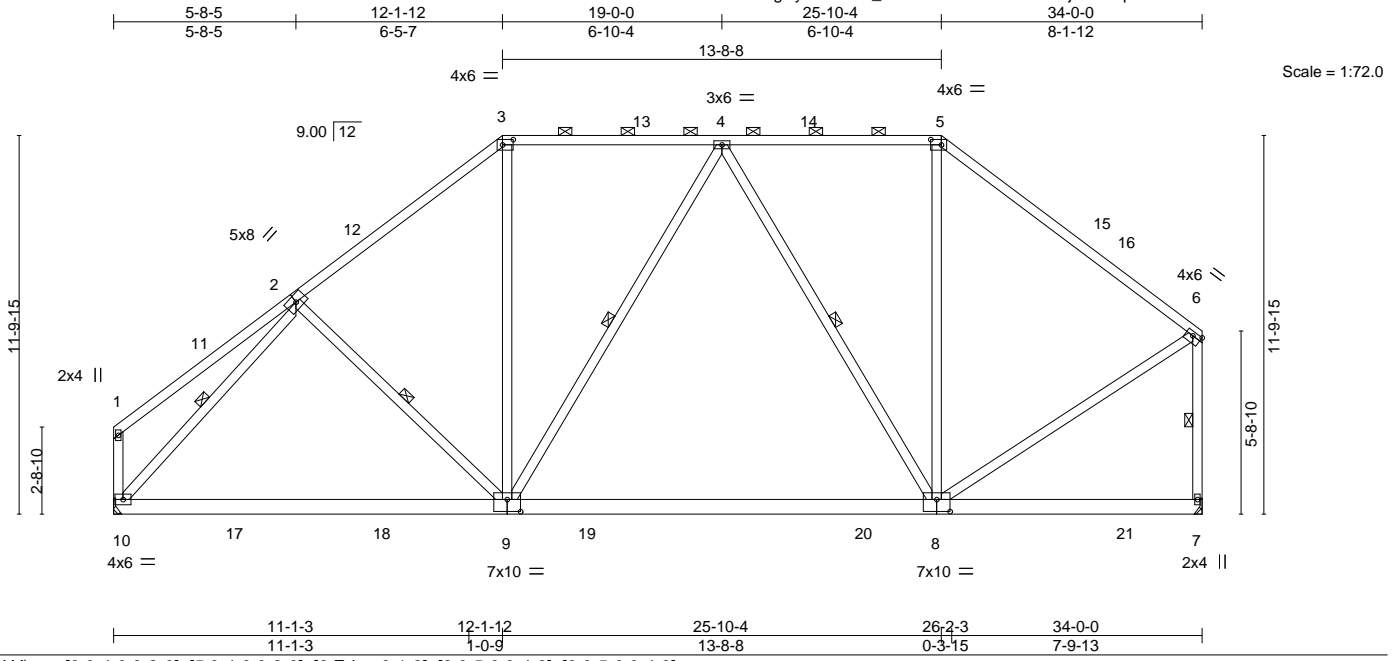


Plate Offsets (X, Y)--	[3:0-4-0,0-2-0], [5:0-4-0,0-2-0], [6:Edge,0-1-8], [8:0-5-0,0-4-8], [9:0-5-0,0-4-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.98	Vert(LL)	-0.33	8-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.49	8-9	>825		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.03	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.03	8-9	>999	Weight: 260 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 5-6: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-1-12 max.): 3-5.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 4-9,4-8: 2x4 SP No.2	WEBS 1 Row at midpt 6-7, 2-10, 2-9, 4-9, 4-8

**REACTIONS.** (size) 10=Mechanical, 7=Mechanical  
 Max Horz 10=279(LC 9)  
 Max Uplift 10=-48(LC 12), 7=-36(LC 13)  
 Max Grav 10=1411(LC 2), 7=1417(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1396/156, 3-4=-1035/160, 4-5=-815/171, 5-6=-1135/139, 6-7=-1330/102  
 BOT CHORD 9-10=-189/1078, 8-9=-124/1034  
 WEBS 2-10=-1425/75, 3-9=0/472, 4-8=-509/159, 5-8=0/325, 6-8=-21/944

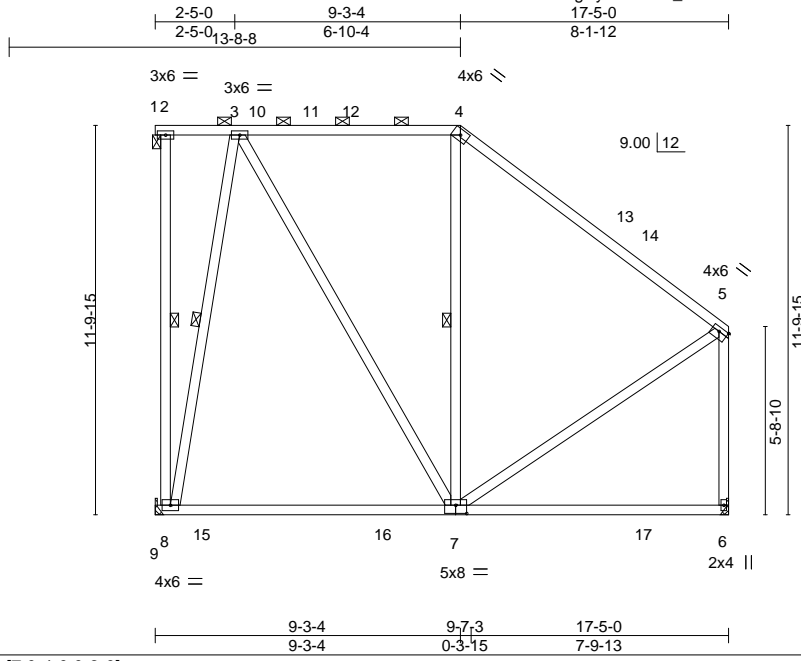
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 12-1-12, Exterior(2) 12-1-12 to 16-4-11, Interior(1) 16-4-11 to 25-10-4, Exterior(2) 25-10-4 to 30-1-3, Interior(1) 30-1-3 to 33-10-4 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
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 7, 2023

Job NC1-94-R	Truss A03	Truss Type HIP	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510932
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:47:53 2023 Page 1  
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Scale = 1:70.0

Plate Offsets (X, Y)--	[5:Edge,0-1-8], [7:0-4-0,0-3-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.85	Vert(LL) -0.32 7-8 >629 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.54	Vert(CT) -0.47 7-8 >433 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) -0.10 7-8 >999 240	Weight: 147 lb	FT = 20%

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

**REACTIONS.** (size) 8=Mechanical, 6=Mechanical  
 Max Horz 8=-340(LC 10)  
 Max Uplift 8=-155(LC 8), 6=-25(LC 13)  
 Max Grav 8=750(LC 2), 6=721(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-316/136, 4-5=-496/104, 5-6=-610/113  
 BOT CHORD 7-8=-277/353  
 WEBS 3-8=-637/301, 3-7=-171/431, 5-7=-69/375

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 16-7-0 to 19-7-0, Interior(1) 19-7-0 to 25-10-4, Exterior(2) 25-10-4 to 30-1-3, Interior(1) 30-1-3 to 33-10-4 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
  - 2) Provide adequate drainage to prevent water ponding.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=155.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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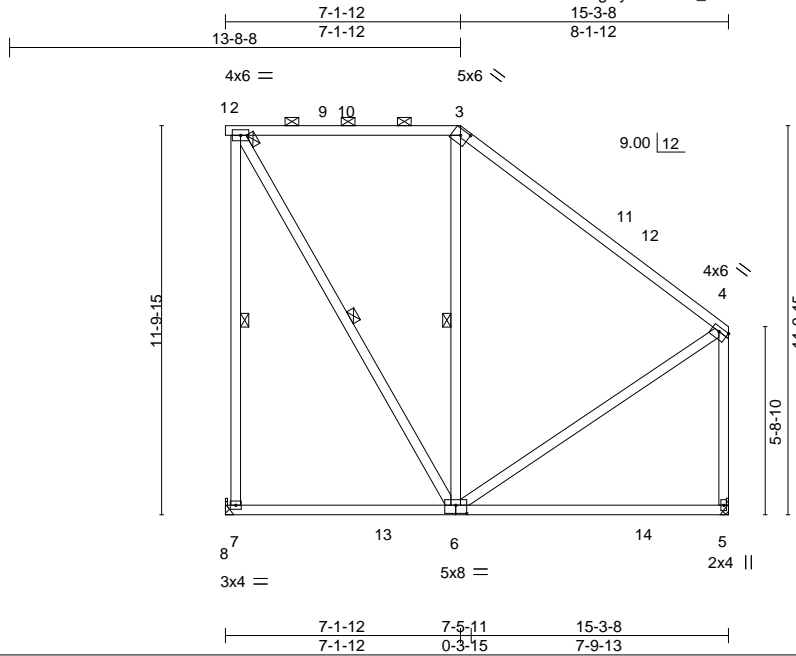
Job NC1-94-R	Truss A04	Truss Type HIP	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510933
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:47:54 2023 Page 1

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Scale = 1:70.0

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.97	Vert(LL)	-0.11	5-6	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.54	Vert(CT)	-0.22	5-6	>795		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.21	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Wind(LL)	-0.07	6-7	>999		
	Code IRC2015/TPI2014						Weight: 123 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 2-7,2-6: 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.  
 BOT CHORD Rigid ceiling directly applied or 9-0-9 oc bracing.  
 WEBS 1 Row at midpt 2-7, 2-6, 3-6

**REACTIONS.**

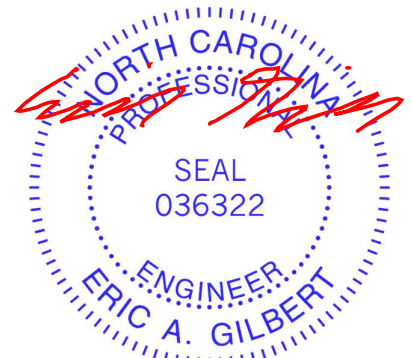
(size) 7=Mechanical, 5=Mechanical  
 Max Horz 7=340(LC 10)  
 Max Uplift 7=161(LC 8), 5=17(LC 13)  
 Max Grav 7=660(LC 2), 5=649(LC 21)

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

TOP CHORD 2-7=-558/258, 2-3=-279/143, 3-4=-423/112, 4-5=-521/124  
 BOT CHORD 6-7=-390/410  
 WEBS 2-6=-245/531, 3-6=-309/190, 4-6=-104/299

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 18-8-8 to 21-8-8, Interior(1) 21-8-8 to 25-10-4, Exterior(2) 25-10-4 to 30-1-3, Interior(1) 30-1-3 to 33-10-4 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
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=161.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 7, 2023

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

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

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

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



818 Soundside Road  
 Edenton, NC 27932

Job NC1-94-R	Truss B01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510934
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:47:56 2023 Page 1  
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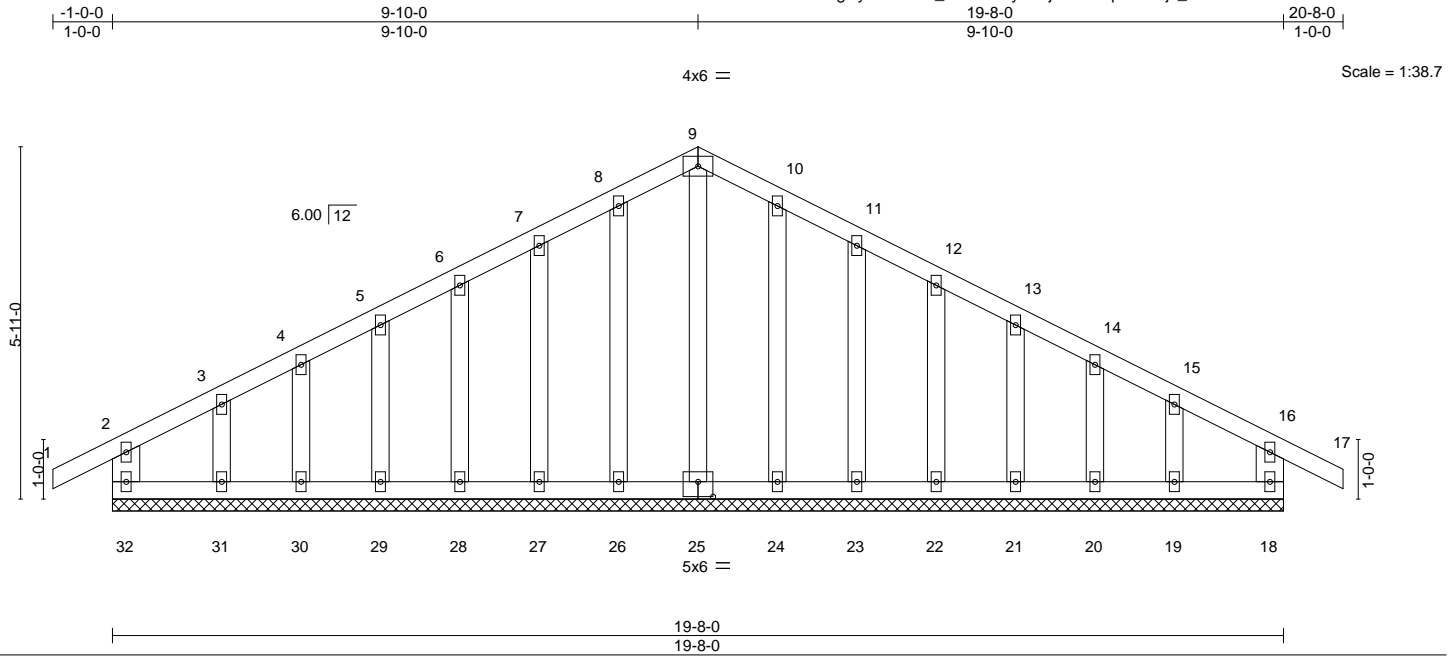


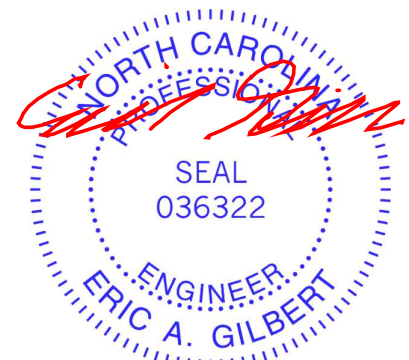
Plate Offsets (X,Y)--	[25:0-3-0,0-3-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	17	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.01	17	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	18	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 131 lb	FT = 20%

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

**REACTIONS.** All bearings 19-8-0.  
 (lb) - Max Horz 32=-76(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 32, 18, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19  
 Max Grav All reactions 250 lb or less at joint(s) 32, 18, 25, 26, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20, 19

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 1-10-0, Interior(1) 1-10-0 to 9-10-0, Exterior(2) 9-10-0 to 13-10-0, Interior(1) 13-10-0 to 20-8-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 7) Gable studs spaced at 1-4-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 32, 18, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19.

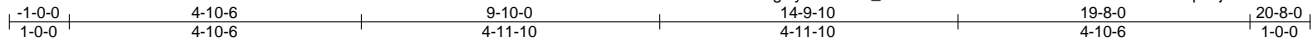


February 7, 2023



Job NC1-94-R	Truss B02	Truss Type COMMON	Qty 3	Ply 1	Caruso-Davidson-OYL NC1 94 156510935
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:47:57 2023 Page 1  
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4x6 =

Scale = 1:38.4

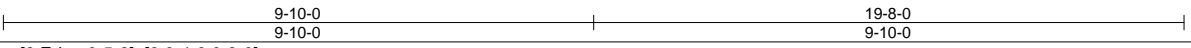
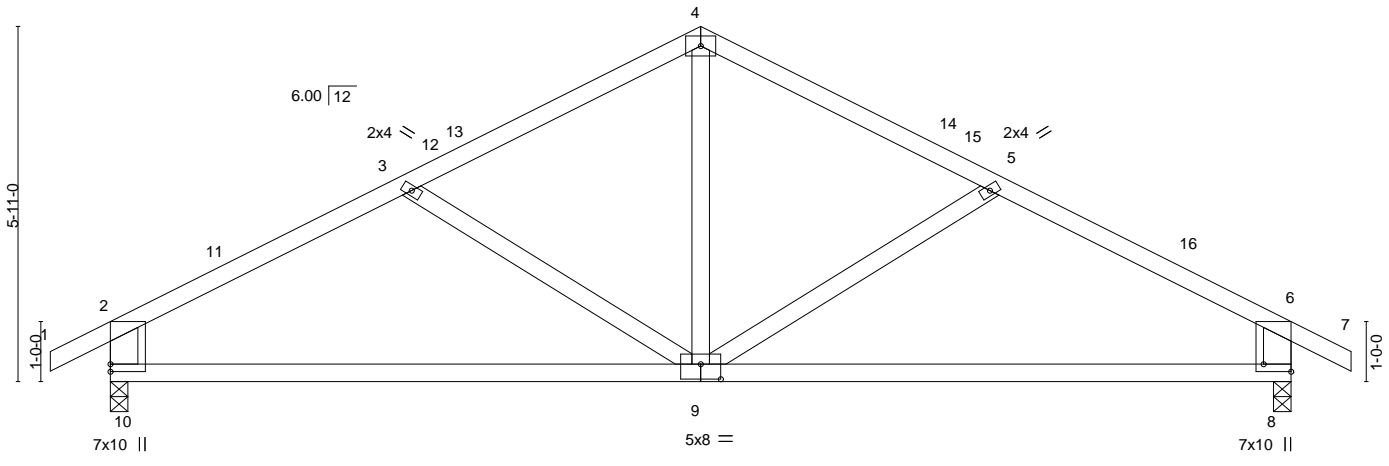


Plate Offsets (X, Y)-- [8:Edge,0-5-8], [9:0-4-0,0-3-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.17	9-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.35	9-10	>656		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.03	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.05	9	>999		
								Weight: 93 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-10,6-8: 2x6 SP No.2	

**REACTIONS.** (size) 10=0-3-8, 8=0-3-8  
 Max Horz 10=-76(LC 10)  
 Max Uplift 10=-11(LC 12), 8=-11(LC 13)  
 Max Grav 10=842(LC 1), 8=842(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-10=-739/141, 2-3=-1024/98, 3-4=-811/79, 4-5=-811/79, 5-6=-1024/98, 6-8=-739/141  
 BOT CHORD 9-10=-38/812, 8-9=-13/812  
 WEBS 4-9=0/420

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 9-10-0, Exterior(2) 9-10-0 to 14-0-15, Interior(1) 14-0-15 to 20-8-0 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 a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 8.



February 7, 2023

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

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

818 Soundside Road  
 Edenton, NC 27932

Job NC1-94-R	Truss B03	Truss Type COMMON	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510936
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:47:58 2023 Page 1

ID:IkPldIb6F0gUya0Y9sJQ\_Zz1rsE-gLRkLPWv4UO23ehEdzIN3LOeWLVq91K\_Xr0hRzznd8F



4x6 =

Scale = 1:37.4

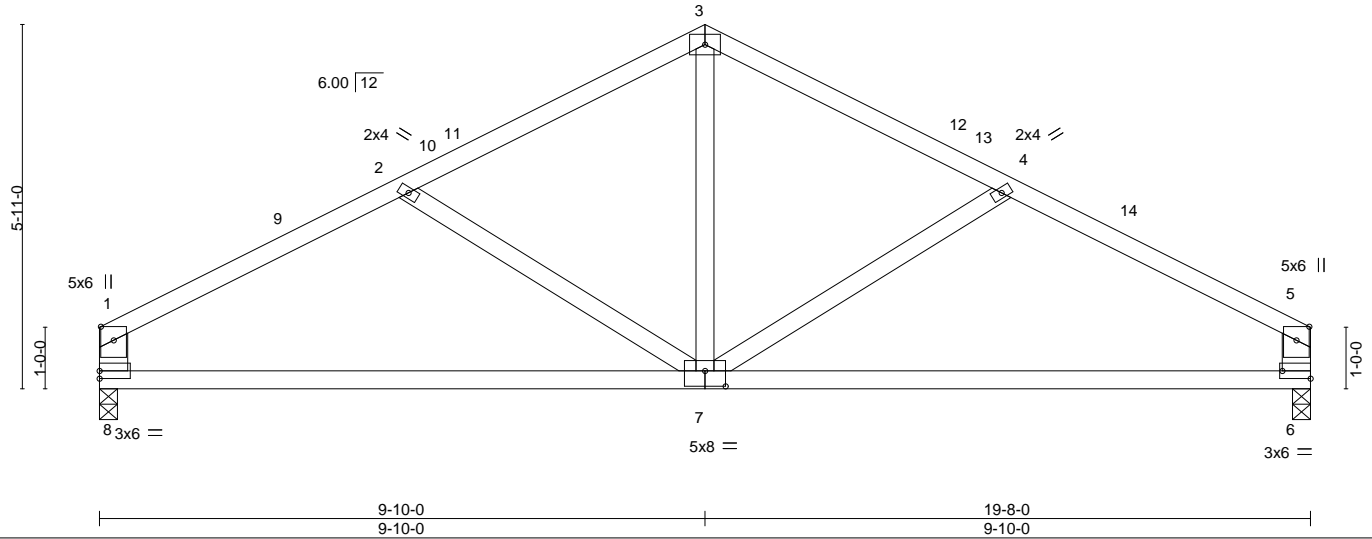


Plate Offsets (X,Y)--	[6:Edge,0-1-8], [7:0-4-0,0-3-0]
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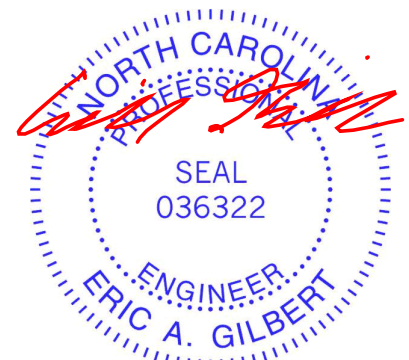
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.86	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.77	Vert(LL) -0.18 7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.37 7-8 >624 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.03 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.08 7 >999 240	Weight: 90 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 1-8,5-6: 2x6 SP No.2	

**REACTIONS.** (size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=-70(LC 10)  
 Max Grav 8=768(LC 1), 6=768(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-8=-651/96, 1-2=-1035/106, 2-3=-809/83, 3-4=-809/83, 4-5=-1035/106, 5-6=-651/96  
 BOT CHORD 7-8=-70/832, 6-7=-55/832  
 WEBS 3-7=0/418

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 9-10-0, Exterior(2) 9-10-0 to 14-0-15, Interior(1) 14-0-15 to 19-5-4 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.





Job NC1-94-R	Truss B04GR	Truss Type COMMON	Qty 1	Ply 2	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510937
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:00 2023 Page 1  
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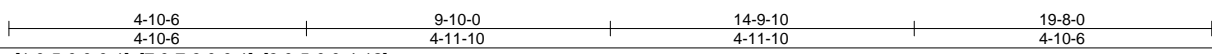
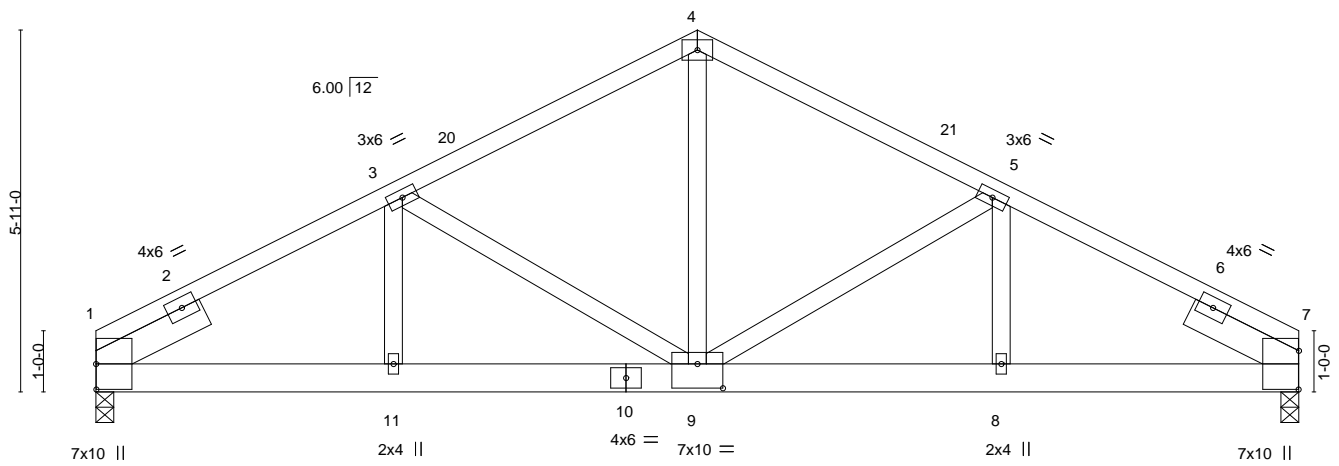


Plate Offsets (X,Y)--	[1:0-5-0,0-0-1], [7:0-7-9,0-0-1], [9:0-5-0,0-4-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.79	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.50	Vert(LL) -0.09 9-11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.44	Vert(CT) -0.18 9-11 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.04 7 n/a n/a		
	Code IRC2015/TP12014		Wind(LL) 0.07 8-9 >999 240	Weight: 240 lb	FT = 20%

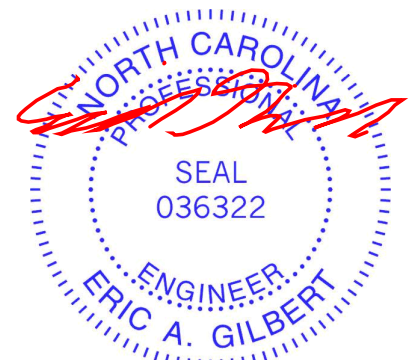
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins.
BOT CHORD 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12	

**REACTIONS.** (size) 1=0-3-8, 7=0-3-8  
 Max Horz 1=67(LC 8)  
 Max Uplift 1=-288(LC 8), 7=-288(LC 9)  
 Max Grav 1=4243(LC 1), 7=4243(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-5769/397, 3-4=-4499/311, 4-5=-4499/311, 5-7=-5769/397  
 BOT CHORD 1-11=-366/5063, 9-11=-366/5063, 8-9=-300/5063, 7-8=-300/5063  
 WEBS 4-9=-234/3608, 5-9=-1298/174, 5-8=-64/1153, 3-9=-1298/174, 3-11=-64/1153

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=288, 7=288.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 4-7=-60, 12-16=-371(F=-351)



February 7, 2023

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

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

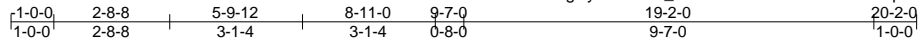
Job NC1-94-R	Truss C01G	Truss Type QUEENPOST	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510938
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:01 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-4w7szQYoNPmdw6Ppl5J4h\_09WYasMDqQDpEM2lzd8C



4x6 =

Scale = 1:53.9

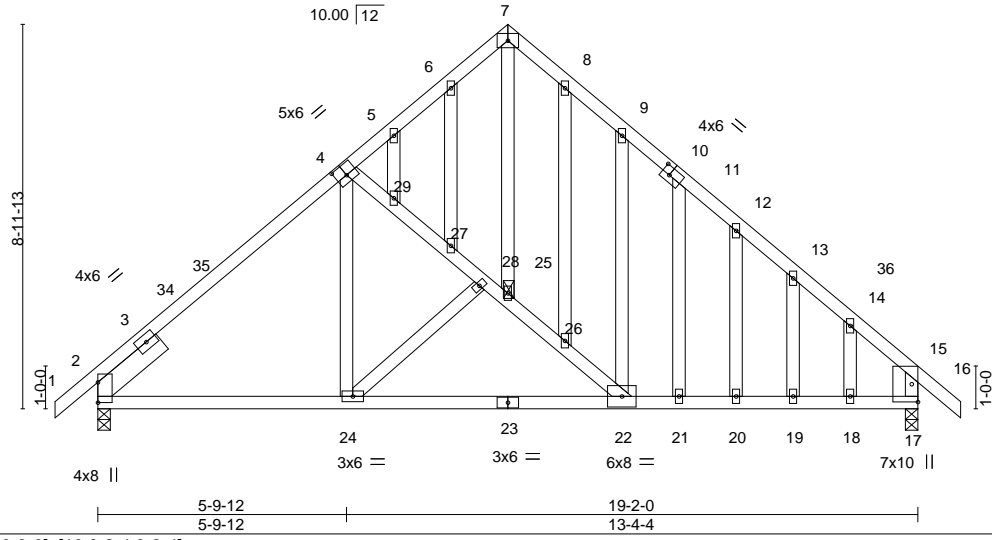


Plate Offsets (X,Y)--	[4:0-3-0,0-3-0], [10:0-2-4,0-2-4]
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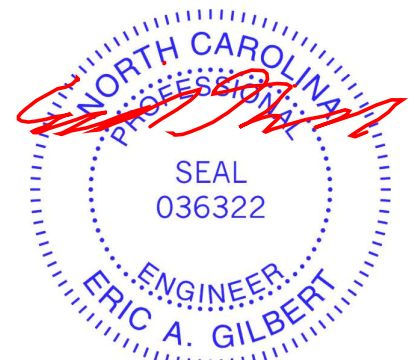
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.81	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.56	Vert(LL) -0.07 20 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.88	Vert(CT) -0.13 20-21 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) -0.02 2 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.10 19-20 >999 240		
				Weight: 158 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-3-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 25
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** (size) 2=0-3-8, 17=0-3-8  
 Max Horz 2=190(LC 11)  
 Max Grav 2=820(LC 1), 17=830(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-842/63, 4-5=-776/178, 5-6=-742/177, 6-7=-636/175, 7-8=-706/190, 8-9=-705/178, 9-11=-689/88, 11-12=-689/77, 12-13=-724/45, 13-14=-749/16, 14-15=-819/0, 15-17=-713/52  
 BOT CHORD 2-24=-3/620, 22-24=-104/311, 21-22=0/529, 20-21=0/529, 19-20=0/529, 18-19=0/529, 17-18=0/529  
 WEBS 25-26=-189/571, 22-26=-207/549, 7-25=-177/679, 4-24=-258/166, 24-28=-145/558

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 9-7-0, Exterior(2) 9-7-0 to 13-7-0, Interior(1) 13-7-0 to 20-2-0 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) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



February 7, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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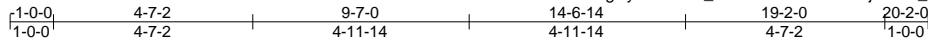
Job NC1-94-R	Truss C02	Truss Type QUEENPOST	Qty 5	Ply 1	Caruso-Davidson-OYL NC1 94 I56510939
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:02 2023 Page 1

ID:IkPIdb6F0gUya0Y9sJQ\_Zz1rsE-Z6hFAmZQ8juUYG\_0soqJDBZLfysj5r5aST\_valznd8B



4x6 =

Scale = 1:53.1

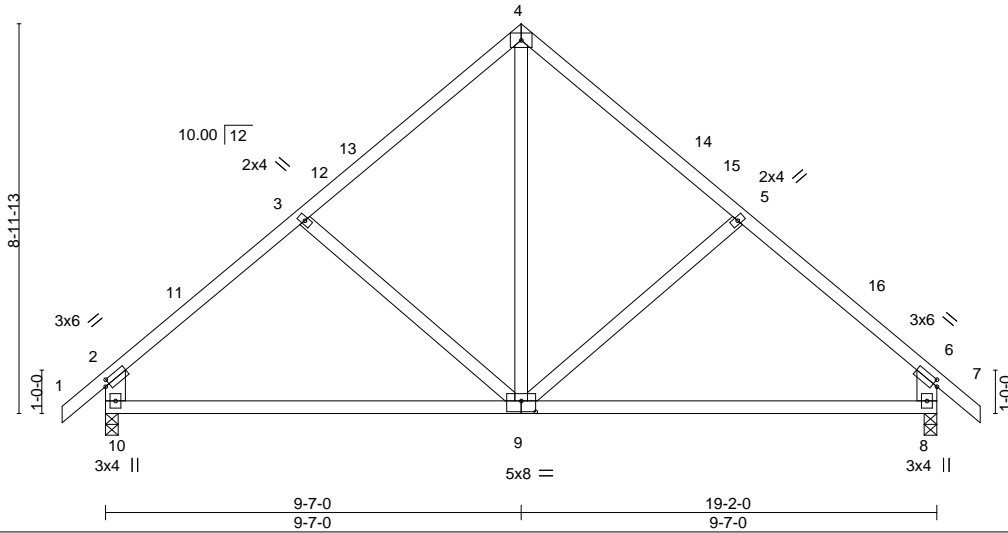


Plate Offsets (X, Y)-- [2:0-1-4,0-1-8], [6:0-1-4,0-1-8], [9:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.72	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.77	Vert(LL) -0.15 8-9 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.17	Vert(CT) -0.30 8-9 >757 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.02 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.03 9 >999 240	Weight: 105 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 2-10,6-8: 2x6 SP No.2

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

**REACTIONS.** (size) 10=0-3-8, 8=0-3-8  
 Max Horz 10=-199(LC 10)  
 Max Grav 10=822(LC 1), 8=822(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-831/80, 3-4=-643/101, 4-5=-643/101, 5-6=-831/80, 2-10=-724/113, 6-8=-724/113  
 BOT CHORD 9-10=-40/593, 8-9=0/540  
 WEBS 4-9=-29/457

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 9-7-0, Exterior(2) 9-7-0 to 13-9-15, Interior(1) 13-9-15 to 20-2-0 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



February 7, 2023

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

Job NC1-94-R	Truss C04GR	Truss Type COMMON	Qty 1	Ply 2	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510940
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:04 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-VVo?bSbggK8CnZ8OzDsnJceoPlbwZdRtnTofdznd89



4x6 ||

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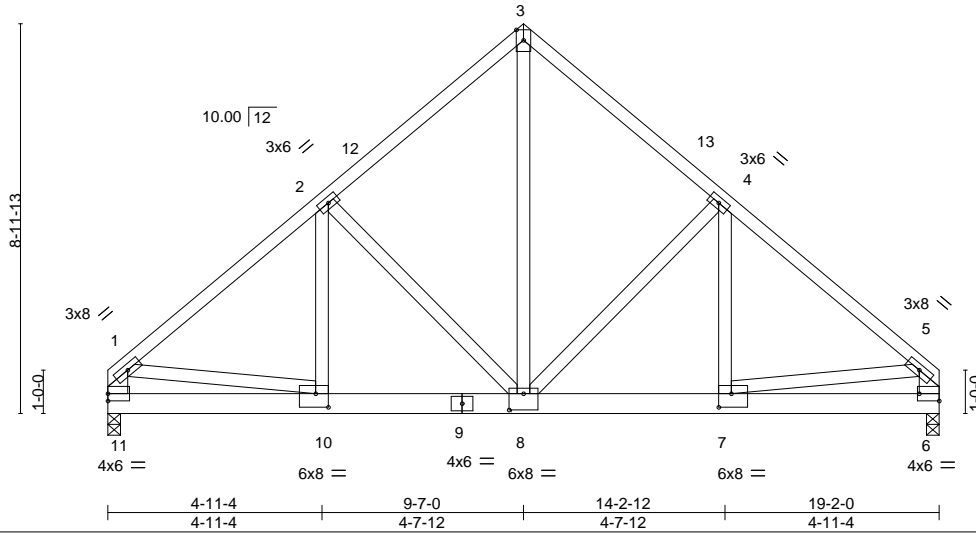


Plate Offsets (X, Y)-- [6:Edge,0-2-0], [7:0-3-8,0-3-12], [8:0-4-0,0-4-8], [10:0-3-8,0-3-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.60	Vert(LL) -0.05 7-8 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.70	Vert(CT) -0.10 7-8 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.02 6 n/a n/a		
	Code IRC2015/TP12014		Wind(LL) 0.04 8-10 >999 240	Weight: 283 lb	FT = 20%

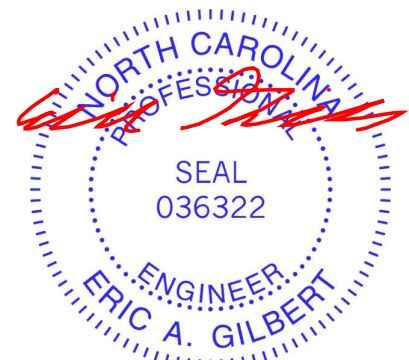
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 1-11,5-6: 2x6 SP No.2	

**REACTIONS.** (size) 11=0-3-8, 6=0-3-8  
 Max Horz 11=-176(LC 4)  
 Max Uplift 11=-244(LC 8), 6=-244(LC 9)  
 Max Grav 11=3995(LC 15), 6=3984(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-11=-3133/207, 1-2=-4150/263, 2-3=-3010/254, 3-4=-3039/254, 4-5=-4162/263, 5-6=-3120/206  
 BOT CHORD 10-11=-166/869, 8-10=-229/3235, 7-8=-152/3153, 6-7=-81/730  
 WEBS 3-8=-276/3540, 4-8=-1209/194, 4-7=-65/1362, 5-7=-114/2455, 2-8=-1296/194, 2-10=-65/1373, 1-10=-110/2397

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=244, 6=244.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-5=-60, 6-11=-351(F=-330)



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

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

Job NC1-94-R	Truss CP01	Truss Type MONO TRUSS	Qty 9	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510941
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:05 2023 Page 1  
ID:IkPldIb6F0gUya0Y9sJQ\_Zz1rsE-zhMNpoblReG2PjjaXxN0rqBzu9?IIAn08RCZB4znd88



2x4 || Scale = 1:19.1

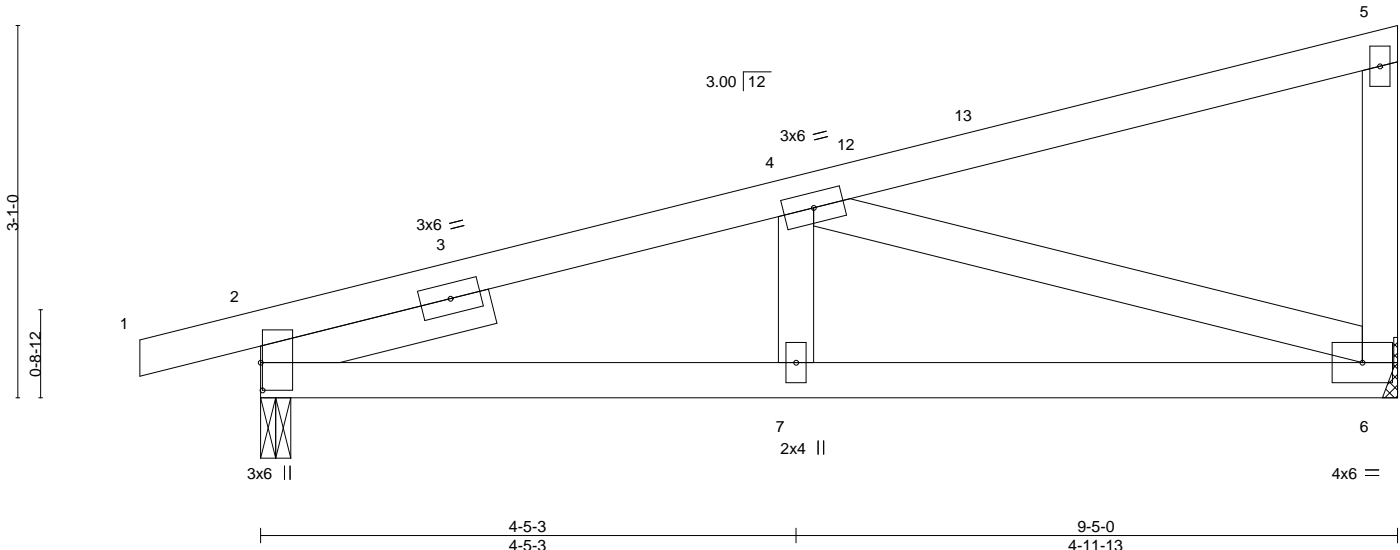


Plate Offsets (X,Y)-- [2:0-2-12,0-0-3]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.02	6-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.05	6-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.01	7	>999		
								Weight: 46 lb	FT = 20%

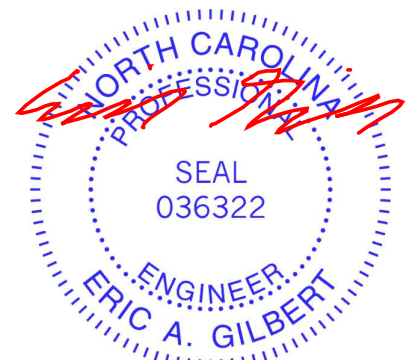
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 1-11-12

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

**REACTIONS.** (size) 2=0-3-0, 6=Mechanical  
 Max Horz 2=88(LC 11)  
 Max Uplift 2=-56(LC 8), 6=-36(LC 8)  
 Max Grav 2=434(LC 1), 6=368(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-609/49  
 BOT CHORD 2-7=-119/610, 6-7=-119/610  
 WEBS 4-6=-610/91

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 9-3-4 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
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.



February 7, 2023

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



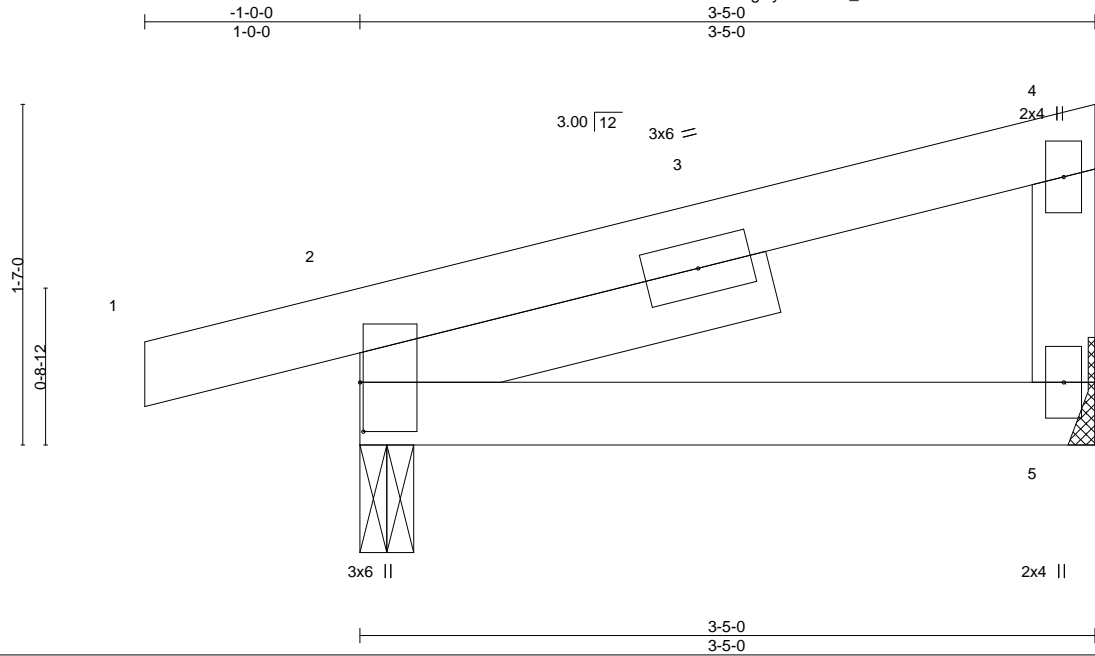
818 Soundside Road  
Edenton, NC 27932

Job NC1-94-R	Truss CP01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510942
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:06 2023 Page 1  
ID:IkPIdIb6F0gUya0Y9sJQ\_Zz1rsE-RtwI08cxCxOv0tIn5evFO1kAWZOA1hnAN5y6jWznd87



Scale = 1:10.7

Plate Offsets (X,Y)--	[2:0-2-12,0-0-3]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL) -0.00 5-8 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.10	Vert(CT) -0.01 5-8 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP	Wind(LL) 0.01 5-8 >999 240	Weight: 16 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-5-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 1-11-12	

**REACTIONS.** (size) 2=0-3-0, 5=Mechanical  
 Max Horz 2=40(LC 11)  
 Max Uplift 2=41(LC 8), 5=12(LC 12)  
 Max Grav 2=200(LC 1), 5=122(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 3-3-4 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
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable studs spaced at 1-4-0 oc.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.



February 7, 2023



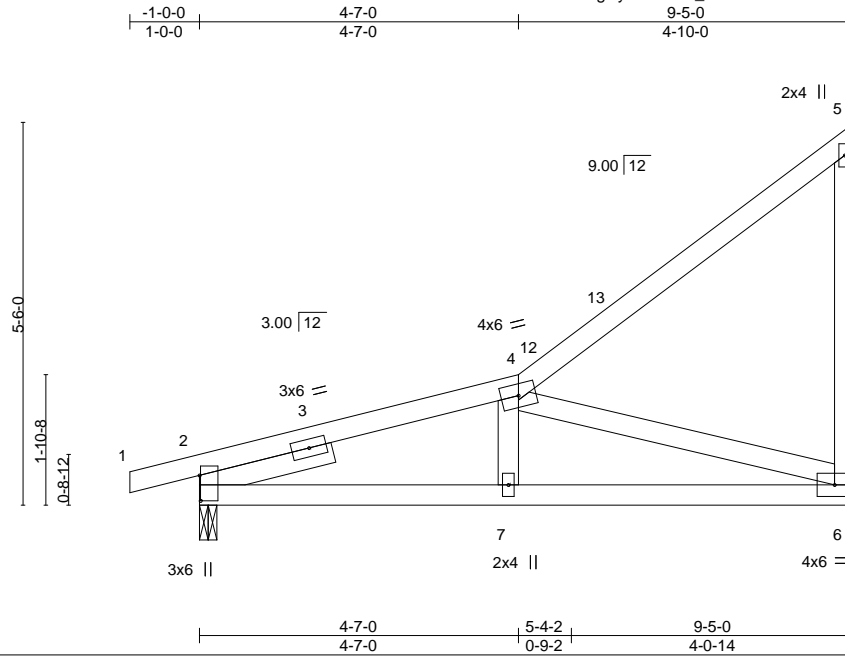
Job NC1-94-R	Truss CP02	Truss Type MONO TRUSS	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510943
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:07 2023 Page 1

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Scale = 1:33.1

Plate Offsets (X, Y)--	[2:0-4-6,0-0-3]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) -0.02 6-7 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.27	Vert(CT) -0.05 6-7 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.30	Horz(CT) 0.01 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.01 7 >999 240	Weight: 51 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 1-11-12	

**REACTIONS.** (size) 6=Mechanical, 2=0-3-0  
 Max Horz 2=155(LC 11)  
 Max Uplift 6=-23(LC 12), 2=-44(LC 8)  
 Max Grav 6=368(LC 1), 2=434(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-603/45  
 BOT CHORD 2-7=-63/585, 6-7=-68/578  
 WEBS 4-6=-596/76

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 9-3-4 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
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.



February 7, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job NC1-94-R	Truss D01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510944
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:08 2023 Page 1  
 ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-NG2WRqeBjZedGBR9C3xjTSpXqN5IvbiSqPRDoOznd85

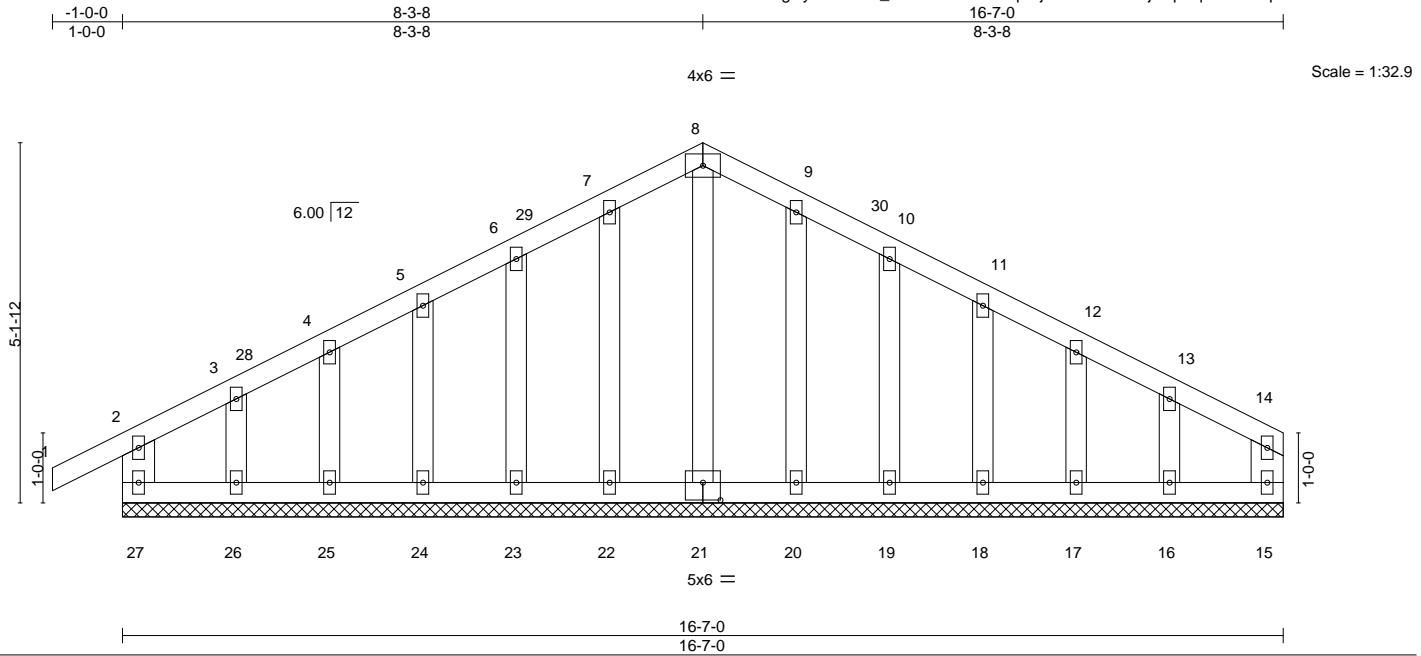


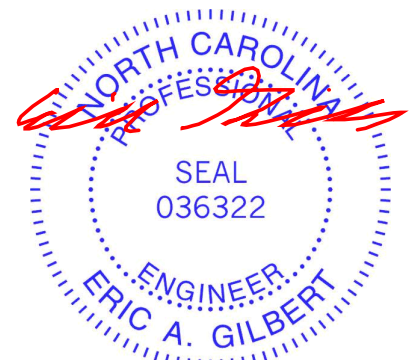
Plate Offsets (X,Y)--	[21:0-3-0,0-3-0]					PLATES	GRIP
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	1	n/r 120
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	1	n/r 120
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	15	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R				
						Weight: 103 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x6 SP No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 16-7-0.  
 (lb) - Max Horz 27=71(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 27, 15, 23, 24, 25, 26, 19, 18, 17, 16  
 Max Grav All reactions 250 lb or less at joint(s) 27, 15, 21, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 8-3-8, Exterior(2) 8-3-8 to 12-3-8, Interior(1) 12-3-8 to 16-4-4 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
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 7) Gable studs spaced at 1-4-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 15, 23, 24, 25, 26, 19, 18, 17, 16.



February 7, 2023

Job NC1-94-R	Truss D02	Truss Type COMMON	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510945
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:09 2023 Page 1

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4x6 =

Scale = 1:33.0

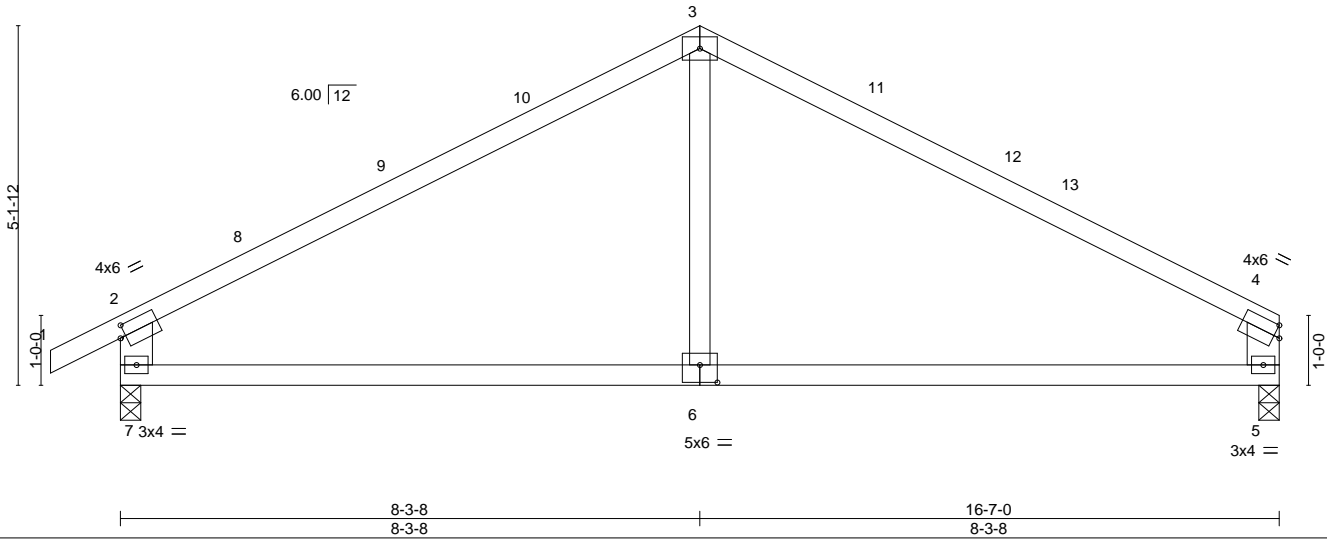


Plate Offsets (X, Y)--	[2:0-1-0,0-2-0], [6:0-3-0,0-3-0]
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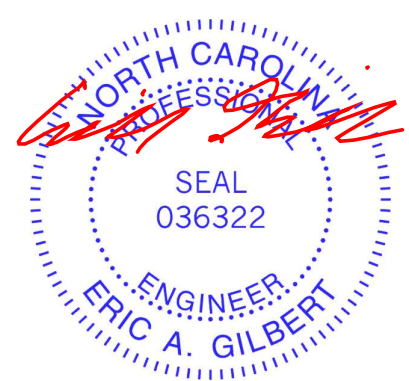
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.99	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.53	Vert(LL) -0.10 6-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(CT) -0.22 6-7 >889 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MR	Horz(CT) 0.02 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 6-7 >999 240	Weight: 64 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.2 *Except* 3-6: 2x4 SP No.3	

**REACTIONS.** (size) 7=0-3-8, 5=0-3-8  
 Max Horz 7=71(LC 11)  
 Max Uplift 7=-17(LC 12)  
 Max Grav 7=722(LC 1), 5=642(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-7=-639/142, 2-3=-774/80, 3-4=-767/86, 4-5=-551/99  
 BOT CHORD 6-7=-10/582, 5-6=-10/582  
 WEBS 3-6=0/328

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 8-3-8, Exterior(2) 8-3-8 to 12-6-7, Interior(1) 12-6-7 to 16-4-4 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
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7.





Job NC1-94-R	Truss D03GR	Truss Type SPECIAL	Qty 1	Ply <b>3</b>	Caruso-Davidson-OYL NC1 94 I56510946 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:11 2023 Page 2  
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**NOTES-**

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=578, 10=801.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 5000 lb down and 425 lb up at 15-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-60, 4-7=-60, 7-23=-60, 9-23=-240, 17-24=-866(F=-846), 24-25=-459(F=-439), 11-25=-405(F=-385), 10-11=-20  
Concentrated Loads (lb)  
Vert: 26=-5000(F)

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

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818 Soundside Road  
Edenton, NC 27932

Job NC1-94-R	Truss D04	Truss Type COMMON	Qty 3	Ply 1	Caruso-Davidson-OYL NC1 94 156510947
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:12 2023 Page 1

ID:IkPldIb6F0gUya0Y9sJQ\_Zz1rsE-G1H1HBhnn93IolxRv0fdI\_?2\_K\_RNN21PRxAznd81



4x6 =

Scale = 1:32.5

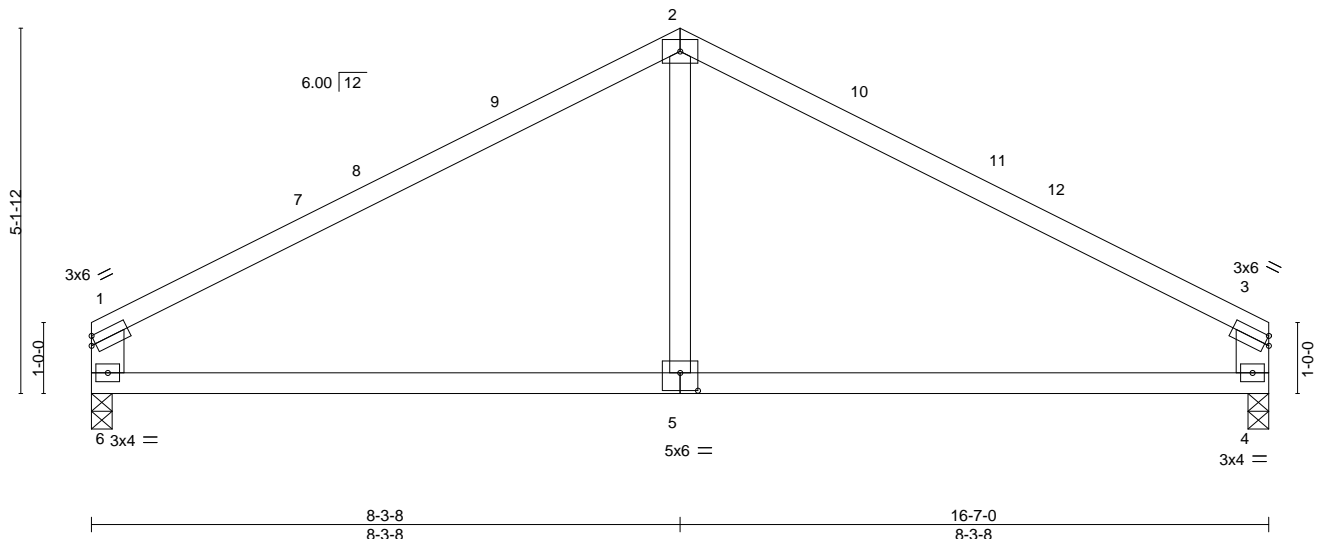


Plate Offsets (X,Y)-- [5:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.98	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.52	Vert(LL) -0.10 5-6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(CT) -0.21 5-6 >913 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MR	Horz(CT) 0.02 4 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.04 5-6 >999 240	Weight: 62 lb	FT = 20%

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

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

**REACTIONS.** (size) 6=0-3-8, 4=0-3-8  
 Max Horz 6=62(LC 9)  
 Max Grav 6=645(LC 1), 4=645(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-6=-549/99, 1-2=-768/84, 2-3=-768/84, 3-4=-549/98  
 BOT CHORD 5-6=-9/583, 4-5=-9/583  
 WEBS 2-5=0/318

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 8-3-8, Exterior(2) 8-3-8 to 12-6-7, Interior(1) 12-6-7 to 16-4-4 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



February 7, 2023

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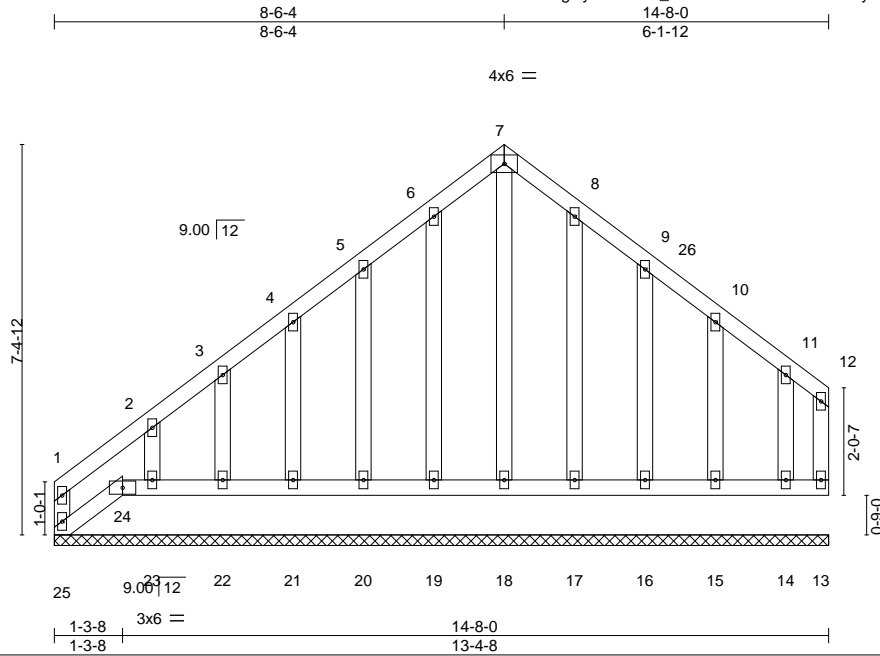


Job NC1-94-R	Truss E01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510948
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:13 2023 Page 1  
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Scale = 1:43.6

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	-0.00	13	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 107 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

All bearings 14-8-0.  
(lb) - Max Horz 25=157(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 13, 24, 18, 19, 20, 21, 22, 23, 17, 16, 15, 14 except 25=-141(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 25, 13, 24, 18, 19, 20, 21, 22, 23, 17, 16, 15, 14

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-2-4, Interior(1) 3-2-4 to 8-6-4, Exterior(2) 8-6-4 to 12-6-4, Interior(1) 12-6-4 to 14-6-4 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 24, 18, 19, 20, 21, 22, 23, 17, 16, 15, 14 except (jt=lb) 25=141.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 13, 24, 18, 19, 20, 21, 22, 23, 17, 16, 15, 14.



February 7, 2023

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

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



818 Soundside Road  
Edenton, NC 27932

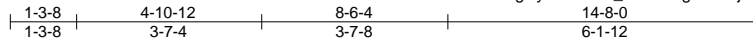
Job NC1-94-R	Truss E02	Truss Type COMMON	Qty 7	Ply 1	Caruso-Davidson-OYL NC1 94 156510949
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:15 2023 Page 1

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4x6 =

Scale = 1:44.9

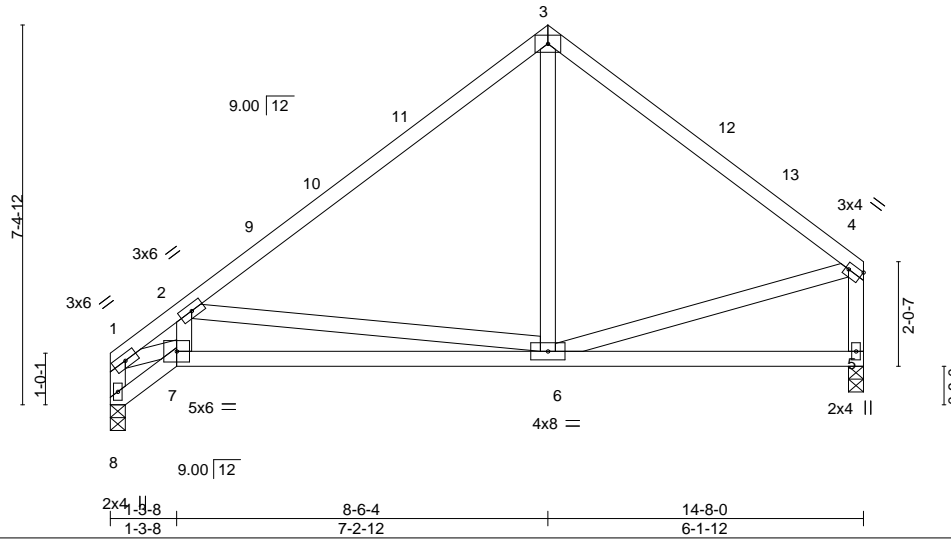


Plate Offsets (X, Y)--	[4:Edge,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.56	Vert(LL) -0.08 6-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.18 6-7 >971 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.03 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.02 6-7 >999 240	Weight: 84 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-10-1 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 8=0-3-8, 5=0-3-8  
 Max Horz 8=157(LC 9)  
 Max Grav 8=575(LC 1), 5=575(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-8=-558/33, 1-2=-1080/160, 2-3=-572/72, 3-4=-548/70, 4-5=-532/66  
 BOT CHORD 6-7=-256/1033  
 WEBS 1-7=-184/1000, 2-6=-681/290, 3-6=0/282, 4-6=-2/335

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-6-4, Exterior(2) 8-6-4 to 12-9-3, Interior(1) 12-9-3 to 14-6-4 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.



February 7, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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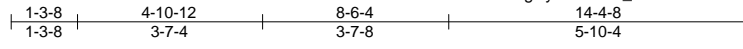
Job NC1-94-R	Truss E03	Truss Type COMMON	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510950
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

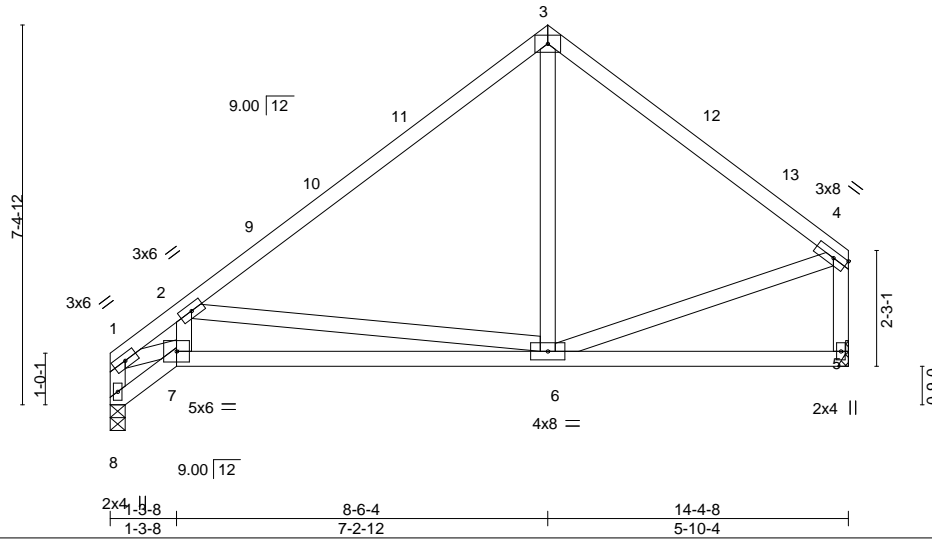
8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:16 2023 Page 1

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4x6 =

Scale = 1:44.9



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.08 6-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.18 6-7	>964	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.66	Horz(CT)	0.03 5	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-MS	Wind(LL)	0.02 6-7	>999	240	Weight: 83 lb	FT = 20%

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

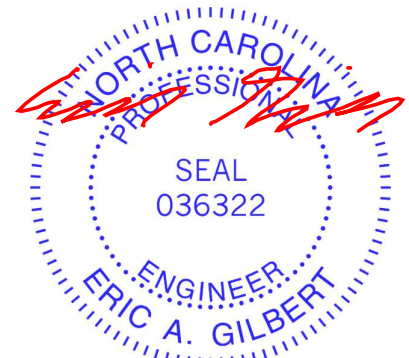
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-10-5 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 8=0-3-8, 5=Mechanical  
 Max Horz 8=159(LC 9)  
 Max Grav 8=563(LC 1), 5=563(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-8=-547/37, 1-2=-1064/168, 2-3=-553/72, 3-4=-520/71, 4-5=-523/67  
 BOT CHORD 6-7=-268/1021  
 WEBS 1-7=-185/988, 2-6=-682/291, 3-6=0/266, 4-6=-2/334

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-6-4, Exterior(2) 8-6-4 to 12-9-3, Interior(1) 12-9-3 to 14-2-12 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
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.



February 7, 2023

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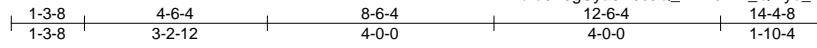


818 Soundside Road  
 Edenton, NC 27932

Job NC1-94-R	Truss E04	Truss Type COMMON	Qty 2	Ply 1	Caruso-Davidson-OYL NC1 94	156510951
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Builders FirstSource, Apex, NC 27523

8.530 s May 26 2022 MiTek Industries, Inc. Tue Feb 7 09:01:10 2023 Page 1  
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3x6 =

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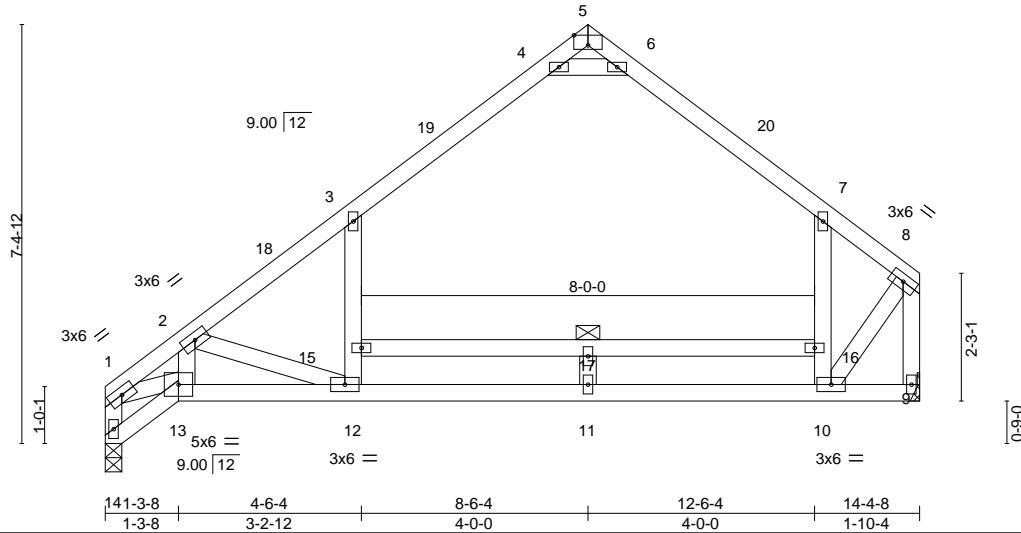


Plate Offsets (X,Y)-- [5:0-3-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.96	Vert(LL) -0.38	11-12	>442	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.76	Vert(CT) -0.59	11-12	>286	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.81	Horz(CT) 0.11	9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.21	11-12	>819	240		
							Weight: 87 lb	FT = 20%

**LUMBER-**

TOP CHORD	2x4 SP No.1 *Except*
	5-8: 2x4 SP No.2
BOT CHORD	2x4 SP No.2 *Except*
	9-13: 2x4 SP SS
WEBS	2x4 SP No.3 *Except*
	3-12,7-10: 2x4 SP No.2

**BRACING-**

TOP CHORD	Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 15-16

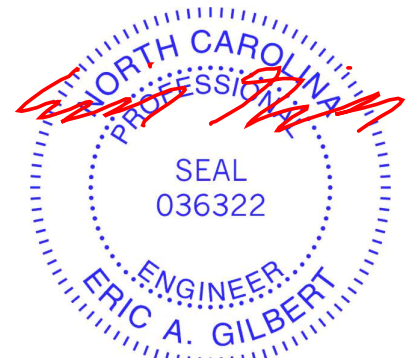
**REACTIONS.** (size) 14=0-3-8, 9=Mechanical  
 Max Horz 14=159(LC 9)  
 Max Grav 14=609(LC 19), 9=659(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-14=-665/86, 1-2=-1176/152, 2-18=-697/30, 3-18=-621/37, 3-19=-395/77, 4-19=-325/94,  
 4-5=-76/535, 5-6=-74/485, 6-20=-367/97, 7-20=-449/75, 7-8=-590/29, 8-9=-1011/44  
 BOT CHORD 12-13=-192/1063, 11-12=-64/712, 10-11=-64/712  
 WEBS 1-13=-114/1020, 12-15=0/338, 3-15=0/450, 7-16=-106/259, 15-17=-391/32,  
 16-17=-391/32, 2-12=-621/201, 8-10=-40/806, 4-6=-945/198

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-6-4, Exterior(2) 8-6-4 to 12-8-0, Interior(1) 12-8-0 to 14-2-12 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
  - All plates are 2x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - N/A

**LOAD CASE(S)**

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60, 5-8=-60, 13-14=-20, 9-13=-20



February 7, 2023

Continued on page 2

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

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Davidson-OYL NC1 94	156510951
NC1-94-R	E04	COMMON	2	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.530 s May 26 2022 MiTek Industries, Inc. Tue Feb 7 09:01:10 2023 Page 2  
 ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-1\_QMyl\_d\_w7pYy3eb7rAc1wdVbX8ryAatE6K1515znaJ7

**LOAD CASE(S)**

- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-50, 5-8=-50, 13-14=-20, 9-13=-20, 15-16=-30
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-5=-20, 5-8=-20, 13-14=-40, 9-13=-40, 15-16=-40
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-18=18, 5-18=13, 5-7=18, 7-8=13, 13-14=-12, 9-13=-12  
 Horz: 1-14=17, 1-18=-30, 5-18=-25, 5-7=30, 7-8=25, 8-9=28
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-3=13, 3-5=18, 5-20=13, 8-20=18, 13-14=-12, 9-13=-12  
 Horz: 1-14=-28, 1-3=-25, 3-5=-30, 5-20=25, 8-20=30, 8-9=-17
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-45, 5-8=-45, 13-14=-20, 9-13=-20  
 Horz: 1-14=-19, 1-5=25, 5-8=-25, 8-9=-25
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-45, 5-8=-45, 13-14=-20, 9-13=-20  
 Horz: 1-14=25, 1-5=25, 5-8=-25, 8-9=19
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-14, 5-8=5, 13-14=-12, 9-13=-12  
 Horz: 1-14=13, 1-5=2, 5-8=17, 8-9=16
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=5, 5-8=-14, 13-14=-12, 9-13=-12  
 Horz: 1-14=-16, 1-5=-17, 5-8=-2, 8-9=-13
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-31, 5-8=-11, 13-14=-20, 9-13=-20  
 Horz: 1-14=21, 1-5=11, 5-8=9, 8-9=7
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-11, 5-8=-31, 13-14=-20, 9-13=-20  
 Horz: 1-14=-7, 1-5=-9, 5-8=-11, 8-9=-21
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-19=19, 5-19=9, 5-8=2, 13-14=-12, 9-13=-12  
 Horz: 1-14=11, 1-19=-31, 5-19=-21, 5-8=14, 8-9=12
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=2, 5-8=19, 13-14=-12, 9-13=-12  
 Horz: 1-14=-12, 1-5=-14, 5-8=31, 8-9=-11
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=9, 5-8=2, 13-14=-12, 9-13=-12  
 Horz: 1-14=5, 1-5=-21, 5-8=14, 8-9=12
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=2, 5-8=9, 13-14=-12, 9-13=-12  
 Horz: 1-14=-12, 1-5=-14, 5-8=21, 8-9=-5
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-19=2, 5-19=-7, 5-8=-15, 13-14=-20, 9-13=-20  
 Horz: 1-14=19, 1-19=-22, 5-19=-13, 5-8=5, 8-9=3
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-15, 5-8=2, 13-14=-20, 9-13=-20  
 Horz: 1-14=-3, 1-5=-5, 5-8=22, 8-9=-19
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
 Uniform Loads (plf)  
 Vert: 1-5=-20, 5-8=-20, 13-14=-20, 9-13=-20, 15-16=-40
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-58, 5-8=-44, 13-14=-20, 9-13=-20, 15-16=-30  
 Horz: 1-14=16, 1-5=8, 5-8=6, 8-9=6
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-44, 5-8=-58, 13-14=-20, 9-13=-20, 15-16=-30  
 Horz: 1-14=-6, 1-5=-6, 5-8=-8, 8-9=-16

Continued on page 3

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Davidson-OYL NC1 94	156510951
NC1-94-R	E04	COMMON	2	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.530 s May 26 2022 MiTek Industries, Inc. Tue Feb 7 09:01:10 2023 Page 3  
 ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-1\_QMyd\_w7pYY3eb7rAc1wdVbX8ryAatE6K15I5znaJ7

**LOAD CASE(S)**

- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-19=-34, 5-19=-41, 5-8=-46, 13-14=-20, 9-13=-20, 15-16=-30  
 Horz: 1-14=15, 1-19=-16, 5-19=-9, 5-8=4, 8-9=2
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-46, 5-8=-34, 13-14=-20, 9-13=-20, 15-16=-30  
 Horz: 1-14=-2, 1-5=-4, 5-8=16, 8-9=-15
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60, 5-8=-20, 13-14=-20, 9-13=-20
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-20, 5-8=-60, 13-14=-20, 9-13=-20
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-50, 5-8=-20, 13-14=-20, 9-13=-20, 15-16=-30
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-20, 5-8=-50, 13-14=-20, 9-13=-20, 15-16=-30

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



818 Soundside Road  
 Edenton, NC 27932



Job NC1-94-R	Truss E05	Truss Type COMMON	Qty 5	Ply 1	Caruso-Davidson-OYL NC1 94	156510952
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Builders FirstSource, Apex, NC 27523

8.530 s May 26 2022 MiTek Industries, Inc. Tue Feb 7 09:01:20 2023 Page 1  
ID:IkPIdbF0gUya0Y9sJQ\_Zz1rsE-kv18226Bnuo7GAM2RH0NkkwJqAFIW5RiPuSdeVznlz

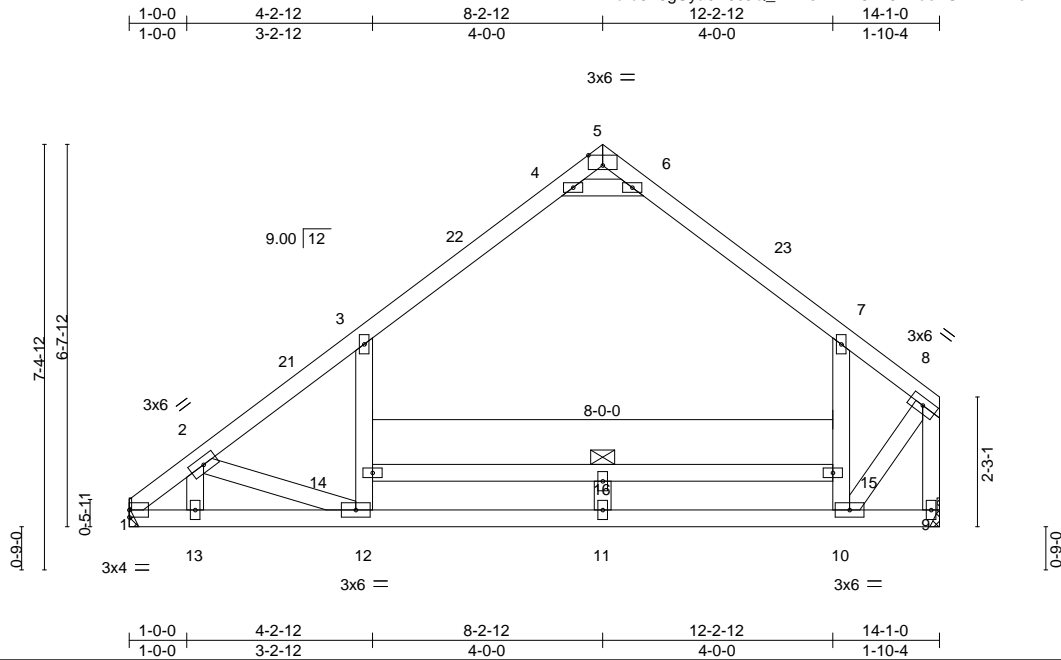


Plate Offsets (X,Y)-- [5:0-3-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.91	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.73	Vert(LL) -0.36 11-12 >460 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.80	Vert(CT) -0.55 11-12 >302 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.01 9 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.18 11-12 >955 240	Weight: 83 lb	FT = 20%

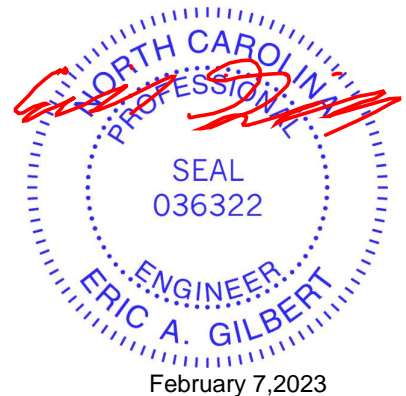
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 *Except* 5-8: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-4-14 oc purlins, except end verticals.
BOT CHORD 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS 2x4 SP No.3 *Except* 3-12,7-10: 2x4 SP No.2	WEBS 6-0-0 oc bracing: 9-10. 1 Row at midpt 14-15

**REACTIONS.** (size) 1=Mechanical, 9=Mechanical  
Max Horz 1=144(LC 11)  
Max Grav 1=608(LC 19), 9=643(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-910/67, 2-21=-691/33, 3-21=-611/40, 3-22=-394/78, 4-22=-303/95, 4-5=-67/515,  
5-6=-76/469, 6-23=-351/92, 7-23=-433/71, 7-8=-566/31, 8-9=-969/28  
BOT CHORD 1-13=-129/873, 12-13=-129/873, 11-12=-48/675, 10-11=-48/675  
WEBS 12-14=0/317, 3-14=0/429, 7-15=-108/256, 14-16=-376/34, 15-16=-376/34, 2-12=-443/151,  
8-10=-25/767, 4-6=-914/202

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-8 to 3-4-8, Interior(1) 3-4-8 to 8-6-4, Exterior(2) 8-6-4 to 12-8-0, Interior(1) 12-8-0 to 14-2-12 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
  - All plates are 2x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - N/A

- LOAD CASE(S)**
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 5-19=-60, 5-8=-60, 1-9=-20
  - Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 5-19=-50, 5-8=-50, 1-9=-20, 14-15=-30



Continued on page 2

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Davidson-OYL NC1 94	156510952
NC1-94-R	E05	COMMON	5	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.530 s May 26 2022 MiTek Industries, Inc. Tue Feb 7 09:01:20 2023 Page 2  
 ID:IkPldib6F0gUya0Y9sJQ\_Zz1rsE-kv18226Bnuo7GAM2RH0kKwJqAFIW5RiPuSdeVznalz

**LOAD CASE(S)**

- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 5-19=-20, 5-8=-20, 1-9=-40, 14-15=-40
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 19-21=18, 5-21=13, 5-7=18, 7-8=13, 1-9=-12  
 Horz: 19-21=-30, 5-21=-25, 5-7=30, 7-8=25, 8-9=28
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 19-20=-8, 3-20=13, 3-5=18, 5-23=13, 8-23=18, 1-9=-12  
 Horz: 19-20=-4, 3-20=-25, 3-5=-30, 5-23=25, 8-23=30, 8-9=-17
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=-45, 5-8=-45, 1-9=-20  
 Horz: 5-19=25, 5-8=25, 8-9=26
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 19-20=-24, 5-20=-45, 5-8=-45, 1-9=-20  
 Horz: 19-20=4, 5-20=25, 5-8=25, 8-9=19
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=-14, 5-8=5, 1-9=-12  
 Horz: 5-19=2, 5-8=17, 8-9=16
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=5, 5-8=-14, 1-9=-12  
 Horz: 5-19=-17, 5-8=-2, 8-9=-13
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=-31, 5-8=-11, 1-9=-20  
 Horz: 5-19=11, 5-8=9, 8-9=7
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=-11, 5-8=-31, 1-9=-20  
 Horz: 5-19=9, 5-8=-11, 8-9=-21
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 19-22=19, 5-22=9, 5-8=2, 1-9=-12  
 Horz: 19-22=-31, 5-22=-21, 5-8=14, 8-9=12
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=2, 5-8=19, 1-9=-12  
 Horz: 5-19=-14, 5-8=31, 8-9=-11
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=9, 5-8=2, 1-9=-12  
 Horz: 5-19=-21, 5-8=14, 8-9=12
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=2, 5-8=9, 1-9=-12  
 Horz: 5-19=-14, 5-8=21, 8-9=-5
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 19-22=2, 5-22=-7, 5-8=-15, 1-9=-20  
 Horz: 19-22=-22, 5-22=-13, 5-8=5, 8-9=3
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=-15, 5-8=2, 1-9=-20  
 Horz: 5-19=-5, 5-8=22, 8-9=-19
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
 Uniform Loads (plf)  
 Vert: 5-19=-20, 5-8=-20, 1-9=-20, 14-15=-40
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=-58, 5-8=-44, 1-9=-20, 14-15=-30  
 Horz: 5-19=8, 5-8=6, 8-9=6
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 5-19=-44, 5-8=-58, 1-9=-20, 14-15=-30  
 Horz: 5-19=-6, 5-8=-8, 8-9=-16
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Davidson-OYL NC1 94	I56510952
NC1-94-R	E05	COMMON	5	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.530 s May 26 2022 MiTek Industries, Inc. Tue Feb 7 09:01:20 2023 Page 3  
 ID:IkPIIdib6F0gUya0Y9sJQ\_Zz1rsE-kv18226Bnuo7GAM2RH0NkkwJqAFIW5RiPuSdeVznalz

**LOAD CASE(S)**

- Uniform Loads (plf)
  - Vert: 19-22=-34, 5-22=-41, 5-8=-46, 1-9=-20, 14-15=-30
  - Horz: 19-22=-16, 5-22=-9, 5-8=4, 8-9=2
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 5-19=-46, 5-8=-34, 1-9=-20, 14-15=-30
    - Horz: 5-19=-4, 5-8=16, 8-9=-15
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 5-19=-60, 5-8=-20, 1-9=-20
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 5-19=-20, 5-8=-60, 1-9=-20
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 5-19=-50, 5-8=-20, 1-9=-20, 14-15=-30
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 5-19=-20, 5-8=-50, 1-9=-20, 14-15=-30

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



818 Soundside Road  
 Edenton, NC 27932



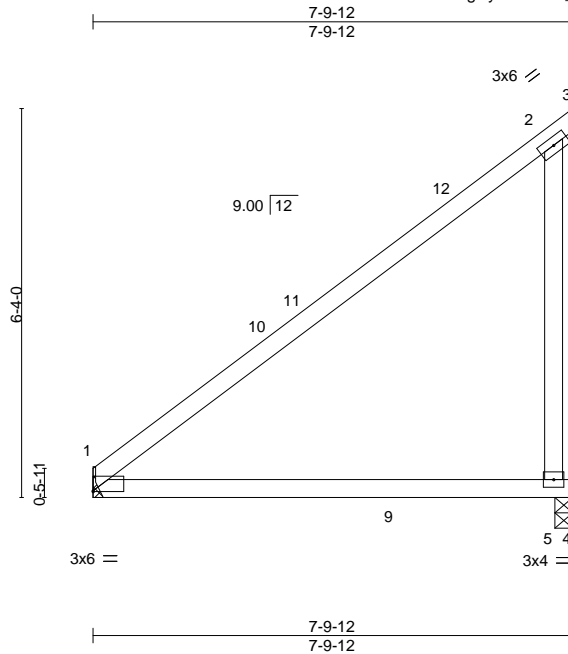
Job NC1-94-R	Truss E07	Truss Type MONO TRUSS	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510954
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:20 2023 Page 1

ID:IkPIdb6F0gUya0Y9sJQ\_Zz1rsE-1am2ywnjvF9wi1MTva9Xy\_JNyC38J0FDbGLsCiznd7v



Scale = 1:37.5

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.92	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.10 5-8 >911 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.24 5-8 >378 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.02 1 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.11 5-8 >793 240	Weight: 35 lb	FT = 20%

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

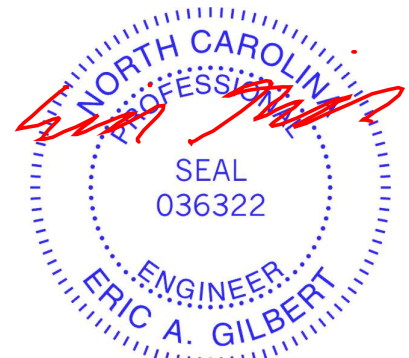
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=Mechanical, 5=0-3-8  
 Max Horz 1=177(LC 9)  
 Max Uplift 5=49(LC 12)  
 Max Grav 1=303(LC 20), 5=414(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 7-9-12 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.



February 7, 2023

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

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

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



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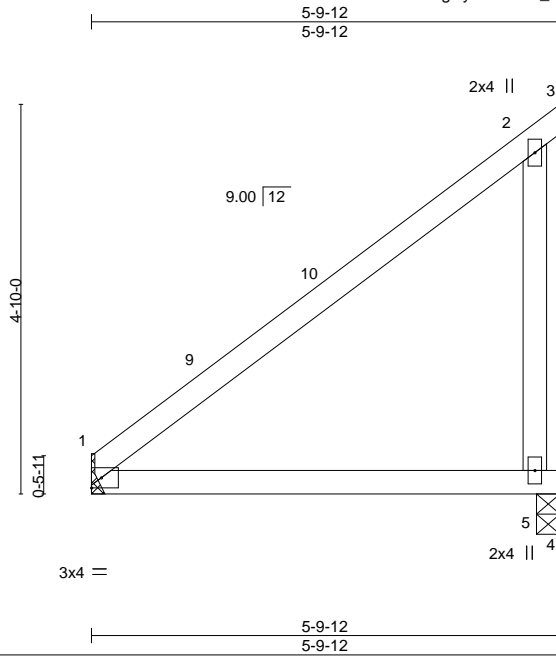
Job NC1-94-R	Truss E08	Truss Type MONO TRUSS	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510955 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:21 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-VmKQ9GoLgYHnKBxfTgmVcRfecST2TVNqw4Pk8znd7u



Scale = 1:28.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.48	Vert(LL)	-0.04 5-8	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.37	Vert(CT)	-0.10 5-8	>666	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.01 1	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Wind(LL)	0.05 5-8	>999	240		
	Code IRC2015/TPI2014						Weight: 26 lb	FT = 20%

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

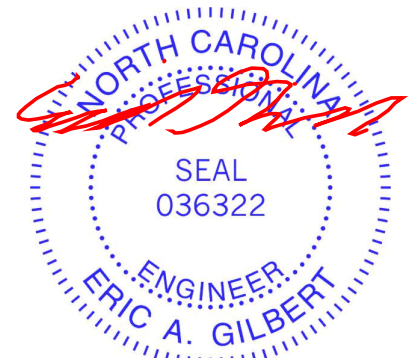
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=Mechanical, 5=0-3-8  
 Max Horz 1=132(LC 9)  
 Max Uplift 5=50(LC 12)  
 Max Grav 1=219(LC 1), 5=263(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-9-12 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.



February 7, 2023

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

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



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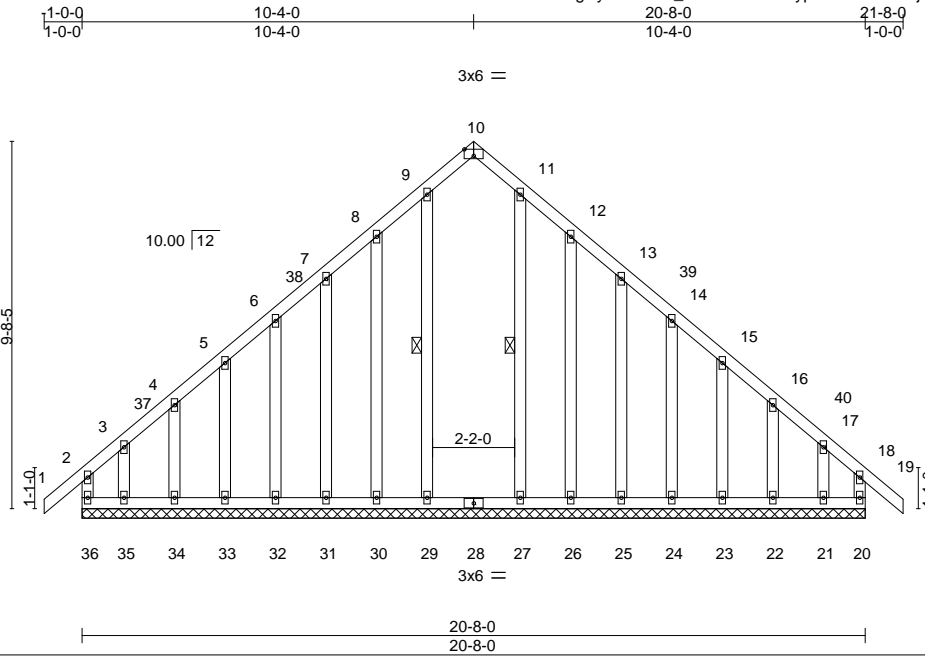
Job NC1-94-R	Truss G01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510956 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:23 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-R9SBaypbBAXVZU52ajiEadx41QCMWMDgHEZWp1znd7s



Scale = 1:60.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.00	19	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	19	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.01	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 177 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 9-29, 11-27
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 20-8-0.  
 (lb) - Max Horz 36=211(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 10, 29, 30, 31, 32, 33, 34, 27, 26, 25, 24, 23, 22 except 36=164(LC 8), 20=116(LC 9), 35=144(LC 9), 21=113(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 36, 10, 20, 29, 30, 31, 32, 33, 34, 35, 27, 26, 25, 24, 23, 22, 21

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 9-10=222/251

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 10-4-0, Exterior(2) 10-4-0 to 14-6-15, Interior(1) 14-6-15 to 21-8-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 7) Gable studs spaced at 1-4-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 36, 10, 20, 29, 30, 31, 32, 33, 34, 27, 26, 25, 24, 23, 22 except (jt=lb) 36=164, 20=116, 35=144, 21=113.



February 7, 2023

Job NC1-94-R	Truss G02	Truss Type COMMON	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510957
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:24 2023 Page 1  
ID:lkPldlb6F0gUya0Y9sJQ\_Zz1rsE-vL0ZolqDyTfMBegE8QDT6qT4zpRVFoPpWuJ3LTznd7r



4x6 ||

Scale = 1:57.2

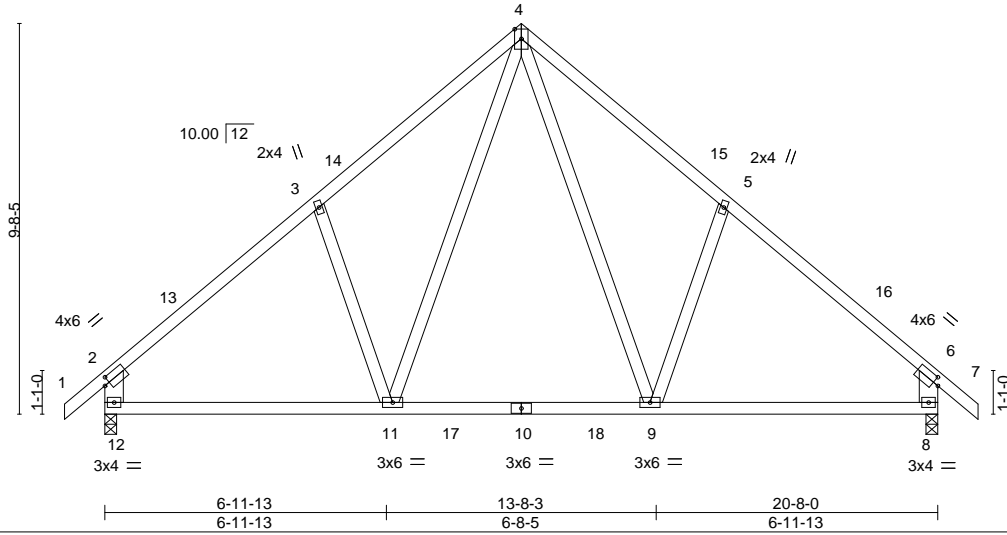


Plate Offsets (X,Y)--	[2:0-1-11,0-2-0], [6:0-1-11,0-2-0]
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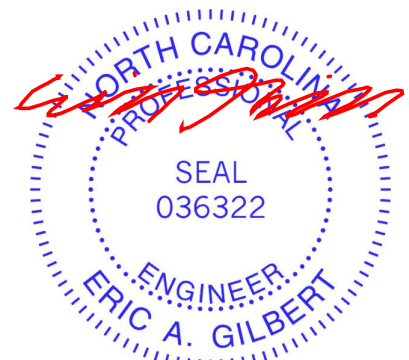
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.86	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.54	Vert(LL) -0.18 9-11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.18	Vert(CT) -0.29 9-11 >823 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.02 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.03 9-11 >999 240	Weight: 123 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-12,6-8: 2x6 SP No.2	

REACTIONS.
(size) 12=0-3-8, 8=0-3-8
Max Horz 12=213(LC 11)
Max Grav 12=882(LC 1), 8=882(LC 1)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-12=-791/105, 2-3=-913/70, 3-4=-788/157, 4-5=-789/157, 5-6=-913/70, 6-8=-791/105
BOT CHORD 11-12=-22/701, 9-11=0/504, 8-9=0/610
WEBS 4-9=-97/394, 4-11=-97/394

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 10-4-0, Exterior(2) 10-4-0 to 14-6-15, Interior(1) 14-6-15 to 21-8-0 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



February 7, 2023

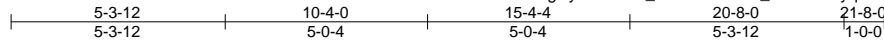
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job NC1-94-R	Truss G03	Truss Type COMMON	Qty 3	Ply 1	Caruso-Davidson-OYL NC1 94 156510958
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:26 2023 Page 1  
ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-sk7JD\_sTU5v4QyqdGrGxCFZQLd4Zju6zCoAPMznd7p



4x6 ||

Scale = 1:57.2

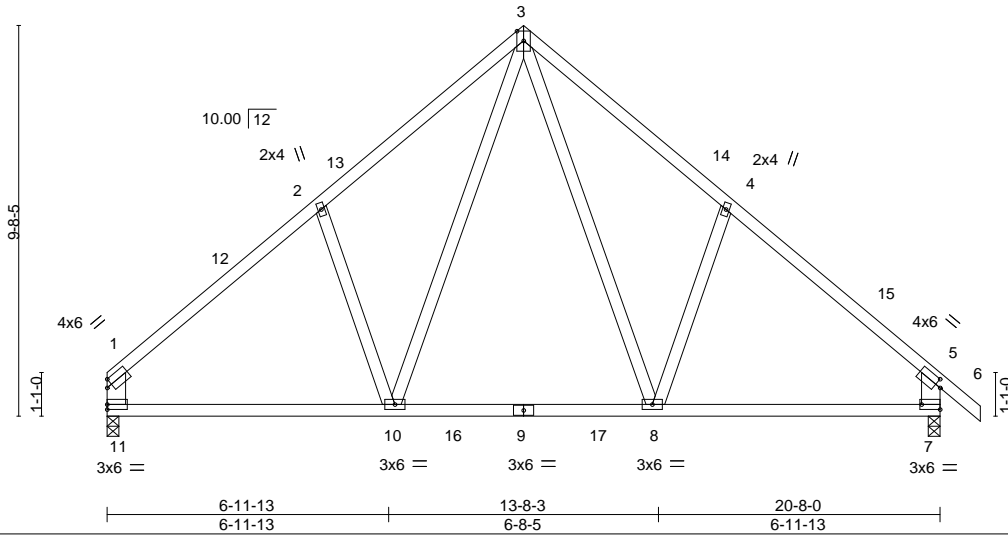


Plate Offsets (X,Y)-- [5:0-1-11,0-2-0], [7:Edge,0-1-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.20	8-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.34	8-10	>718		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.02	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.04	8-10	>999		
								Weight: 121 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
1-11,5-7: 2x6 SP No.2

**BRACING-**

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

**REACTIONS.**

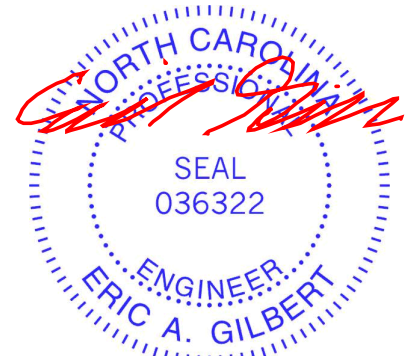
(size) 11=0-3-8, 7=0-3-8  
Max Horz 11=-206(LC 10)  
Max Grav 11=806(LC 1), 7=884(LC 1)

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

TOP CHORD 1-11=-701/69, 1-2=-909/73, 2-3=-792/162, 3-4=-792/157, 4-5=-917/70, 5-7=-795/105  
BOT CHORD 10-11=-22/709, 8-10=0/504, 7-8=0/613  
WEBS 3-8=-97/400, 3-10=-97/395

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 10-4-0, Exterior(2) 10-4-0 to 14-6-15, Interior(1) 14-6-15 to 21-8-0 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



February 7, 2023

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

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

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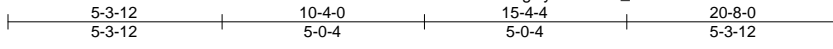


818 Soundside Road  
Edenton, NC 27932

Job NC1-94-R	Truss G04	Truss Type COMMON	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510959
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:27 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-KwhhQJs6FO2x26OppYnAkT5eZ1QnS98FCsXkyoznd7o



4x6 ||

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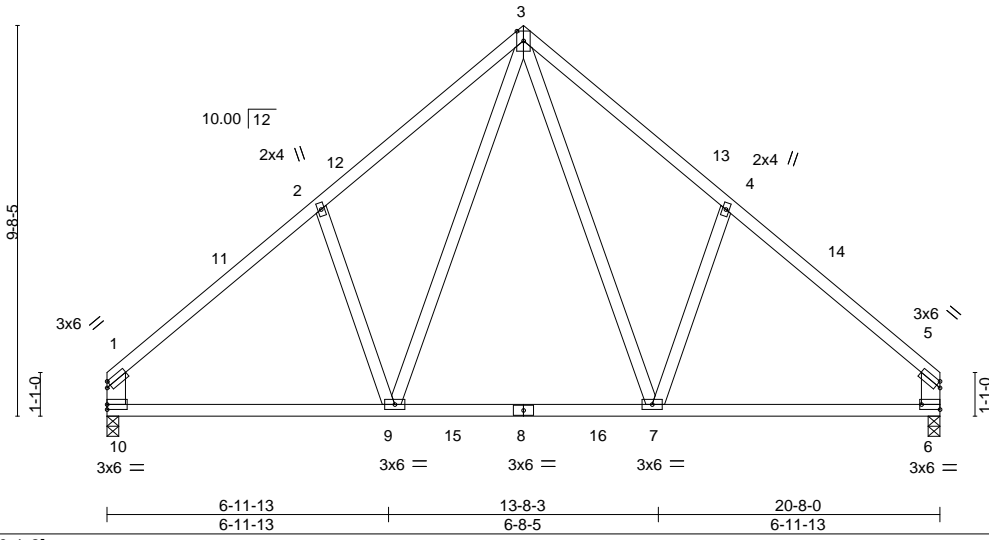


Plate Offsets (X,Y)--	[6:Edge,0-1-8]
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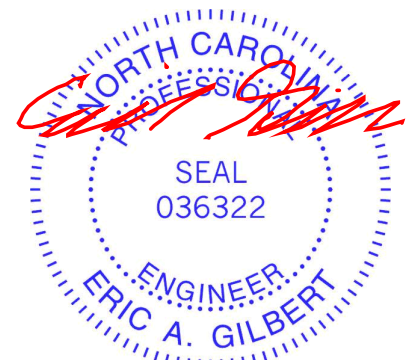
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.64	Vert(LL) -0.23 7-9 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.69	Vert(CT) -0.38 7-9 >637 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.18	Horz(CT) 0.02 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.05 7-9 >999 240	Weight: 119 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-11-9 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 1-10,5-6: 2x6 SP No.2	

<b>REACTIONS.</b>	(size) 10=0-3-8, 6=0-3-8
	Max Horz 10=-193(LC 8)
	Max Grav 10=808(LC 1), 6=808(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-10=-704/68, 1-2=-913/73, 2-3=-796/162, 3-4=-796/162, 4-5=-913/73, 5-6=-704/68
BOT CHORD	9-10=-31/702, 7-9=0/495, 6-7=-1/610
WEBS	3-7=-97/401, 3-9=-97/401

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 10-4-0, Exterior(2) 10-4-0 to 14-6-15, Interior(1) 14-6-15 to 20-5-4 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



February 7, 2023

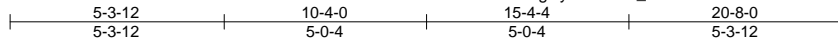
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job NC1-94-R	Truss G05	Truss Type COMMON	Qty 6	Ply 1	Caruso-Davidson-OYL NC1 94 I56510960
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:28 2023 Page 1  
ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-o6F4dfk0iAoFz?NGIPHgepQRIHBahPRWHUEznd7n



4x6 ||

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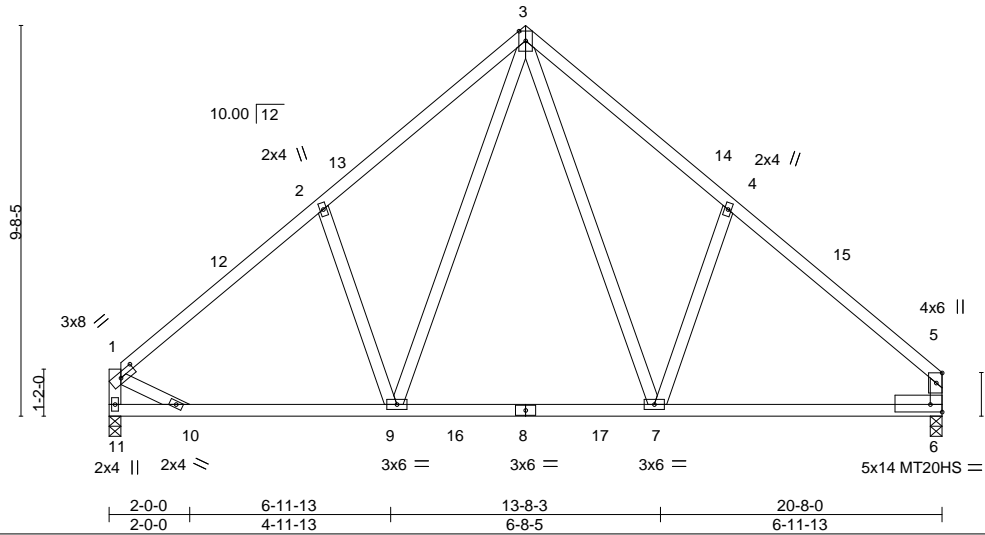


Plate Offsets (X,Y)-- [1:0-4-11,0-1-8], [6:Edge,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.74	Vert(LL) -0.21 7-9 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.23	Vert(CT) -0.33 7-9 >746 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.02 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 7-9 >999 240	Weight: 120 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
5-6: 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

(size) 11=0-3-8, 6=0-3-8  
Max Horz 11=-192(LC 8)  
Max Uplift 11=-64(LC 12)  
Max Grav 11=1835(LC 1), 6=815(LC 1)

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

TOP CHORD 1-11=-1942/108, 1-2=-926/73, 2-3=-823/162, 3-4=-814/163, 4-5=-932/73, 5-6=-713/68  
BOT CHORD 10-11=-189/284, 9-10=-27/732, 7-9=0/500, 6-7=0/625  
WEBS 3-7=-97/421, 3-9=-94/425, 2-9=-276/167, 1-10=0/563

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-4-0, Exterior(2) 10-4-0 to 14-6-15, Interior(1) 14-6-15 to 20-6-4 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
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1079 lb down and 87 lb up at 0-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-5=-60, 6-11=-20  
Concentrated Loads (lb)  
Vert: 1=-1020(F)



February 7, 2023

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

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

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



818 Soundside Road  
Edenton, NC 27932





Job NC1-94-R	Truss H04GR	Truss Type SPECIAL	Qty 1	Ply <b>3</b>	Caruso-Davidson-OYL NC1 94 I56510961 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:29 2023 Page 2  
ID:IkPldIb6F0gUya0Y9sJQ\_Zz1rsE-GlpSr?uMn0lfHPYCxzpepuBzIq2NwtAYfA0q0gznd7m

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 3=-1020

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

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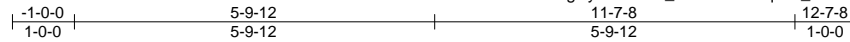
818 Soundside Road  
Edenton, NC 27932

Job NC1-94-R	Truss I01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	I56510962
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Builders FirstSource (Apex, NC),

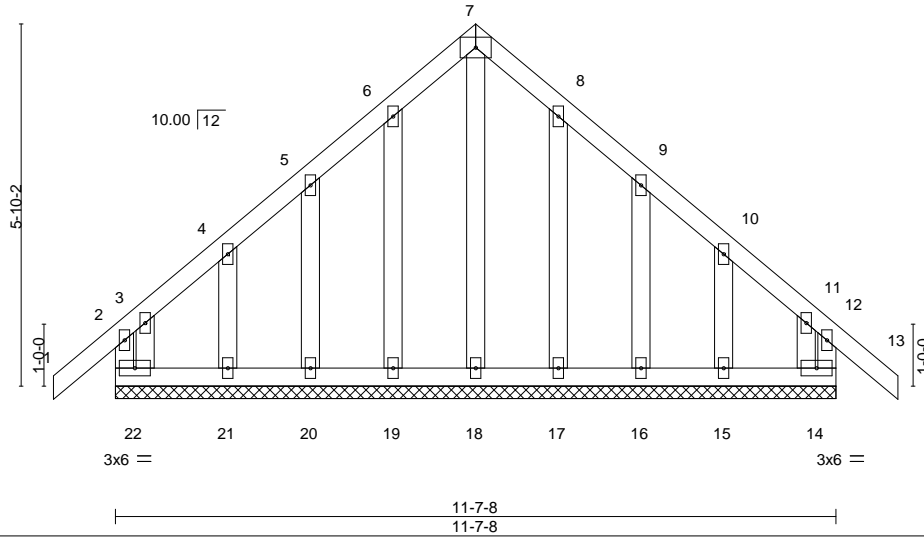
Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:30 2023 Page 1  
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4x6 =

Scale = 1:37.2



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.00	13	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.01	13	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.08	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R					Weight: 84 lb	FT = 20%

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

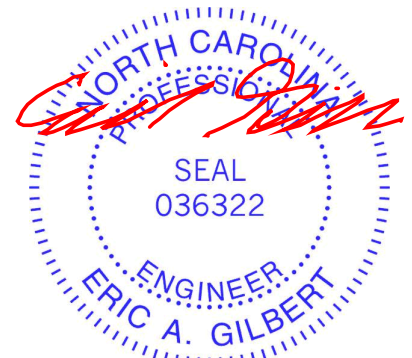
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** All bearings 11-7-8.  
 (lb) - Max Horz 22=135(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 22, 14, 19, 20, 21, 17, 16, 15  
 Max Grav All reactions 250 lb or less at joint(s) 22, 14, 18, 19, 20, 21, 17, 16, 15

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 1-9-12, Exterior(2) 1-9-12 to 5-9-12, Corner(3) 5-9-12 to 8-9-12, Exterior(2) 8-9-12 to 12-7-8 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
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 14, 19, 20, 21, 17, 16, 15.



February 7, 2023

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

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

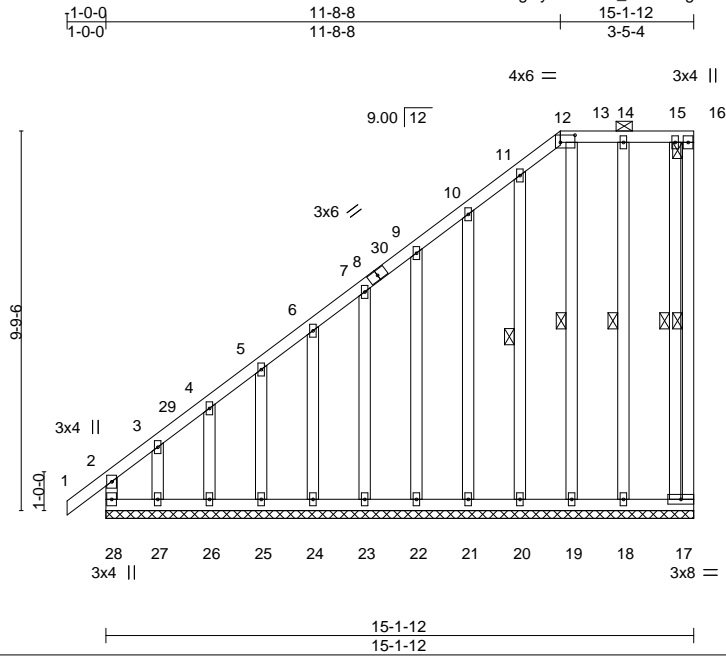
Job NC1-94-R	Truss M01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510963
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:32 2023 Page 1

ID:IkPldIb6F0gUya0Y9sJQ\_Zz1rsE-gtVaT1wE4xD8tHnc5MLRWpS32EO7Qm\_L8FVd?znd7j



Scale = 1:59.4

Plate Offsets (X,Y)--	[12:0-4-8,0-2-4]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.79	Vert(LL) 0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.22	Vert(CT) -0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) -0.00 17 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R			
				Weight: 166 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 12-16.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 16-17, 11-20, 13-19, 14-18, 15-17
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 15-1-12.  
 (lb) - Max Horz 28=296(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 17, 25, 24, 23, 22, 21, 20, 19, 18 except 28=137(LC 10), 27=220(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 17, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18 except 28=332(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-451/436, 3-4=-330/327, 4-5=-314/310, 5-6=-282/277, 6-7=-251/247, 2-28=-336/259

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 11-8-8, Exterior(2) 11-8-8 to 15-0-0 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) 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) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 8) Gable studs spaced at 1-4-0 oc.
  - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 25, 24, 23, 22, 21, 20, 19, 18 except (jt=lb) 28=137, 27=220.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 7, 2023

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

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

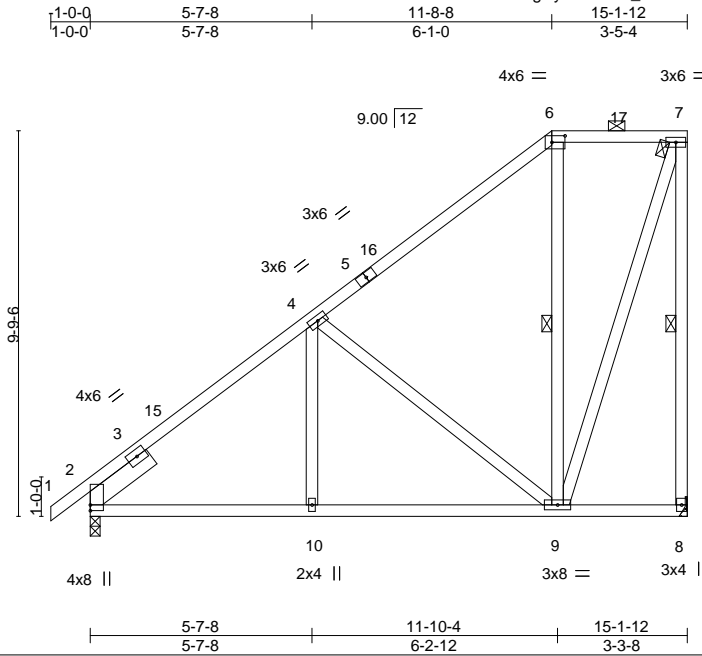
Job NC1-94-R	Truss M02	Truss Type MONO HIP	Qty 6	Ply 1	Caruso-Davidson-OYL NC1 94 156510964
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:33 2023 Page 1

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Scale = 1:58.4

Plate Offsets (X,Y)--	[6:0-4-0,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.94	Vert(LL) -0.04 9-10 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.08 9-10 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.50	Horz(CT) -0.01 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.02 10-13 >999 240	Weight: 116 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-8, 6-9
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** (size) 2=0-3-0, 8=Mechanical  
 Max Horz 2=289(LC 11)  
 Max Uplift 2=-17(LC 12), 8=-80(LC 9)  
 Max Grav 2=662(LC 1), 8=598(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-656/65, 4-6=-348/127, 6-7=-252/135, 7-8=-580/156  
 BOT CHORD 2-10=-231/596, 9-10=-231/596  
 WEBS 4-9=-421/152, 7-9=-162/544

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 11-8-8, Exterior(2) 11-8-8 to 15-0-0 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 7, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job NC1-94-R	Truss M03	Truss Type CAL. PORCH TRUSS	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510965
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:35 2023 Page 1

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5x6 = 3x4 ||

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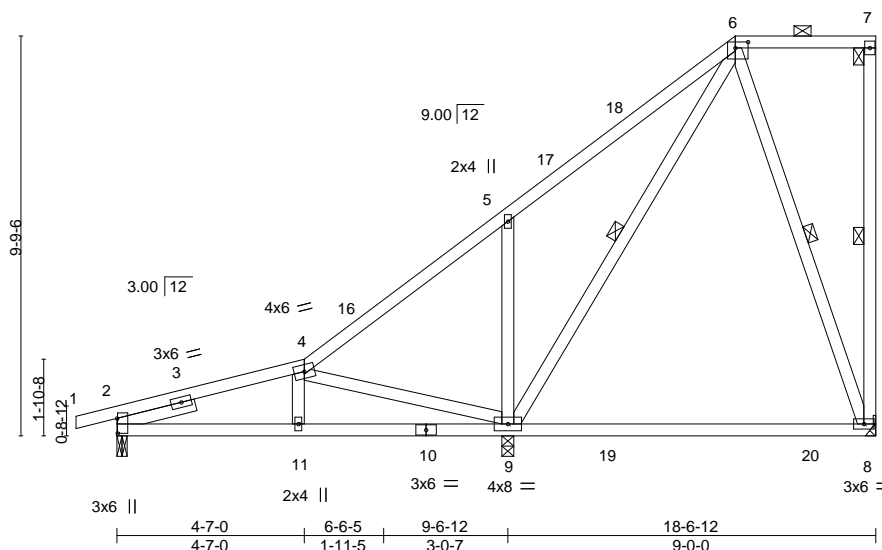


Plate Offsets (X,Y)--	[2:0-4-6,0-0-3], [6:0-3-12,0-1-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.27 8-9 >395 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.42 8-9 >253 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.01 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) -0.05 8-9 >999 240	Weight: 125 lb	FT = 20%

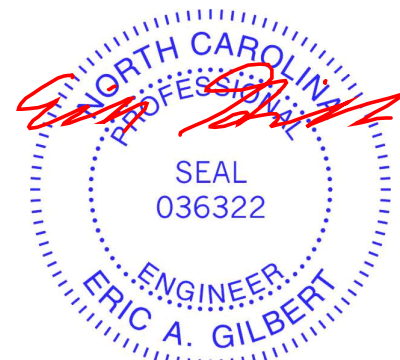
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 1-11-12

**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.): 6-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-8, 6-8, 6-9

**REACTIONS.** (size) 8=Mechanical, 2=0-3-0, 9=0-3-8  
 Max Horz 2=288(LC 11)  
 Max Uplift 8=-108(LC 9), 2=-73(LC 8), 9=-2(LC 12)  
 Max Grav 8=315(LC 19), 2=369(LC 1), 9=901(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-399/86, 4-5=-180/283  
 BOT CHORD 2-11=-167/422, 9-11=-169/414  
 WEBS 6-9=-257/0, 4-9=-484/62, 5-9=-379/166

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 15-1-8, Exterior(2) 15-1-8 to 18-5-0 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9 except (jt=lb) 8=108.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 7, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY  <b>TRENCO</b>          A MiTek Affiliate</p> <p>818 Soundside Road          Edenton, NC 27932</p>
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Job NC1-94-R	Truss P01	Truss Type MONO TRUSS	Qty 4	Ply 1	Caruso-Davidson-OYL NC1 94 I56510966
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:36 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-Zfk5JOzi79AfdUaYrxRHcMz9gfWb3FDaGmDimnznd7f



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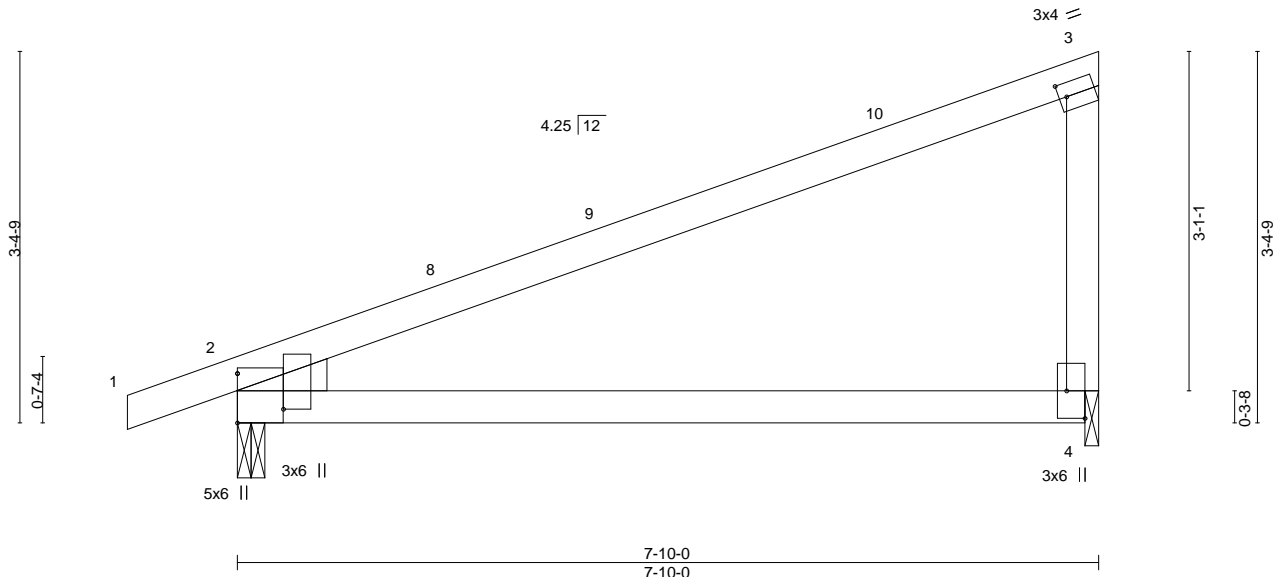


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0], [3:0-0-13,0-1-8], [4:Edge,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.75	Vert(LL) -0.10 4-7 >911 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.59	Vert(CT) -0.24 4-7 >381 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.04 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.09 4-7 >983 240	Weight: 31 lb	FT = 20%

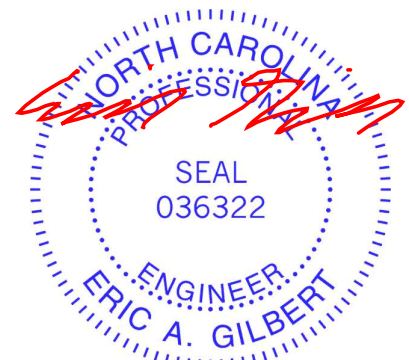
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3

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

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
Max Horz 2=105(LC 11)  
Max Uplift 2=-48(LC 8), 4=-33(LC 8)  
Max Grav 2=371(LC 1), 4=304(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 7-8-4 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
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



February 7, 2023

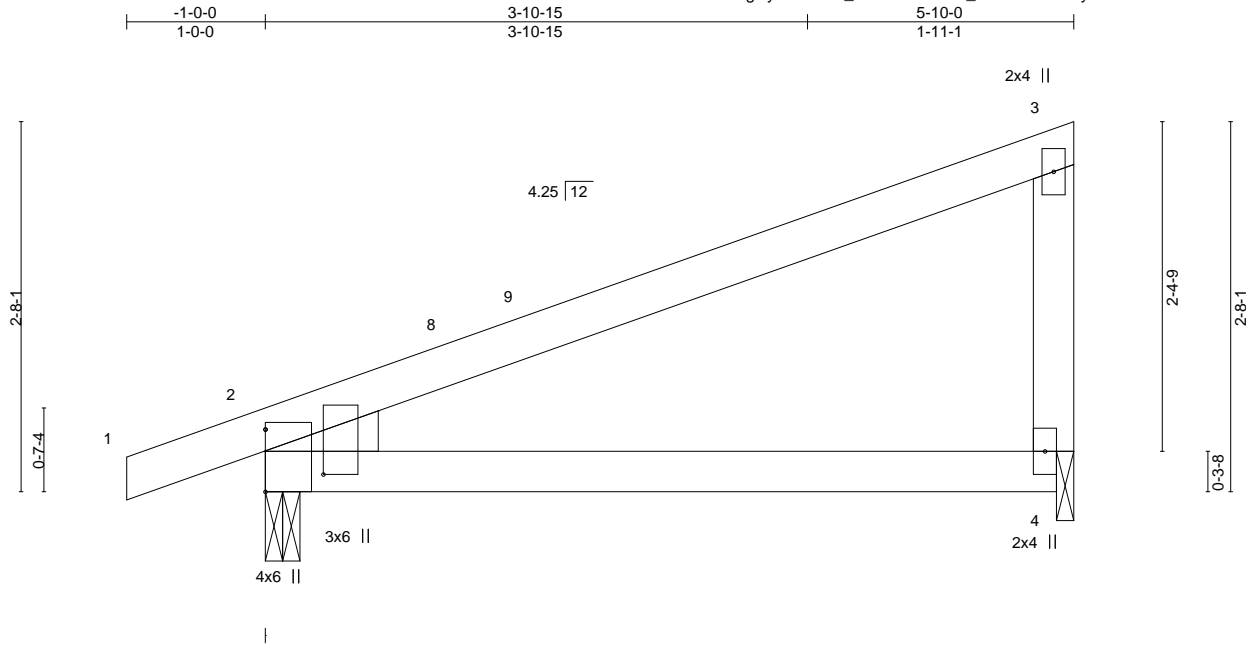


Job NC1-94-R	Truss P02	Truss Type MONO TRUSS	Qty 5	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510967
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:37 2023 Page 1  
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Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.47	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.38	Vert(LL) -0.05 4-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.11 4-7 >635 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.02 2 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 4-7 >999 240	Weight: 24 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**

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

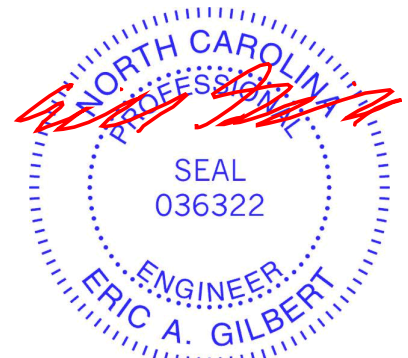
**REACTIONS.**

(size) 2=0-3-0, 4=0-1-8  
Max Horz 2=81(LC 11)  
Max Uplift 2=44(LC 8), 4=25(LC 12)  
Max Grav 2=293(LC 1), 4=222(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 5-8-4 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



February 7, 2023

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

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



818 Soundside Road  
Edenton, NC 27932

Job NC1-94-R	Truss P03	Truss Type MONO TRUSS	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510968
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:38 2023 Page 1

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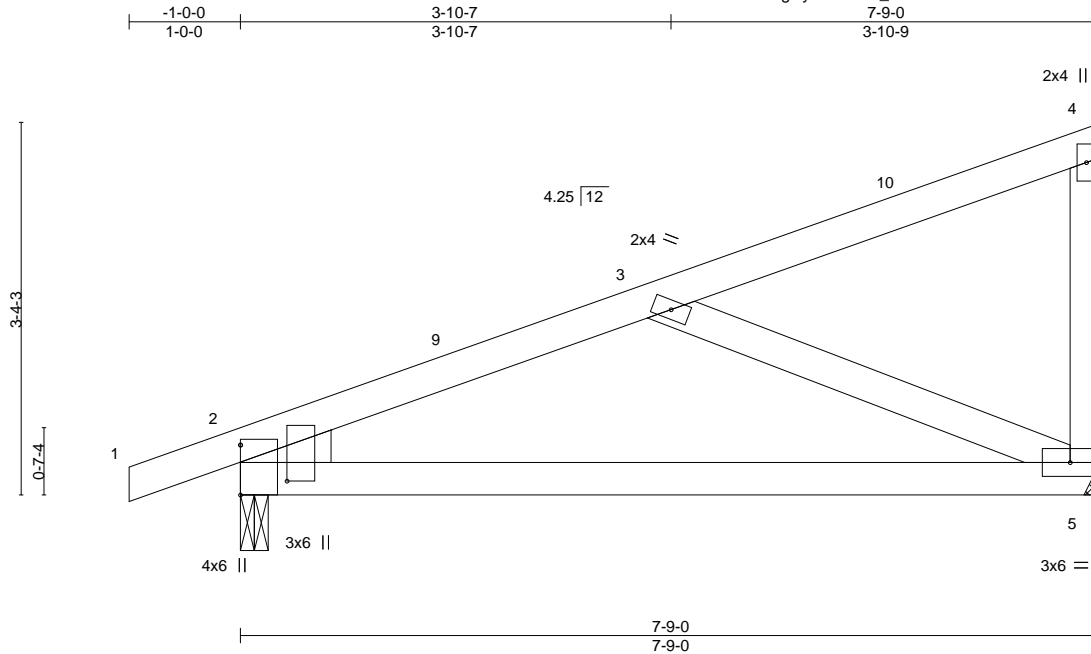


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.33	Vert(LL) -0.07 5-8 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.39	Vert(CT) -0.13 5-8 >698 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.14	Horz(CT) 0.01 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.00 5-8 >999 240	Weight: 37 lb	FT = 20%

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

**REACTIONS.** (size) 5=Mechanical, 2=0-3-0  
 Max Horz 2=104(LC 11)  
 Max Uplift 5=-33(LC 8), 2=-48(LC 8)  
 Max Grav 5=300(LC 1), 2=368(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-403/66  
 BOT CHORD 2-5=-143/373  
 WEBS 3-5=-380/124

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 7-7-4 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
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.



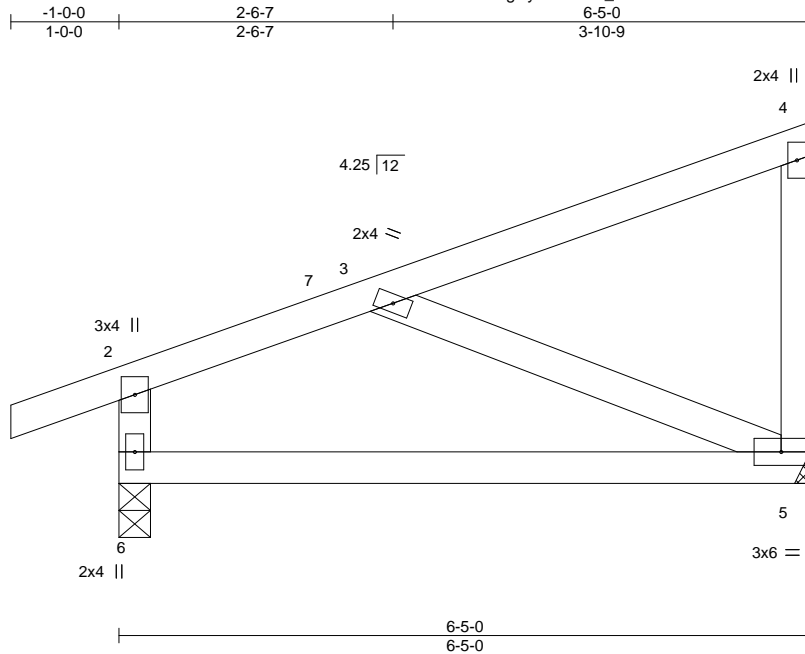
Job NC1-94-R	Truss P04	Truss Type MONO TRUSS	Qty 4	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510969
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:39 2023 Page 1

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Scale = 1:21.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.05 5-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.10 5-6	>771	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00 5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	-0.00 5-6	>999	240	Weight: 32 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

(size) 6=0-3-8, 5=Mechanical  
 Max Horz 6=104(LC 9)  
 Max Uplift 6=-47(LC 8), 5=-32(LC 12)  
 Max Grav 6=320(LC 1), 5=239(LC 1)

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

TOP CHORD 2-6=-252/125

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 6-3-4 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 5.



February 7, 2023

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

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



818 Soundside Road  
 Edenton, NC 27932

Job NC1-94-R	Truss P05G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510970
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Builders FirstSource (Apex, NC),

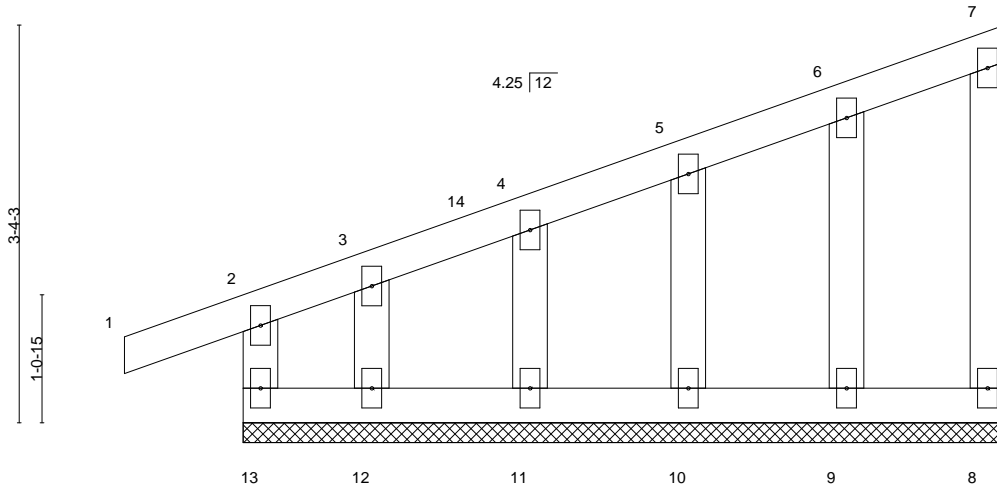
Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:40 2023 Page 1

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Scale = 1:19.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						Weight: 36 lb	FT = 20%

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

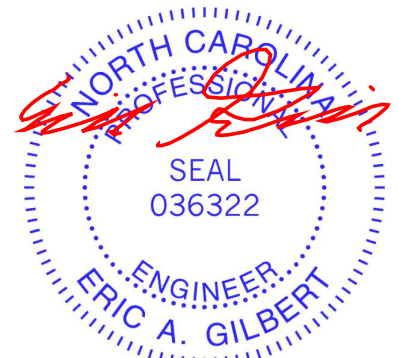
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 6-5-0.  
 (lb) - Max Horz 13=104(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 8, 9, 10, 11, 12  
 Max Grav All reactions 250 lb or less at joint(s) 13, 8, 9, 10, 11, 12

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 6-3-4 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 1-4-0 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 8, 9, 10, 11, 12.



February 7, 2023

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

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

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

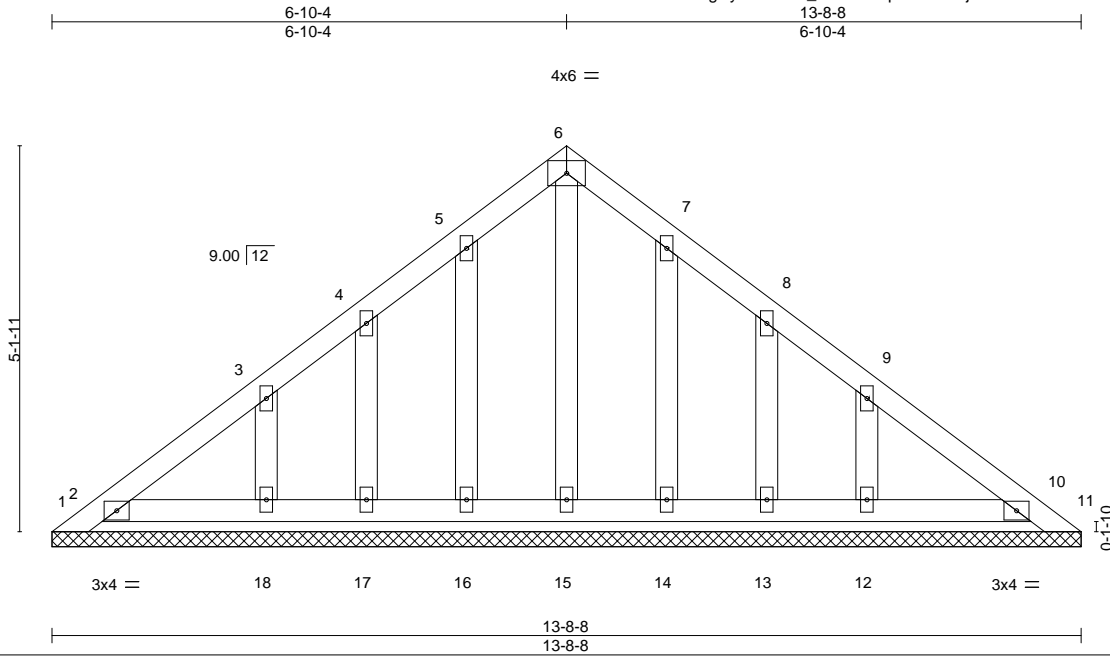


818 Soundside Road  
Edenton, NC 27932

Job NC1-94-R	Truss PB01	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510971
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:42 2023 Page 1  
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Scale = 1:30.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-S					Weight: 72 lb	FT = 20%
	Code IRC2015/TPI2014							

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

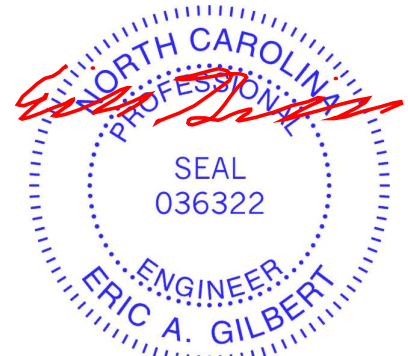
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 13-8-8.  
 (lb) - Max Horz 1=98(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 2, 16, 17, 18, 14, 13, 12  
 Max Grav All reactions 250 lb or less at joint(s) 1, 11, 2, 10, 15, 16, 17, 18, 14, 13, 12

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-2-15 to 3-2-15, Exterior(2) 3-2-15 to 6-10-4, Corner(3) 6-10-4 to 9-10-4, Exterior(2) 9-10-4 to 13-5-9 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) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 11, 2, 16, 17, 18, 14, 13, 12.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



February 7, 2023

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

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

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



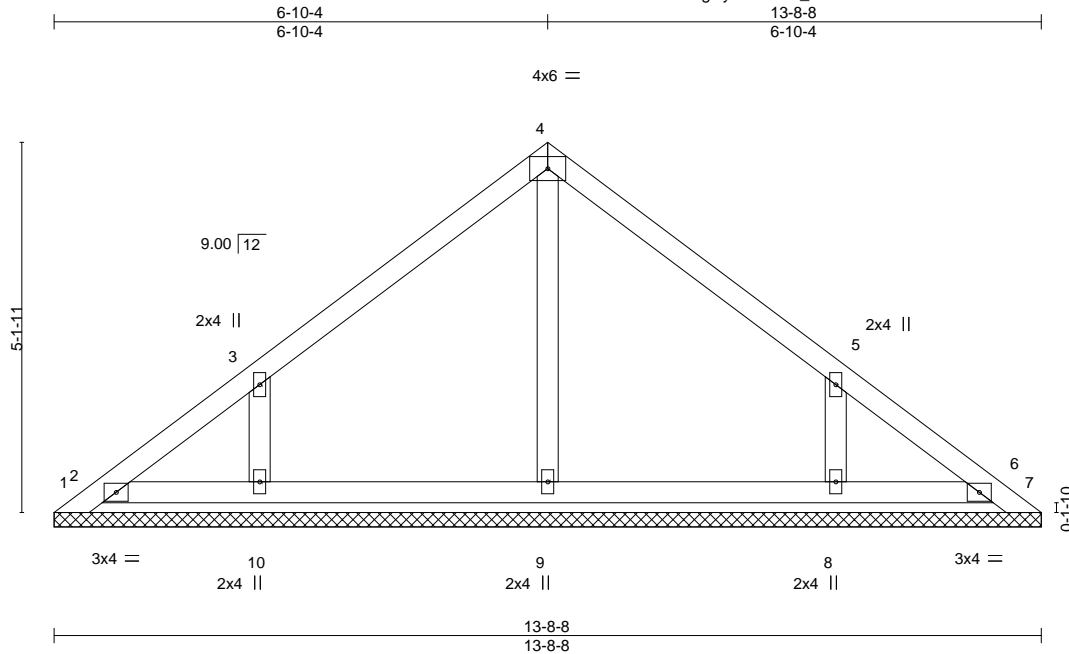
818 Soundside Road  
 Edenton, NC 27932

Job NC1-94-R	Truss PB02	Truss Type GABLE	Qty 5	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510972
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:43 2023 Page 1  
ID:lkPldlb6F0gUya0Y9sJQ\_Zz1rsE-s?fno38UJ3fzZdulv3wOrmUSU0HCPoetLPaWtznd7Y



Scale: 3/8"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999	244/190
BCLL 0.0 *	Lumber DOL 1.15	WB 0.07	Horz(CT)	0.00	7	n/a	n/a	
BCDL 10.0	Rep Stress Incr NO	Matrix-S						
	Code IRC2015/TPI2014							
							Weight: 55 lb	FT = 20%

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

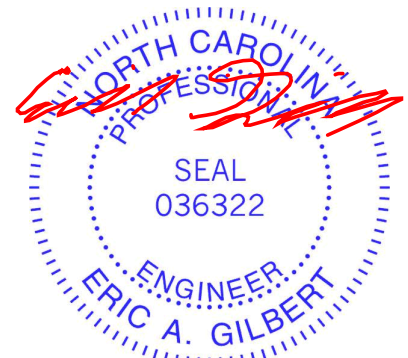
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 13-8-8.  
(lb) - Max Horz 1=98(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 8 except 10=100(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6 except 9=254(LC 1), 10=311(LC 19), 8=311(LC 20)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-2-15 to 3-2-15, Exterior(2) 3-2-15 to 6-10-4, Corner(3) 6-10-4 to 9-10-4, Exterior(2) 9-10-4 to 13-5-9 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 8 except (jt=lb) 10=100.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



February 7, 2023

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

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818 Soundside Road  
Edenton, NC 27932



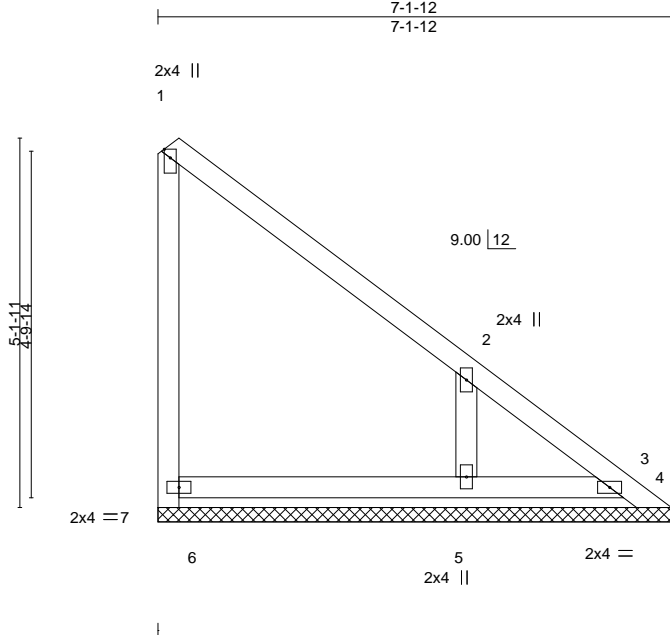
Job NC1-94-R	Truss PB03	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510973 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:44 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-KBD7\_74mFdBWajC4Jda9w2lcHtLEwtMm6?972Jznd7X



Scale: 3/8"=1'

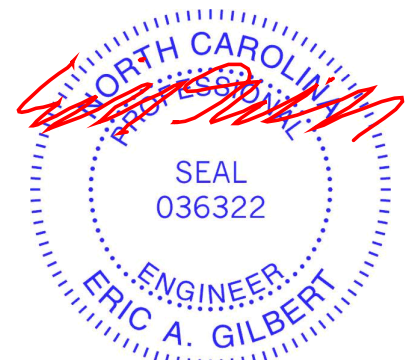
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.05	Horz(CT)	0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 32 lb	FT = 20%

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

**REACTIONS.** All bearings 7-1-12.  
 (lb) - Max Horz 6=-152(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 4, 6, 3 except 5=-108(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 4, 6, 3 except 5=362(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-250/260  
 WEBS 2-5=-276/177

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 6-8-8 to 9-8-8, Exterior(2) 9-8-8 to 13-5-9 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
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 4-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Bearing at joint(s) 4, 6, 3, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 6, 3 except (jt=lb) 5=108.
  - 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 3, 5.
  - 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



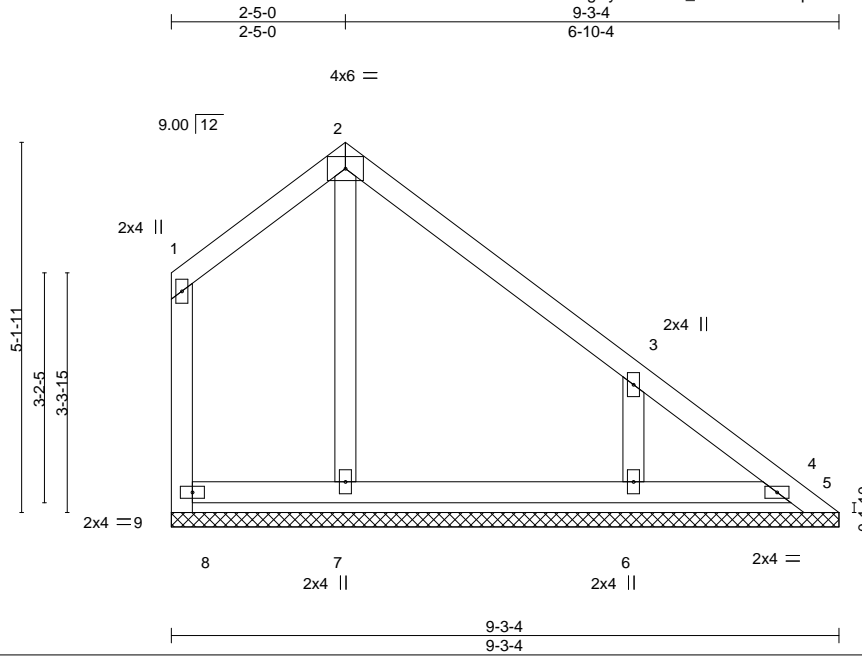
February 7, 2023

Job NC1-94-R	Truss PB04	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510974
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:46 2023 Page 1  
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Scale: 3/8"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 43 lb	FT = 20%

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

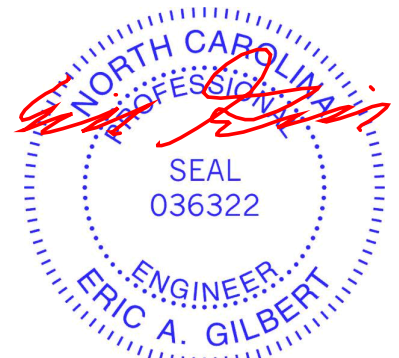
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 9-3-4.  
(lb) - Max Horz 8=131(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 5, 8, 4, 6  
Max Grav All reactions 250 lb or less at joint(s) 5, 8, 4 except 7=265(LC 20), 6=319(LC 20)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 4-7-0 to 9-10-4, Exterior(2) 9-10-4 to 13-5-9 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 5, 8, 4, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 8, 4, 6.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 4, 7, 6.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



February 7, 2023

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

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



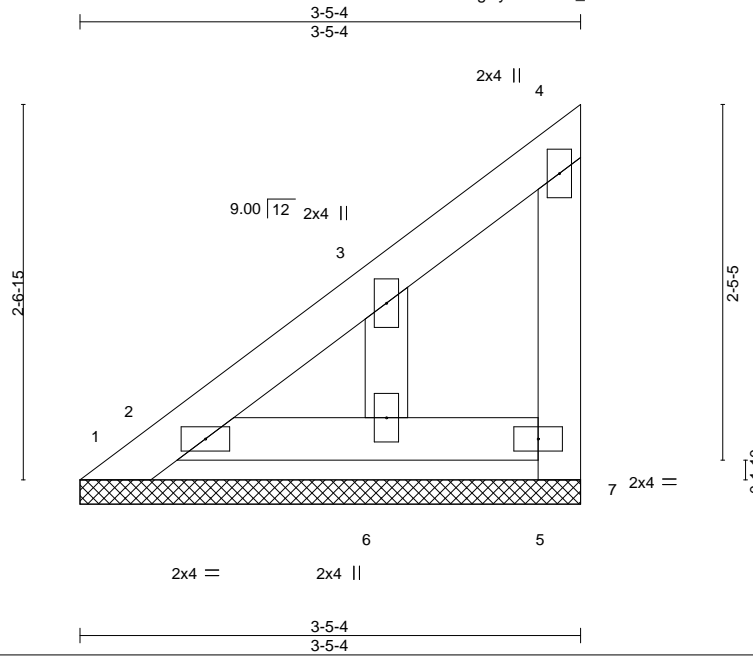
818 Soundside Road  
Edenton, NC 27932

Job NC1-94-R	Truss PB05	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510975
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:47 2023 Page 1  
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Scale = 1:15.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.02	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 15 lb	FT = 20%

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

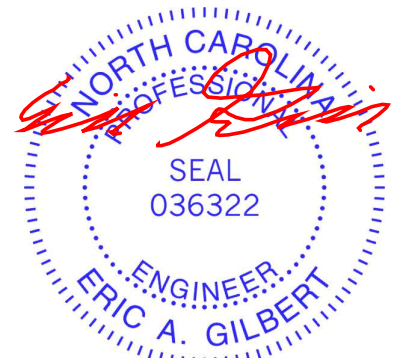
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 3-5-4.  
 (lb) - Max Horz 1=69(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 2, 5, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 2, 5, 6

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Bearing at joint(s) 1, 7, 2, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2, 5, 6.
- 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



February 7, 2023

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

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

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

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



818 Soundside Road  
 Edenton, NC 27932

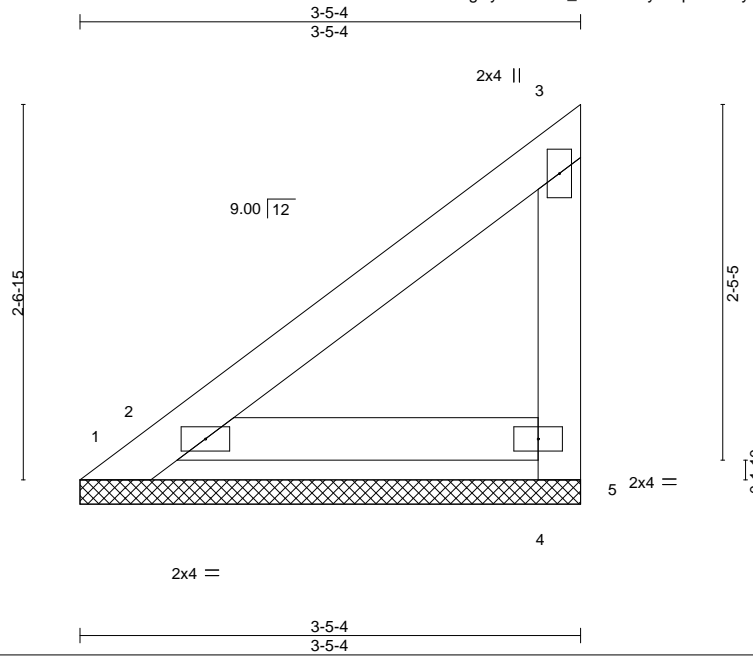
Job NC1-94-R	Truss PB06	Truss Type GABLE	Qty 7	Ply 1	Caruso-Davidson-OYL NC1 94 I56510976
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:48 2023 Page 1

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Scale = 1:15.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.12	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-P					Weight: 13 lb	FT = 20%
	Code IRC2015/TPI2014							

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

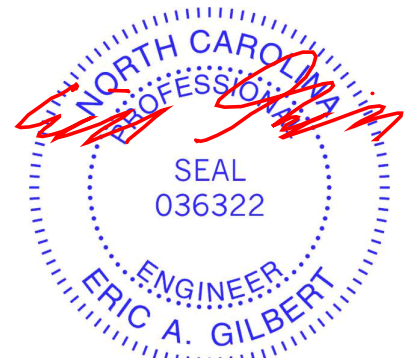
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-5-4, 5=3-5-4, 2=3-5-4, 4=3-5-4  
 Max Horz 1=69(LC 9)  
 Max Uplift 1=-115(LC 19), 2=-94(LC 12), 4=-11(LC 12)  
 Max Grav 1=85(LC 12), 2=260(LC 19), 4=95(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Bearing at joint(s) 1, 5, 2, 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4 except (jt=lb) 1=115.
- 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



February 7, 2023

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

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

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



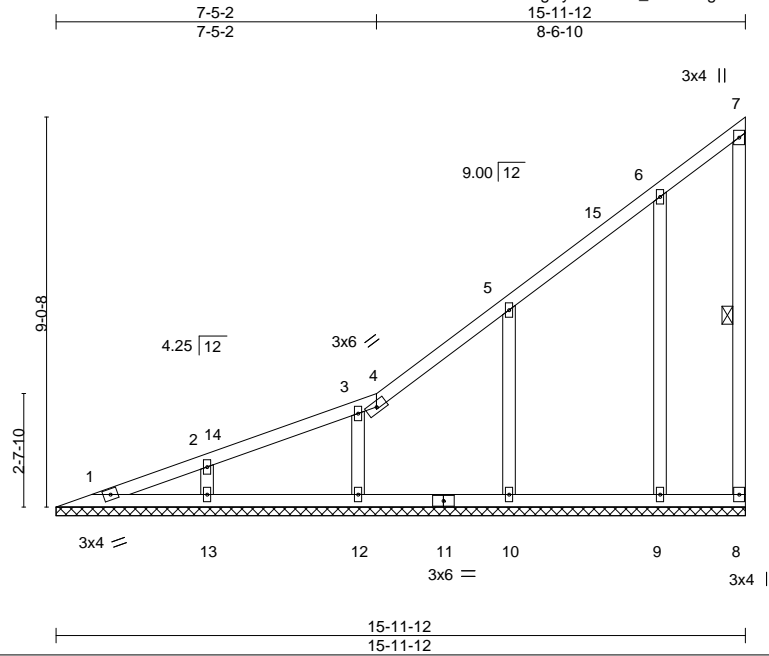
818 Soundside Road  
 Edenton, NC 27932

Job NC1-94-R	Truss V03	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510977
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:49 2023 Page 1  
ID:IkPIdb6F0gUya0Y9sJQ\_Zz1rsE-g9002r8v39pphU426AAKd60P6u1\_b43VGHsujWznd7S



Scale = 1:53.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.22	Horz(CT)	-0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 84 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-8

**REACTIONS.** All bearings 15-11-12.  
 (lb) - Max Horz 1=268(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 13, 12, 10, 9  
 Max Grav All reactions 250 lb or less at joint(s) 1, 8 except 13=276(LC 1), 12=276(LC 1), 10=361(LC 19), 9=314(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-303/283, 2-3=-273/267, 3-4=-267/250, 4-5=-268/279

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-3 to 3-10-3, Interior(1) 3-10-3 to 15-10-0 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
  - 2) All plates are 2x4 MT20 unless otherwise indicated.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 13, 12, 10, 9.



February 7, 2023

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

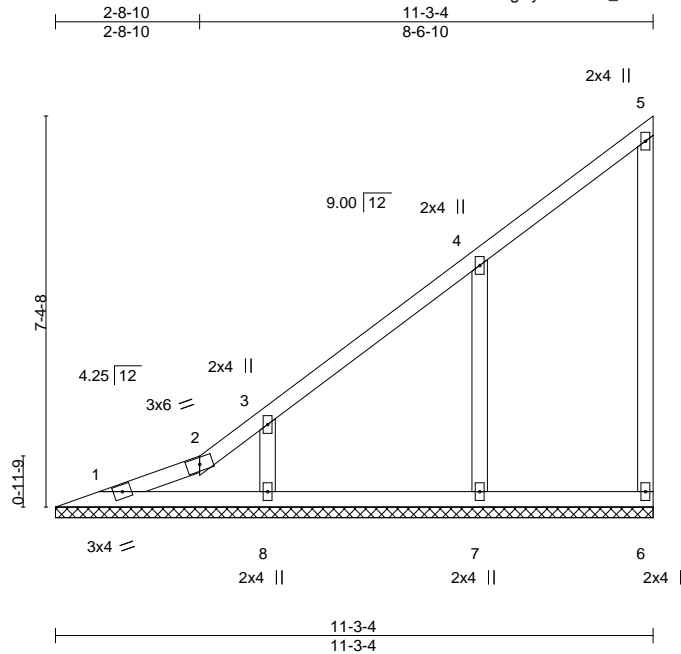
Job NC1-94-R	Truss V04	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 Job Reference (optional)	156510978
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:50 2023 Page 1

ID:lkPldlb6F0gUya0Y9sJQ\_Zz1rsE-9LaOFB8XqTxglefEgthZAJYclIO8KZ0eUxcRGznd7R



Scale = 1:43.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 55 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

All bearings 11-3-4.

(lb) - Max Horz 1=211(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 6, 1, 8 except 7=-104(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 6, 1 except 8=323(LC 1), 7=386(LC 19)

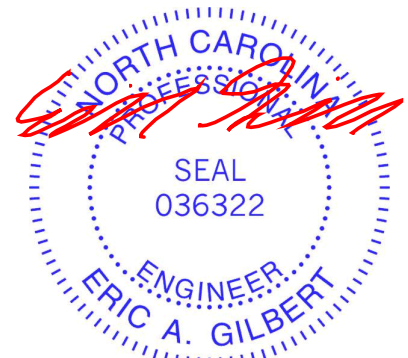
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-262/275, 1-2=-269/256

WEBS 4-7=-263/155

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-3 to 2-8-10, Interior(1) 2-8-10 to 11-1-8 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 6, 1, 8 except (jt=lb) 7=104.



February 7, 2023

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

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

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



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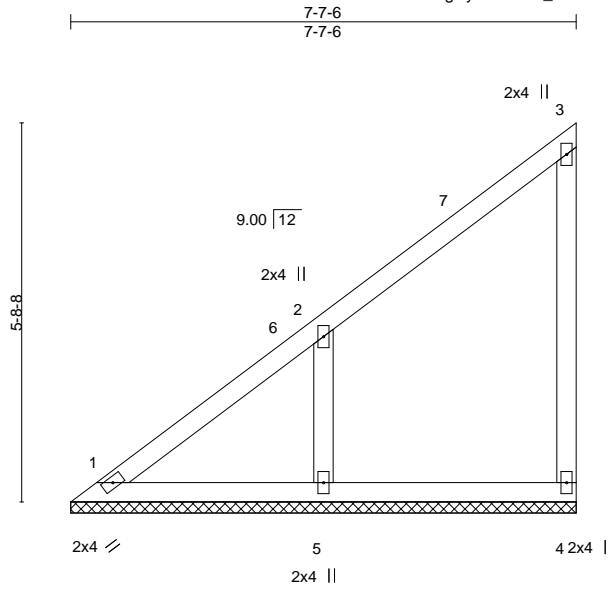
Job NC1-94-R	Truss V05	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510979 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:51 2023 Page 1

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Scale = 1:34.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 36 lb	FT = 20%

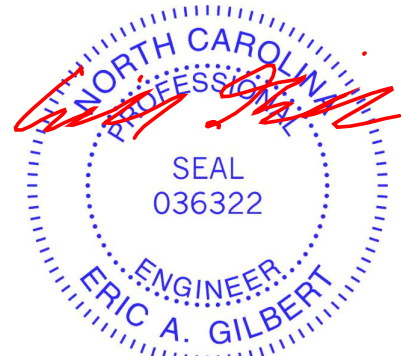
**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** (size) 1=7-7-6, 4=7-7-6, 5=7-7-6  
 Max Horz 1=159(LC 11)  
 Max Uplift 1=-5(LC 8), 4=-30(LC 9), 5=-97(LC 12)  
 Max Grav 1=134(LC 20), 4=133(LC 19), 5=354(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-5=-267/158

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 7-5-10 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
  - 2) Gable requires continuous bottom chord bearing.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.



February 7, 2023

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



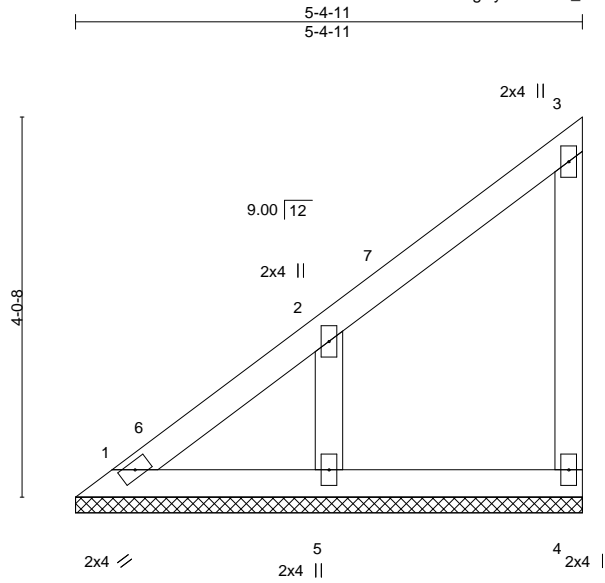
818 Soundside Road  
 Edenton, NC 27932

Job NC1-94-R	Truss V06	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510980 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:52 2023 Page 1  
ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-5ki8gtAnM4BOYypdnlj1Fke1c65xoUcxyF5YKrznd7P



Scale = 1:24.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.17	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 25 lb	FT = 20%
	Code IRC2015/TPI2014							

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

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

**REACTIONS.** (size) 1=5-4-11, 4=5-4-11, 5=5-4-11  
 Max Horz 1=108(LC 9)  
 Max Uplift 1=6(LC 8), 4=20(LC 9), 5=72(LC 12)  
 Max Grav 1=88(LC 20), 4=90(LC 19), 5=250(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 5-2-15 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.



February 7, 2023

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

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



818 Soundside Road  
 Edenton, NC 27932

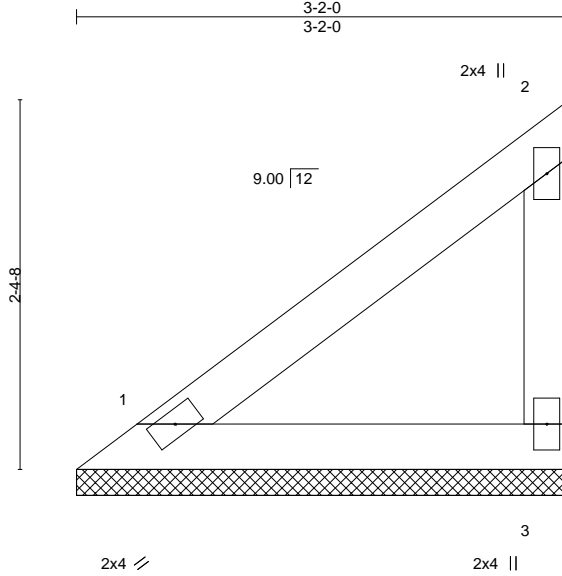
Job NC1-94-R	Truss V07	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510981 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:53 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-ZwGXtCBP7OJF95OpL0FGoyABuWRkXxQ4Bvq6tHznd7O



Scale = 1:14.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 12 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

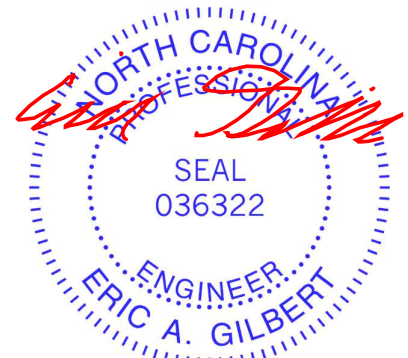
**REACTIONS.**

(size) 1=3-2-0, 3=3-2-0  
 Max Horz 1=58(LC 11)  
 Max Uplift 3=20(LC 12)  
 Max Grav 1=103(LC 1), 3=111(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.



February 7, 2023

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

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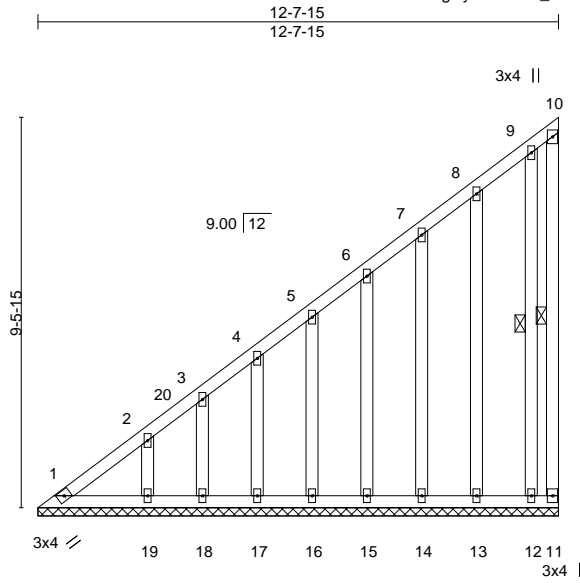


818 Soundside Road  
 Edenton, NC 27932

Job NC1-94-R	Truss V08	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510982
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:54 2023 Page 1  
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Scale = 1:56.0

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.70	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	-0.00	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 114 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 10-11, 9-12

**REACTIONS.** All bearings 12-7-15.  
(lb) - Max Horz 1=272(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 19, 18, 17, 16, 15, 14, 13 except 11=158(LC 11), 12=103(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 19, 18, 17, 16, 15, 14, 13, 12

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-381/382, 2-3=-331/323, 3-4=-303/301, 4-5=-271/269

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 12-6-3 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
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 19, 18, 17, 16, 15, 14, 13 except (jt=lb) 11=158, 12=103.



February 7, 2023

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

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

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

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



818 Soundside Road  
Edenton, NC 27932

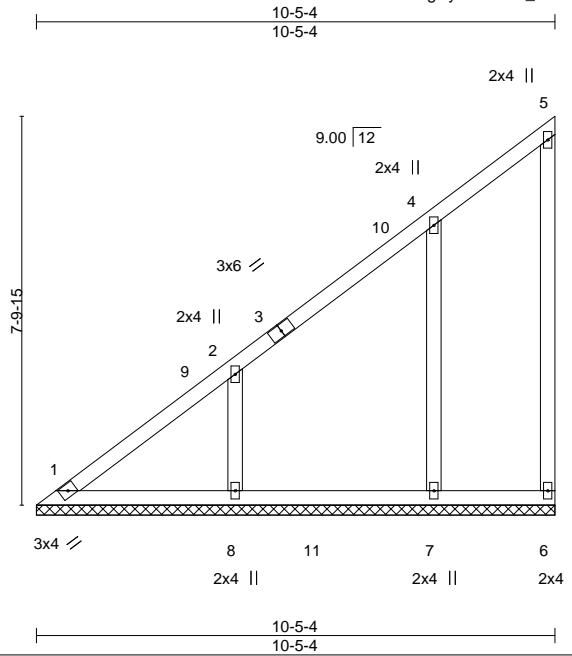
Job NC1-94-R	Truss V09	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510983 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:55 2023 Page 1

ID:IkPIdlb6F0gUya0Y9sJQ\_Zz1rsE-VJNHluCgf?ZyPPXBSRHktNGTaJ5R?piNeDJCxAznd7M



Scale = 1:46.4

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.51	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 57 lb	FT = 20%

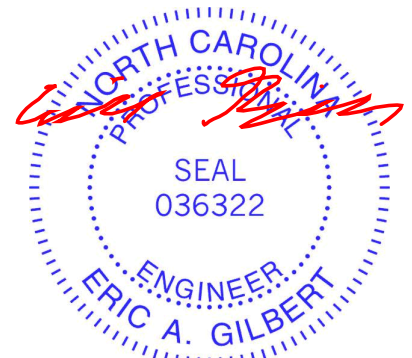
**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 10-5-4.  
(lb) - Max Horz 1=222(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 6, 1, 7 except 8=-105(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 6, 1 except 8=385(LC 19), 7=349(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-312/317  
WEBS 2-8=-266/154

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 10-3-8 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
  - 2) Gable requires continuous bottom chord bearing.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 6, 1, 7 except (j=lb) 8=105.



February 7, 2023

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

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



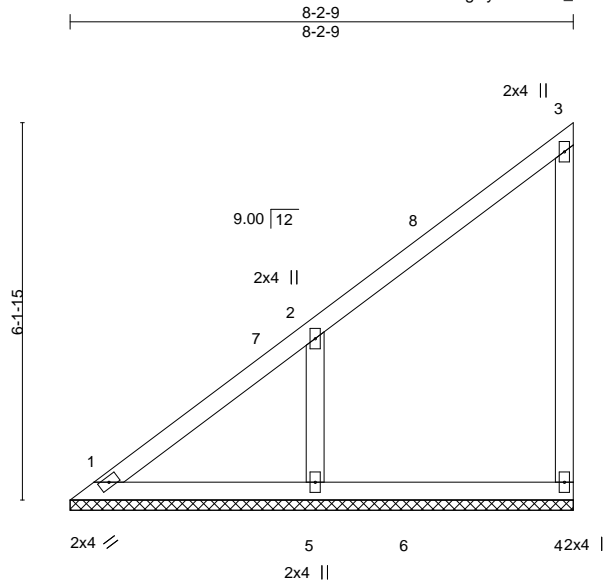
818 Soundside Road  
Edenton, NC 27932

Job NC1-94-R	Truss V10	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510984 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:56 2023 Page 1

ID:IkPIdbf0GUYa0Y9sJQ\_Zz1rsE-zVxIWEDIQJhp0Z6O08ozPaofJjPGkIBXtt3mTcznd7L



Scale = 1:37.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.38	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.27	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 39 lb	FT = 20%

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

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

**REACTIONS.** (size) 1=8-2-9, 4=8-2-9, 5=8-2-9  
 Max Horz 1=172(LC 9)  
 Max Uplift 1=-7(LC 8), 4=-33(LC 9), 5=-102(LC 12)  
 Max Grav 1=139(LC 20), 4=198(LC 19), 5=415(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-255/248  
 WEBS 2-5=-289/167

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 8-0-13 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
  - 2) Gable requires continuous bottom chord bearing.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=102.



February 7, 2023

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

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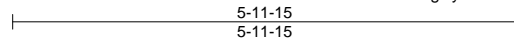
Job NC1-94-R	Truss V11	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510985
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Builders FirstSource (Apex, NC),

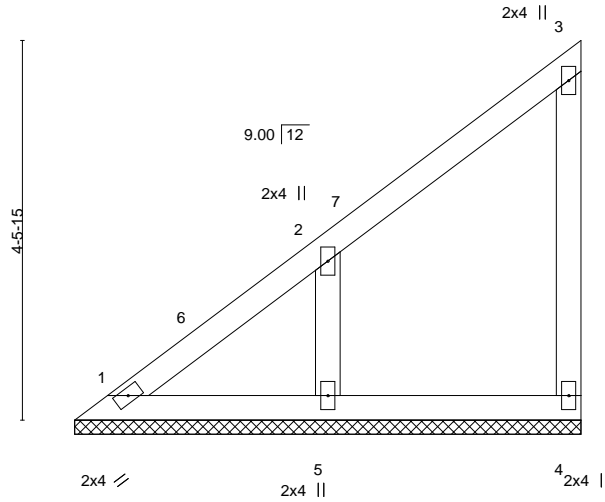
Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:57 2023 Page 1

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Scale = 1:27.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2015/TPI2014						Weight: 28 lb	FT = 20%

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

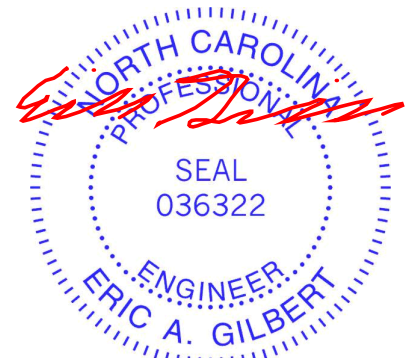
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-11-15 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-11-15, 4=5-11-15, 5=5-11-15  
 Max Horz 1=122(LC 9)  
 Max Uplift 1=6(LC 8), 4=23(LC 9), 5=81(LC 12)  
 Max Grav 1=99(LC 20), 4=100(LC 19), 5=281(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 5-10-3 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.



February 7, 2023

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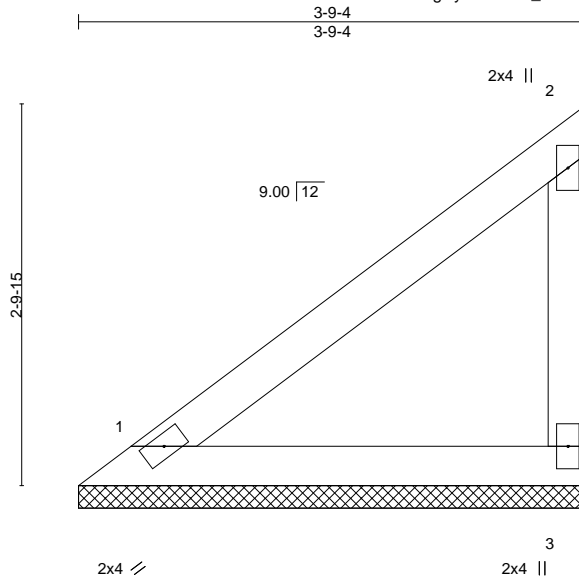
Job NC1-94-R	Truss V12	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510986 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:58 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-wu3PwwFYywxXGtGm8ZqRV?u0oX6nCCfpKBYtYVznd7J



Scale = 1:17.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P						Weight: 15 lb	FT = 20%

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

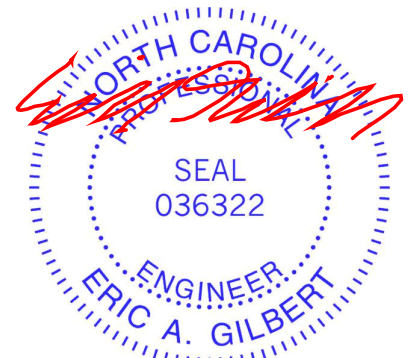
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-9-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-9-4, 3=3-9-4  
 Max Horz 1=72(LC 9)  
 Max Uplift 3=25(LC 12)  
 Max Grav 1=128(LC 1), 3=137(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.



February 7, 2023

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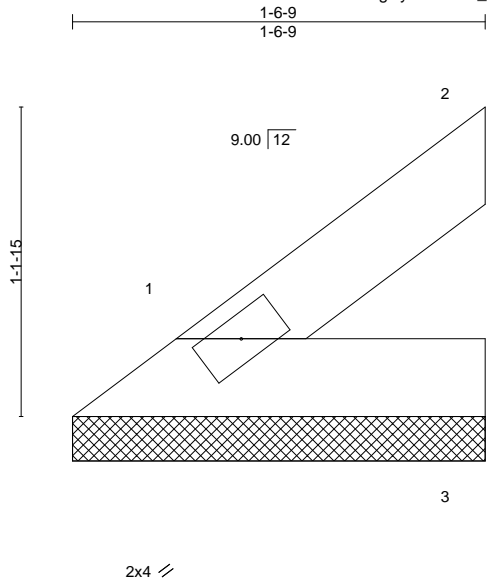
Job NC1-94-R	Truss V13	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510987 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:48:58 2023 Page 1

ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-wu3PwwFYywxXGtGm8ZqRV?u5JX9ZCCfpKBYtYVznd7J



Scale = 1:8.6

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

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 1-6-9 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
<b>REACTIONS.</b> (size) 1=1-6-9, 2=1-6-9, 3=1-6-9	
Max Horz 1=26(LC 12)	
Max Uplift 2=-20(LC 12)	
Max Grav 1=44(LC 1), 2=35(LC 19), 3=22(LC 3)	
<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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
  - 2) Gable requires continuous bottom chord bearing.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.



Job NC1-94-R	Truss V14	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510988
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:00 2023 Page 1

ID:IkPldib6F0gUya0Y9sJQ\_Zz1rsE-sGBALcGoUXCFVAQ9F\_tvaQzMqKo0g4g6oV1zcNznd7H

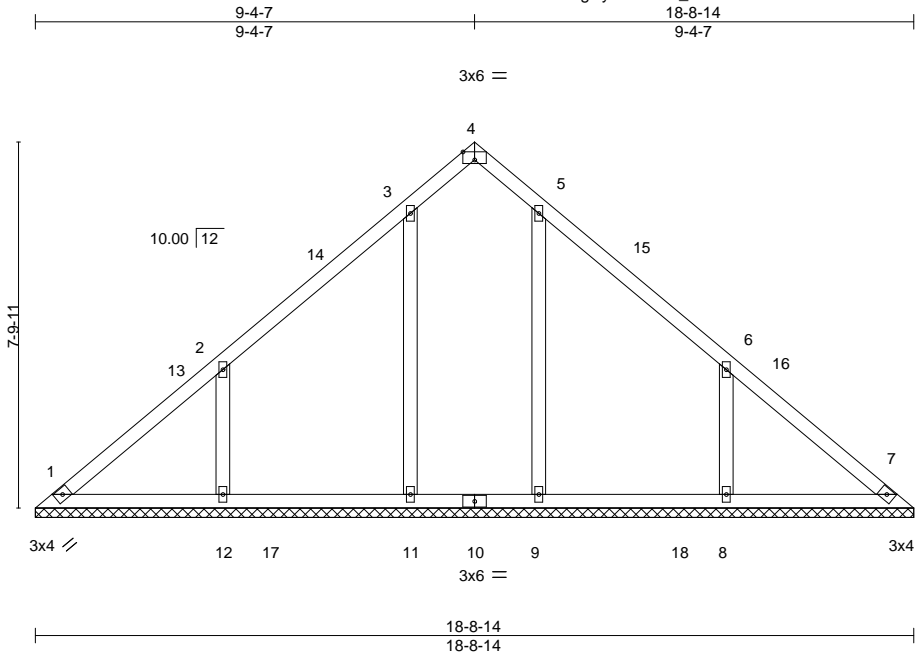


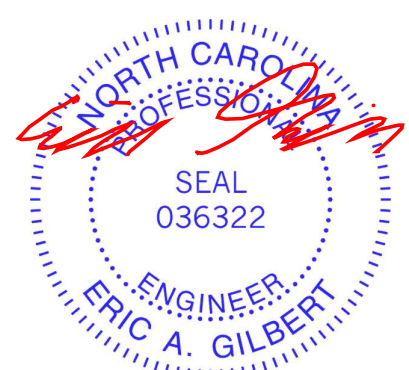
Plate Offsets (X,Y)--	[4:0-3:0,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 89 lb	FT = 20%

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

**REACTIONS.** All bearings 18-8-14.  
 (lb) - Max Horz 1=-147(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 9, 11 except 8=-128(LC 13), 12=-127(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 8=406(LC 20), 9=367(LC 20), 12=405(LC 19), 11=374(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 6-8=-275/175, 2-12=-274/174

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 9-4-7, Exterior(2) 9-4-7 to 12-4-7, Interior(1) 12-4-7 to 18-4-1 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
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 11 except (jt=lb) 8=128, 12=127.



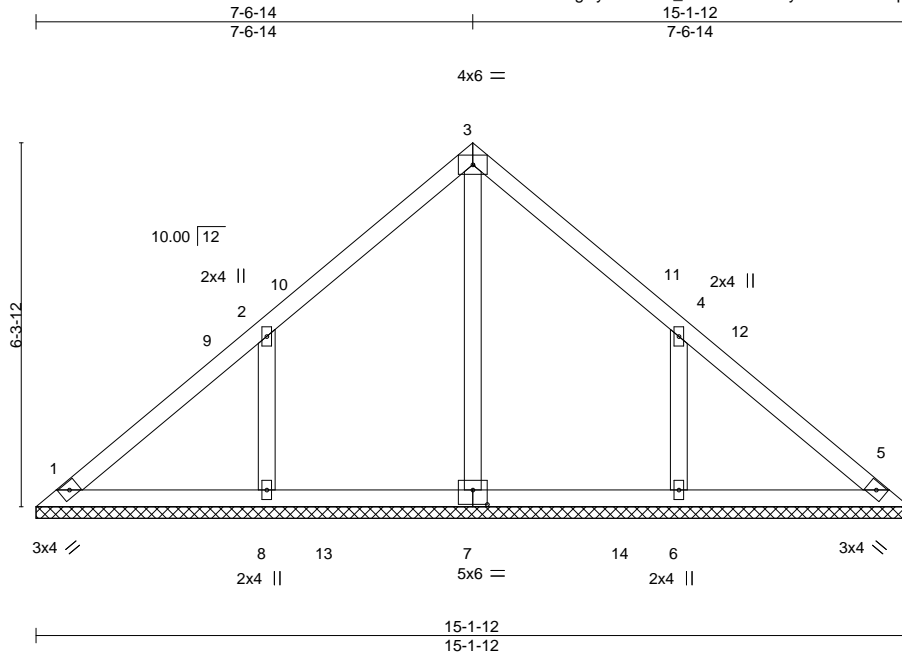
February 7, 2023

Job NC1-94-R	Truss V15	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510989
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:01 2023 Page 1  
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Scale = 1:40.0

Plate Offsets (X,Y)--	[7:0-3-0,0-3-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 67 lb	FT = 20%

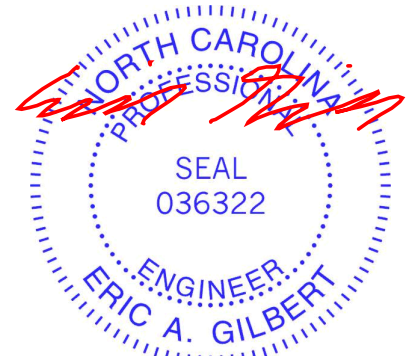
**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3  
OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 15-1-12.  
(lb) - Max Horz 1=118(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 6=-124(LC 13), 8=-124(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=313(LC 22), 6=381(LC 20), 8=381(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 4-6=-269/166, 2-8=-269/166

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 7-6-14, Exterior(2) 7-6-14 to 10-6-14, Interior(1) 10-6-14 to 14-8-15 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) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 6=124, 8=124.



February 7, 2023

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



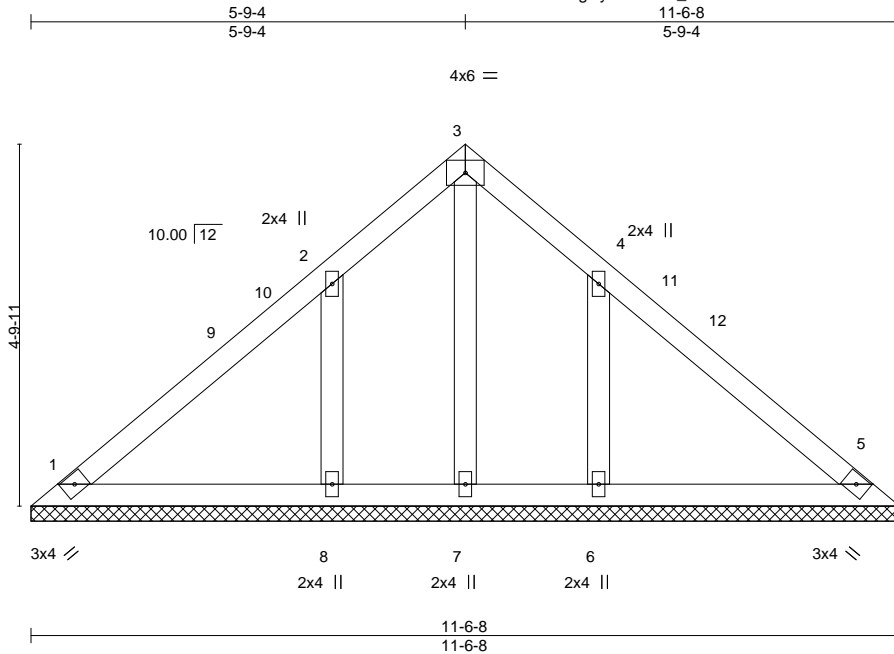
818 Soundside Road  
Edenton, NC 27932

Job NC1-94-R	Truss V16	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510990
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:02 2023 Page 1  
ID:IkPldIb6F0gUya0Y9sJQ\_Zz1rsE-ofJwmHI309SzkUaYNPvNfr2jS8VE80qPFpW4hGznd7F



Scale = 1:30.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 53 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

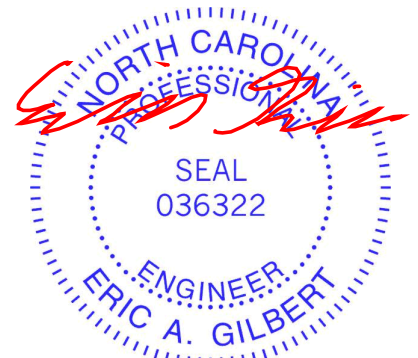
**REACTIONS.**

All bearings 11-6-8.  
(lb) - Max Horz 1=88(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 7 except 6=102(LC 13), 8=103(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=317(LC 20), 8=318(LC 19)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 5-9-4, Exterior(2) 5-9-4 to 8-9-4, Interior(1) 8-9-4 to 11-1-11 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 6=102, 8=103.



February 7, 2023

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

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

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

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



818 Soundside Road  
Edenton, NC 27932



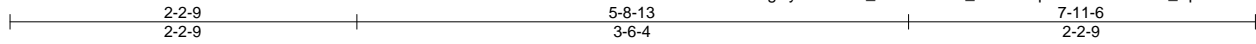
Job NC1-94-R	Truss V17	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510991
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:03 2023 Page 1

ID:IkPIdbF0gUya0Y9sJQ\_Zz1rsE-GrsI\_dIhmSaqMe9kw6QcC3bw\_YpitTUZUTFeDiznd7E



Scale = 1:14.7

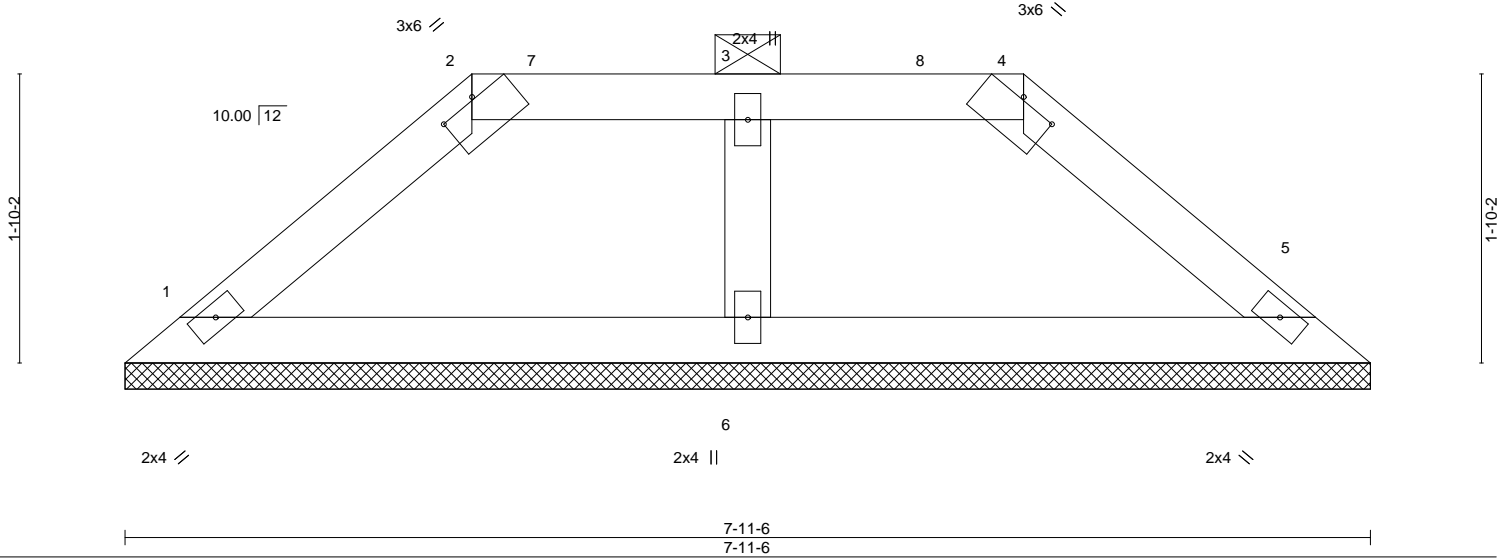


Plate Offsets (X,Y)--	[2:0-3-0,0-0-4], [4:0-3-0,0-0-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 26 lb	FT = 20%

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

**REACTIONS.** (size) 1=7-11-6, 5=7-11-6, 6=7-11-6  
 Max Horz 1=-31(LC 8)  
 Max Uplift 1=-15(LC 12), 5=-16(LC 13)  
 Max Grav 1=176(LC 1), 5=176(LC 1), 6=218(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 5-2-9, Interior(1) 5-2-9 to 5-8-13, Exterior(2) 5-8-13 to 7-6-9 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
  - Provide adequate drainage to prevent water ponding.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



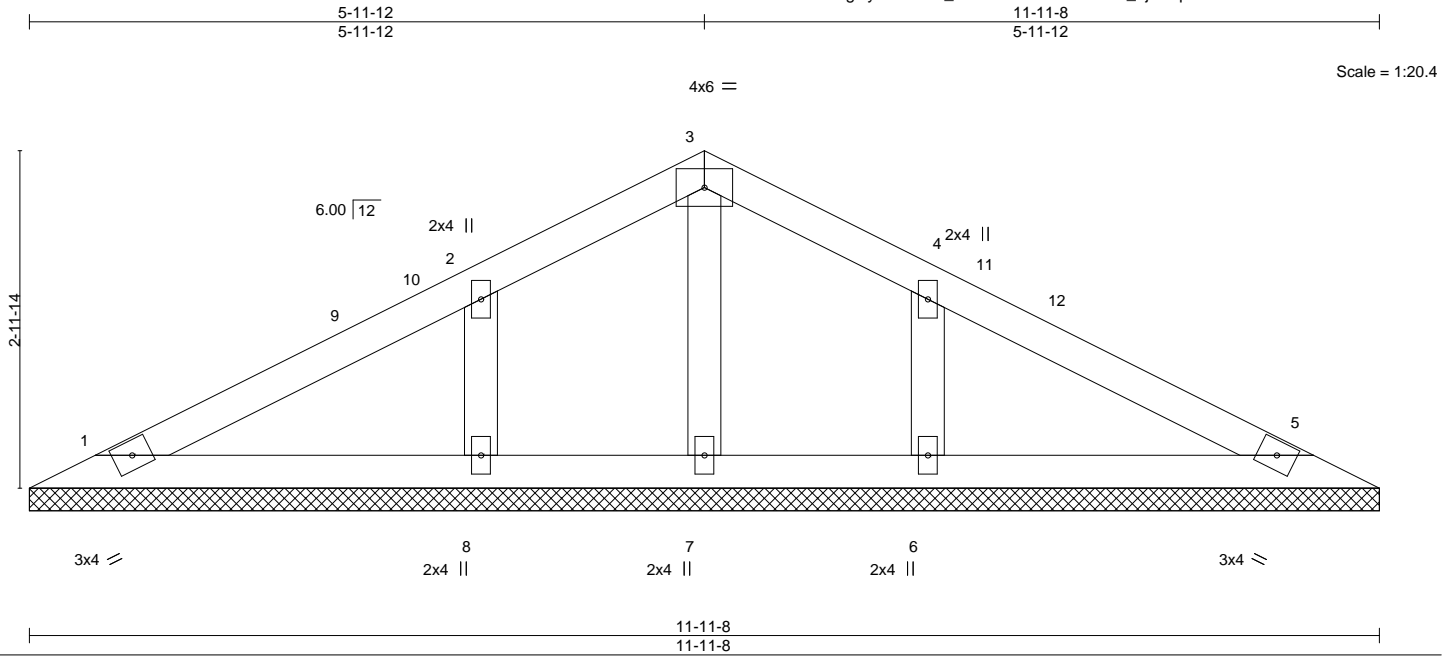
February 7, 2023

Job NC1-94-R	Truss V18	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510992
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:04 2023 Page 1  
ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-k1QhBzJJXmih\_ojwUqxrK73exA2cwVii6?BI9znd7D



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						Weight: 44 lb	FT = 20%

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

**REACTIONS.** All bearings 11-11-8.  
 (lb) - Max Horz 1=36(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 5, 6, 8  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=285(LC 1), 8=285(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 5-11-12, Exterior(2) 5-11-12 to 8-11-12, Interior(1) 8-11-12 to 11-4-1 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) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6, 8.



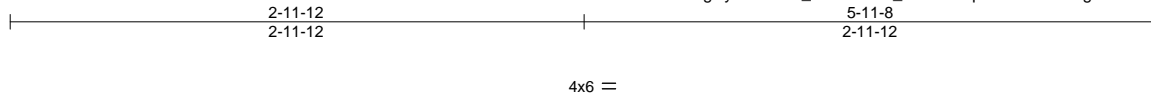
February 7, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job NC1-94-R	Truss V19	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510993
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:05 2023 Page 1  
ID:IkPIdb6F0gUya0Y9sJQ\_Zz1rsE-CE\_30JKxI4qYcxI62XS4HUgFULX1LM?rxmkkIbzd7C



Scale: 1"=1'

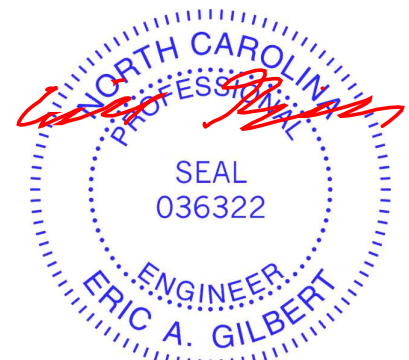
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 18 lb	FT = 20%
	Code IRC2015/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 1=5-11-8, 3=5-11-8, 4=5-11-8  
 Max Horz 1=16(LC 12)  
 Max Uplift 1=12(LC 12), 3=15(LC 13)  
 Max Grav 1=95(LC 1), 3=95(LC 1), 4=187(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



February 7, 2023

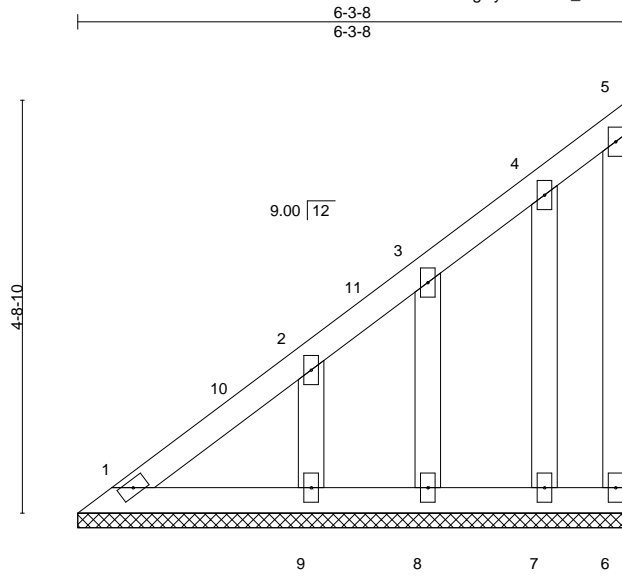
Job NC1-94-R	Truss V20	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510994 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:06 2023 Page 1

ID:IkPIdlb6F0gUya0Y9sJQ\_Zz1rsE-hQYRcfLZ3NyPD5JcE\_JphDPsluB4pD?AQUlq1znd7B



Scale = 1:26.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 37 lb	FT = 20%
	Code IRC2015/TPI2014							

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

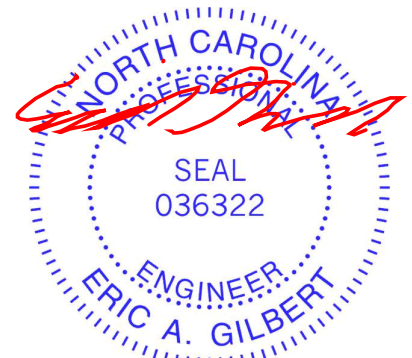
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 6-3-8.  
 (lb) - Max Horz 1=129(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 9, 8, 7  
 Max Grav All reactions 250 lb or less at joint(s) 1, 6, 9, 8, 7

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 6-1-12 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
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6, 9, 8, 7.



February 7, 2023

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

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

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

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



818 Soundside Road  
 Edenton, NC 27932

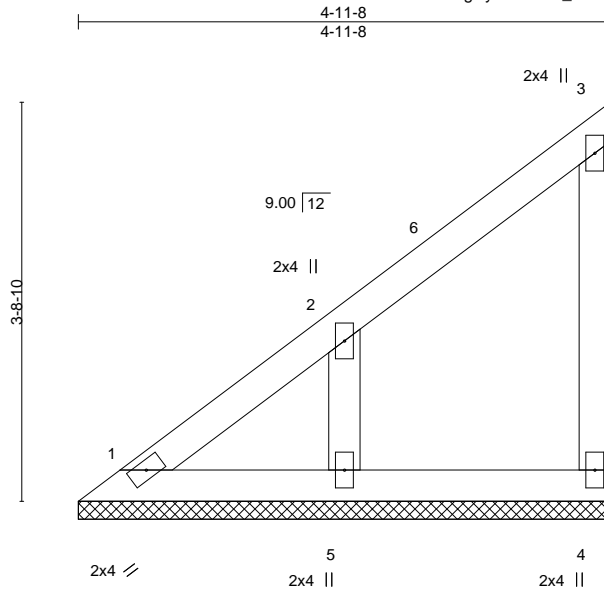
Job NC1-94-R	Truss V21	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56510995 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:07 2023 Page 1

ID:IkPIdlb6F0gUya0Y9sJQ\_Zz1rsE-9c6pp?LBqh4FrFSV9yVYMvbl9DjpGN8P4DrMUznd7A



Scale = 1:21.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 22 lb	FT = 20%
	Code IRC2015/TPI2014							

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

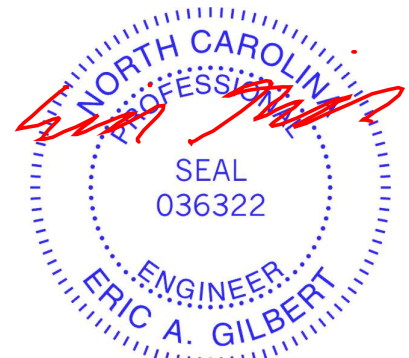
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-11-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-11-8, 4=4-11-8, 5=4-11-8  
 Max Horz 1=99(LC 9)  
 Max Uplift 1=6(LC 8), 4=19(LC 9), 5=66(LC 12)  
 Max Grav 1=79(LC 20), 4=82(LC 19), 5=227(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 4-9-12 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.



February 7, 2023

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

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

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

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



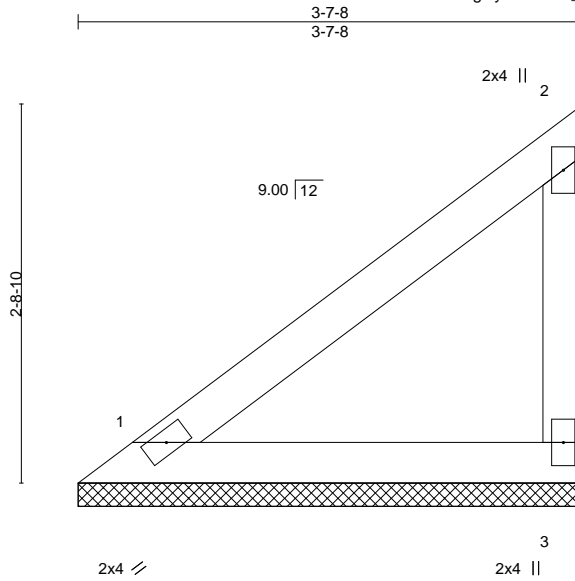
818 Soundside Road  
 Edenton, NC 27932

Job NC1-94-R	Truss V22	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510996 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:08 2023 Page 1  
ID:IkPldlb6F0gUya0Y9sJQ\_Zz1rsE-dpgB1LMqb?C6TP1hjf0nv6lkiZyQYj8ldkzOuwznd79



Scale = 1:16.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 14 lb	FT = 20%

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

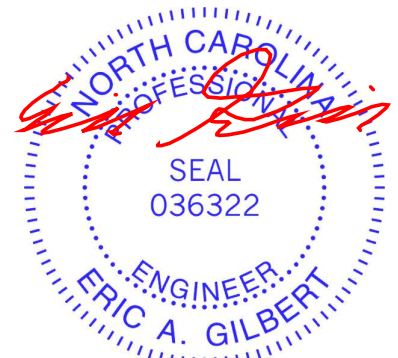
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-7-8, 3=3-7-8  
Max Horz 1=69(LC 9)  
Max Uplift 3=24(LC 12)  
Max Grav 1=122(LC 1), 3=131(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.



February 7, 2023

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

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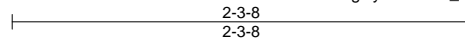
Job NC1-94-R	Truss V23	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510997 Job Reference (optional)
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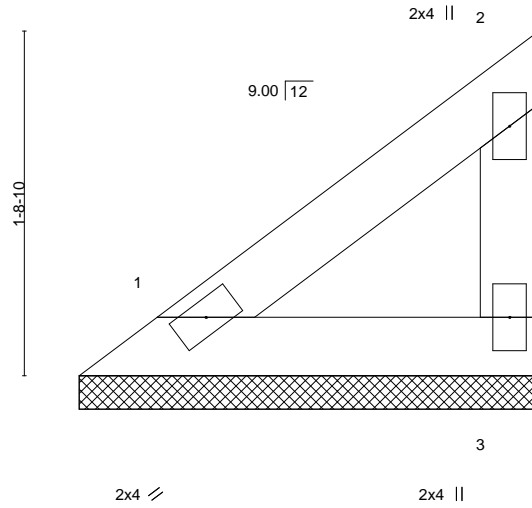
Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:09 2023 Page 1

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Scale = 1:11.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 9 lb	FT = 20%

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

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

**REACTIONS.** (size) 1=2-3-8, 3=2-3-8  
 Max Horz 1=39(LC 11)  
 Max Uplift 3=13(LC 12)  
 Max Grav 1=68(LC 1), 3=74(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.



February 7, 2023

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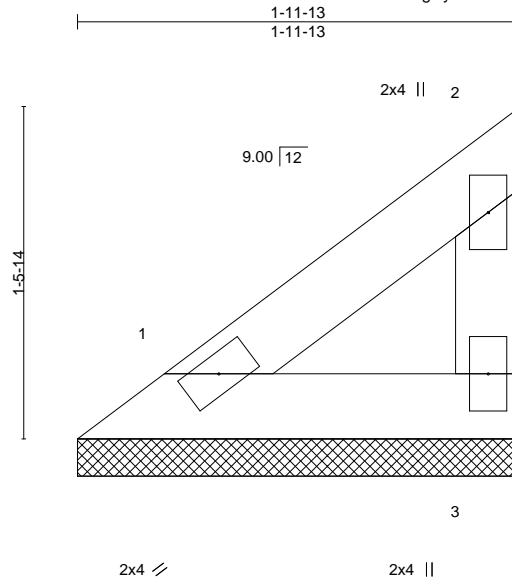
Job NC1-94-R	Truss V24	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 156510998 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:10 2023 Page 1

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Scale = 1:10.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 7 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 1-11-13 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=1-11-13, 3=1-11-13  
 Max Horz 1=32(LC 11)  
 Max Uplift 3=11(LC 12)  
 Max Grav 1=56(LC 1), 3=60(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.



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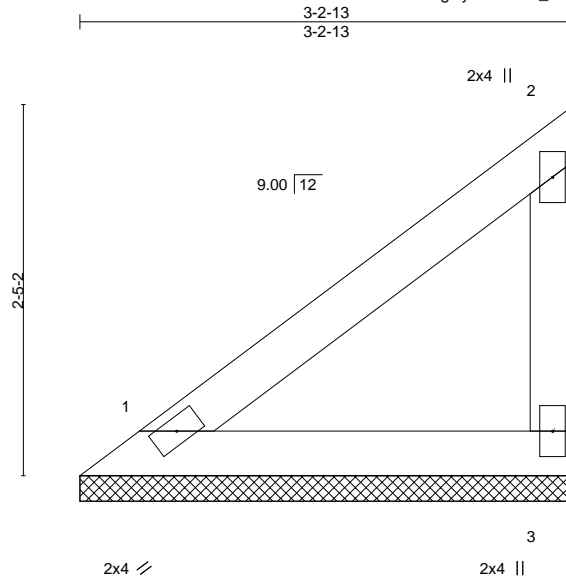
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Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Feb 7 05:49:11 2023 Page 1

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Scale = 1:15.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 13 lb	FT = 20%

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

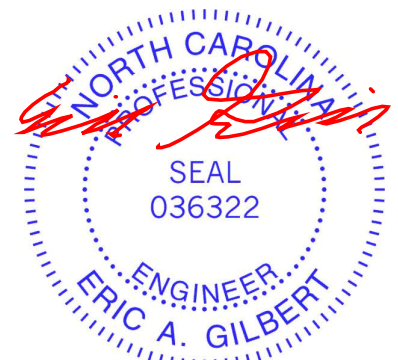
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-2-13 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-2-13, 3=3-2-13  
 Max Horz 1=60(LC 11)  
 Max Uplift 3=21(LC 12)  
 Max Grav 1=106(LC 1), 3=114(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.



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



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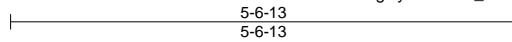
Job NC1-94-R	Truss V27	Truss Type GABLE	Qty 1	Ply 1	Caruso-Davidson-OYL NC1 94 I56511001 Job Reference (optional)
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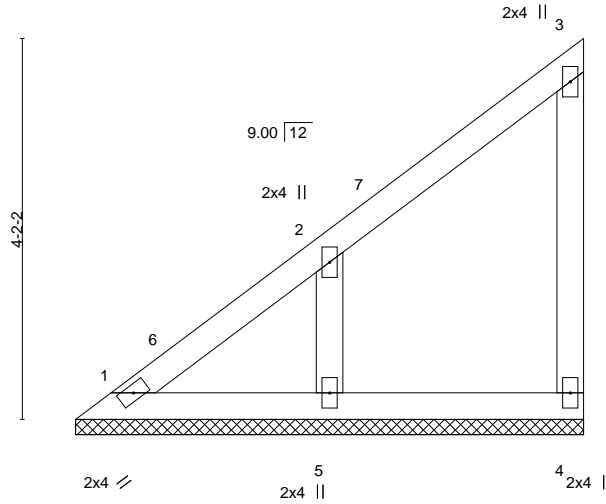
Apex, NC - 27523,

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Scale = 1:25.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 25 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-6-13, 4=5-6-13, 5=5-6-13  
 Max Horz 1=112(LC 9)  
 Max Uplift 1=-6(LC 8), 4=-21(LC 9), 5=-75(LC 12)  
 Max Grav 1=91(LC 20), 4=93(LC 19), 5=259(LC 19)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 5-5-1 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.



February 7, 2023

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

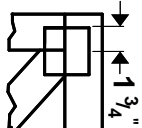
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



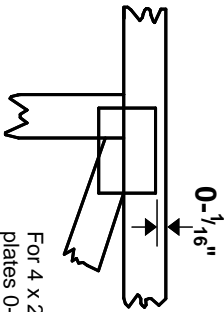
818 Soundside Road  
 Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

**4 X 4**

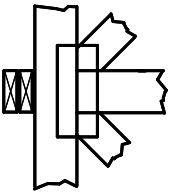
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



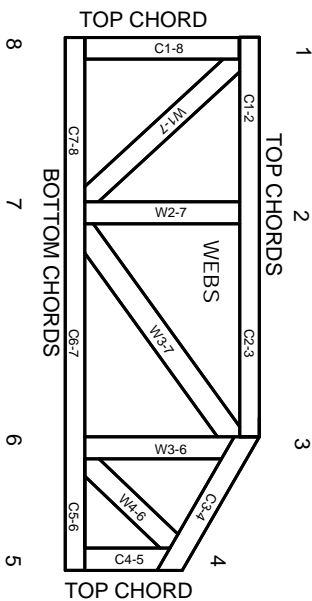
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



# General Safety Notes

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

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