

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 21057A  
240.3174.C.20x10CVP

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

Pages or sheets covered by this seal: I37333728 thru I37333772

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

North Carolina COA: C-0844



June 6, 2019

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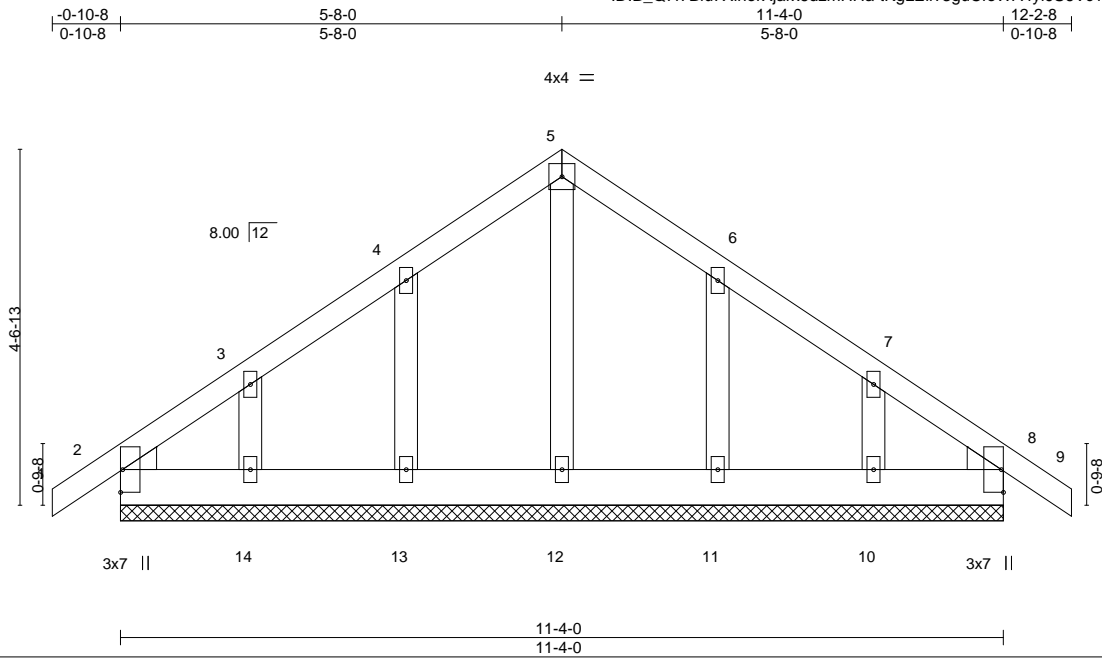
Johnson, Andrew

**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 21057A	Truss AE	Truss Type Common Supported Gable	Qty 2	Ply 1	240.3174.C.20x10CVP	137333728
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:27 2019 Page 1  
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Scale = 1:29.6

Plate Offsets (X,Y)--	[2:0-0-2,0-0-2], [2:0-0-3,0-3-13], [8:0-0-2,0-0-2], [8:0-0-3,0-3-13]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.05	Vert(LL) -0.00 8 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.01	Vert(CT) -0.00 9 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-S		Weight: 68 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
OTHERS 2x4 SP No.3

WEDGE  
Left: 2x4 SP No.3, Right: 2x4 SP No.3

**BRACING-**

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

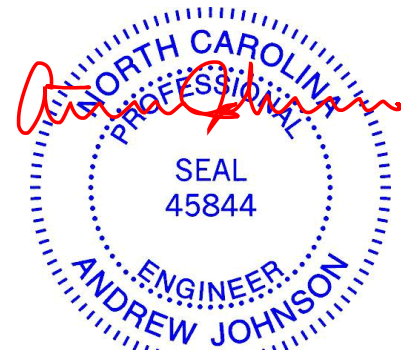
**REACTIONS.**

All bearings 11-4-0.  
(lb) - Max Horz 2=-108(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 13, 14, 11, 10  
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 5-8-0, Corner(3) 5-8-0 to 8-8-0, Exterior(2) 8-8-0 to 12-2-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13, 14, 11, 10.



June 6, 2019

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

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



818 Soundside Road  
Edenton, NC 27932

Job 21057A	Truss AG	Truss Type Common Girder	Qty 1	Ply 2	240.3174.C.20x10CVP	137333729
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:28 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-LXEjS2mdqz03Ho5MefAY?J2iKlv6snBskyWifKz9HFn



5x9 ||

Scale = 1:29.6

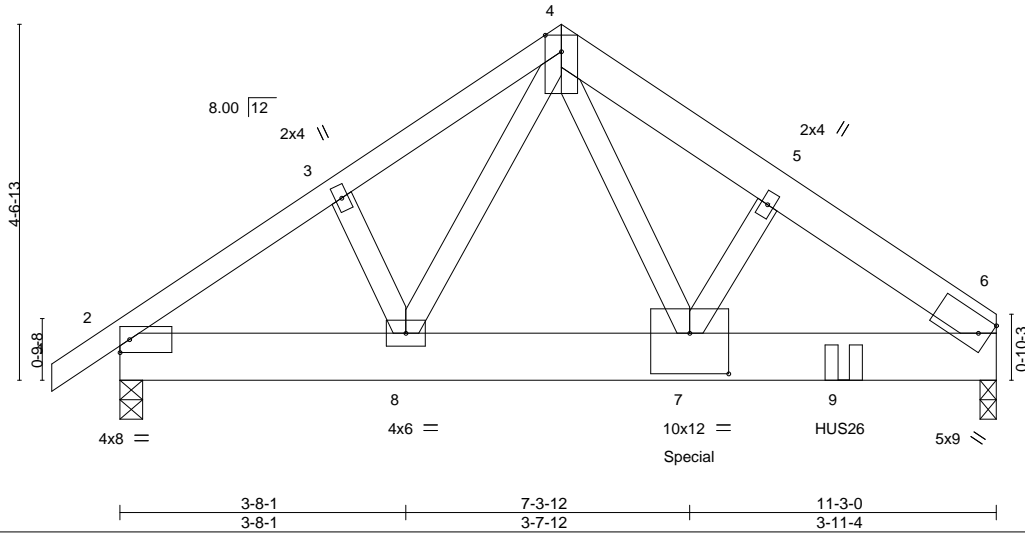


Plate Offsets (X,Y)--	[7:0-6-0,0-6-4]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.03	6-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.06	6-7	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.60	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 160 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 4-6: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x8 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 4-7: 2x4 SP No.2	

**REACTIONS.** (lb/size) 6=4283/0-2-8, 2=2170/0-3-8  
 Max Horz 2=104(LC 26)  
 Max Uplift 6=-846(LC 9), 2=-458(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3147/672, 3-4=-2978/697, 4-5=-5343/1209, 5-6=-5469/1184  
 BOT CHORD 2-8=-535/2385, 7-8=-524/2569, 6-7=-900/4304  
 WEBS 3-8=-149/321, 4-8=-280/203, 4-7=-1114/4897, 5-7=-180/337

- 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, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-2-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=846.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - Use USP HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent at 9-3-8 from the left end to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3899 lb down and 1021 lb up at 7-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

Continued on page 2



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818 Soundside Road  
 Edenton, NC 27932

Job 21057A	Truss AG	Truss Type Common Girder	Qty 1	Ply <b>2</b>	240.3174.C.20x10CVP Job Reference (optional)	I37333729
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:28 2019 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-4=-60, 4-6=-60, 2-6=-20
- Concentrated Loads (lb)
  - Vert: 7=-3899(B) 9=-1605(B)

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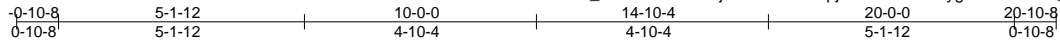


818 Soundside Road  
Edenton, NC 27932

Job 21057A	Truss BE	Truss Type Common Structural Gable	Qty 1	Ply 1	240.3174.C.20x10CVP	137333730
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:29 2019 Page 1  
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4x4 =

Scale: 1/4"=1'

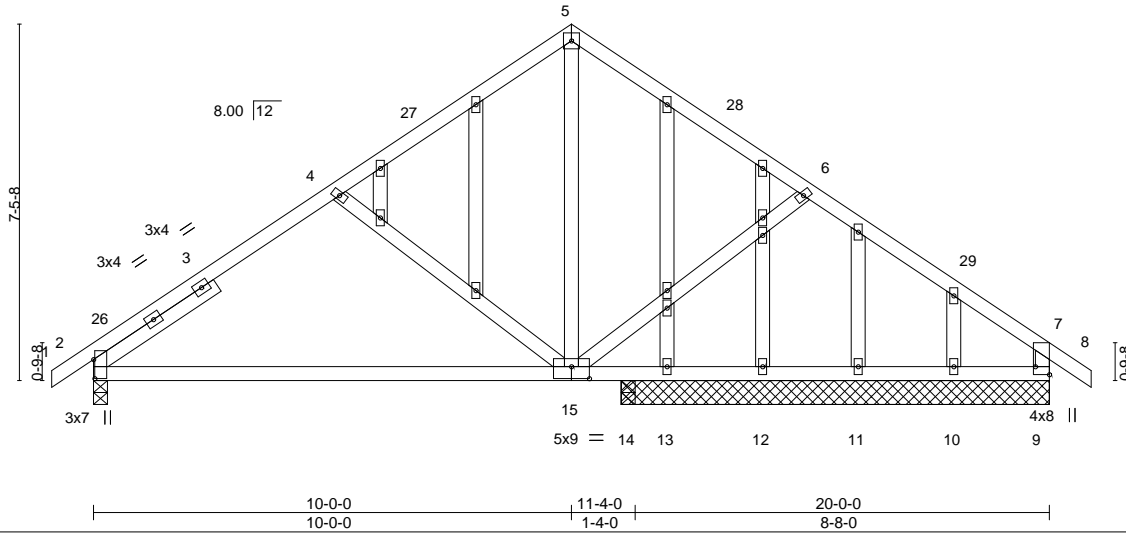


Plate Offsets (X,Y)--	[2:0-4-13,0-0-5], [7:0-1-3,0-1-12], [9:Edge,0-3-8], [9:0-0-0,0-1-12], [15:0-4-8,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.24	2-15	>550	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.52	2-15	>260		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.22	Horz(CT)	0.02	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 131 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-9-9 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	
OTHERS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 3-1-3	

**REACTIONS.** All bearings 8-11-8 except (jt=length) 2=0-3-8, 14=0-3-8.  
 (lb) - Max Horz 2=182(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 10 except 9=104(LC 13), 13=377(LC 1), 14=162(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 13, 12, 11, 10 except 2=736(LC 1), 9=758(LC 1), 14=538(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-833/115, 4-5=-592/102, 5-6=-589/102, 6-7=-828/118, 7-9=-641/151  
 BOT CHORD 2-15=-112/675, 14-15=-17/609, 13-14=-17/609, 12-13=-17/609, 11-12=-17/609, 10-11=-17/609, 9-10=-17/609  
 WEBS 5-15=-2/440, 6-15=-274/215, 4-15=-292/212

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 9=104, 13=377, 14=162.



June 6, 2019

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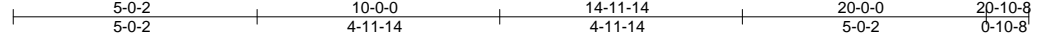
Job 21057A	Truss BG	Truss Type Common Girder	Qty 1	Ply 2	240.3174.C.20x10CVP	137333731
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84 Components (Dunn),

Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:31 2019 Page 1

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5x9 ||

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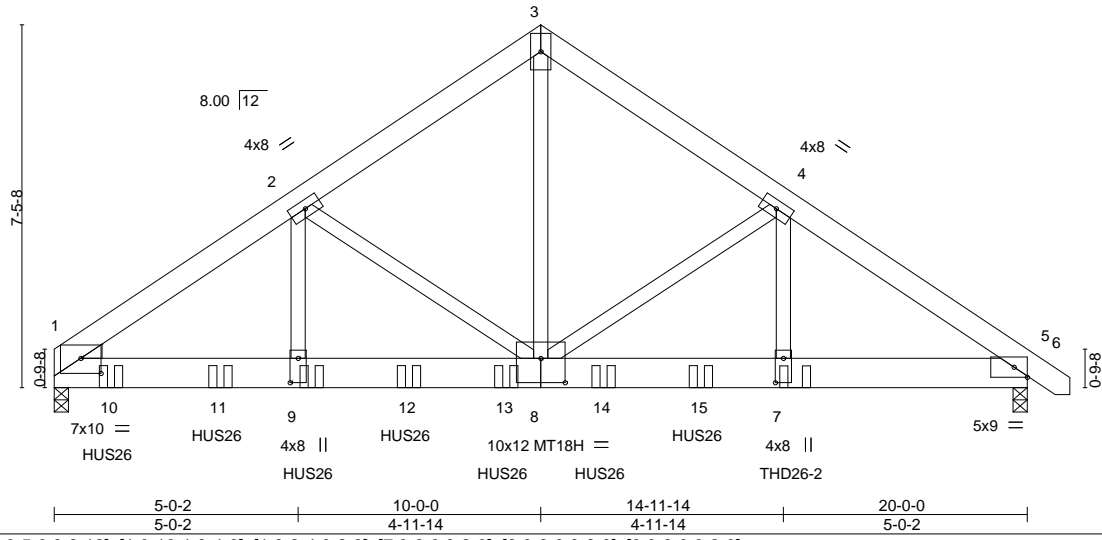


Plate Offsets (X,Y)--	[1:0-5-0,0-3-12], [1:0-10-1,0-4-6], [1:0-3-4,0-2-3], [7:0-6-0,0-2-0], [8:0-6-0,0-6-0], [9:0-6-0,0-2-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.10	7-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.20	7-8	>999	180	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.84	Horz(CT)	0.05	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 314 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-9 oc purlins.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 3-8: 2x4 SP No.1	
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 1=8678/0-3-8 (req. 0-4-6), 5=6816/0-3-8  
 Max Horz 1=-175(LC 23)  
 Max Uplift 1=-1173(LC 8), 5=-1156(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-11543/1580, 2-3=-7953/1202, 3-4=-7947/1201, 4-5=-11134/1858  
 BOT CHORD 1-9=-1311/9275, 8-9=-1311/9275, 7-8=-1425/8898, 5-7=-1425/8898  
 WEBS 3-8=-1205/8359, 4-8=-2855/808, 4-7=-781/3580, 2-8=-3317/540, 2-9=-450/4045

**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.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1173, 5=1156.
- Use USP HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-3-0 oc max. starting at 1-2-0 from the left end to 13-3-8 to connect truss(es) to back face of bottom chord.
- Use USP THD26-2 (With 18-16d nails into Girder & 12-10d nails into Truss) or equivalent at 15-2-12 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard  
 Continued on page 2



June 6, 2019

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**TRENCO**  
 ENGINEERING BY  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job 21057A	Truss BG	Truss Type Common Girder	Qty 1	Ply <b>2</b>	240.3174.C.20x10CVP Job Reference (optional)	I37333731
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:31 2019 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 7=-2483(B) 9=-1626(B) 10=-1626(B) 11=-1626(B) 12=-1626(B) 13=-1626(B) 14=-1626(B) 15=-1626(B)

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



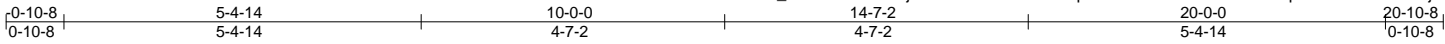
818 Soundside Road  
Edenton, NC 27932

Job 21057A	Truss CP1	Truss Type COMMON	Qty 4	Ply 1	240.3174.C.20x10CVP	137333732
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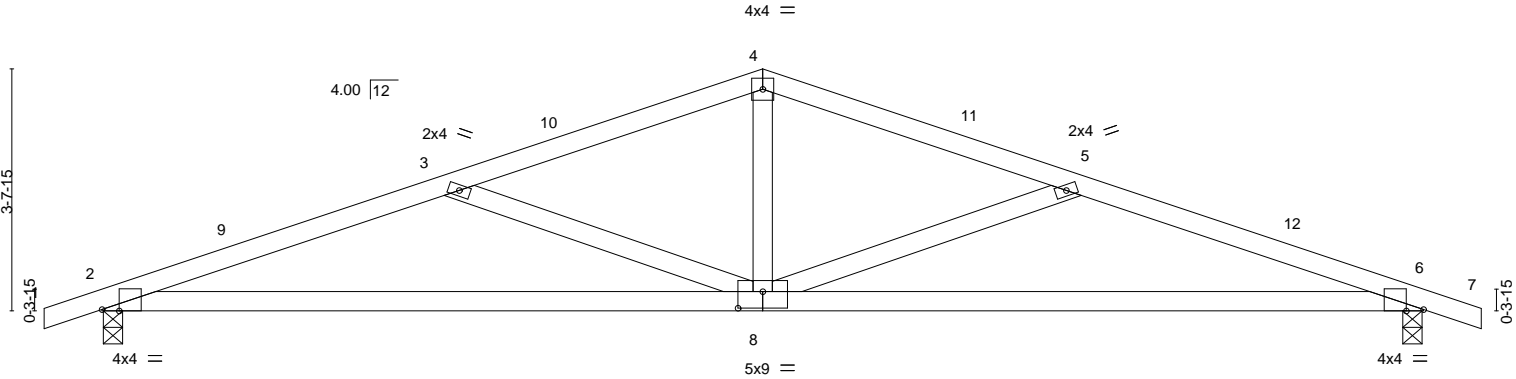
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:32 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-DIUEHPp8uCXVmQP8tVEU99DlavlqohfSeaUwo5z9HFj



Scale = 1:34.9



0-0-4	10-0-0	19-11-12	20-0-0
0-0-4	9-11-12	9-11-12	0-0-4

Plate Offsets (X,Y)-- [2:0-3-2,Edge], [6:0-3-2,Edge], [8:0-4-8,0-3-0]					
<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 0.77	Vert(LL) 0.34 6-8 >687 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.80	Vert(CT) -0.41 2-8 >579 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.25	Horz(CT) 0.05 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 83 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-10-7 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 5-4-15 oc bracing.
WEBS 2x4 SP No.3	


**REACTIONS.** (lb/size) 2=850/0-3-8, 6=850/0-3-8  
 Max Horz 2=61(LC 12)  
 Max Uplift 2=-333(LC 8), 6=-333(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1802/1165, 3-4=-1342/1020, 4-5=-1342/1020, 5-6=-1802/1165  
 BOT CHORD 2-8=-1060/1672, 6-8=-1067/1672  
 WEBS 4-8=-539/583, 5-8=-496/252, 3-8=-496/251

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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) except (jt=lb) 2=333, 6=333.

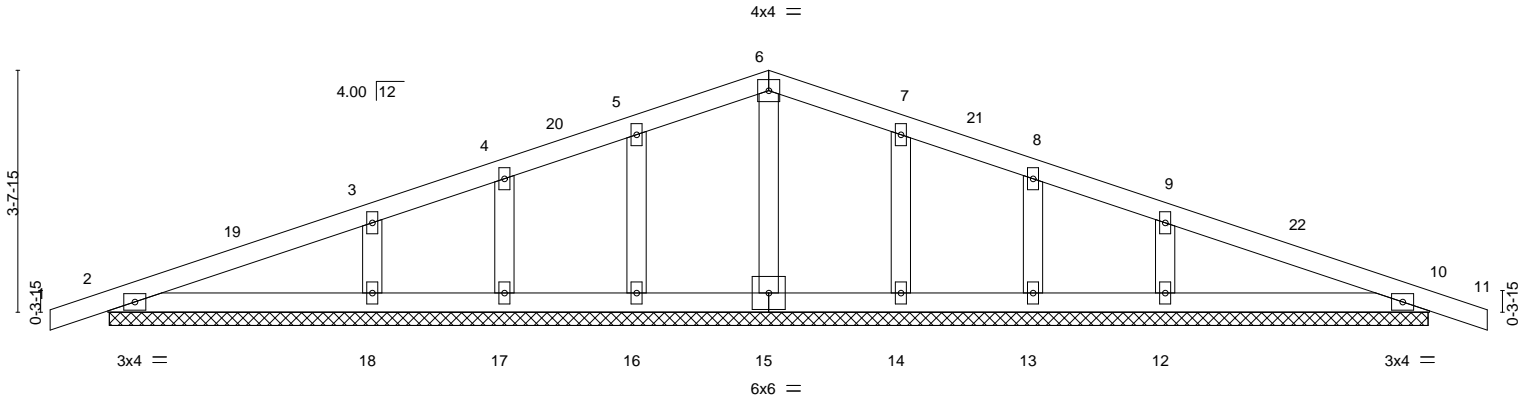
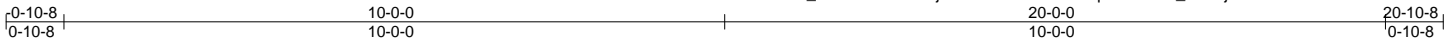


June 6, 2019

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Job 21057A	Truss CPE	Truss Type Common Supported Gable	Qty 1	Ply 1	240.3174.C.20x10CVP	137333733
84 Components (Dunn), Dunn, NC - 28334,					8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:33 2019 Page 1	
					ID: B_Q7f7Biu7XlherXjarx6dzmHHa-iU2cVlqmfWfMNZ_KRClijNlccJonXB6btEDTKXz9HFi	
					Job Reference (optional)	



		19-11-12			20-0-0
		19-11-12			0-0-4
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(LL) 0.00 11 n/r 120	GRIP 244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Vert(CT) 0.01 11 n/r 120	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Horz(CT) 0.00 10 n/a n/a	Weight: 85 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 19-11-8.  
(lb) - Max Horz 2=61(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 17, 18, 14, 13, 12, 10  
Max Grav All reactions 250 lb or less at joint(s) 2, 15, 16, 17, 14, 13, 10 except 18=315(LC 23), 12=315(LC 24)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 10-0-0, Corner(3) 10-0-0 to 13-0-0, Exterior(2) 13-0-0 to 20-10-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 17, 18, 14, 13, 12, 10.



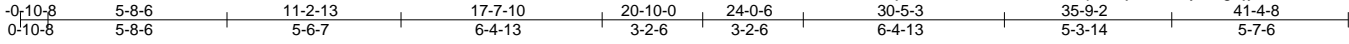
June 6, 2019

Job 21057A	Truss H1	Truss Type Hip	Qty 1	Ply 1	240.3174.C.20x10CVP	137333734
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:34 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-Ahc\_i5rOQpnD?jZW\_wHyEalgYjySGUfl6uz0s\_z9HFh



Scale = 1:73.3

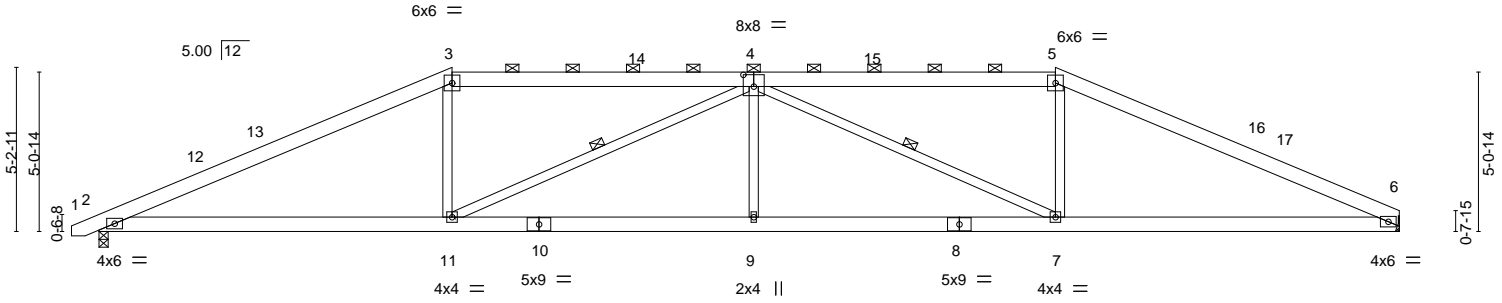


Plate Offsets (X,Y)--	[4:0-4-0,0-4-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.22	9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.44	7-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.14	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 250 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP DSS *Except* 3-4,4-5: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except 2-0-0 oc purlins (3-8-6 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	WEBS 1 Row at midpt 4-11, 4-7

**REACTIONS.** (lb/size) 6=1646/Mechanical, 2=1695/0-3-8  
Max Horz 2=85(LC 12)  
Max Uplift 6=-179(LC 9), 2=-202(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3360/489, 3-4=-2963/521, 4-5=-2927/512, 5-6=-3302/479  
BOT CHORD 2-11=-356/2982, 9-11=-490/3779, 7-9=-490/3779, 6-7=-337/2946  
WEBS 3-11=0/746, 4-11=-1093/210, 4-9=0/343, 4-7=-1126/214, 5-7=0/757

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-7-14 to 3-5-12, Interior(1) 3-5-12 to 11-2-13, Exterior(2) 11-2-13 to 17-1-0, Interior(1) 17-1-0 to 30-5-3, Exterior(2) 30-5-3 to 36-3-7, Interior(1) 36-3-7 to 41-3-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=179, 2=202.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

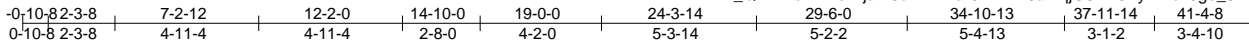


June 6, 2019

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Job 21057A	Truss H1A	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 2	240.3174.C.20x10CVP	I37333735
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8.240 s Apr 6 2019 MiTek Industries, Inc. Thu Jun 6 15:45:27 2019 Page 1  
 ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-0Km7MJamqjG5VX6Ay7wibw0gd\_5hXzsc3NIFUezBykM



Scale = 1:79.1

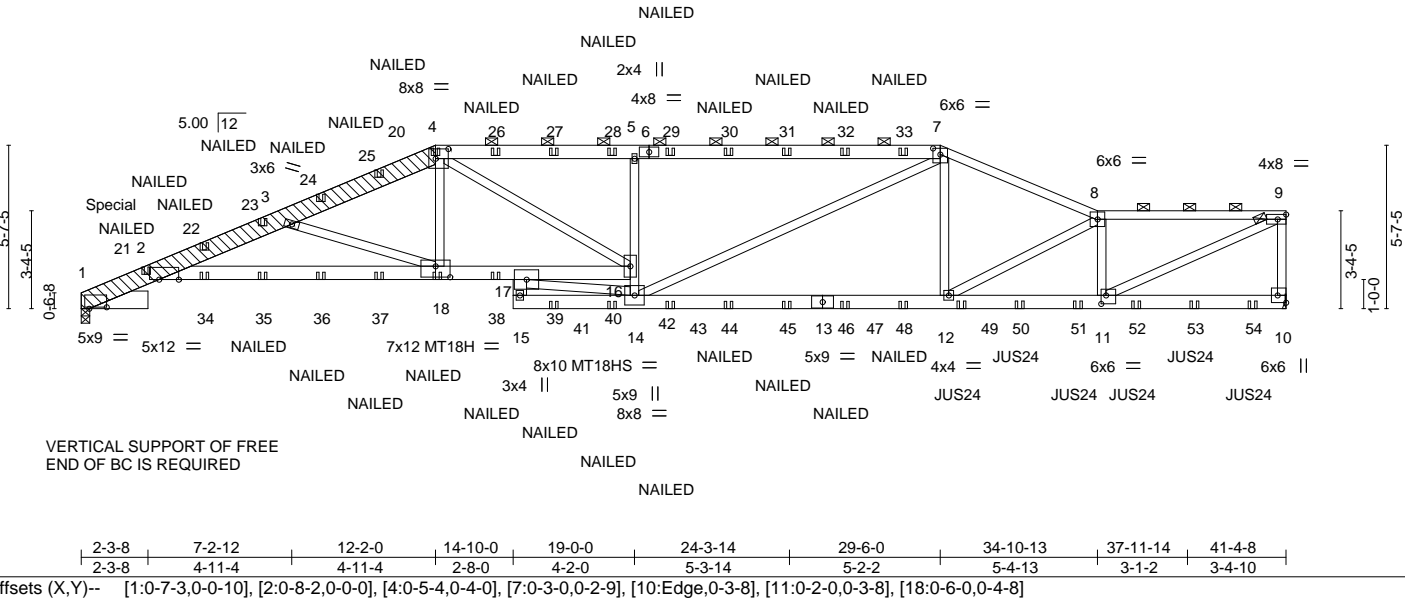


Plate Offsets (X,Y)--	[1:0-7-3,0-0-10], [2:0-8-2,0-0-0], [4:0-5-4,0-4-0], [7:0-3-0,0-2-9], [10:Edge,0-3-8], [11:0-2-0,0-3-8], [18:0-6-0,0-4-8]
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LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.86	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 1.00	Vert(LL) 0.43 15 >999 240	MT18H	244/190
BCLL 0.0 *	Lumber DOL 1.15	WB 0.92	Vert(CT) -0.79 17 >624 180	MT18HS	244/190
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.31 10 n/a n/a		Weight: 671 lb FT = 20%
	Code IRC2015/TPI2014				

**LUMBER-**  
 TOP CHORD 2x8 SP DSS \*Except\*  
 4-6: 2x6 SP No.2, 7-8: 2x4 SP No.2, 8-9: 2x4 SP No.1  
 6-7: 2x6 SP DSS  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 1-19: 2x8 SP No.2, 2-18,16-18: 2x6 SP DSS  
 WEBS 2x4 SP No.3 \*Except\*  
 14-17,9-11: 2x4 SP No.2  
 OTHERS 2x8 SP DSS  
 LBR SCAB 1-4 2x8 SP DSS one side

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-3-2 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-5 max.): 4-7, 8-9.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 3-1-0 oc bracing: 15-17. 10-0-0 oc bracing: 2-18

**REACTIONS.** (lb/size) 1=3556/0-3-8 (min. 0-1-10), 10=3919/Mechanical  
 Max Horz 1=149(LC 8)  
 Max Uplift 1=714(LC 4), 10=1001(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-21=-1250/217, 2-21=-1147/196, 2-22=-11163/2587, 22-23=-11081/2571, 3-23=-10995/2566, 3-24=-8697/2084, 24-25=-8604/2077, 20-25=-8575/2080, 4-20=-8551/2089, 4-26=-7618/2011, 26-27=-7616/2010, 27-28=-7614/2010, 5-28=-7613/2009, 5-6=-7576/2001, 6-29=-7578/2003, 29-30=-7577/2003, 30-31=-7577/2002, 31-32=-7576/2002, 32-33=-7575/2002, 7-33=-7574/2002, 7-8=-6838/1738, 8-9=-6876/1767, 9-10=-3464/926  
 BOT CHORD 2-34=-2525/10850, 34-35=-2525/10850, 35-36=-2525/10850, 36-37=-2525/10850, 18-37=-2525/10850, 18-38=-1907/8024, 17-38=-1907/8024, 17-39=-82/649, 39-40=-82/649, 16-40=-82/649, 15-41=-579/2090, 41-42=-579/2090, 14-42=-579/2090, 14-43=-1572/6252, 43-44=-1572/6252, 44-45=-1572/6252, 13-45=-1572/6252, 13-46=-1572/6252, 46-47=-1572/6252, 47-48=-1572/6252, 12-48=-1572/6252, 12-49=-1798/6996, 49-50=-1798/6996, 50-51=-1798/6996, 11-51=-1798/6996  
 WEBS 3-18=-3102/743, 4-18=-506/3032, 4-16=-521/40, 14-17=-1362/5486, 14-16=-1668/796, 5-16=-1200/807, 7-14=-443/1637, 7-12=-95/1199, 8-12=-824/308, 8-11=-2473/632, 9-11=-1925/7505

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 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 individual loads noted as (F) or (B), unless otherwise indicated.
  - Attached 13-4-11 scab 1 to 4, front face(s) 2x8 SP DSS with 2 row(s) of USP WS45 screws spaced 9" o.c.except : starting at 1-4-10 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-2-1.
  - Unbalanced roof live loads have been considered for this design.



Continued on page 2

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818 Soundside Road  
 Edenton, NC 27932

Job 21057A	Truss H1A	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 2	240.3174.C.20x10CVP Job Reference (optional)	137333735
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8.240 s Apr 6 2019 MiTek Industries, Inc. Thu Jun 6 15:45:27 2019 Page 2  
ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-0Km7MJamqjG5VX6Ay7wibv0gd\_5hXzsc3NIFUez8ykM

**NOTES-**

- 5) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are MT20 plates unless otherwise indicated.
- 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) Refer to girder(s) for truss to truss connections.
- 11) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 714 lb uplift at joint 1 and 1001 lb uplift at joint 10.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Use USP JUS24 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 30-2-12 from the left end to 40-2-12 to connect truss(es) to front face of bottom chord.
- 15) Fill all nail holes where hanger is in contact with lumber.
- 16) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 116 lb down at 2-2-12 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: 1-2=-81, 2-4=-60, 4-7=-60, 7-8=-60, 8-9=-60, 2-17=-20, 10-15=-20

Concentrated Loads (lb)

Vert: 4=-115(F) 2=-65(F) 18=-74(F) 21=-126(F) 22=-110(F) 23=-94(F) 24=-69(F) 25=-44(F) 26=-115(F) 27=-119(F) 28=-119(F) 29=-119(F) 30=-119(F) 31=-119(F) 32=-119(F) 33=-119(F) 34=-79(F) 35=-102(F) 36=-123(F) 37=-148(F) 38=-74(F) 39=-69(F) 40=-69(F) 43=-69(F) 44=-69(F) 45=-69(F) 46=-69(F) 48=-69(F) 49=-260(F) 50=-253(F) 51=-253(F) 52=-253(F) 53=-253(F) 54=-253(F)

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

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



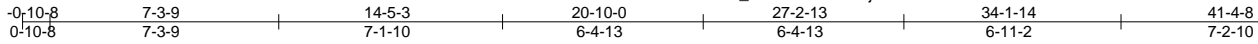
818 Soundside Road  
Edenton, NC 27932

Job 21057A	Truss H2	Truss Type Hip	Qty 1	Ply 1	240.3174.C.20x10CVP	137333736
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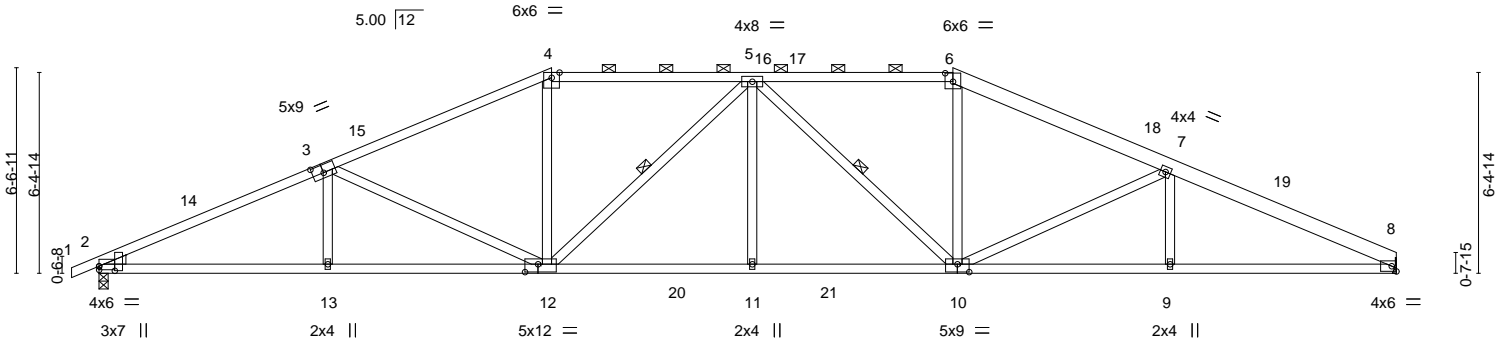
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:41 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-T1XeAUwmzfDLobsuvb134mmXLHPePnjU9uc4z9HFa



Scale = 1:73.5



	7-3-9	14-5-3	20-10-0	27-2-13	34-1-14	41-4-8
	7-3-9	7-1-10	6-4-13	6-4-13	6-11-2	7-2-10
Plate Offsets (X, Y)--	[2:0-0-0,0-1-6], [2:0-1-11,0-6-0], [3:0-4-4,0-3-0], [6:0-3-0,0-3-4], [10:0-4-8,0-3-0], [12:0-5-0,0-3-0]					

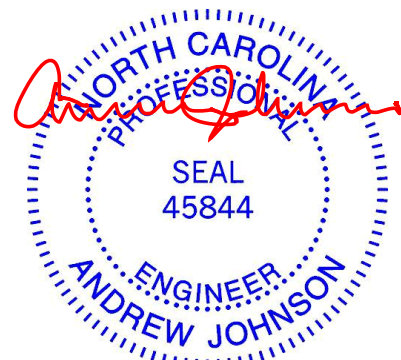
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.23	11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.48	11-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.73	Horz(CT)	0.18	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 225 lb	FT = 20%

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

**REACTIONS.** (lb/size) 8=1646/Mechanical, 2=1709/0-3-8  
 Max Horz 2=107(LC 16)  
 Max Uplift 8=-145(LC 13), 2=-171(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3466/512, 3-4=-2814/474, 4-5=-2508/481, 5-6=-2507/474, 6-7=-2815/470,  
 7-8=-3428/504  
 BOT CHORD 2-13=-413/3082, 12-13=-407/3092, 11-12=-306/2817, 10-11=-306/2817, 9-10=-399/3065,  
 8-9=-399/3065  
 WEBS 3-13=0/308, 3-12=-641/223, 4-12=-30/683, 5-12=-584/98, 5-11=0/304, 5-10=-577/95,  
 6-10=-39/689, 7-10=-619/225, 7-9=0/297

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-3-2, Interior(1) 3-3-2 to 14-5-3, Exterior(2) 14-5-3 to 20-3-7, Interior(1) 20-3-7 to 27-2-13, Exterior(2) 27-2-13 to 33-1-0, Interior(1) 33-1-0 to 41-3-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=145, 2=171.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

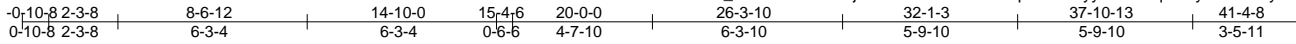


Job 21057A	Truss H2A	Truss Type Roof Special	Qty 1	Ply 1	240.3174.C.20x10CVP	137333737
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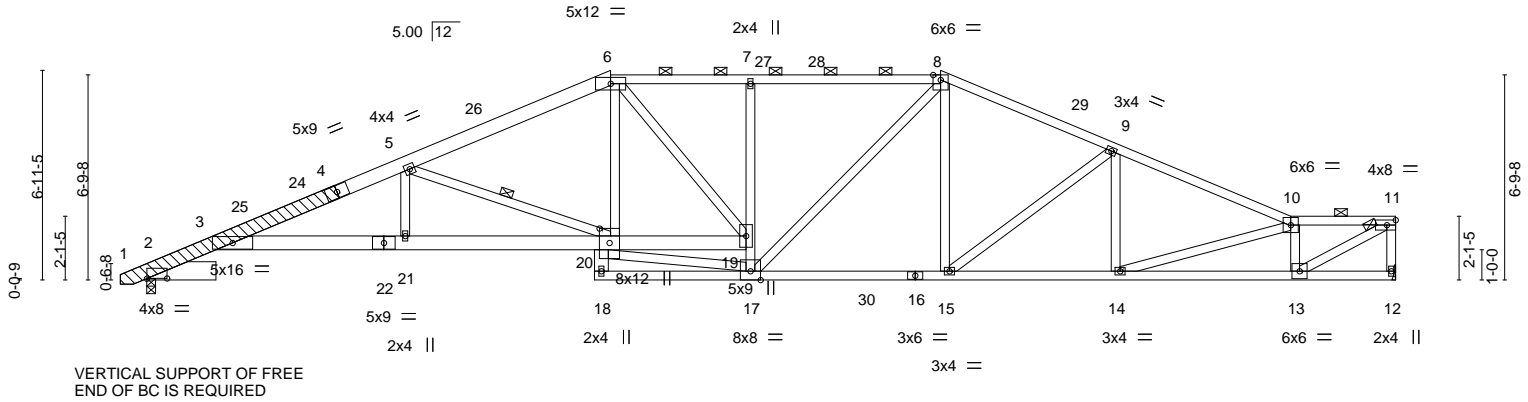
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:42 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-xD40QqxPXHn4yyA3SbQqZGdy?xi980iwy7vS8Wz9HFZ



Scale = 1:76.3



VERTICAL SUPPORT OF FREE END OF BC IS REQUIRED

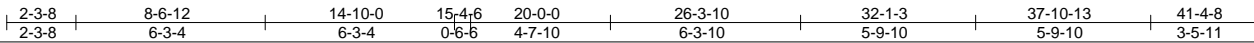


Plate Offsets (X, Y)-- [2:0-8-1,0-0-2], [20:0-5-12,0-4-0]

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 0.90	Vert(LL)	-0.30	20-21	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.61	20-21	>805		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.28	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 293 lb	FT = 20%

- LUMBER-**
- TOP CHORD 2x4 SP No.2 \*Except\*  
4-6: 2x6 SP No.2, 1-4: 2x6 SP DSS
  - BOT CHORD 2x6 SP No.2 \*Except\*  
2-23: 2x8 SP No.2, 3-22: 2x6 SP DSS, 16-18,12-16: 2x4 SP No.2
  - WEBS 2x4 SP No.3 \*Except\*  
11-13: 2x4 SP No.2
  - OTHERS 2x6 SP DSS
  - LBR SCAB 1-4 2x6 SP DSS one side

- BRACING-**
- TOP CHORD Structural wood sheathing directly applied or 2-0-2 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-6 max.): 6-8, 10-11.
  - BOT CHORD Rigid ceiling directly applied or 9-11-9 oc bracing.
  - WEBS 1 Row at midpt 5-20

- REACTIONS.** (lb/size) 12=1625/Mechanical, 2=1704/0-3-8  
Max Horz 2=151(LC 12)  
Max Uplift 12=-165(LC 9), 2=-177(LC 12)

- FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
- TOP CHORD 2-3=-607/64, 3-5=-4432/584, 5-6=-3165/467, 6-7=-2575/441, 7-8=-2571/441, 8-9=-2625/416, 9-10=-3069/420, 10-11=-2641/313, 11-12=-1581/215
  - BOT CHORD 3-21=-551/4157, 20-21=-551/4157, 19-20=-64/262, 15-17=-255/2358, 14-15=-344/2782, 13-14=-333/2754
  - WEBS 5-21=0/377, 5-20=-1429/301, 17-19=-662/178, 7-19=-415/173, 8-17=-71/459, 8-15=-36/469, 9-15=-533/183, 10-13=-1420/242, 11-13=-351/2993, 6-20=-85/1158, 6-19=-352/98, 17-20=-262/2367

**NOTES-**

- Attached 7-9-10 scab 1 to 4, front face(s) 2x6 SP DSS with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-6-15 from end at joint 1, nail 2 row(s) at 3" o.c. for 5-1-9; starting at 5-9-5 from end at joint 1, nail 2 row(s) at 3" o.c. for 2-0-0.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-7-14 to 3-5-12, Interior(1) 3-5-12 to 15-4-6, Exterior(2) 15-4-6 to 19-6-1, Interior(1) 19-6-1 to 26-3-10, Exterior(2) 26-3-10 to 30-5-4, Interior(1) 30-5-4 to 41-2-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=165.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 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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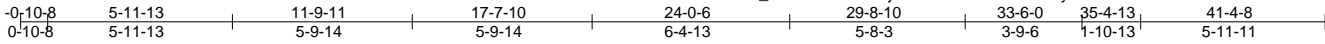
818 Soundside Road  
Edenton, NC 27932

Job 21057A	Truss H3	Truss Type ROOF TRUSS	Qty 1	Ply 1	240.3174.C.20x10CVP	137333738
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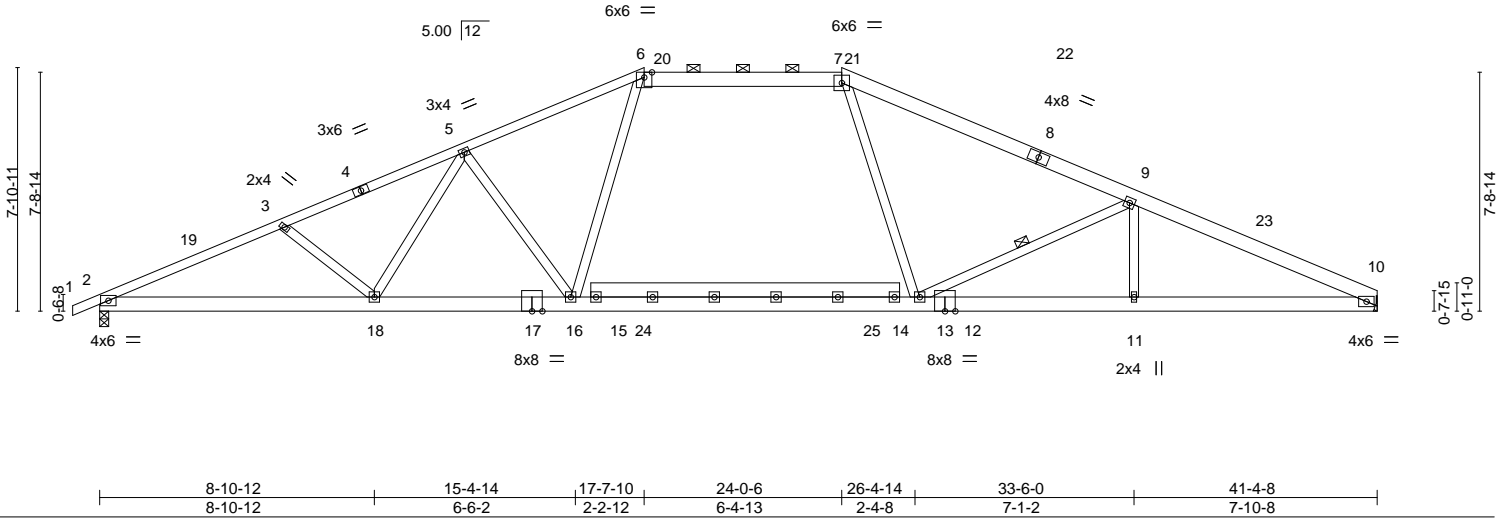
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:43 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-PPeObAy1lavxa6fOJx36UAAJL?dtbm4Ane?hyz9HFY



Scale = 1:74.6



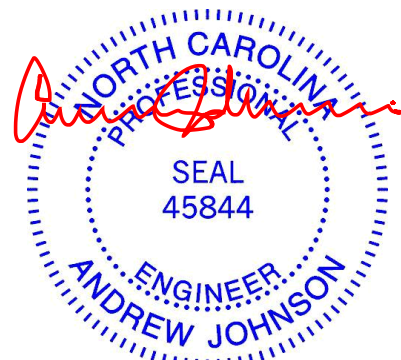
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.46 11-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.64 11-13	>772	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.11 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 269 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 4-6,1-4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-7-4 oc purlins, except 2-0-0 oc purlins (4-7-8 max.): 6-7.
BOT CHORD 2x6 SP No.2 *Except* 12-17: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 2-2-0 oc bracing: 11-13.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 9-13

**REACTIONS.** (lb/size) 2=1709/0-3-8, 10=1646/Mechanical  
Max Horz 2=130(LC 12)  
Max Uplift 2=-198(LC 12), 10=-175(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3478/500, 3-5=-3226/477, 5-6=-2698/477, 6-7=-2248/464, 7-9=-2736/456,  
9-10=-3492/509  
BOT CHORD 2-18=-424/3107, 16-18=-323/2741, 13-16=-217/2247, 11-13=-405/3141, 10-11=-405/3141  
WEBS 3-18=-251/182, 5-18=-90/492, 5-16=-656/268, 9-13=-996/386, 9-11=0/308,  
6-16=-29/728, 7-13=0/632

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-8 to 3-3-2, Interior(1) 3-3-2 to 17-7-10, Exterior(2) 17-7-10 to 23-5-13, Interior(1) 23-5-13 to 24-0-6, Exterior(2) 24-0-6 to 29-10-10, Interior(1) 29-10-10 to 41-3-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are 4x4 MT20 unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=198, 10=175.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



June 6, 2019

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

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

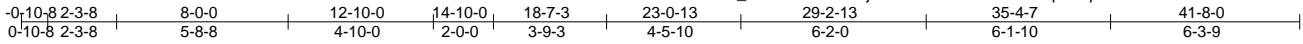
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	240.3174.C.20x10CVP	137333739
21057A	H3A	Hip	1	1		

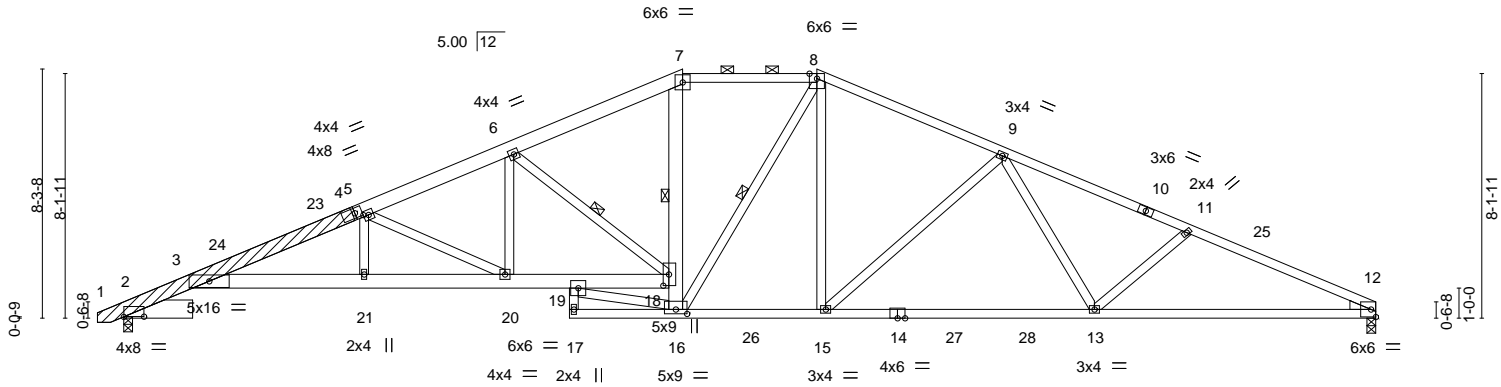
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:45 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-Lom80szlqCAfqPvd8kzXBvFTQ9i1LP8Me576lrz9HFW



Scale = 1:76.7



VERTICAL SUPPORT OF FREE  
END OF BC IS REQUIRED

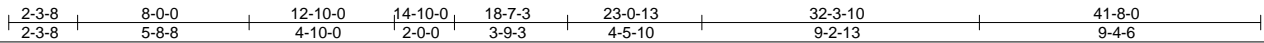


Plate Offsets (X, Y)-- [2:0-8-1,0-0-2], [4:0-2-13,0-2-0], [12:0-7-8,0-0-13], [12:0-0-15,0-0-6], [16:0-4-8,0-1-12], [18:0-4-8,0-2-4]

<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 0.95	Vert(LL)	-0.31	13-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.64	13-15	>767		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.28	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 293 lb	FT = 20%

**LUMBER-**  
**TOP CHORD** 2x4 SP No.2 \*Except\*  
 4-7: 2x6 SP No.2, 1-4: 2x6 SP DSS  
**BOT CHORD** 2x4 SP No.2 \*Except\*  
 2-22: 2x8 SP No.2, 3-18: 2x6 SP DSS, 17-19: 2x4 SP No.3  
 12-14: 2x4 SP No.1  
**WEBS** 2x4 SP No.3 \*Except\*  
 7-16: 2x6 SP No.2  
**OTHERS**  
 2x6 SP DSS  
**LBR SCAB** 1-4 2x6 SP DSS one side  
**WEDGE**  
 Right: 2x4 SP No.3

**BRACING-**  
**TOP CHORD** Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (3-10-1 max.): 7-8.  
**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
 2-2-0 oc bracing: 13-15.  
**WEBS** 1 Row at midpt 6-18, 7-16, 8-16

**REACTIONS.** (lb/size) 2=1716/0-3-8, 12=1636/0-3-8  
 Max Horz 2=138(LC 16)  
 Max Uplift 2=-206(LC 12), 12=-185(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-612/161, 3-5=-4505/564, 5-6=-3610/526, 6-7=-2395/434, 7-8=-2109/436,  
 8-9=-2370/425, 9-11=-3148/441, 11-12=-3393/480  
**BOT CHORD** 3-21=-481/4236, 20-21=-481/4236, 19-20=-348/3268, 18-19=-202/1315, 15-16=-159/2114,  
 13-15=-292/2626, 12-13=-366/3031  
**WEBS** 5-20=-1080/217, 16-19=-162/1799, 6-18=-1428/252, 16-18=-537/160, 7-18=-49/568,  
 8-15=-69/656, 9-15=-687/235, 9-13=-17/503, 11-13=-273/205, 6-20=-50/1077

- NOTES-**
- Attached 9-2-10 scab 1 to 4, back face(s) 2x6 SP DSS with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-6-15 from end at joint 1, nail 2 row(s) at 3" o.c. for 5-1-15.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-7-14 to 3-6-2, Interior(1) 3-6-2 to 18-7-3, Exterior(2) 18-7-3 to 29-2-13, Interior(1) 29-2-13 to 41-6-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 12. This connection is for uplift only and does not consider lateral forces.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 6, 2019

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

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

818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	240.3174.C.20x10CVP	137333740
21057A	HG	Half Hip Girder	1	2	Job Reference (optional)	

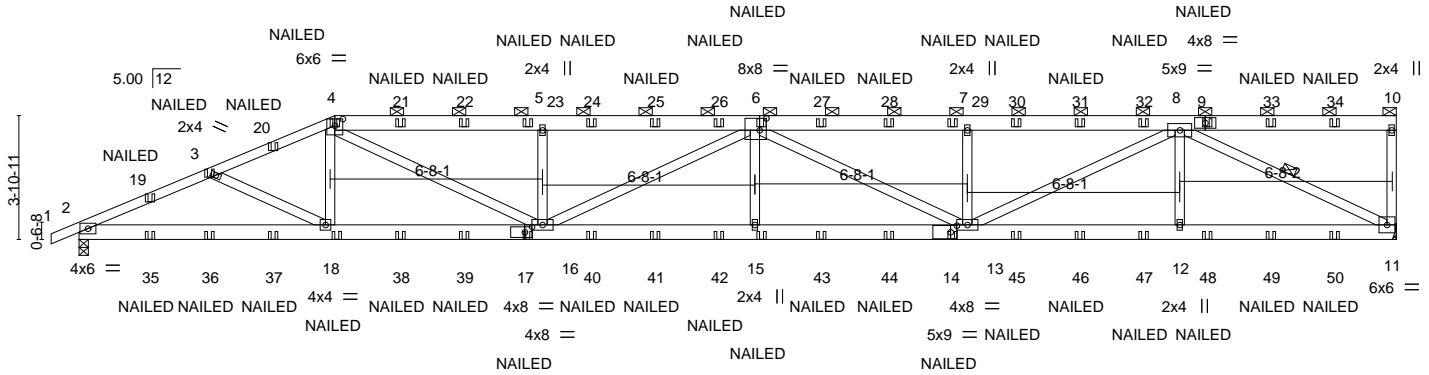
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:49 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-EZ0fsD0ouQg51CPNZ2TLQJKm5\_HGhyZj5Jucz9HFS



Scale = 1:72.4



	4-3-9	8-0-6	14-6-11	21-2-12	27-10-13	34-6-14	41-4-8
	4-3-9	3-8-14	6-6-5	6-8-1	6-8-1	6-8-1	6-9-10
Plate Offsets (X, Y)--	[4:0-3-0,0-2-9], [6:0-2-8,0-4-8], [14:0-2-5,0-2-8], [17:0-2-11,0-2-0]						

<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 0.32	Vert(LL)	0.33	15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.55	15-16	>894		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.64	Horz(CT)	0.12	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 548 lb	FT = 20%

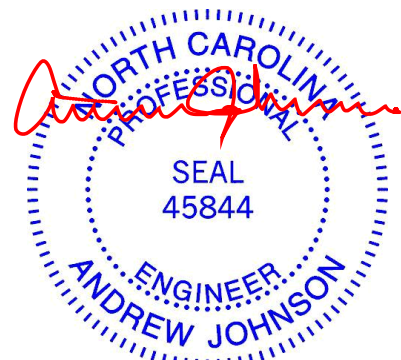
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-2-5 oc purlins, except end verticals, and 2-0-0 oc purlins (5-7-15 max.): 4-10.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 8-11

**REACTIONS.** (lb/size) 11=2503/Mechanical, 2=2564/0-3-8  
 Max Horz 2=140(LC 27)  
 Max Uplift 11=753(LC 4), 2=643(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-5345/1442, 3-4=-5172/1402, 4-5=-7025/2095, 5-6=-7023/2094, 6-7=-6745/2040, 7-8=-6745/2040  
 BOT CHORD 2-18=-1367/4778, 16-18=-1321/4730, 15-16=-2319/7710, 13-15=-2325/7700, 12-13=-1289/4240, 11-12=-1289/4240  
 WEBS 3-18=-39/251, 4-18=0/440, 4-16=-876/2630, 5-16=-652/418, 6-16=-800/255, 6-15=0/425, 6-13=-1079/322, 7-13=-553/357, 8-13=-845/2816, 8-12=0/433, 8-11=-4712/1433

- 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, 2x6 - 2 rows staggered 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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=753, 2=643.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

**LOAD CASE(S)** Standard



June 6, 2019

Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p><b>ENGINEERING BY</b>  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job 21057A	Truss HG	Truss Type Half Hip Girder	Qty 1	Ply 2	240.3174.C.20x10CVP Job Reference (optional)	I37333740
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:50 2019 Page 2  
ID:B\_Q7f7Biu7XlherXjarx6dzmHHa-imZ13Z1QfkoywBnbwHZiuyyU4ARD0jx6nNrtQ2z9HFR

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-10=-60, 2-11=-20

Concentrated Loads (lb)

Vert: 4=-54(B) 6=-54(B) 17=-31(B) 18=-31(B) 3=-55(B) 15=-31(B) 9=-54(B) 14=-31(B) 19=-58(B) 20=-55(B) 21=-54(B) 22=-54(B) 23=-54(B) 24=-54(B) 25=-54(B) 26=-54(B) 27=-54(B) 28=-54(B) 29=-54(B) 30=-54(B) 31=-54(B) 32=-54(B) 33=-54(B) 34=-54(B) 35=-32(B) 36=-30(B) 37=-31(B) 38=-31(B) 39=-31(B) 40=-31(B) 41=-31(B) 42=-31(B) 43=-31(B) 44=-31(B) 45=-31(B) 46=-31(B) 47=-31(B) 48=-31(B) 49=-31(B) 50=-31(B)

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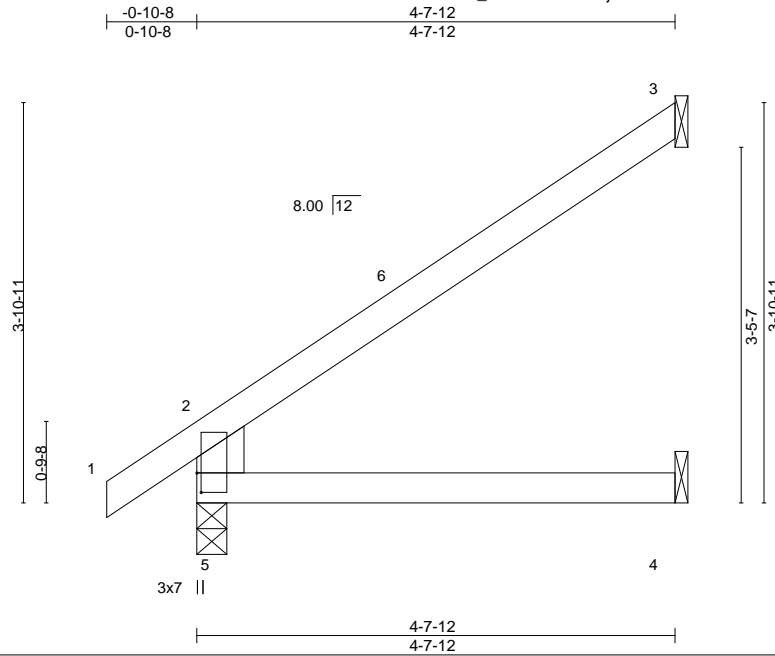
818 Soundside Road  
Edenton, NC 27932

Job 21057A	Truss J1	Truss Type Jack-Open	Qty 17	Ply 1	240.3174.C.20x10CVP	137333741
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:50 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-imZ13Z1QfkoywBnbwHZiuyyUZAAaNOt?6nNrtQ2z9HFR



Scale = 1:22.4

Plate Offsets (X,Y)--	[2:0-1-13,0-2-12], [5:0-2-4,0-0-8], [5:0-0-0,0-2-12]
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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 0.28	Vert(LL)	0.03	4-5	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.04	4-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.02	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R					Weight: 18 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-7-12 oc purlins, 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	

**REACTIONS.** (lb/size) 5=249/0-3-8, 3=114/Mechanical, 4=51/Mechanical  
 Max Horz 5=137(LC 12)  
 Max Uplift 5=-3(LC 12), 3=-87(LC 12)  
 Max Grav 5=249(LC 1), 3=126(LC 19), 4=82(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-7-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
  - 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.



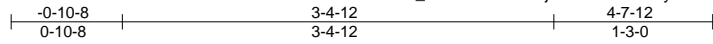
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job 21057A	Truss J2	Truss Type Jack-Open	Qty 1	Ply 1	240.3174.C.20x10CVP	137333742
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:51 2019 Page 1

ID:B\_Q7f7Biu7XlherXjarx6dzmHHa-Ay7QGv22Q2woYKMnU\_4xRAVfXZwdIKFF01aQzVz9HFQ



Scale = 1:18.1

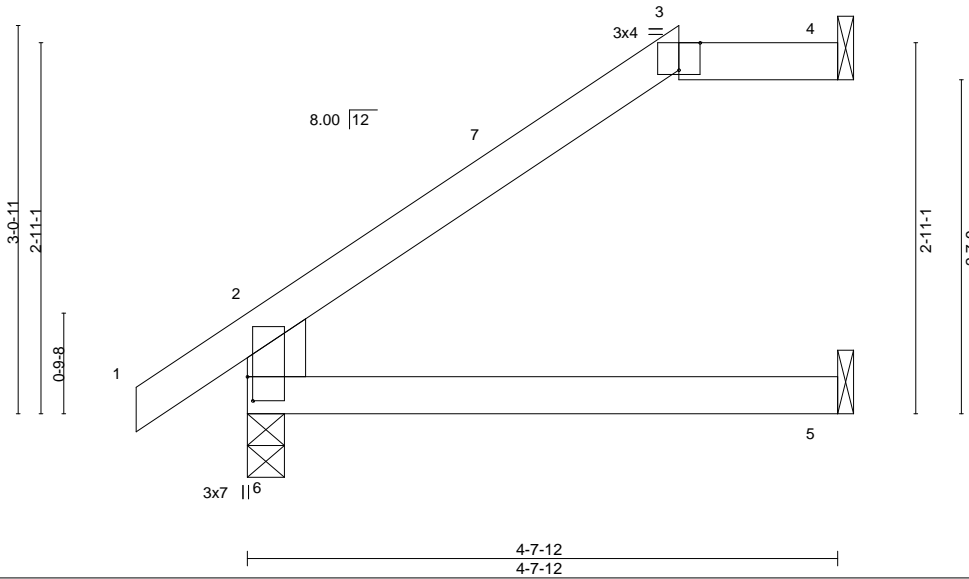


Plate Offsets (X,Y)--	[2:0-1-13,0-2-12], [3:0-2-0,Edge], [6:0-0-0,0-2-12], [6:0-2-4,0-0-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	-0.02	5-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.04	5-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.05	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						

Weight: 18 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-7-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.2	

**REACTIONS.** (lb/size) 6=249/0-3-8, 4=115/Mechanical, 5=51/Mechanical  
 Max Horz 6=102(LC 12)  
 Max Uplift 6=-25(LC 12), 4=-50(LC 12)  
 Max Grav 6=249(LC 1), 4=115(LC 1), 5=82(LC 3)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-4-12, Exterior(2) 3-4-12 to 4-7-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4.
  - 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 6, 2019

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

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 Edenton, NC 27932

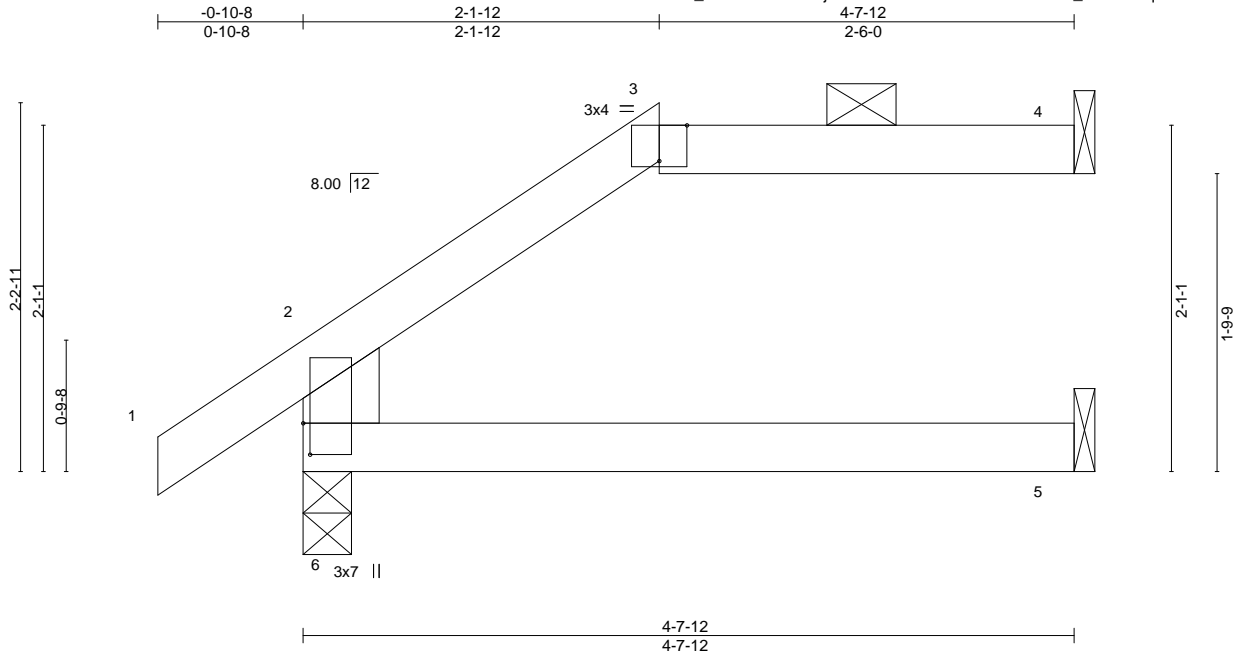
Job 21057A	Truss J3	Truss Type Jack-Open	Qty 1	Ply 1	240.3174.C.20x10CVP	137333743
					Job Reference (optional)	

84 Components (Dunn),

Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:52 2019 Page 1

ID:B\_Q7f7Biu7XlherXjarx6dzmHHa-e8hoUF3hAL2f9Ux\_2ibAzN2qJzFuUnVOFhKzVxz9HFP



Scale = 1:13.9

Plate Offsets (X,Y)--	[2:0-1-13,0-2-12], [3:0-2-0,Edge], [6:0-0-0,0-2-12], [6:0-2-4,0-0-8]				
<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 0.27	Vert(LL) -0.02 5-6 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.04 5-6 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.05 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R		Weight: 17 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-7-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 6=249/0-3-8, 4=115/Mechanical, 5=50/Mechanical  
 Max Horz 6=70(LC 12)  
 Max Uplift 6=-32(LC 12), 4=-47(LC 9)  
 Max Grav 6=249(LC 1), 4=115(LC 1), 5=81(LC 3)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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 Edenton, NC 27932

Job 21057A	Truss J4	Truss Type Jack-Open	Qty 1	Ply 1	240.3174.C.20x10CVP	137333744
84 Components (Dunn), Dunn, NC - 28334,					8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:52 2019 Page 1	
					ID:B_Q7f7Biu7XlherXjarx6dzmHHa-e8hoUF3hAL2f9Ux_2ibAzN2pQzFaUnVOFhKzVxz9HFP	
					Job Reference (optional)	

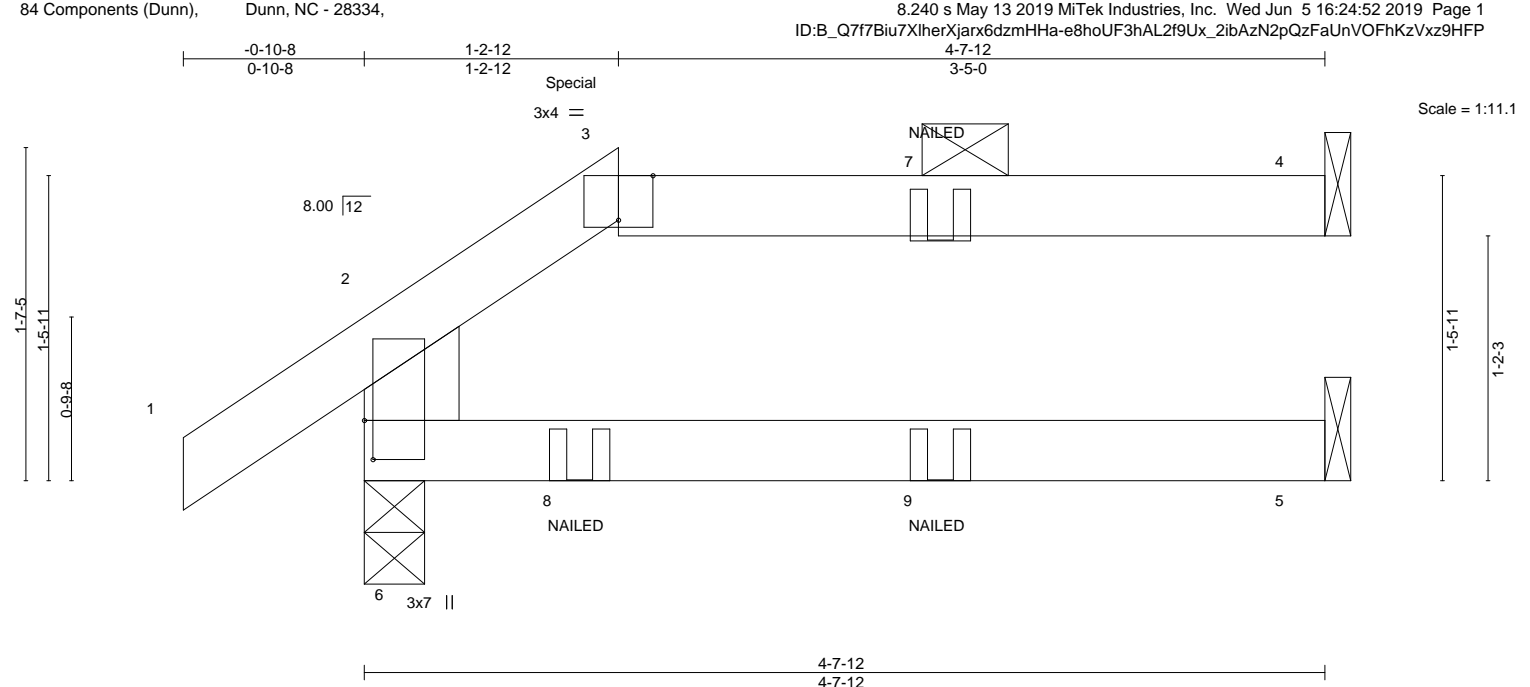


Plate Offsets (X,Y)-- [2:0-1-13,0-2-12], [3:0-2-0,Edge], [6:0-0-0,0-2-12], [6:0-2-4,0-0-8]

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 0.33	Vert(LL)	-0.02	5-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.04	5-6	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.04	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R					Weight: 17 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-7-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 6=250/0-3-8, 4=116/Mechanical, 5=50/Mechanical  
Max Horz 6=47(LC 8)  
Max Uplift 6=45(LC 8), 4=51(LC 5)  
Max Grav 6=250(LC 1), 4=118(LC 20), 5=81(LC 3)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 15 lb down and 38 lb up at 1-2-12 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-6=-20  
Concentrated Loads (lb)  
Vert: 8=-1(F)

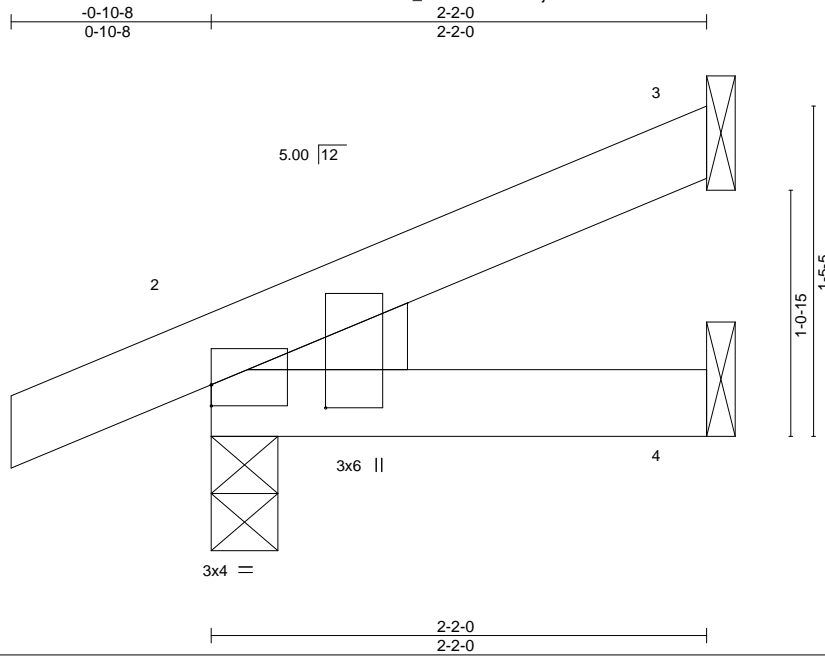


Job 21057A	Truss J7	Truss Type Jack-Open	Qty 5	Ply 1	240.3174.C.20x10CVP	137333745
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:53 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHhA-6LFAhb3JxfAWneWAcP6PWba23NeeDEIYTL3X1Nz9HFO



Scale = 1:10.1

Plate Offsets (X,Y)--	[2:0-0-0,0-1-2], [2:0-1-3,0-6-0]				
<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 0.08	Vert(LL) -0.00 2 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00 2-4 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 9 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 3=43/Mechanical, 2=156/0-3-8, 4=20/Mechanical  
Max Horz 2=47(LC 12)  
Max Uplift 3=33(LC 12), 2=32(LC 8)  
Max Grav 3=43(LC 1), 2=156(LC 1), 4=39(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



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

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



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Job 21057A	Truss J8	Truss Type Jack-Open	Qty 1	Ply 1	240.3174.C.20x10CVP	137333746
84 Components (Dunn), Dunn, NC - 28334,					8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:54 2019 Page 1	
					ID: B_Q7f7Biu7XlherXjarx6dzmHHa-aXpYvx4xizINPo5M97ee2o716nr3yh?hi?p4pz9HFN	
Job Reference (optional)						



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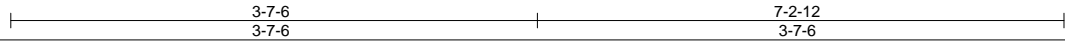
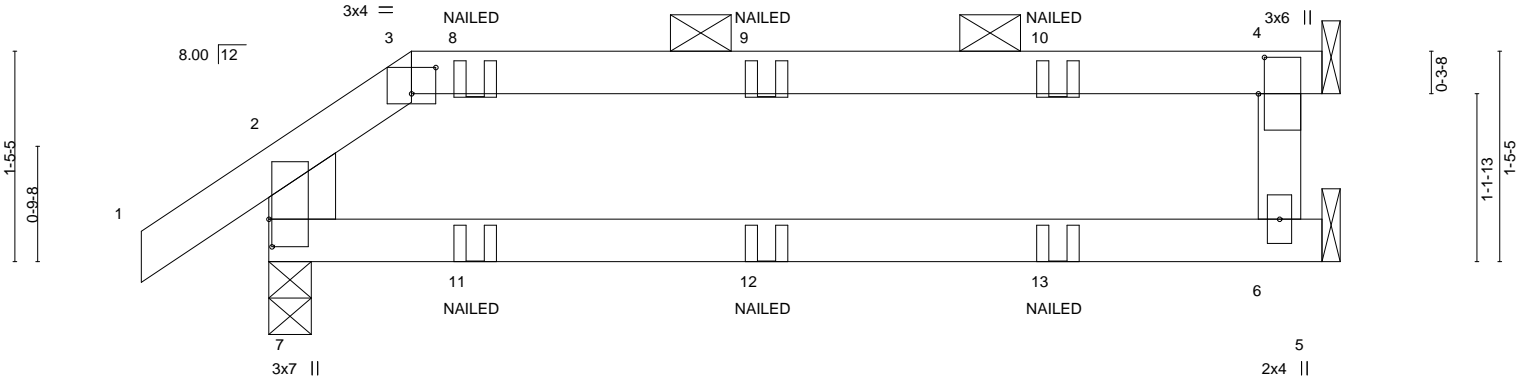


Plate Offsets (X, Y)--	[2:0-1-13,0-2-12], [3:0-2-0,0-2-3], [4:0-3-0,0-0-8], [7:0-2-4,0-0-4], [7:0-0-0,0-2-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.89	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.60	Vert(LL) -0.10 6-7 >801 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Vert(CT) -0.22 6-7 >360 180		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Horz(CT) 0.16 4 n/a n/a		
				Weight: 26 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 7=340/0-3-8, 4=185/Mechanical, 6=84/Mechanical  
Max Horz 7=45(LC 8)  
Max Uplift 7=-53(LC 8), 4=-83(LC 5)  
Max Grav 7=340(LC 1), 4=186(LC 20), 6=142(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-7=-284/103

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFERS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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



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

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



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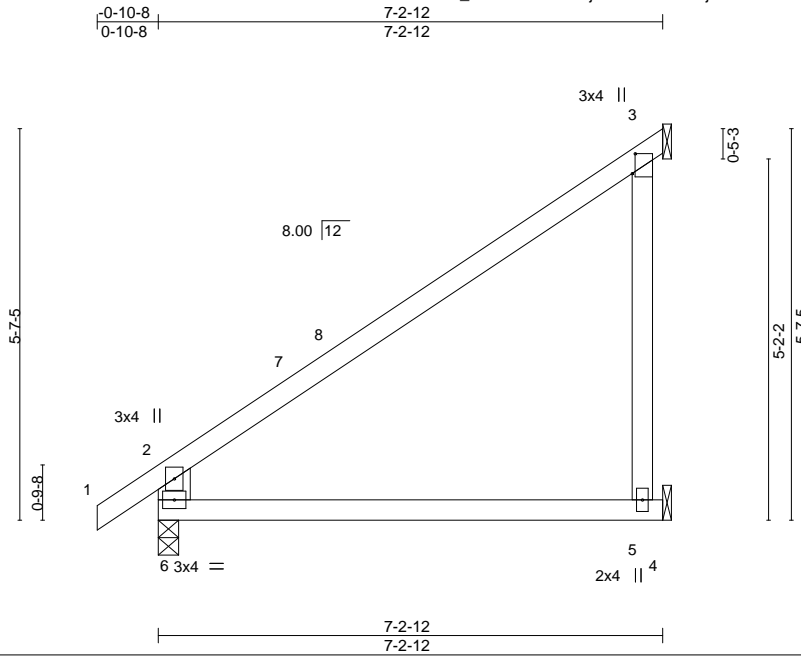


Job 21057A	Truss J9	Truss Type Jack-Open	Qty 7	Ply 1	240.3174.C.20x10CVP	137333747
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:55 2019 Page 1

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Scale = 1:33.0

Plate Offsets (X,Y)--	[3:0-3-7,0-0-8]				
<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 0.75	Vert(LL) 0.14 5-6 >556 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.53	Vert(CT) -0.21 5-6 >378 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.08 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 34 lb	FT = 20%

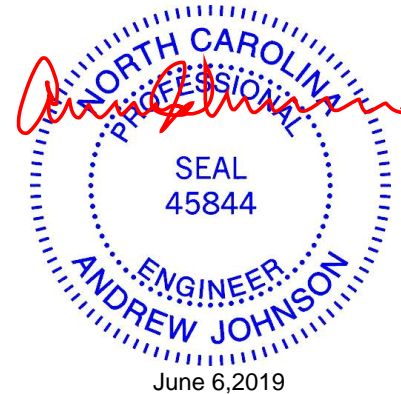
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x6 SP No.2 \*Except\*  
3-5: 2x4 SP No.3

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

**REACTIONS.** (lb/size) 6=340/0-3-8, 3=179/Mechanical, 5=89/Mechanical  
Max Horz 6=197(LC 12)  
Max Uplift 3=130(LC 12)  
Max Grav 6=340(LC 1), 3=196(LC 19), 5=139(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-6=-289/104

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-11-4 zone; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 3=130.
  - 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



June 6, 2019

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

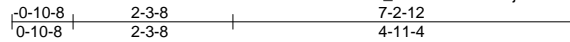
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 21057A	Truss J9A	Truss Type Jack-Open	Qty 2	Ply 1	240.3174.C.20x10CVP	137333748
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:56 2019 Page 1

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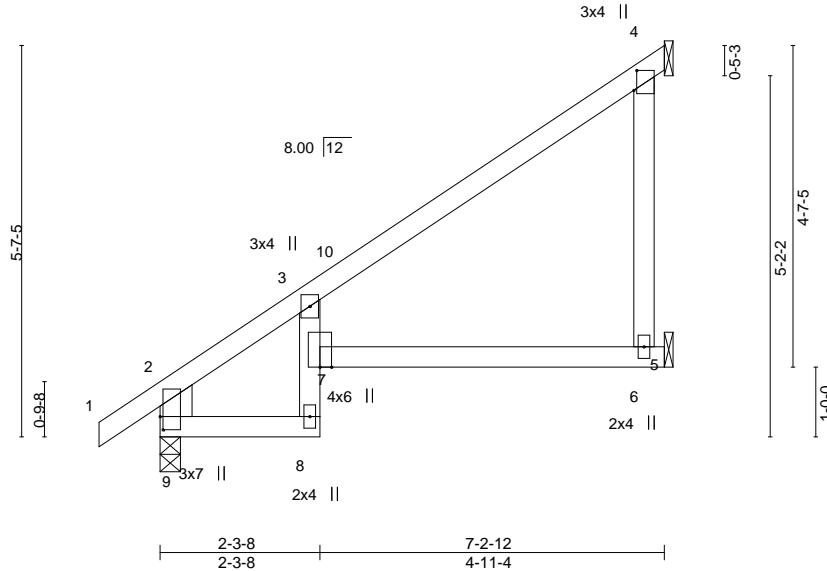


Plate Offsets (X,Y)--	[2:0-1-13,0-2-12], [4:0-3-7,0-0-8], [9:0-0-0,0-2-12], [9:0-2-4,0-0-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	0.20	6-7	>404	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.24	6-7	>329		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.12	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 35 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 *Except* 3-8: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.2 *Except* 4-6: 2x4 SP No.3	

**REACTIONS.** (lb/size) 9=340/0-3-8, 4=175/Mechanical, 6=94/Mechanical  
 Max Horz 9=197(LC 12)  
 Max Uplift 4=-118(LC 12)  
 Max Grav 9=340(LC 1), 4=191(LC 19), 6=129(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-9=-314/70, 2-3=-254/0

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 6-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=118.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

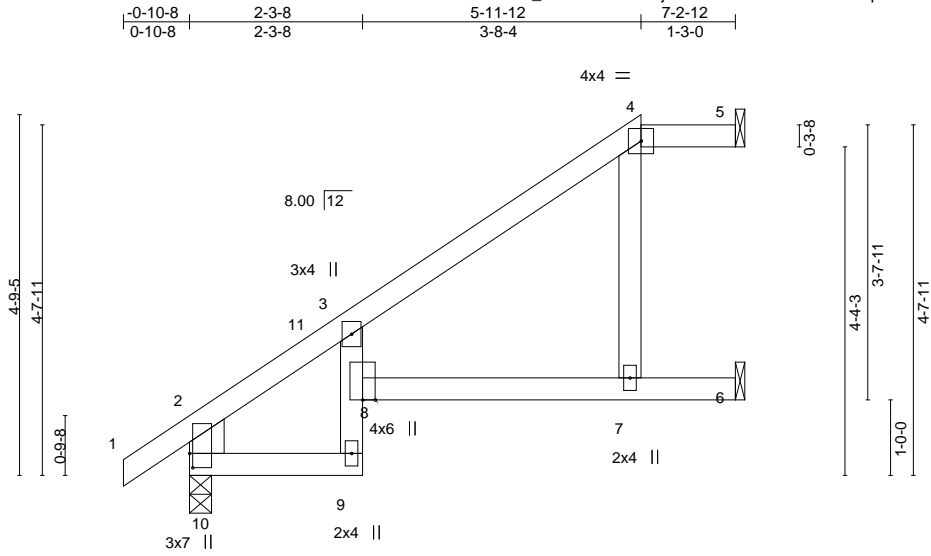


Job 21057A	Truss J9B	Truss Type Jack-Open	Qty 1	Ply 1	240.3174.C.20x10CVP	137333749
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:24:58 2019 Page 1

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Scale = 1:30.5

Plate Offsets (X,Y)--	[2:0-1-13,0-2-12], [10:0-2-4,0-0-8], [10:0-0-0,0-2-12]
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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) 0.22	7-8	>373	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT) -0.29	7-8	>287	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT) 0.20	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 33 lb	FT = 20%

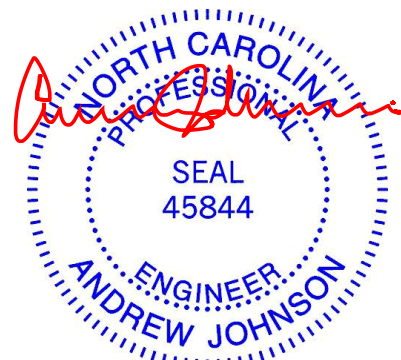
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x4 SP No.2 *Except* 3-9: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: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

**REACTIONS.** (lb/size) 10=349/0-3-8, 5=104/Mechanical, 6=168/Mechanical  
 Max Horz 10=169(LC 12)  
 Max Uplift 10=-21(LC 12), 5=-21(LC 12), 6=-63(LC 12)  
 Max Grav 10=349(LC 1), 5=104(LC 1), 6=170(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-10=-327/92, 2-3=-261/3

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 5-11-12, Exterior(2) 5-11-12 to 7-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



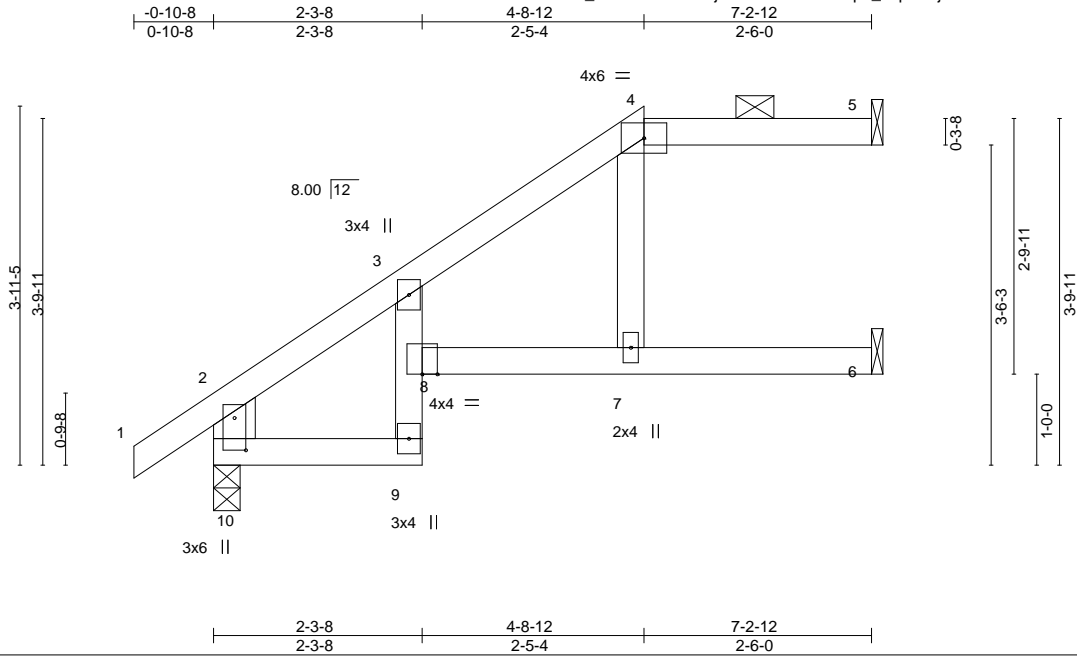
June 6, 2019

Job 21057A	Truss J9C	Truss Type Jack-Open	Qty 1	Ply 1	240.3174.C.20x10CVP	137333750
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:00 2019 Page 1

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Scale = 1:25.3

Plate Offsets (X,Y)--	[10:0-4-4,0-1-8]				
<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 0.64	Vert(LL) 0.20 7-8 >420 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.77	Vert(CT) -0.34 7-8 >245 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.22 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 32 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
BOT CHORD 2x4 SP No.2 *Except* 3-9: 2x4 SP No.3	2-0-0 oc purlins (6-0-0 max.): 4-5.
WEBS 2x4 SP No.3 *Except* 2-10: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=129/Mechanical, 10=349/0-3-8, 6=143/Mechanical  
 Max Horz 10=137(LC 12)  
 Max Uplift 5=-40(LC 9), 10=-34(LC 12), 6=-21(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-10=-279/131

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 4-8-12, Exterior(2) 4-8-12 to 7-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 6, 2019

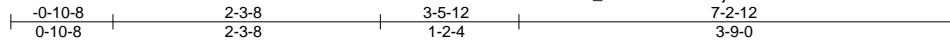
Job 21057A	Truss J9D	Truss Type Jack-Open	Qty 1	Ply 1	240.3174.C.20x10CVP	137333751
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84 Components (Dunn),

Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:01 2019 Page 1

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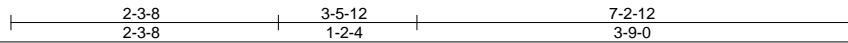
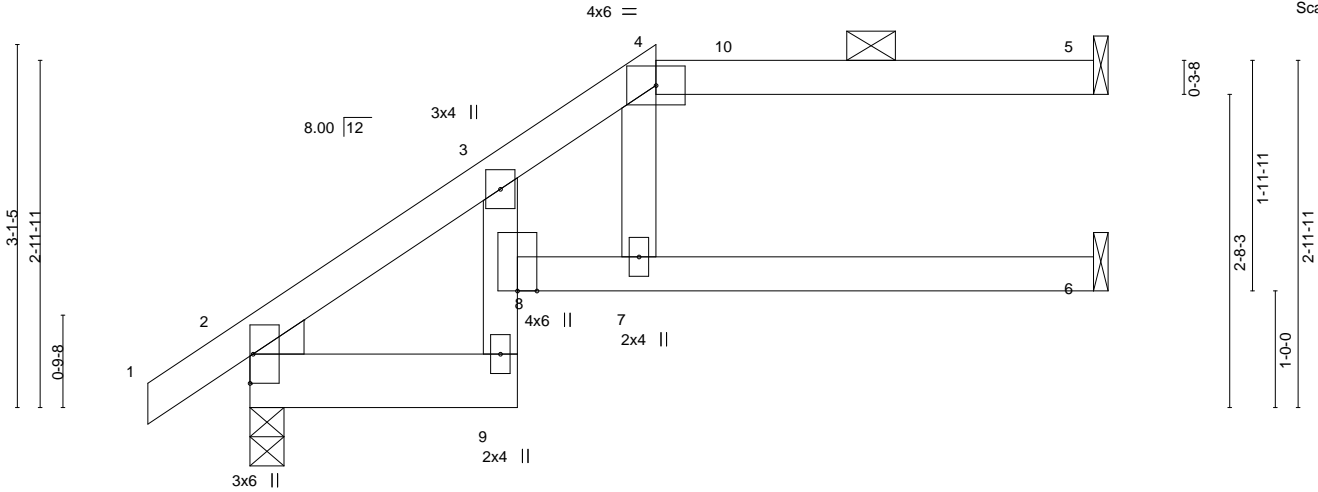


Plate Offsets (X,Y)--	[2:0-0-2,0-0-2], [2:0-0-3,0-3-13]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.51	Vert(LL) 0.16 7 >530 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.83	Vert(CT) -0.31 6-7 >268 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.27 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 31 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
BOT CHORD 2x4 SP No.2 *Except*	2-0-0 oc purlins (6-0-0 max.): 4-5.
2-9: 2x6 SP No.2, 3-9: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	6-0-0 oc bracing: 7-8.
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 5=154/Mechanical, 2=347/0-3-8, 6=122/Mechanical  
 Max Horz 2=108(LC 12)  
 Max Uplift 5=-53(LC 9), 2=-39(LC 12)  
 Max Grav 5=154(LC 1), 2=347(LC 1), 6=133(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-341/63

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 3-5-12, Exterior(2) 3-5-12 to 7-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
  - 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



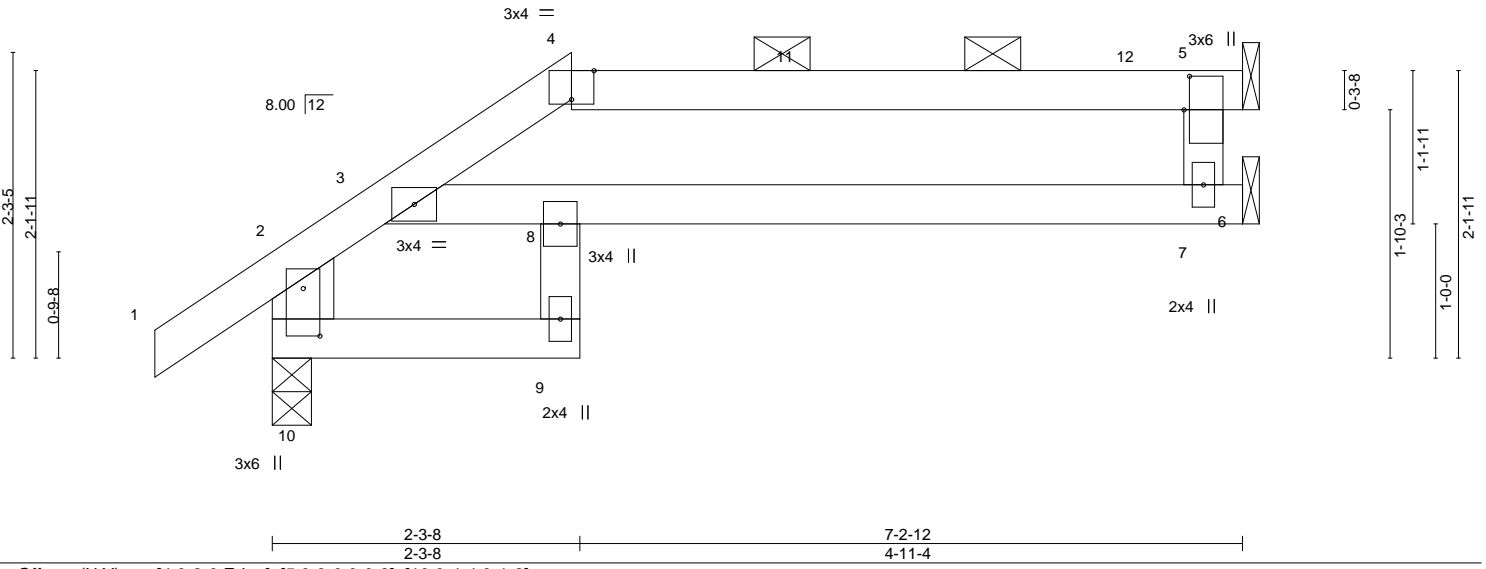
Job 21057A	Truss J9E	Truss Type Jack-Open	Qty 1	Ply 1	240.3174.C.20x10CVP	137333752
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:02 2019 Page 1  
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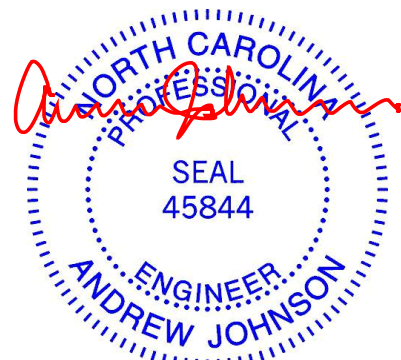
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	0.10	7-8	>800	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.23	7-8	>358		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.18	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 29 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
BOT CHORD 2x4 SP No.2 *Except*	2-0-0 oc purlins (6-0-0 max.): 4-5.
8-9: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3 *Except*	6-0-0 oc bracing: 8-9.
2-10: 2x6 SP No.2	

**REACTIONS.** (lb/size) 10=340/0-3-8, 5=170/Mechanical, 7=99/Mechanical  
Max Horz 10=72(LC 12)  
Max Uplift 10=-37(LC 12), 5=-67(LC 9)  
Max Grav 10=340(LC 1), 5=170(LC 1), 7=142(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-10=-291/143

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 6-5-11, Interior(1) 6-5-11 to 6-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



June 6, 2019

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

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



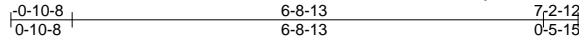
818 Soundside Road  
Edenton, NC 27932

Job 21057A	Truss J9Y	Truss Type Jack-Open	Qty 1	Ply 1	240.3174.C.20x10CVP	137333753
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:03 2019 Page 1

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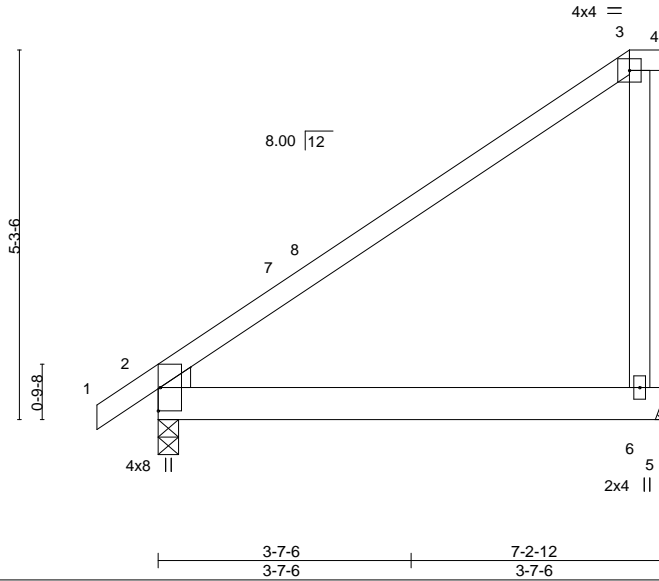


Plate Offsets (X,Y)--	[2:0-0-2,0-0-2], [2:0-0-3,0-3-13]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL) 0.05	2-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT) -0.09	2-6	>973	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 39 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
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.): 3-4.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=347/0-3-8, 5=280/Mechanical  
 Max Horz 2=196(LC 12)  
 Max Uplift 2=-8(LC 12), 5=-107(LC 12)  
 Max Grav 2=347(LC 1), 5=289(LC 19)

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

**NOTES-**

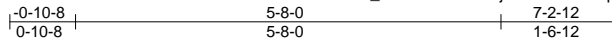
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-8-13, Exterior(2) 6-8-13 to 7-2-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=107.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job 21057A	Truss J9Z	Truss Type Jack-Open	Qty 5	Ply 1	240.3174.C.20x10CVP	137333754
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:03 2019 Page 1  
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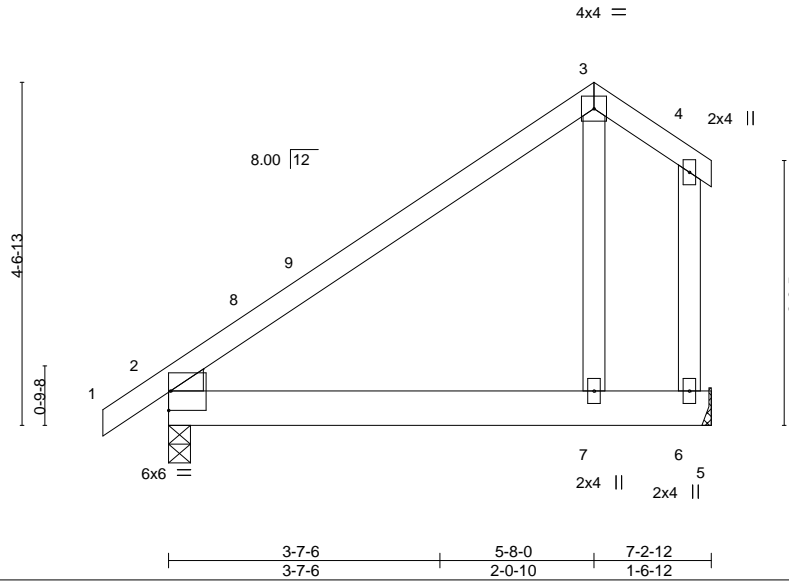


Plate Offsets (X,Y)--	[2:0-0-2,0-0-2], [2:0-3-13,0-0-3], [2:Edge,0-3-2]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.41	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.35	Vert(LL) 0.06 2-7 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Vert(CT) -0.09 2-7 >876 180		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Horz(CT) 0.00 n/a n/a		
				Weight: 43 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 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.** (lb/size) 2=337/0-3-8, 6=273/Mechanical  
Max Horz 2=149(LC 12)  
Max Uplift 2=-32(LC 12), 6=-64(LC 12)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-8-0, Exterior(2) 5-8-0 to 6-11-4 zone; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
  - 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



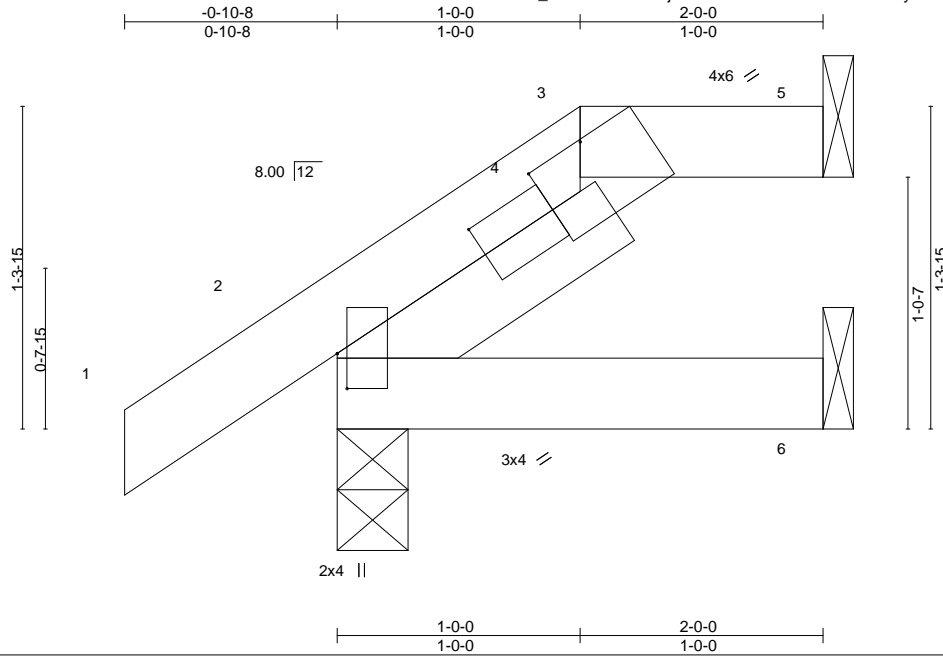


Job 21057A	Truss JR2	Truss Type HALF HIP	Qty 1	Ply 1	240.3174.C.20x10CVP	137333755
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:04 2019 Page 1

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Scale = 1:9.5

Plate Offsets (X,Y)--	[2:0-8-13,0-1-8], [2:0-1-12,0-0-8], [3:0-3-0,0-0-2]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.11	Vert(LL) -0.00 2 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 2-6 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 10 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins: 3-5.
SLIDER Left 2x4 SP No.3 1-3-7	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=69/Mechanical, 2=196/0-3-8, 6=23/Mechanical  
 Max Horz 2=73(LC 12)  
 Max Uplift 5=-32(LC 9), 2=-35(LC 12)  
 Max Grav 5=69(LC 1), 2=196(LC 1), 6=36(LC 3)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
  - 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

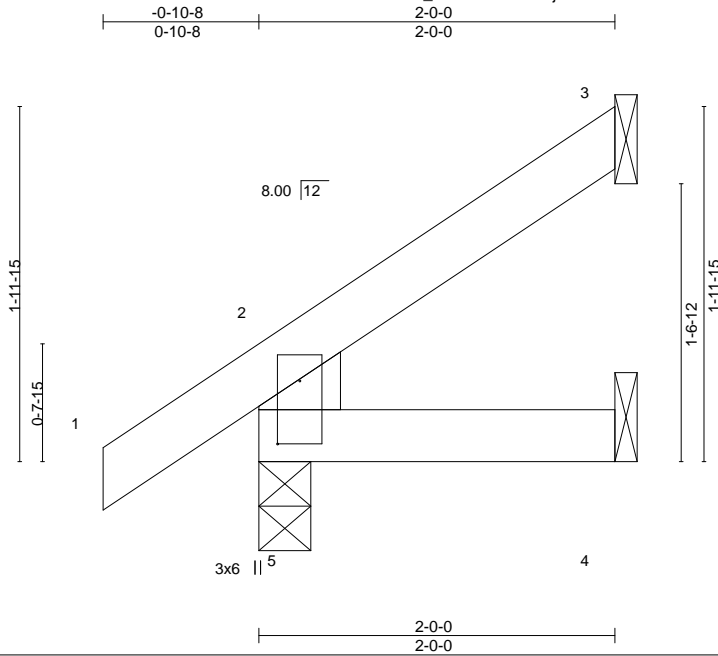


Job 21057A	Truss JR3	Truss Type JACK-OPEN	Qty 1	Ply 1	240.3174.C.20x10CVP	137333756
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:05 2019 Page 1

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Scale = 1:12.9

Plate Offsets (X,Y)--	[5:0-4-4,0-1-8]				
<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 0.08	Vert(LL) -0.00 5 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00 5 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R		Weight: 9 lb	FT = 20%

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

**REACTIONS.** (lb/size) 5=157/0-3-8, 3=38/Mechanical, 4=12/Mechanical  
 Max Horz 5=70(LC 12)  
 Max Uplift 5=-14(LC 12), 3=-35(LC 12)  
 Max Grav 5=157(LC 1), 3=44(LC 19), 4=30(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.



Job 21057A	Truss M1	Truss Type MONOPITCH	Qty 9	Ply 1	240.3174.C.20x10CVP	137333757
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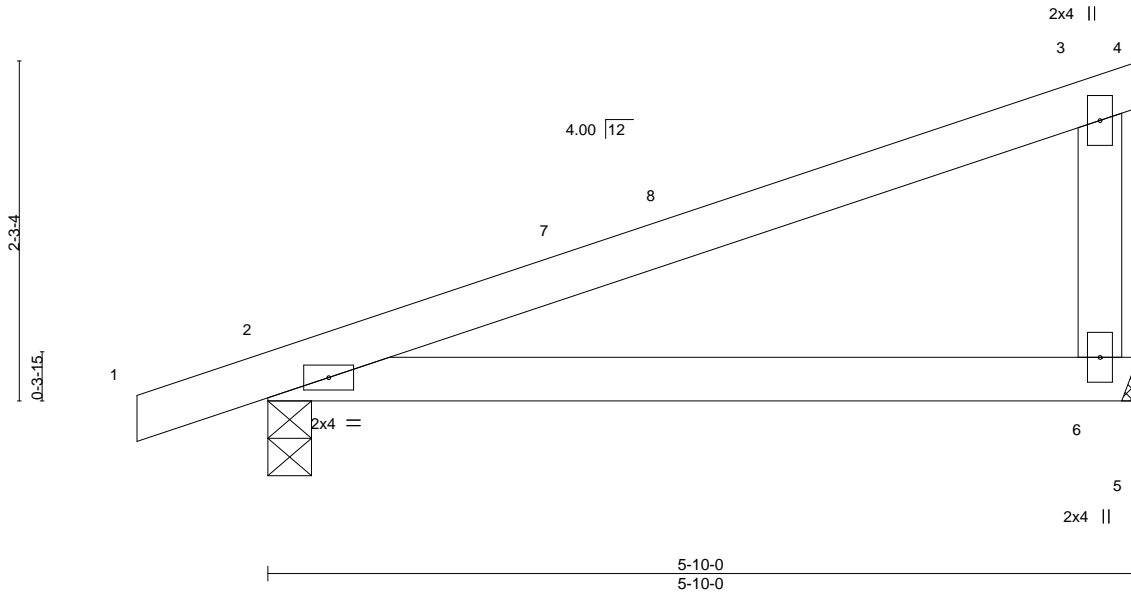
84 Components (Dunn),

Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:05 2019 Page 1

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Job Reference (optional)



Scale = 1:15.4

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 0.54	Vert(LL)	-0.05	2-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.10	2-6	>633	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00		n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 22 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 6=222/Mechanical, 2=283/0-3-8  
 Max Horz 2=89(LC 8)  
 Max Uplift 6=-54(LC 12), 2=-70(LC 8)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
- 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



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

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



818 Soundside Road  
 Edenton, NC 27932

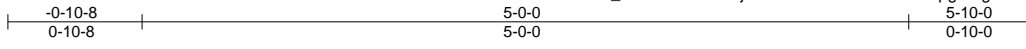
Job 21057A	Truss M1F	Truss Type HALF HIP GIRDER	Qty 1	Ply 1	240.3174.C.20x10CVP	137333758
					Job Reference (optional)	

84 Components (Dunn),

Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:06 2019 Page 1

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3x4 =

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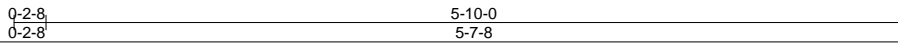
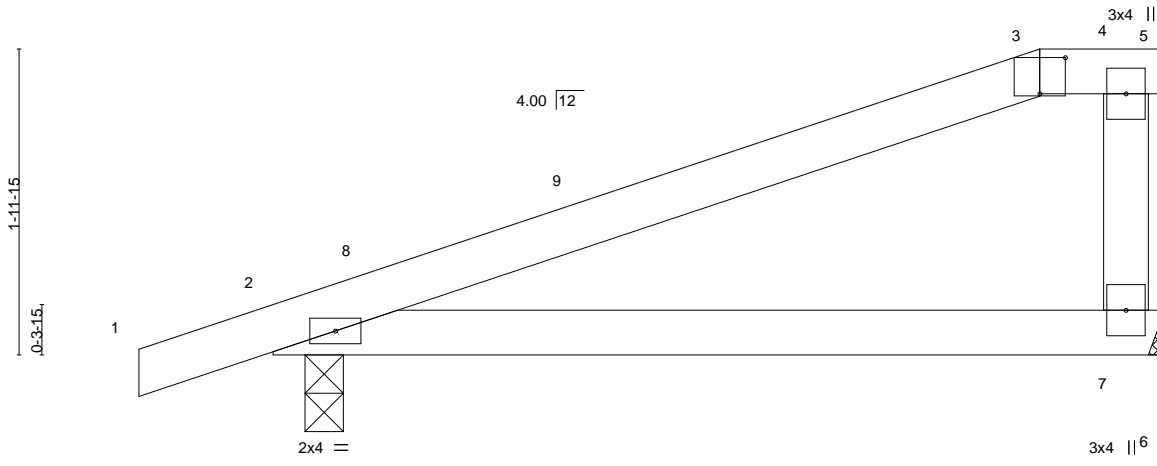


Plate Offsets (X,Y)--	[3:0-2-0,0-2-13]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.40	Vert(LL) -0.03	2-7	>999	240		MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.31	Vert(CT) -0.06	2-7	>999	180			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.00	Horz(CT) 0.00	7	n/a	n/a			
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						Weight: 21 lb	FT = 20%

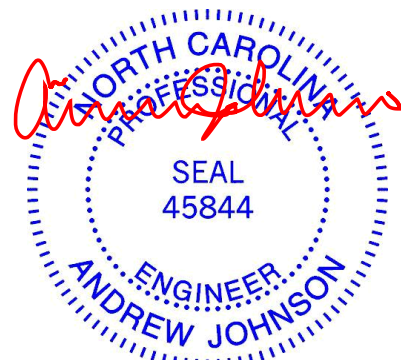
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-10-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-5.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 7=223/Mechanical, 2=283/0-3-0  
 Max Horz 2=79(LC 8)  
 Max Uplift 7=44(LC 8), 2=-73(LC 8)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-0-0, Exterior(2) 5-0-0 to 5-10-0 zone; 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.
- 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) 7.
- 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 6, 2019

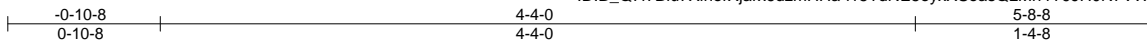
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>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 21057A	Truss M2	Truss Type HALF HIP	Qty 5	Ply 1	240.3174.C.20x10CVP	137333759
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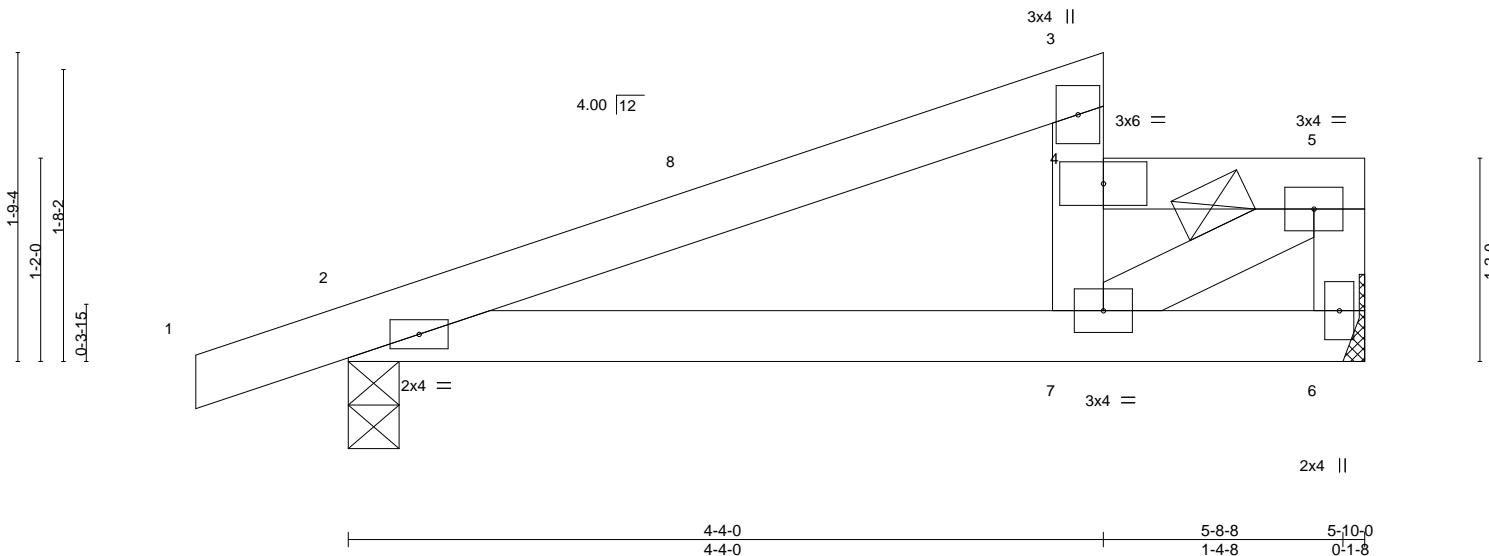
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:07 2019 Page 1

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Scale = 1:13.2



<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 0.60	Vert(LL)	-0.01 2-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.03 2-7	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.22	Horz(CT)	0.00 6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 24 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-8-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 6=401/Mechanical, 2=349/0-3-8  
Max Horz 2=88(LC 12)  
Max Uplift 6=-33(LC 9), 2=-82(LC 8)  
Max Grav 6=432(LC 2), 2=349(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-444/119, 4-5=-493/204, 5-6=-409/148  
BOT CHORD 2-7=-170/382  
WEBS 5-7=-217/521

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 4-5=-90, 2-6=-20  
Concentrated Loads (lb)  
Vert: 4=-200(F)



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



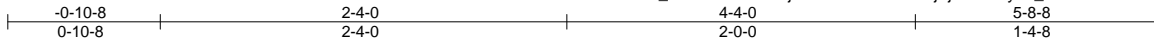
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	240.3174.C.20x10CVP	137333760
21057A	M2E	HALF HIP SUPPORTED	1	1		

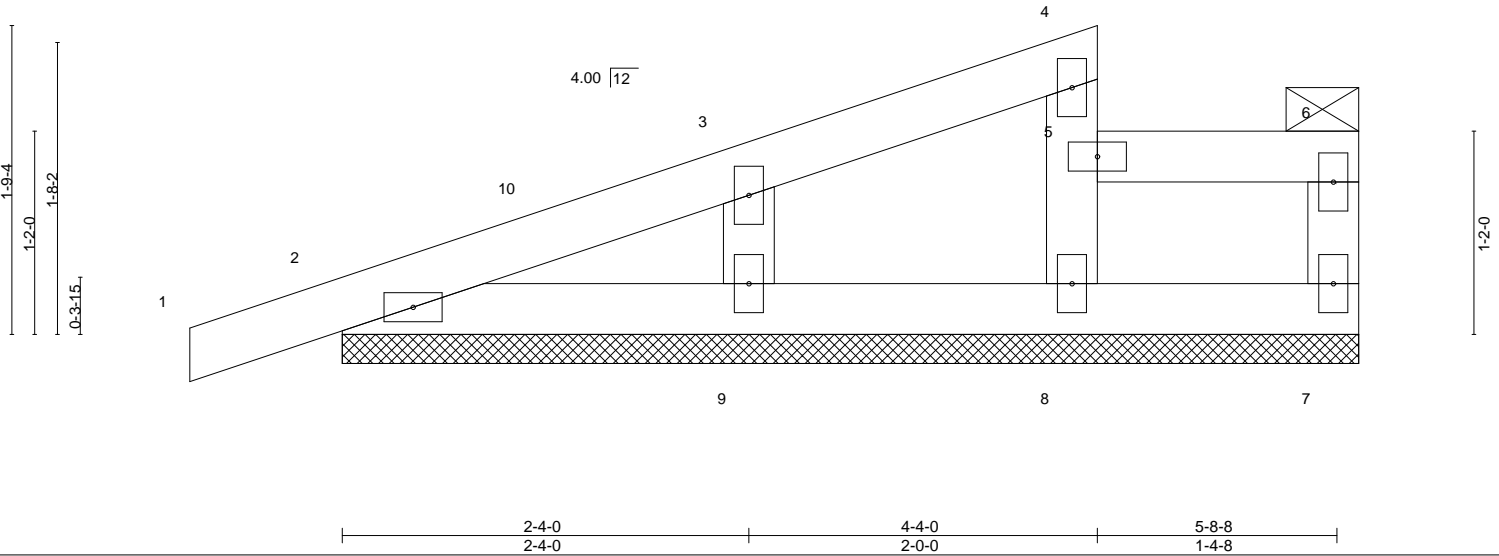
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:08 2019 Page 1

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Scale = 1:13.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	5-10-0 in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.05	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 23 lb	FT = 20%

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

**REACTIONS.** All bearings 5-10-0.  
 (lb) - Max Horz 2=88(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 8, 7, 2, 9  
 Max Grav All reactions 250 lb or less at joint(s) 7, 2, 9 except 8=372(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 5-8=-340/270

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-4-0, Exterior(2) 2-4-0 to 5-8-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 7, 2, 9.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 5-6=-90(F=-30), 2-7=-20  
 Concentrated Loads (lb)  
 Vert: 5=-200(F)



Job 21057A	Truss M4	Truss Type MONOPITCH	Qty 3	Ply 1	240.3174.C.20x10CVP	137333761
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84 Components (Dunn),

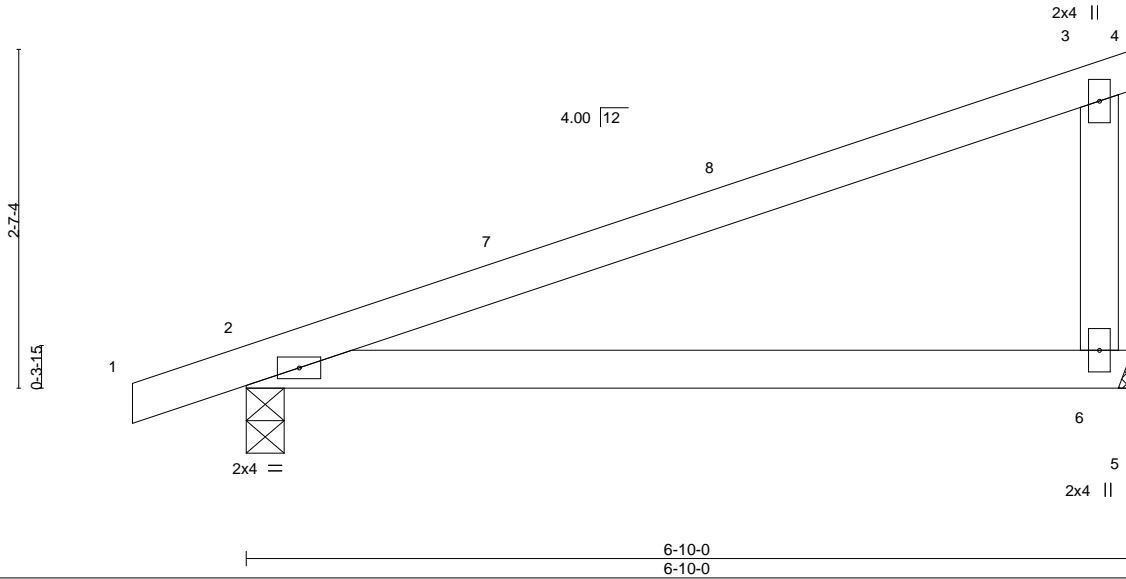
Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:10 2019 Page 1

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Scale = 1:17.7



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 0.80	Vert(LL)	-0.10	2-6	>761	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.20	2-6	>380	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00		n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 25 lb	FT = 20%

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

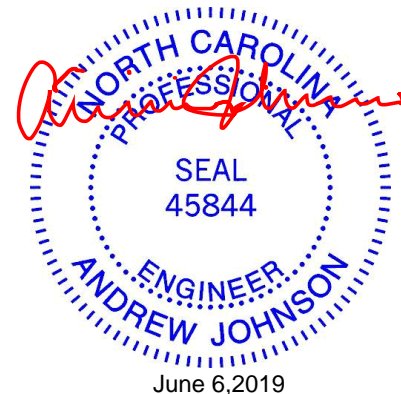
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=323/0-3-8, 6=263/Mechanical  
 Max Horz 2=102(LC 8)  
 Max Uplift 2=-75(LC 8), 6=-63(LC 12)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
- 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



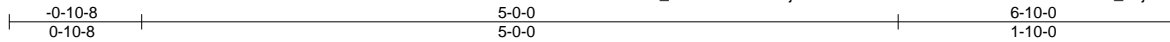
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 21057A	Truss M5	Truss Type HALF HIP GIRDER	Qty 1	Ply 1	240.3174.C.20x10CVP	137333762
					Job Reference (optional)	

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

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:11 2019 Page 1  
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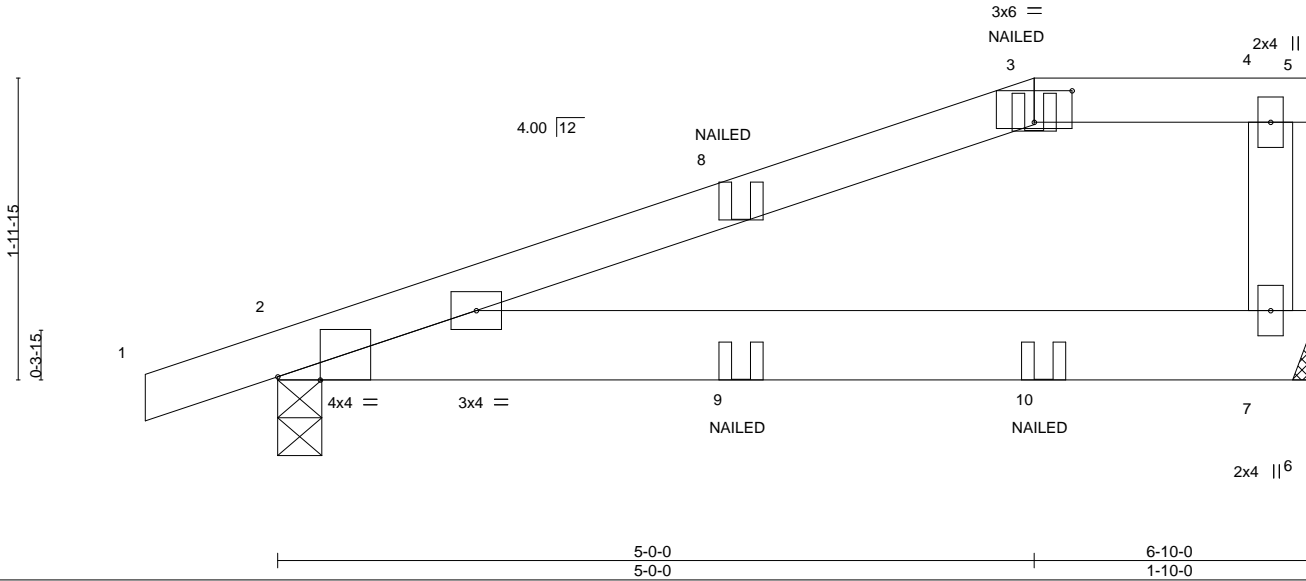


Plate Offsets (X,Y)--	[2-0-3-6,Edge], [3-0-3-0,0-2-8]						
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>		
TCLL 20.0	Plate Grip DOL 1.15	TC 0.63	Vert(LL) 0.03 2-7 >999 240	MT20	244/190		
TCDL 10.0	Lumber DOL 1.15	BC 0.30	Vert(CT) -0.06 2-7 >999 180				
BCLL 0.0 *	Rep Stress Incr NO	WB 0.03	Horz(CT) 0.00 n/a n/a				
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S				Weight: 30 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
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins: 3-5.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=329/0-3-8, 7=268/Mechanical  
Max Horz 2=80(LC 4)  
Max Uplift 2=-87(LC 4), 7=-55(LC 4)

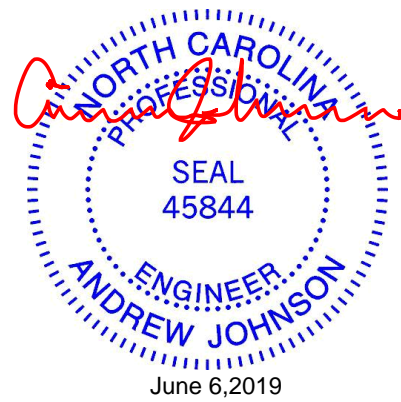
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; 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) 7.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 4-5=-20, 2-6=-20  
Concentrated Loads (lb)  
Vert: 8=-9(F) 9=-4(F) 10=2(F)





Job 21057A	Truss T1	Truss Type Common	Qty 3	Ply 1	240.3174.C.20x10CVP	137333763
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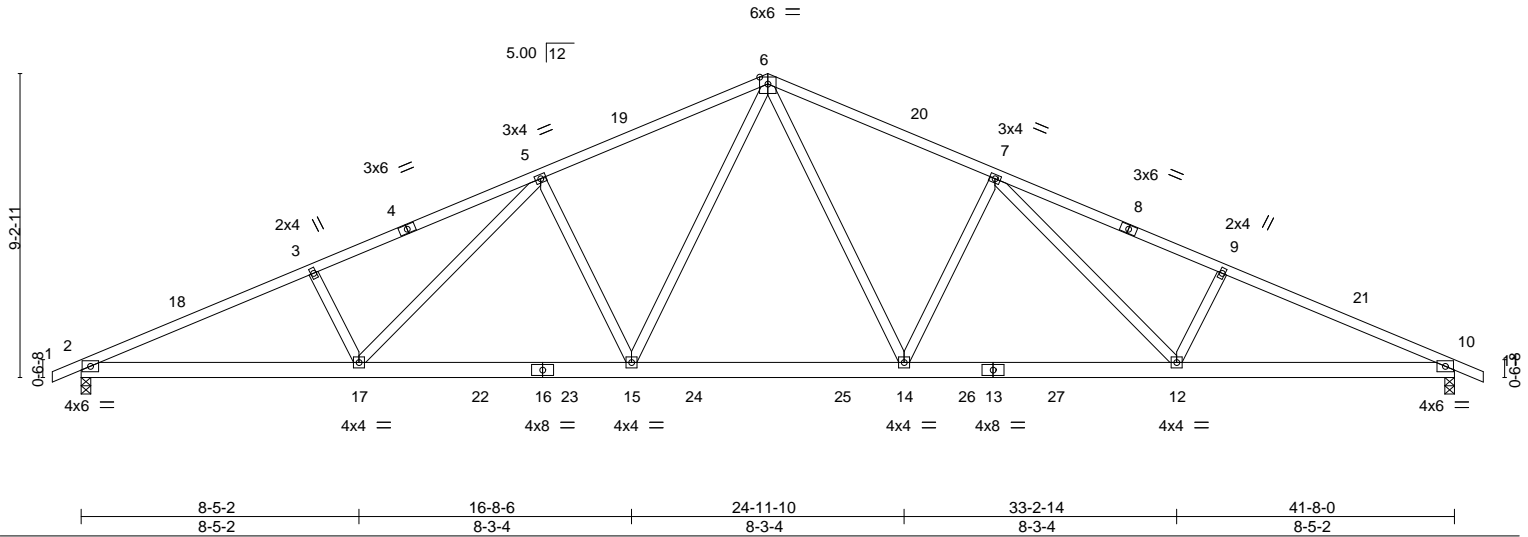
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:13 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-XBSkuQJsEohhBj20ncT5KpPGzRIBv9vU4SvblDz9HF4

0-10-8	7-0-10	13-11-5	20-10-0	27-8-11	34-7-6	41-8-0	42-6-8
0-10-8	7-0-10	6-10-11	6-10-11	6-10-11	6-10-11	7-0-10	0-10-8

Scale = 1:69.9



<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 0.85	Vert(LL)	-0.23 14-15	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.46 14-15	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.56	Horz(CT)	0.11 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 246 lb	FT = 20%

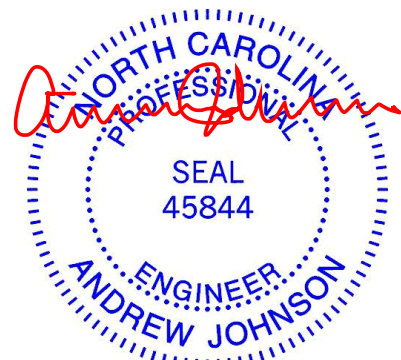
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

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

**REACTIONS.** (lb/size) 2=1716/0-3-8, 10=1716/0-3-8  
Max Horz 2=-151(LC 13)  
Max Uplift 2=-223(LC 12), 10=-223(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3502/420, 3-5=-3325/446, 5-6=-2612/395, 6-7=-2612/395, 7-9=-3325/446, 9-10=-3502/421  
BOT CHORD 2-17=-454/3123, 15-17=-287/2585, 14-15=-98/1961, 12-14=-188/2585, 10-12=-304/3123  
WEBS 6-14=-170/916, 7-14=-679/279, 7-12=-118/633, 9-12=-309/204, 6-15=-170/916, 5-15=-679/279, 5-17=-118/633, 3-17=-309/204

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-3-8, Interior(1) 3-3-8 to 20-10-0, Exterior(2) 20-10-0 to 25-0-0, Interior(1) 25-0-0 to 42-6-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.



June 6, 2019

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

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

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

818 Soundside Road  
Edenton, NC 27932



Job 21057A	Truss T2	Truss Type ROOF TRUSS	Qty 4	Ply 1	240.3174.C.20x10CVP	137333765
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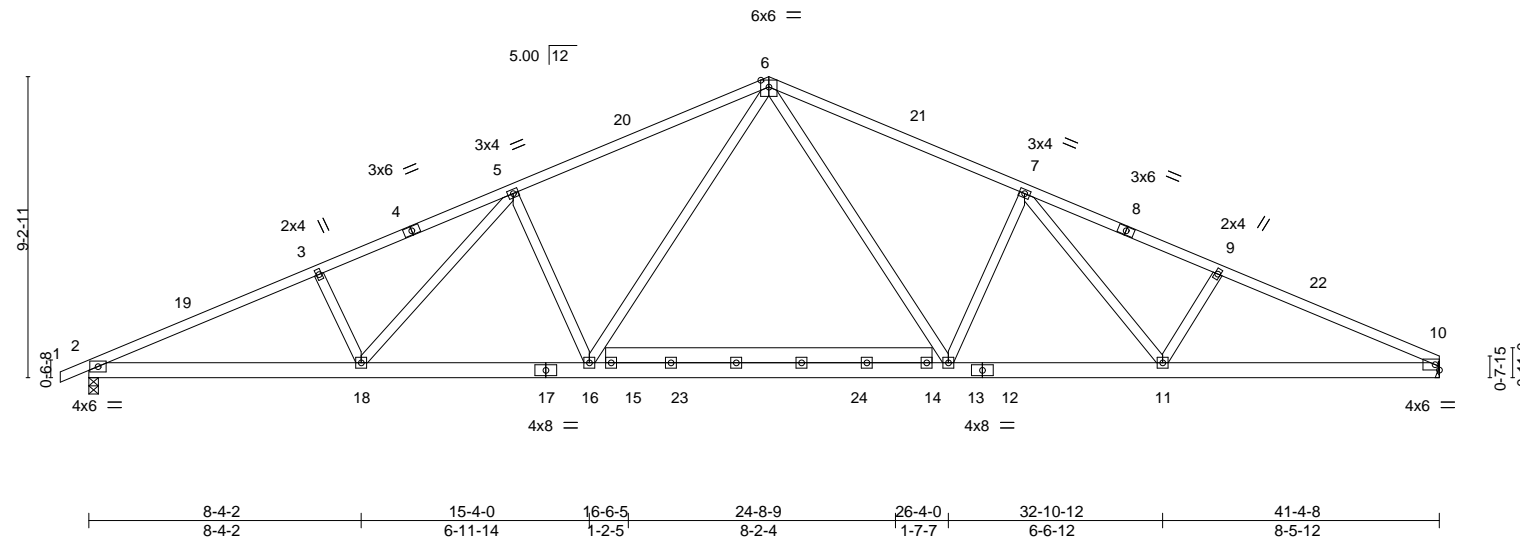
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:15 2019 Page 1

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Scale = 1:70.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.94	Vert(LL) -0.20	13-16	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT) -0.40	13-16	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47	Horz(CT) 0.10	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S				Weight: 265 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP DSS \*Except\*  
1-4: 2x4 SP No.2, 8-10: 2x4 SP No.1  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**

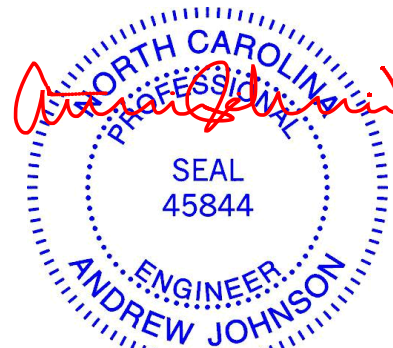
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1709/0-3-8, 10=1646/Mechanical  
Max Horz 2=154(LC 16)  
Max Uplift 2=-222(LC 12), 10=-199(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3469/415, 3-5=-3300/442, 5-6=-2697/407, 6-7=-2681/414, 7-9=-3211/422,  
9-10=-3402/413  
BOT CHORD 2-18=-451/3090, 16-18=-313/2653, 13-16=-113/1913, 11-13=-200/2632, 10-11=-303/3018  
WEBS 3-18=-264/178, 5-18=-103/540, 5-16=-670/281, 6-16=-174/943, 6-13=-174/919,  
7-13=-656/273, 7-11=-84/474

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-3-2, Interior(1) 3-3-2 to 20-10-0, Exterior(2) 20-10-0 to 24-11-10, Interior(1) 24-11-10 to 41-3-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 4x4 MT20 unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=199.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



June 6, 2019

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

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

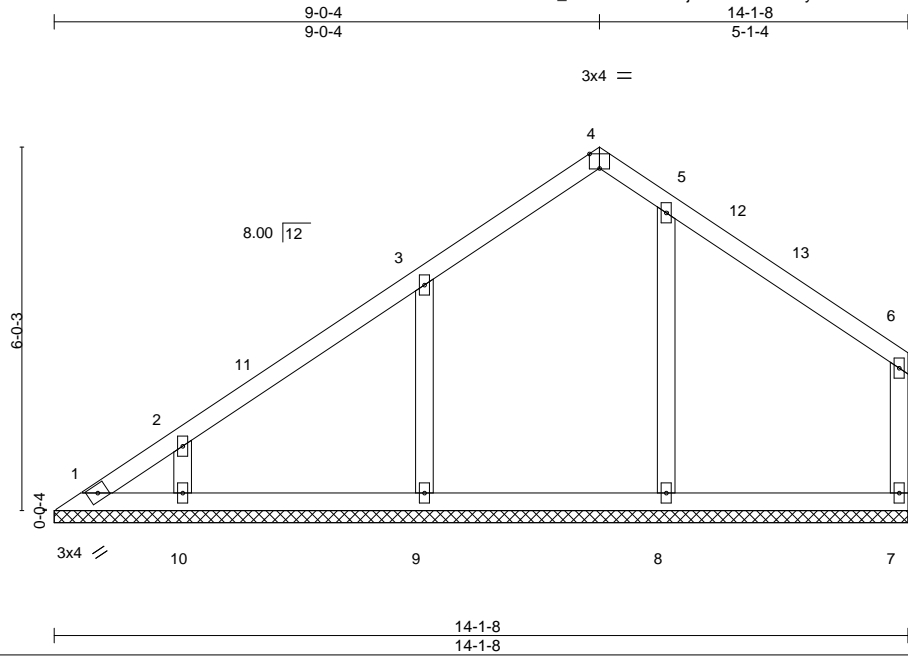


818 Soundside Road  
Edenton, NC 27932

Job 21057A	Truss V4	Truss Type GABLE	Qty 1	Ply 1	240.3174.C.20x10CVP	137333766
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:17 2019 Page 1  
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Scale = 1:38.1

Plate Offsets (X,Y)--	14:0-2-0,Edge								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 62 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	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 14-1-8.  
 (lb) - Max Horz 1=147(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 9=104(LC 12), 10=117(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 8=352(LC 20), 9=425(LC 19), 10=271(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-9=-273/153

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 9-0-4, Exterior(2) 9-0-4 to 12-0-4, Interior(1) 12-0-4 to 13-11-12 zone; 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) Gable requires continuous bottom chord bearing.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 9=104, 10=117.



June 6, 2019

Job 21057A	Truss V5	Truss Type GABLE	Qty 1	Ply 1	240.3174.C.20x10CVP	137333767
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84 Components (Dunn),

Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:18 2019 Page 1

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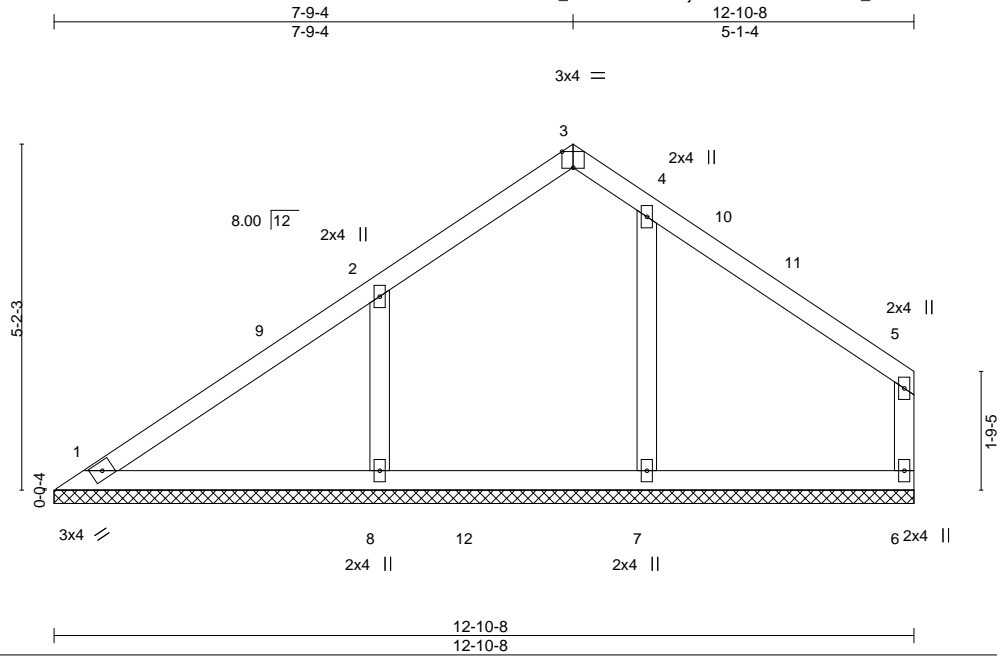


Plate Offsets (X,Y)--	[3:0-2-0,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 53 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	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 12-10-8.  
 (lb) - Max Horz 1=116(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 7 except 8=131(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 7=339(LC 20), 8=439(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-304/179

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 7-9-4, Exterior(2) 7-9-4 to 10-9-4, Interior(1) 10-9-4 to 12-8-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6, 7 except (jt=lb) 8=131.



June 6, 2019

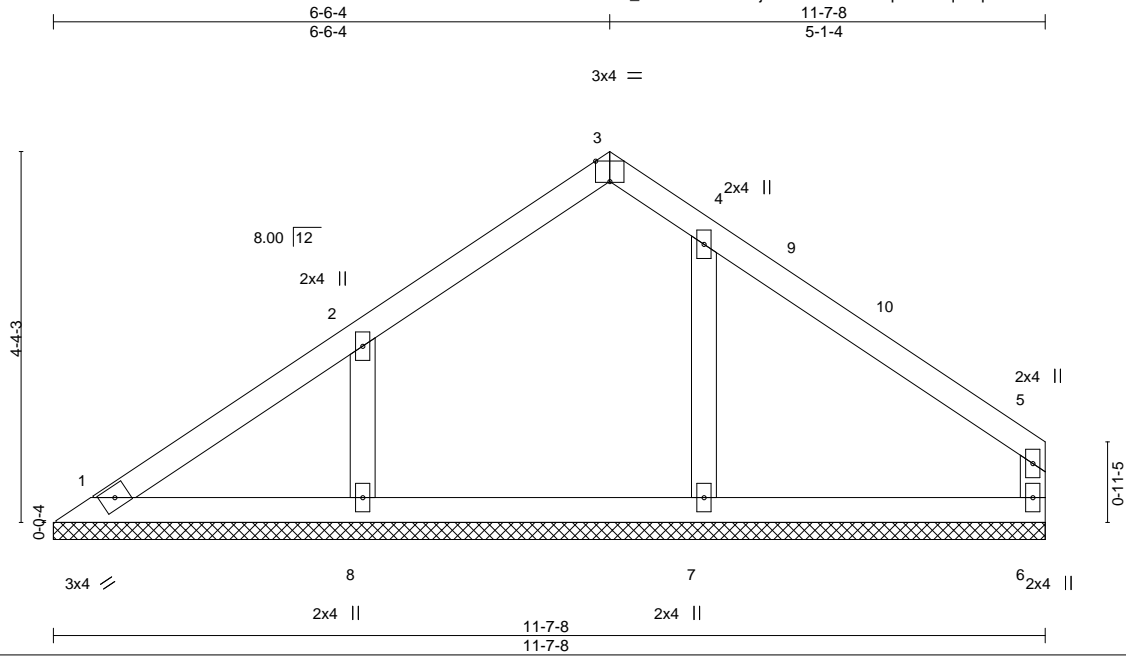
Job 21057A	Truss V6	Truss Type GABLE	Qty 1	Ply 1	240.3174.C.20x10CVP	137333768
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84 Components (Dunn),

Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:19 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHHa-LLq?9UNcqeSqveVA7taVZ4ftusULJ\_JNSOMvmtz9HF\_



Scale = 1:27.0

Plate Offsets (X,Y)--	[3:0-2-0,Edge]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	999
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 0.06	Horz(CT)	0.00	6	n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					
								<b>PLATES</b>
								MT20
								<b>GRIP</b>
								244/190
								Weight: 46 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	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 11-7-8.  
 (lb) - Max Horz 1=98(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 7 except 8=105(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 7=308(LC 20), 8=323(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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-7-8, Interior(1) 3-7-8 to 6-6-4, Exterior(2) 6-6-4 to 9-6-4, Interior(1) 9-6-4 to 11-5-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 8=105.



Job 21057A	Truss V7	Truss Type GABLE	Qty 1	Ply 1	240.3174.C.20x10CVP	137333769
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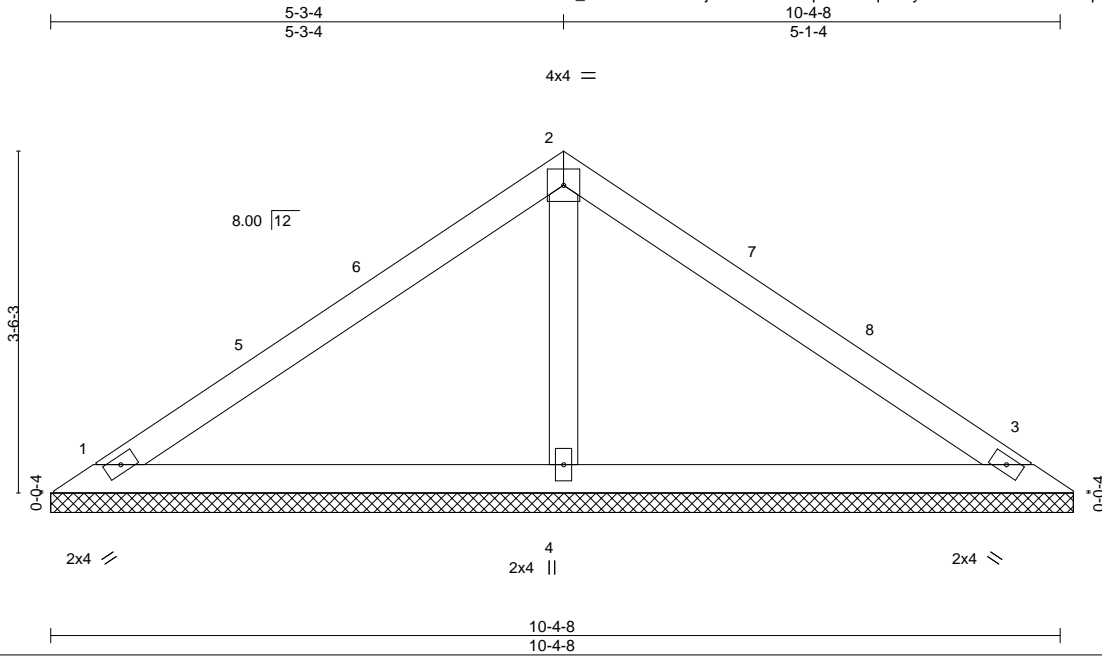
84 Components (Dunn),

Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:20 2019 Page 1

ID: B\_Q7f7Biu7XlherXjarx6dzmHhA-pXNNMqOFayahWo4Mha5k6HCbKGP?2QRWh26STJz9HEz

Job Reference (optional)  
10-4-8  
5-1-4



Scale = 1:23.7

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 0.23	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 37 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=189/10-6-2, 3=189/10-6-2, 4=389/10-6-2  
Max Horz 1=-79(LC 8)  
Max Uplift 1=-35(LC 12), 3=-46(LC 13), 4=-12(LC 12)

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

**NOTES-**

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



June 6, 2019

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



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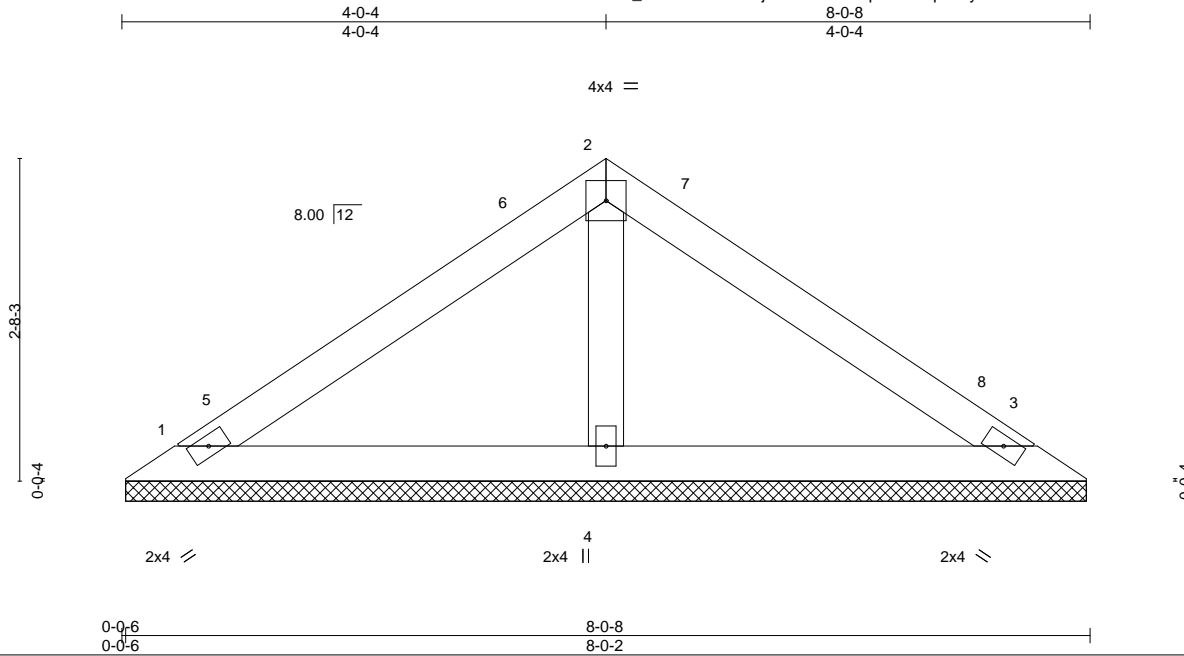
Job 21057A	Truss V8	Truss Type Valley	Qty 1	Ply 1	240.3174.C.20x10CVP	137333770
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:20 2019 Page 1

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Job Reference (optional)



Scale = 1:19.1

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 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 28 lb	FT = 20%

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

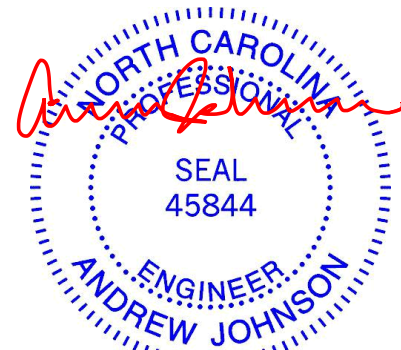
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=153/7-11-12, 3=153/7-11-12, 4=261/7-11-12  
 Max Horz 1=-58(LC 8)  
 Max Uplift 1=-34(LC 12), 3=-42(LC 13)

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

**NOTES-**

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



June 6, 2019

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Job 21057A	Truss V9	Truss Type Valley	Qty 1	Ply 1	240.3174.C.20x10CVP	137333771
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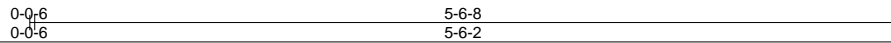
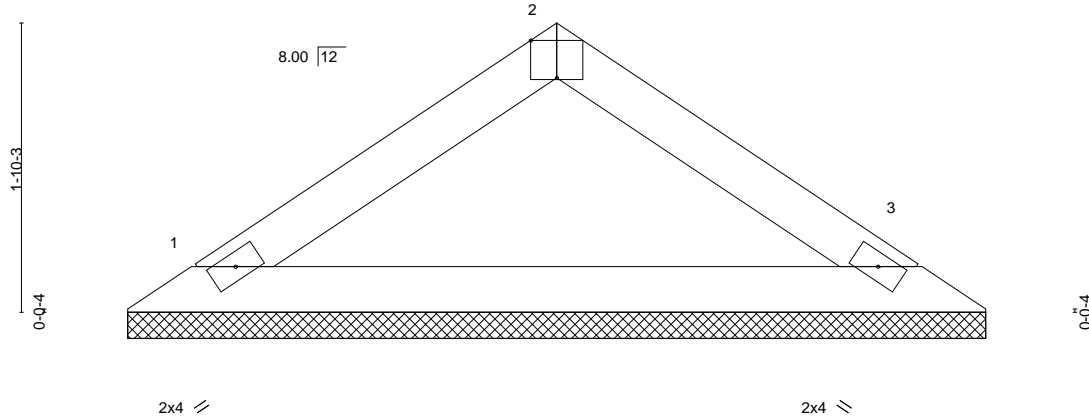
84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:21 2019 Page 1  
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3x4 =

Scale = 1:14.7



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.26	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 16 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-6-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=183/5-5-12, 3=183/5-5-12  
Max Horz 1=-38(LC 10)  
Max Uplift 1=-20(LC 12), 3=-20(LC 13)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 3.



June 6, 2019

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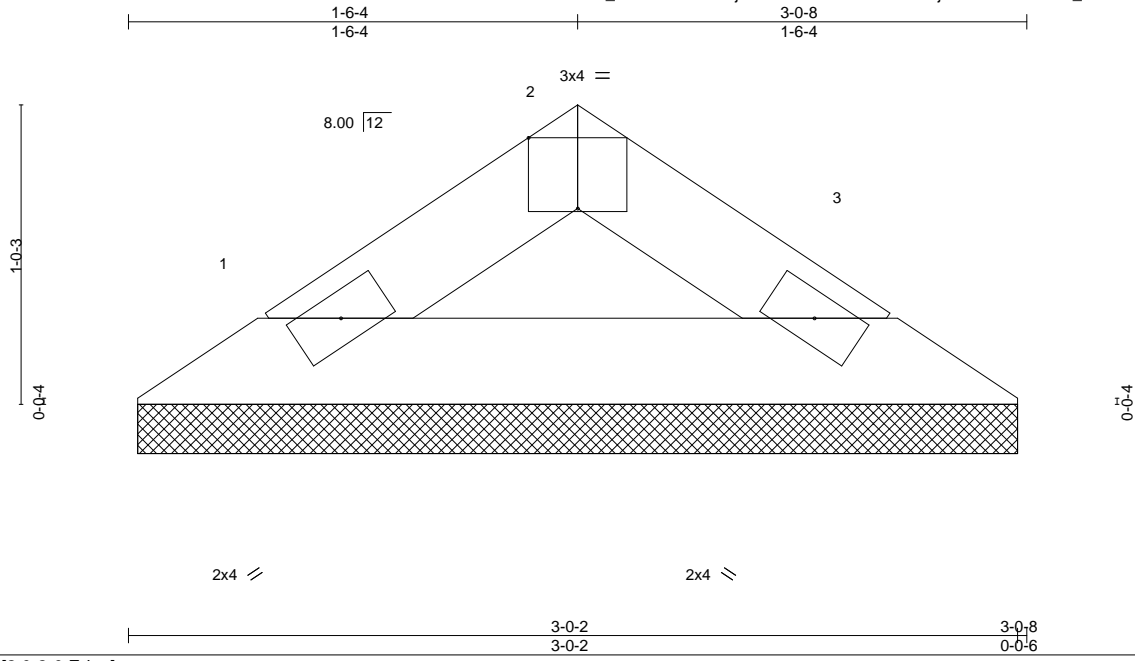
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Job 21057A	Truss V10	Truss Type Valley	Qty 1	Ply 1	240.3174.C.20x10CVP	137333772
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84 Components (Dunn), Dunn, NC - 28334,

8.240 s May 13 2019 MiTek Industries, Inc. Wed Jun 5 16:25:16 2019 Page 1

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Scale = 1:7.8

Plate Offsets (X,Y)--	[2:0-2:0,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	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: 8 lb	FT = 20%

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

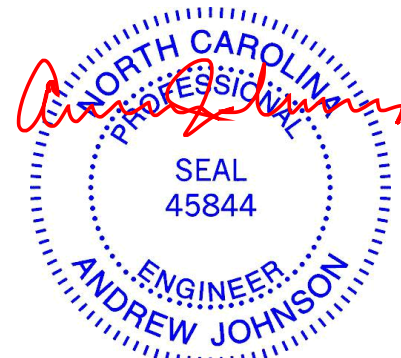
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-0-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=83/2-11-12, 3=83/2-11-12  
Max Horz 1=-17(LC 8)  
Max Uplift 1=-9(LC 12), 3=-9(LC 13)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 3.



June 6, 2019

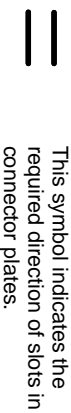
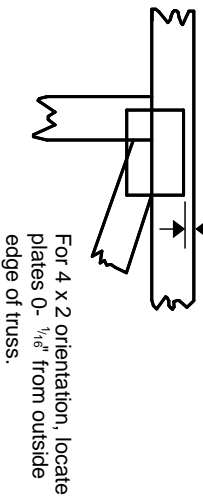
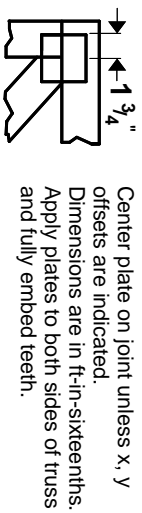
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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# Symbols

## PLATE LOCATION AND ORIENTATION



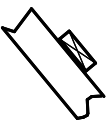
\* Plate location details available in **MITrak 20/20 software** or upon request.

## PLATE SIZE

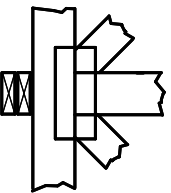
4 X 4

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

## LATERAL BRACING LOCATION



## BEARING

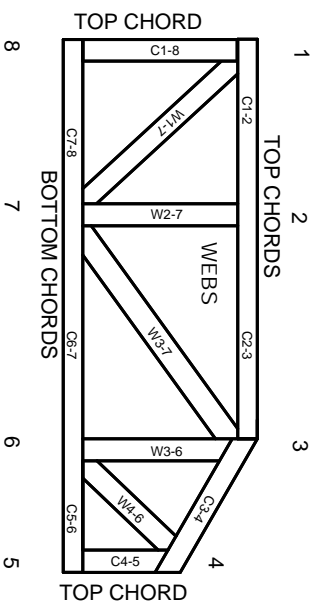


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.