ENGINEERING BY
TRENCO
A MiTek Affiliate

RE: Wilmington B
Wilmington B

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: D.R. HORTON - RAL - 055 Project Name: Wilmington B
Lot/Block: Model: WILMINGTON / B
Address: Subdivision:
City: FUQUAY-VARINA State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 9 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I47901364	A	9/15/2021
2	I47901365	A1	9/15/2021
3	I47901366	A2	9/15/2021
4	I47901367	A3	9/15/2021
5	I47901368	A3E	9/15/2021
6	I47901369	AE	9/15/2021
7	I47901370	BE	9/15/2021
8	I47901371	BGR	9/15/2021
9	I47901372	D	9/15/2021

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

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

September 15, 2021

Sevier, Scott

Job	Truss	Truss Type	Qty	Ply	Wilmington B
Wilmington B	A	Common	8	1	I47901364
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 14 14:51:32 2021 Page 1
ID:NpT85yB3nXltJasroGEivDyi_fv-tn2lhWt3BsRblL0MW3bBypcYeor_IVfAn8niXGydh2v

-0-8-0 7-2-3 14-0-13 20-11-8 27-10-3 34-8-13 41-11-0 42-7-0
0-8-0 7-2-3 6-10-11 6-10-11 6-10-11 6-10-11 7-2-3 0-8-0

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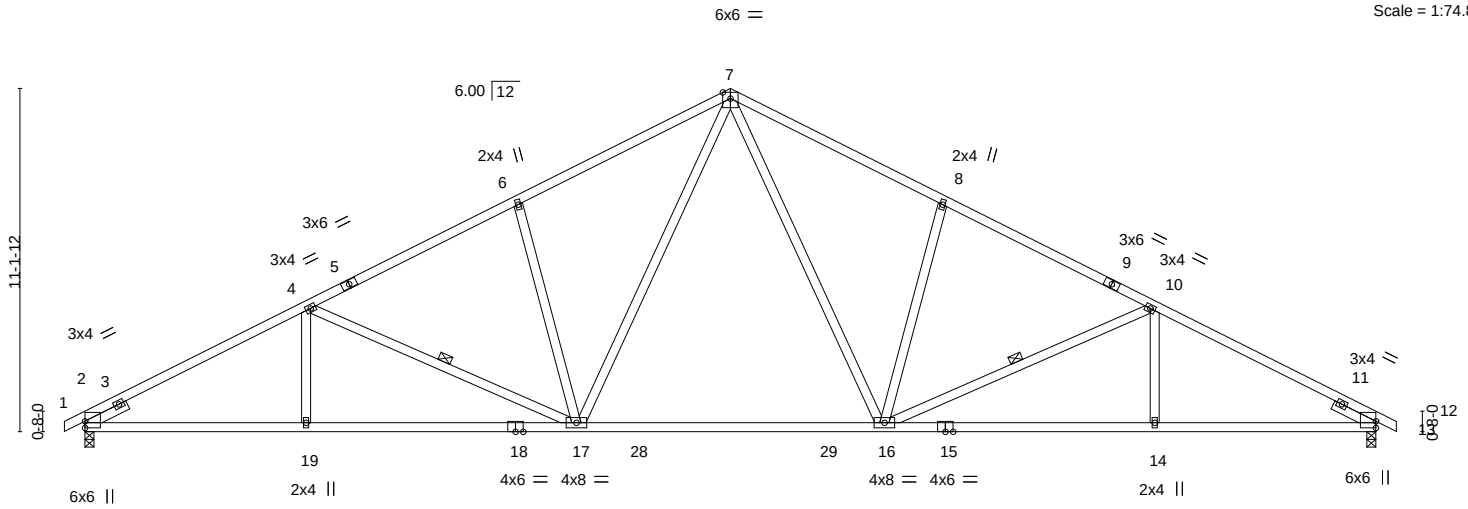

7-2-3 15-11-8 25-11-8 34-8-13 41-11-0
7-2-3 8-9-5 10-0-0 8-9-5 7-2-3

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.46	16-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.75	16-17	>671	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.14	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 234 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2 *Except* 1-5,9-13: 2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 10-16, 4-17

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=181(LC 12)
Max Uplift 2=-210(LC 12), 12=-210(LC 13)
Max Grav 2=1717(LC 1), 12=1717(LC 1)

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

TOP CHORD	2-4=-2960/714, 4-6=-2433/664, 6-7=-2332/755, 7-8=-2332/755, 8-10=-2433/664, 10-12=-2960/714
BOT CHORD	2-19=-526/2560, 17-19=-526/2560, 16-17=-166/1629, 14-16=-527/2560, 12-14=-527/2560
WEBS	7-16=-252/905, 8-16=-418/270, 10-16=-533/205, 10-14=0/272, 7-17=-252/905, 6-17=-418/270, 4-17=-533/205, 4-19=0/272

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph 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; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) One H2.5A Simpson Strong-Tie 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.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Wilmington B
Wilmington B	A1	ROOF TRUSS	1	1	I47901365
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 14 14:51:48 2021 Page 1
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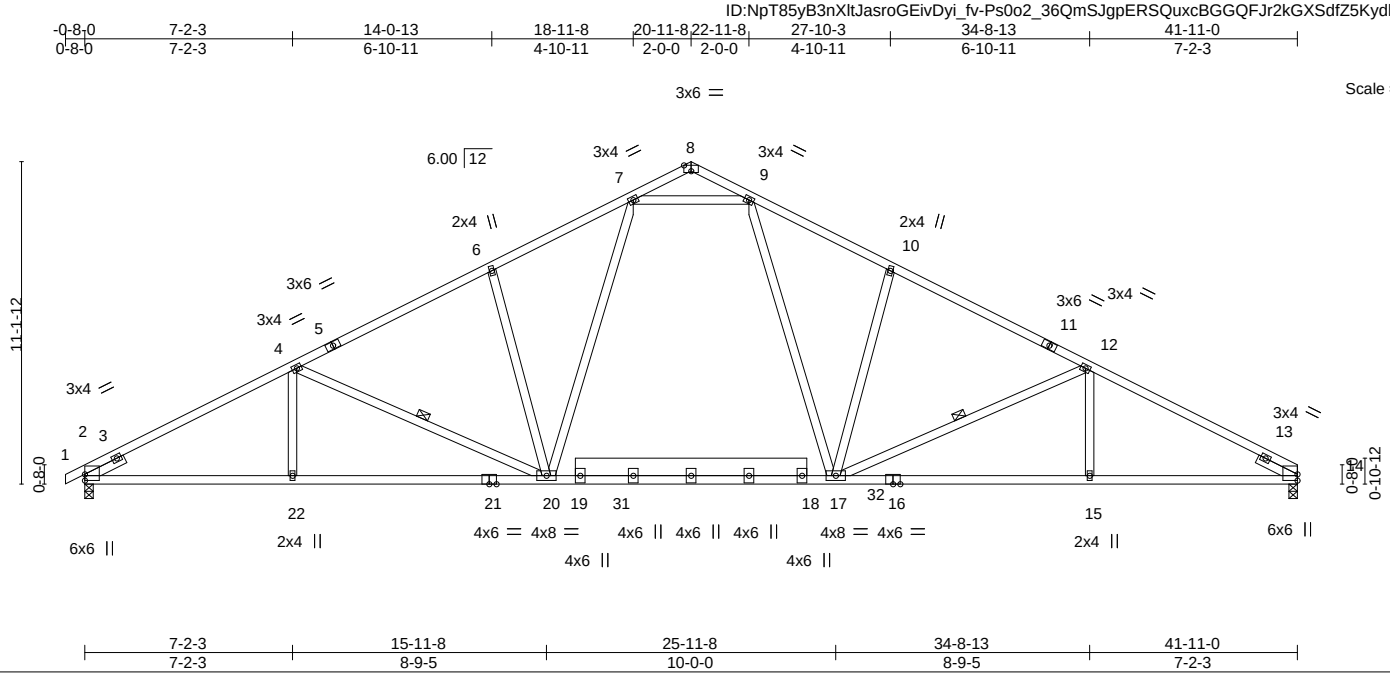

Plate Offsets (X,Y)-- [8:0-3-0,Edge]

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	0.88	Vert(LL)	-0.40	20-22	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.66	20-22	>767	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.13	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 259 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2 *Except* 1-5,11-14: 2x4 SP No.1
BOT CHORD	2x4 SP No.1 *Except* 18-19: 2x8 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 12-17, 4-20

REACTIONS. (size) 2=0-3-8, 14=0-3-8
Max Horz 2=186(LC 16)
Max Uplift 2=-210(LC 12), 14=-196(LC 13)
Max Grav 2=1717(LC 1), 14=1676(LC 1)

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

TOP CHORD	2-4=-2966/715, 4-6=-2425/663, 6-7=-2314/737, 9-10=-2315/737, 10-12=-2425/663, 12-14=-2969/715
BOT CHORD	2-22=-541/2565, 20-22=-541/2565, 17-20=-228/1768, 15-17=-541/2569, 14-15=-541/2569
WEBS	9-17=-210/867, 10-17=-456/254, 12-17=-559/211, 12-15=0/285, 7-20=-210/867, 6-20=-456/255, 4-20=-556/210, 4-22=0/284, 7-9=-1670/627

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph 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; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 14. This connection is for uplift only and does not consider lateral forces.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
7) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

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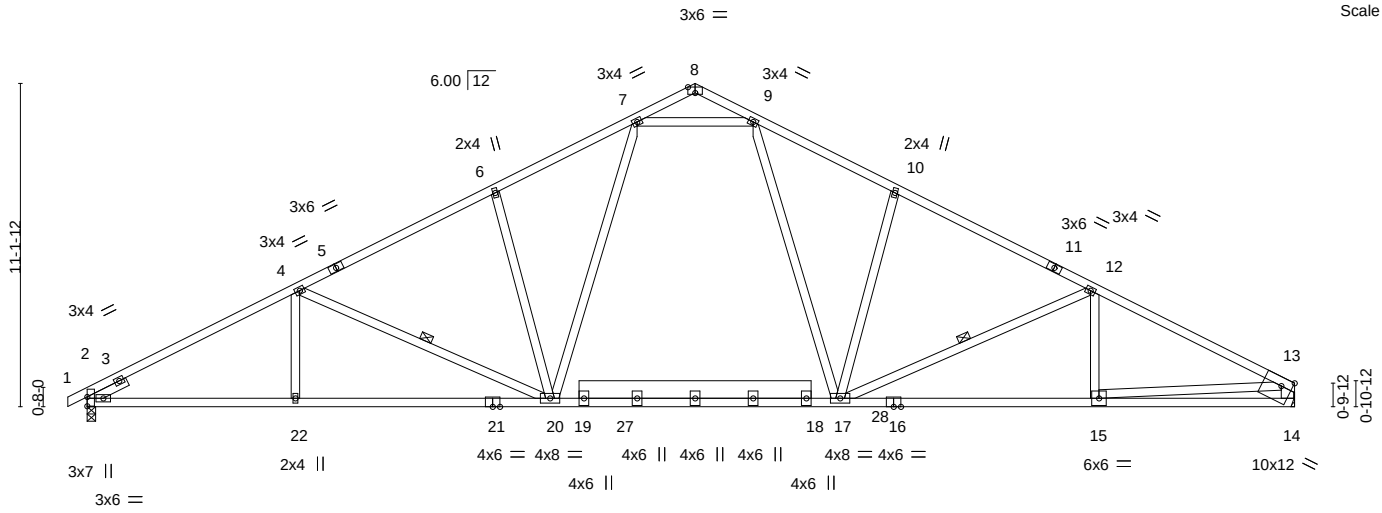
Job	Truss	Truss Type	Qty	Ply	Wilmington B
Wilmington B	A2	ROOF TRUSS	5	1	I47901366
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 14 14:51:57 2021 Page 1

ID:NpT85yB3nXltJasroGEivDyi_fv-eb2Cw3AlJXb2FBRAUpY2T58nytK2fm5sXXKXvJydh2W

-0-8-0	7-2-3	14-0-13	18-11-8	20-11-8	22-11-8	27-10-3	34-8-13	41-7-8
0-8-0	7-2-3	6-10-11	4-10-11	2-0-0	2-0-0	4-10-11	6-10-11	6-10-11

Scale = 1:79.4



7-2-3	15-11-8	25-11-8	34-8-13	41-7-8
7-2-3	8-9-6	10-0-0	8-9-5	6-10-11

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

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	0.96	Vert(LL)	-0.41	20-22	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.69	20-22	>720	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.12	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 266 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2 *Except* 1-5: 2x4 SP No.1
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2 *Except* 18-19: 2x8 SP No.2
WEBS	2x4 SP No.3 *Except* 13-14: 2x6 SP No.2
SLIDER	Left 2x4 SP No.3 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-20, 12-17

REACTIONS. (size) 2=0-3-8, 14=Mechanical
Max Horz 2=184(LC 16)
Max Uplift 2=-209(LC 12), 14=-191(LC 13)
Max Grav 2=1696(LC 1), 14=1656(LC 1)

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

TOP CHORD	2-4=-2925/704, 4-6=-2380/652, 6-7=-2272/726, 9-10=-2234/719, 10-12=-2351/646, 12-13=-2792/665, 13-14=-1586/417
BOT CHORD	2-22=-553/2528, 20-22=-553/2528, 17-20=-238/1723, 15-17=-520/2418, 14-15=-163/489
WEBS	4-22=0/290, 4-20=-554/211, 6-20=-465/256, 7-20=-212/877, 9-17=-196/810, 10-17=-432/254, 12-17=-478/184, 13-15=-358/1937, 7-9=-1632/618

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph 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; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=191.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

September 15,2021

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wilmington B
Wilmington B	A3	Common	4	1	I47901367
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 14 14:52:01 2021 Page 1
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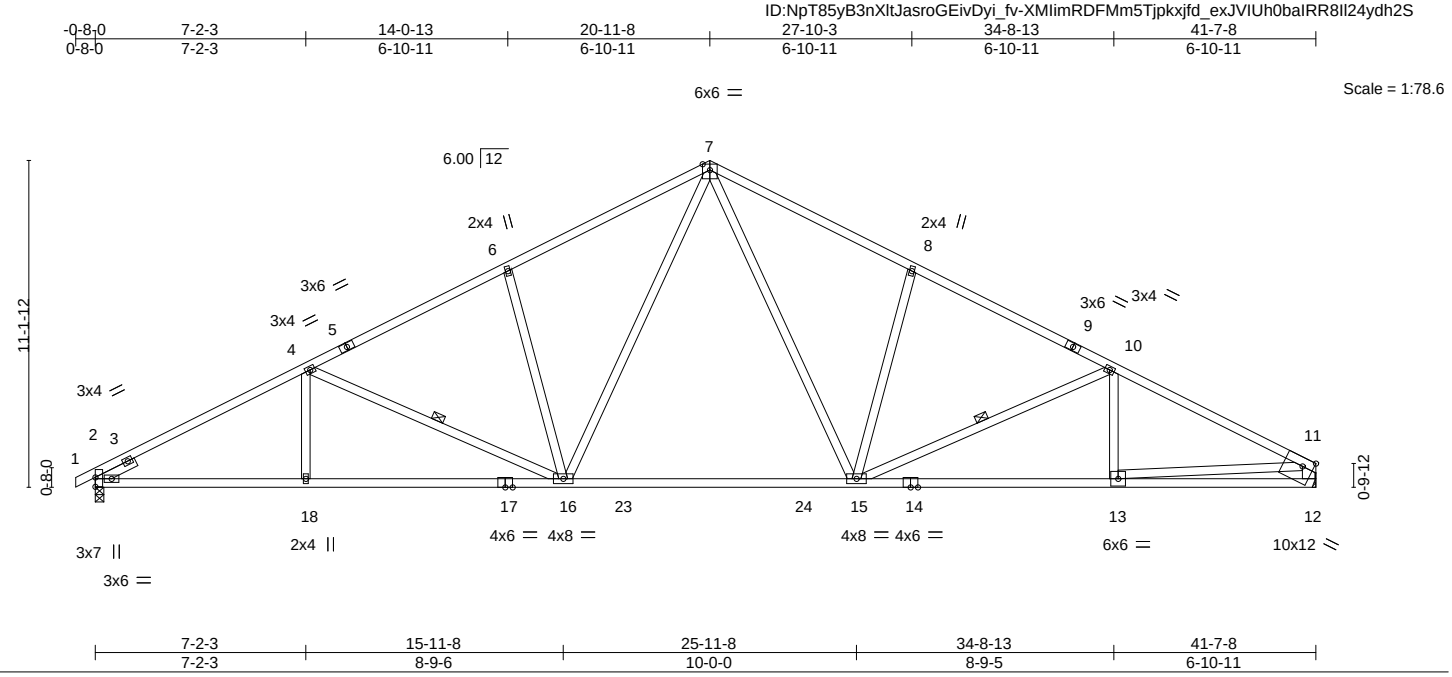

Plate Offsets (X,Y)-- [12:0-4-6,Edge]

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	0.81	Vert(LL)	-0.45	15-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.73	15-16	>677	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.12	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 240 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2 *Except*
	1-5: 2x4 SP No.1
BOT CHORD	2x4 SP No.1 *Except*
	2-17: 2x4 SP No.2 or 2x4 SPF No.2
WEBS	2x4 SP No.3 *Except*
	11-12: 2x6 SP No.2
SLIDER	Left 2x4 SP No.3 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-16, 10-15

REACTIONS. (size) 2=0-3-8, 12=Mechanical
Max Horz 2=184(LC 16)
Max Uplift 2=-209(LC 12), 12=-191(LC 13)
Max Grav 2=1696(LC 1), 12=1656(LC 1)

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

TOP CHORD	2-4=-2920/704, 4-6=-2390/653, 6-7=-2289/745, 7-8=-2256/738, 8-10=-2360/647,
	10-11=-2786/665, 11-12=-1583/418
BOT CHORD	2-18=-552/2523, 16-18=-552/2523, 15-16=-190/1589, 13-15=-518/2411, 12-13=-168/515
WEBS	4-18=0/274, 4-16=-533/206, 6-16=-418/270, 7-16=-252/907, 7-15=-238/852,
	8-15=-405/268, 10-15=-454/178, 11-13=-352/1905

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph 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; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=191.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Attic room checked for L/360 deflection.

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Job	Truss	Truss Type	Qty	Ply	Wilmington B
Wilmington B	A3E	GABLE	1	1	I47901368
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 14 14:52:05 2021 Page 1
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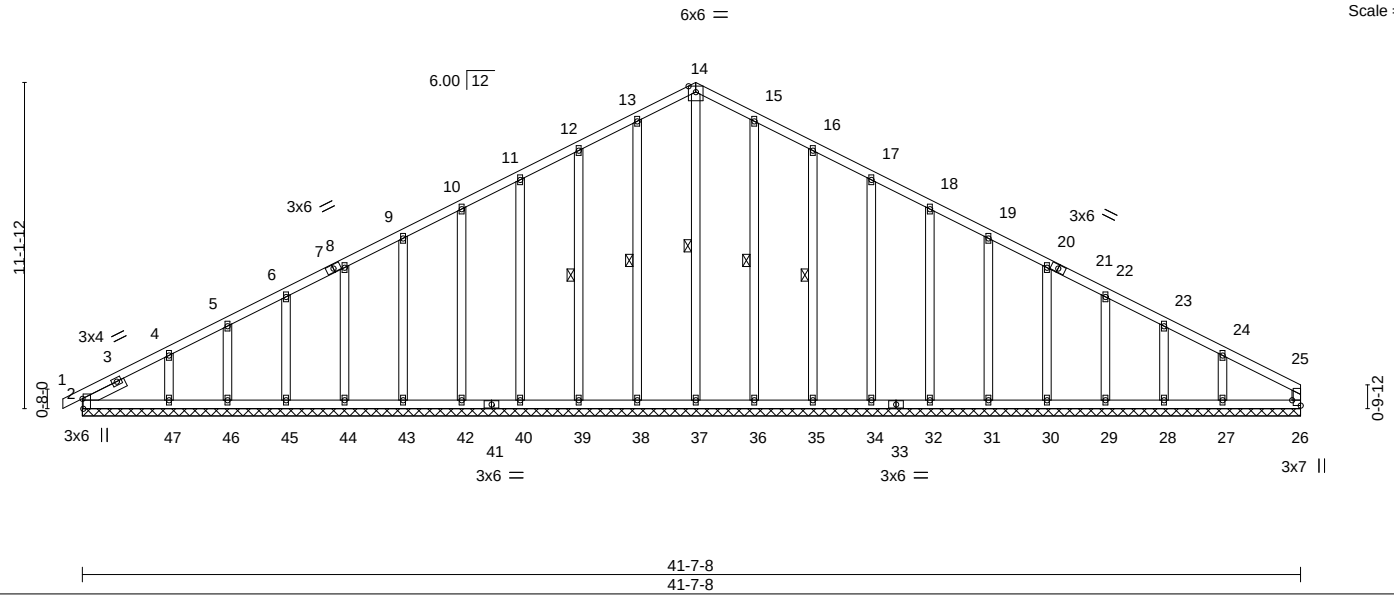
-0-8-0 20-11-8 41-7-8
0-8-0 20-11-8 20-8-0

Scale = 1:78.7



41-7-8
41-7-8

Plate Offsets (X,Y)-- [2:0-4-1,Edge], [26:Edge,0-3-8]

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	0.11	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	26	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 301 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-7-2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 14-37, 13-38, 12-39, 15-36, 16-35

REACTIONS. All bearings 41-7-8.
(lb) - Max Horz 2=182(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 38, 39, 40, 42, 43, 44, 45, 46, 36, 35, 34, 32, 31, 30, 29, 28 except 47=-110(LC 12), 27=-110(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 26, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 36, 35, 34, 32, 31, 30, 29, 28, 27

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-119/270, 12-13=-137/321, 13-14=-152/362, 14-15=-152/362, 15-16=-137/321, 16-17=-119/270

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph 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; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.

September 15,2021

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TRENCO
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Job	Truss	Truss Type	Qty	Ply	Wilmington B
Wilmington B	AE	GABLE	1	1	I47901369

Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 14 14:52:08 2021 Page 1
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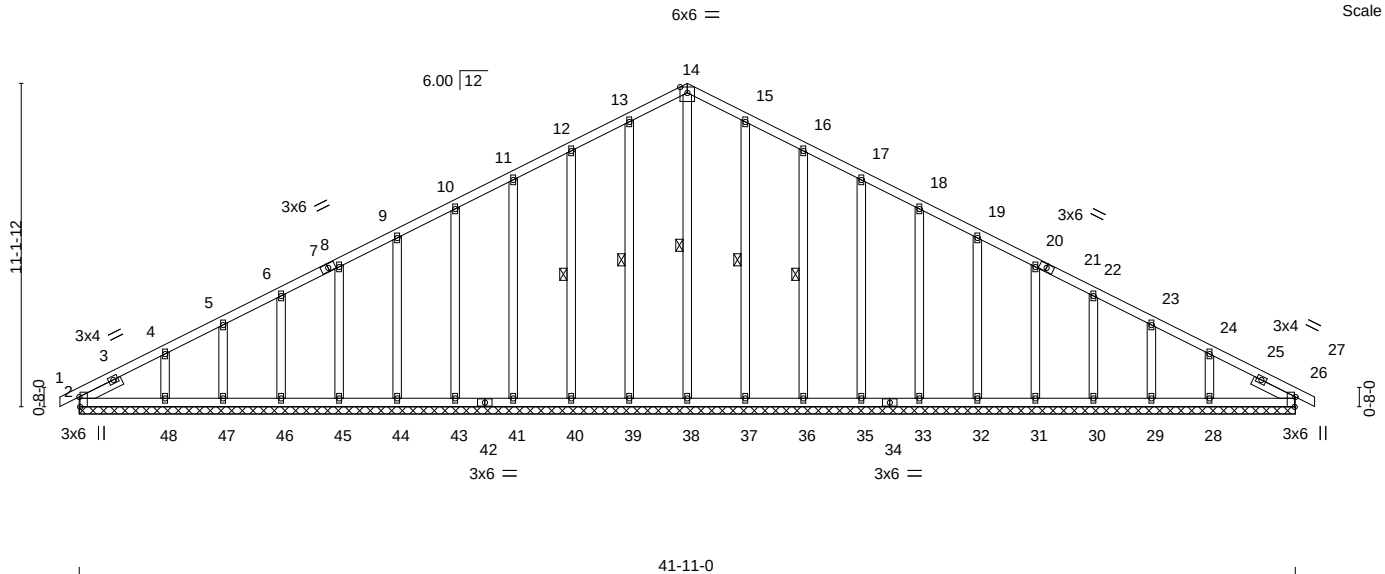
-0-8-0 20-11-8 41-11-0 42-7-0
0-8-0 20-11-8 20-11-8 0-8-0

Scale = 1:79.4



41-11-0
41-11-0

Plate Offsets (X,Y)-- [2:0-4-1,Edge], [26:0-4-1,Edge]

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	0.09	Vert(LL)	0.00	27	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	27	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	26	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 305 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-7-2, Right 2x4 SP No.3 1-7-2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 14-38, 13-39, 12-40, 15-37, 16-36

REACTIONS. All bearings 41-11-0.
(lb) - Max Horz 2=181(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 39, 40, 41, 43, 44, 45, 46, 47, 37, 36, 35, 33, 32, 31, 30, 29, 28 except 48=-112(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 2, 26, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 37, 36, 35, 33, 32, 31, 30, 29, 28

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-120/287, 13-14=-136/329, 14-15=-136/329, 15-16=-120/287

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph 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; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.

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Job	Truss	Truss Type	Qty	Ply	Wilmington B
Wilmington B	BE	GABLE	1	1	I47901370
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 14 14:52:12 2021 Page 1
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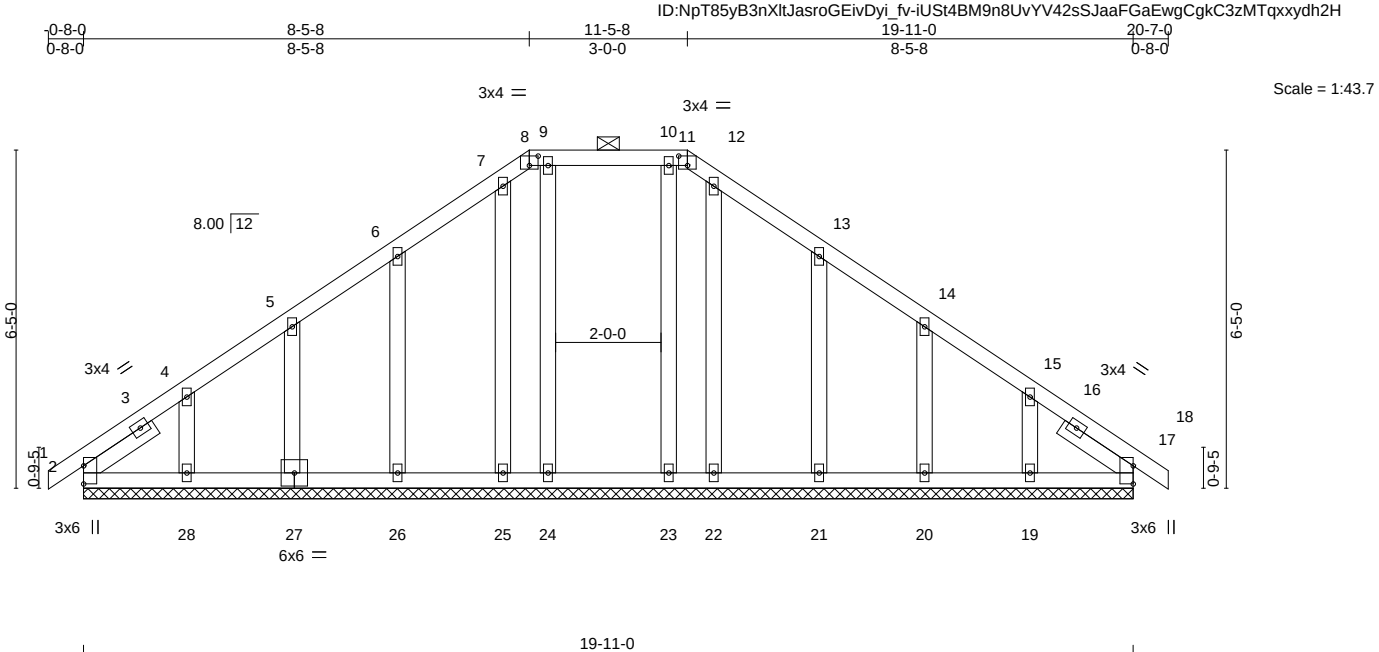

Plate Offsets (X,Y)-- [8:0-2-0,0-2-3], [11:0-2-0,0-2-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	17	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	17	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	17	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 132 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-7-8, Right 2x4 SP No.3 1-7-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 8-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 19-11-0.
(lb) - Max Horz 2=-151(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 2, 24, 23, 25, 26, 27, 22, 21, 20, 19, 17 except 28=-103(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 2, 24, 23, 25, 26, 27, 28, 22, 21, 20, 19, 17

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 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; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) N/A

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

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Job	Truss	Truss Type	Qty	Ply	Wilmington B
Wilmington B	BGR	Common Girder	1	3	I47901371
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 14 14:52:16 2021 Page 1
ID:NpT85yB3nXltJasroGEivDyi_fv-bFiNwZPgqN_L16Np5IOWl5RCJXy8cObfu_R14iydh2D

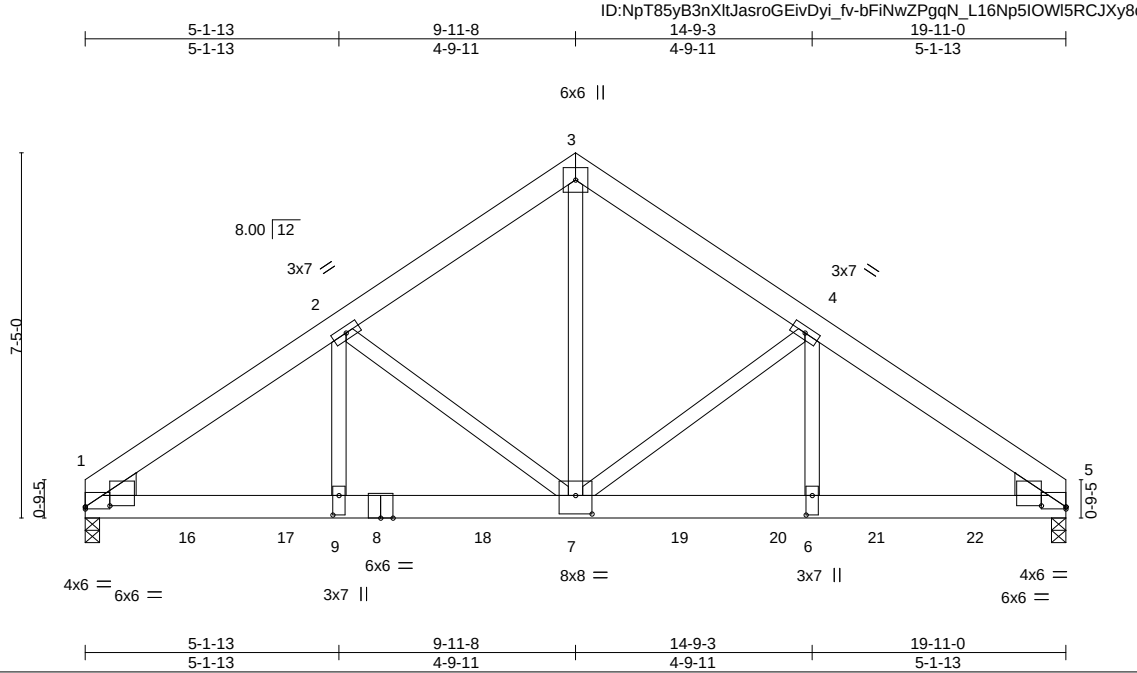

Plate Offsets (X,Y)-- [1:0-0-0,0-0-8], [1:0-6-0,0-0-4], [5:0-0-0,0-0-8], [5:0-6-0,0-0-4], [6:0-4-12,0-1-8], [7:0-4-0,0-4-8], [9:0-4-12,0-1-8]

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	0.24	Vert(LL)	-0.08	7-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.16	7-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 429 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.3 *Except*
3-7: 2x4 SP No.2 or 2x4 SPF No.2
WEDGE
Left: 2x6 SP No.2 , Right: 2x6 SP No.2

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

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=164(LC 9)
Max Uplift 1=-990(LC 12), 5=-1006(LC 13)
Max Grav 1=8093(LC 1), 5=8220(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-11406/1477, 2-3=-8042/1115, 3-4=-8042/1115, 4-5=-11389/1475
BOT CHORD 1-9=-1194/9358, 7-9=-1194/9358, 6-7=-1144/9350, 5-6=-1144/9350
WEBS 3-7=-1095/8400, 4-7=-3378/545, 4-6=-415/3789, 2-7=-3388/545, 2-9=-417/3817

NOTES-
1) 3-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph 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; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Two H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 5. This connection is for uplift only and does not consider lateral forces.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1636 lb down and 211 lb up at 2-0-12, 1636 lb down and 211 lb up at 4-0-12, 1636 lb down and 211 lb up at 6-0-12, 1636 lb down and 211 lb up at 8-0-12, 1636 lb down and 211 lb up at 10-0-12, 1636 lb down and 211 lb up at 12-0-12, 1636 lb down and 211 lb up at 14-0-12, and 1636 lb down and 211 lb up at 16-0-12, and 1636 lb down and 211 lb up at 18-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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Continued on 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, 3-5=-60, 10-13=-20
   Concentrated Loads (lb)
   Vert: 8=-1636(B) 7=-1636(B) 16=-1636(B) 17=-1636(B) 18=-1636(B) 19=-1636(B) 20=-1636(B) 21=-1636(B) 22=-1636(B)

Job	Truss	Truss Type	Qty	Ply	Wilmington B
Wilmington B	D	Monopitch	10	1	I47901372
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Tue Sep 14 14:52:18 2021 Page 1
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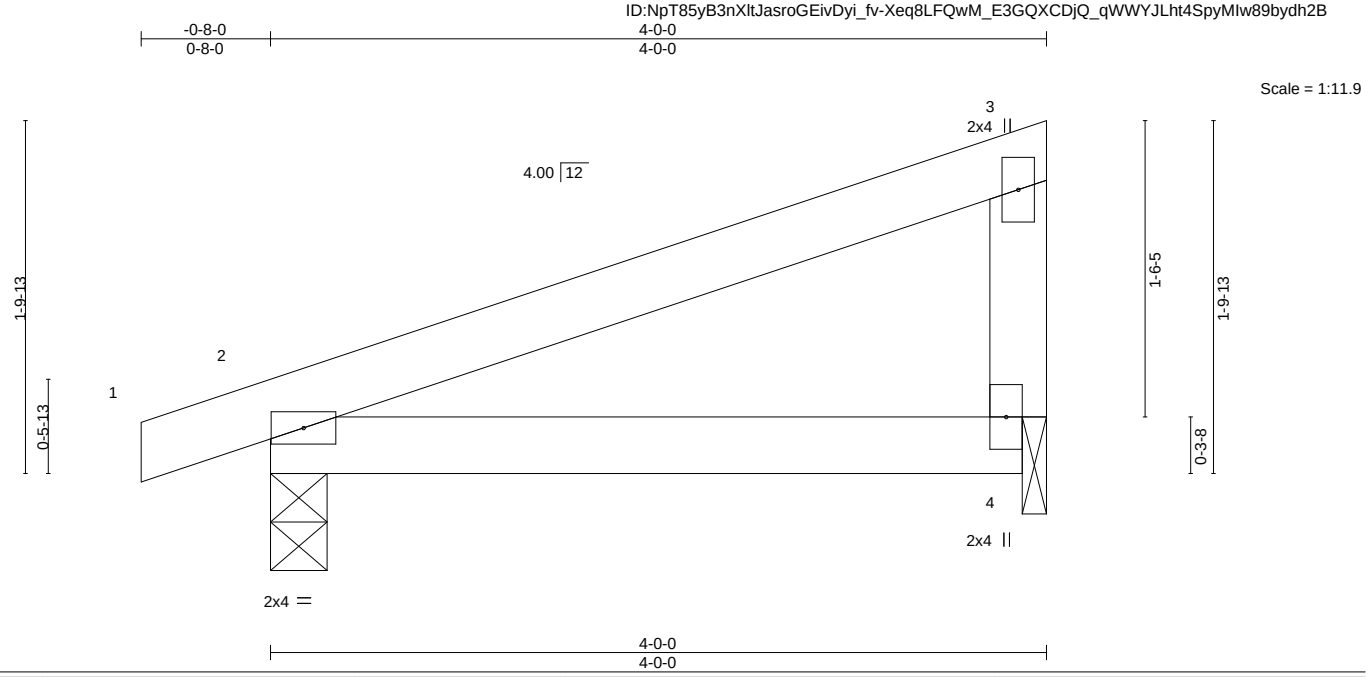

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.01	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 15 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=64(LC 11)
Max Uplift 2=-52(LC 8), 4=-33(LC 12)
Max Grav 2=198(LC 1), 4=151(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph 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; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.

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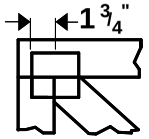
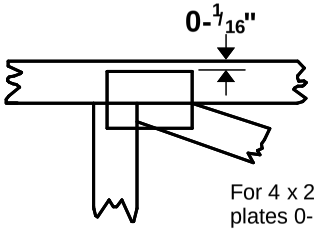
Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

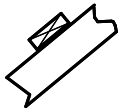
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

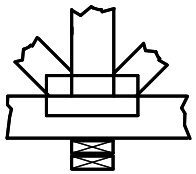
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

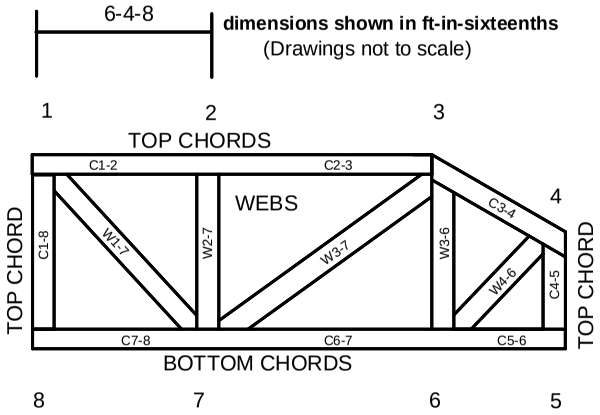


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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