ENGINEERING BY TRENCO
A MiTek Affiliate

RE: Crawl Pinehurst
Pinehurst Crawl

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: D.R. HORTON - RAL - 055 Project Name: Crawl Pinehurst
Lot/Block: Model: Crawl Pinehurst
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: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

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

No.	Seal#	Truss Name	Date
1	I47952632	CF1	9/18/2021
2	I47952633	CF1E	9/18/2021
3	I47952634	CF2	9/18/2021
4	I47952635	CF2E	9/18/2021
5	I47952636	CF3	9/18/2021
6	I47952637	CF4	9/18/2021
7	I47952638	CF5	9/18/2021
8	I47952639	CF6	9/18/2021
9	I47952640	CF6E	9/18/2021

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: Johnson, Andrew

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 18, 2021

Johnson, Andrew

Job	Truss	Truss Type	Qty	Ply	Pinehurst Crawl
Crawl Pinehurst	CF1	Floor	8	1	I47952632
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Sep 17 09:48:24 2021 Page 1
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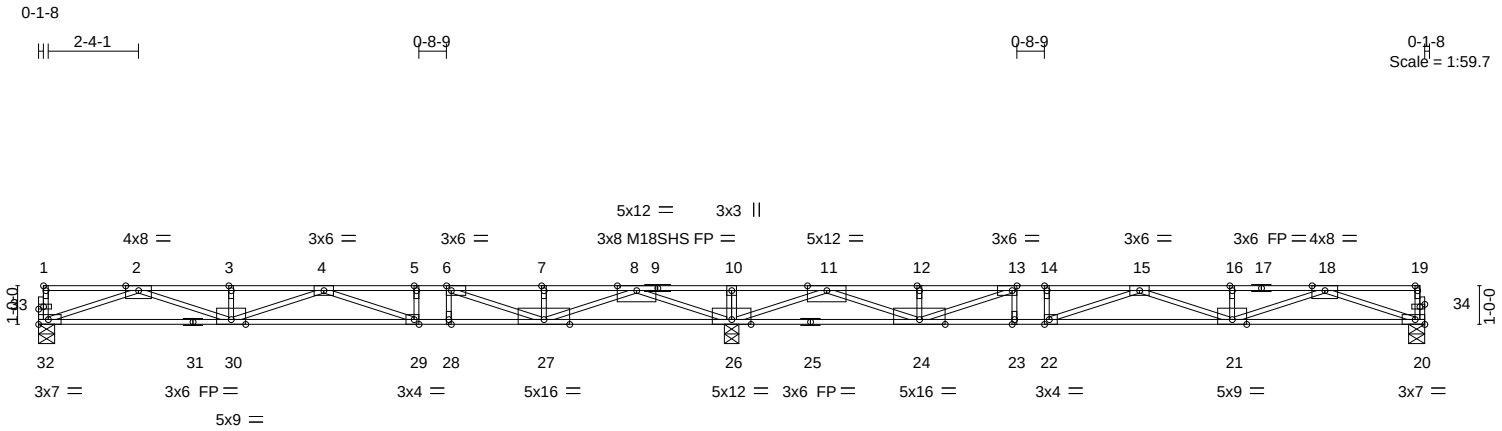


Plate Offsets (X,Y)-- [1:Edge,0-0-12], [6:0-1-8,Edge], [13:0-1-8,Edge], [22:0-1-8,Edge], [29:0-1-8,Edge], [33:0-1-8,0-0-12], [34:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.33	21-22	>640	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.47	Vert(CT)	-0.45	21-22	>477	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.06	20	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 173 lb	FT = 20%F, 11%E

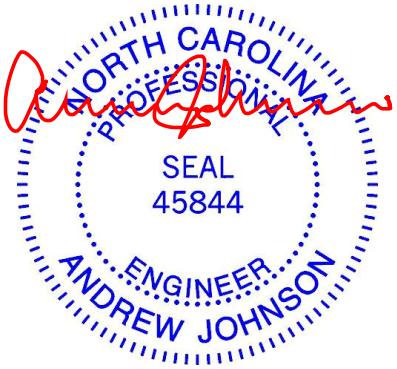
LUMBER-
TOP CHORD 2x4 SP DSS(flat)
BOT CHORD 2x4 SP DSS(flat)
WEBS 2x4 SP No.3(flat) *Except* 2-32,8-26,2-30,8-27,4-30,6-27,4-29,18-20,11-26,18-21,11-24,15-21,13-24,15-22: 2x4 SP No.2 or 2x4 SPF No.2(flat)

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

REACTIONS. (size) 32=0-5-0, 26=0-4-8, 20=0-5-0
Max Grav 32=833(LC 3), 26=2407(LC 1), 20=833(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3234/0, 3-4=-3234/0, 4-5=-3299/272, 5-6=-3299/272, 6-7=-1890/1005, 7-8=-1890/1005, 8-10=0/4367, 10-11=0/4367, 11-12=-1890/1005, 12-13=-1890/1005, 13-14=-3299/272, 14-15=-3299/272, 15-16=-3234/0, 16-18=-3234/0
BOT CHORD 30-32=0/2021, 29-30=0/3676, 28-29=-272/3299, 27-28=-272/3299, 26-27=-1907/0, 24-26=-1907/0, 23-24=-272/3299, 22-23=-272/3299, 21-22=0/3676, 20-21=0/2021
WEBS 10-26=-283/0, 2-32=-2137/0, 8-26=-3059/0, 2-30=0/1291, 8-27=0/2311, 4-30=-470/202, 6-27=-1834/0, 4-29=-968/0, 6-28=0/253, 18-20=-2137/0, 11-26=-3059/0, 18-21=0/1291, 11-24=0/2311, 15-21=-470/202, 13-24=-1834/0, 15-22=-968/0, 13-23=0/253

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.



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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Pinehurst Crawl
Crawl Pinehurst	CF1E	Floor Supported Gable	1	1	I47952633
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Sep 17 09:48:26 2021 Page 1
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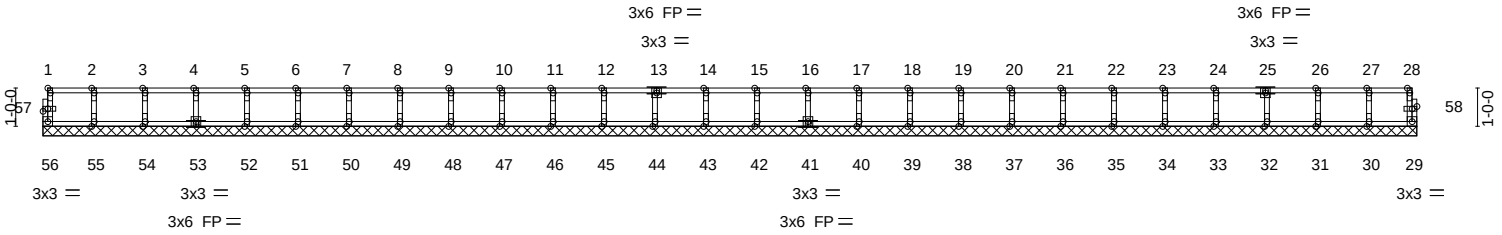
0-1-8 0-1-8

Scale = 1:60.2



35-11-0
35-11-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [57:0-1-8,0-0-12], [58:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	29	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 139 lb	FT = 20%F, 11%E

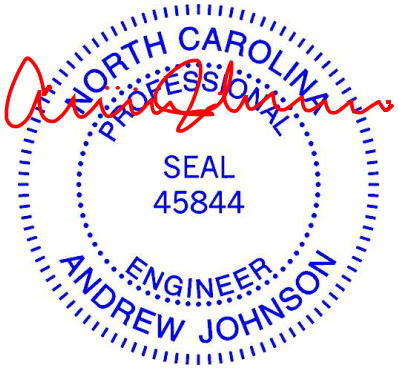
LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 35-11-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 56, 29, 55, 54, 53, 52, 51, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



September 18,2021

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Pinehurst Crawl
Crawl Pinehurst	CF2	FLOOR GIRDER	1	2	I47952634
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Sep 17 09:48:27 2021 Page 1
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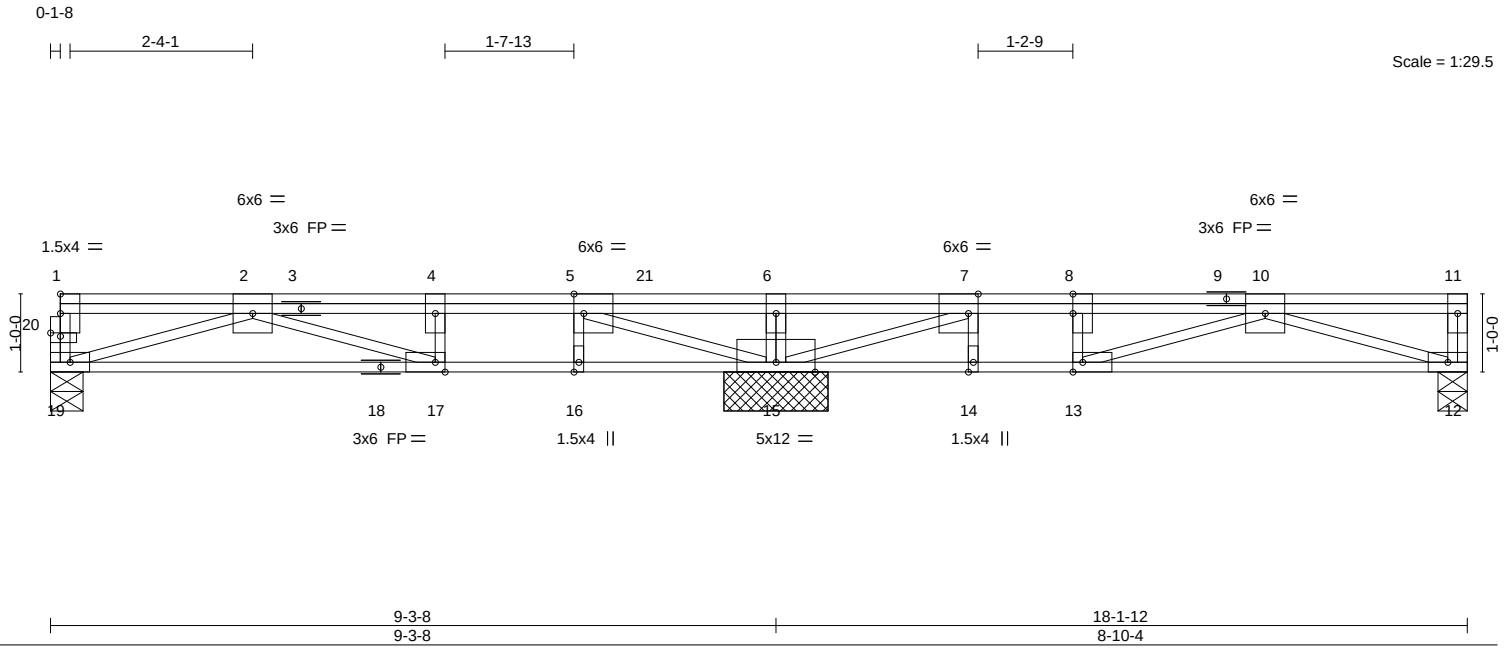


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [7:0-1-8,Edge], [8:0-3-0,0-0-0], [13:0-1-8,Edge], [17:0-1-8,Edge], [20:0-1-8,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.11	12-13	>915	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.17	12-13	>606	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.73	Horz(CT)	0.03	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 223 lb	FT = 20%F, 11%E

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

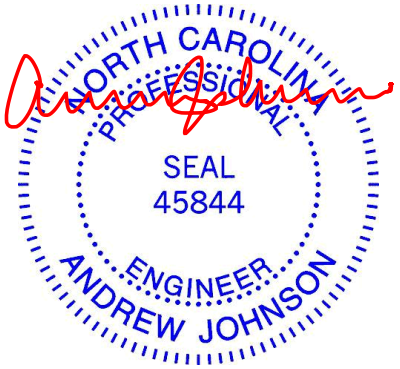
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 19=0-5-0, 12=0-4-8, 15=1-4-0
Max Grav 19=402(LC 3), 12=1150(LC 4), 15=3704(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-650/302, 4-5=-650/302, 5-6=0/1587, 6-7=0/1587, 7-8=-3907/0, 8-10=-3907/0
BOT CHORD 17-19=0/879, 16-17=-302/650, 15-16=-302/650, 14-15=0/3907, 13-14=0/3907, 12-13=0/3217
WEBS 6-15=-1338/0, 2-19=-919/0, 5-15=-2200/0, 2-17=-411/0, 10-12=-3388/0, 7-15=-5627/0, 10-13=0/851, 8-13=-296/0

NOTES-
1) Fasten trusses together to act as a single unit as per standard industry detail, or loads are to be evenly applied to all plies.
2) Unbalanced floor live loads have been considered for this design.
3) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
4) All plates are 3x6 MT20 unless otherwise indicated.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 12-19=-10, 1-21=-100, 9-21=-540, 9-11=-100



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Job	Truss	Truss Type	Qty	Ply	Pinehurst Crawl
Crawl Pinehurst	CF2E	Floor Supported Gable	1	1	I47952635
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Sep 17 09:48:28 2021 Page 1
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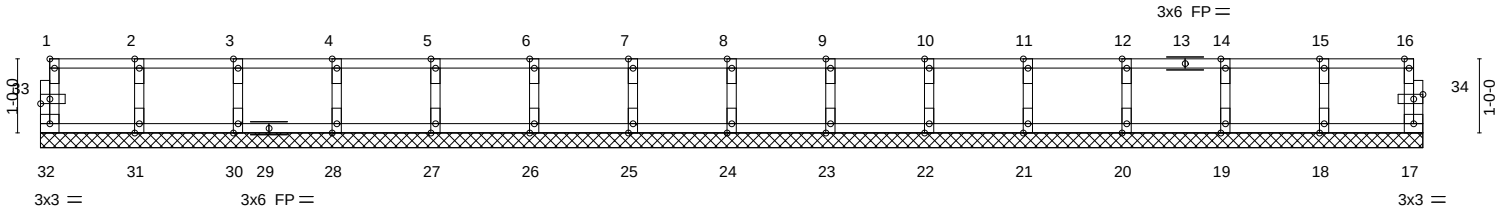
0-1-8 0-1-8

Scale = 1:31.1



18-8-0
18-8-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [33:0-1-8,0-0-12], [34:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 74 lb	FT = 20%F, 11%E

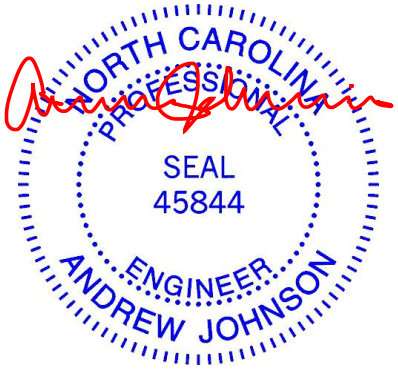
LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 18-8-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 32, 17, 31, 30, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



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Job	Truss	Truss Type	Qty	Ply	Pinehurst Crawl
Crawl Pinehurst	CF3	FLOOR	3	1	I47952636
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Sep 17 09:48:29 2021 Page 1
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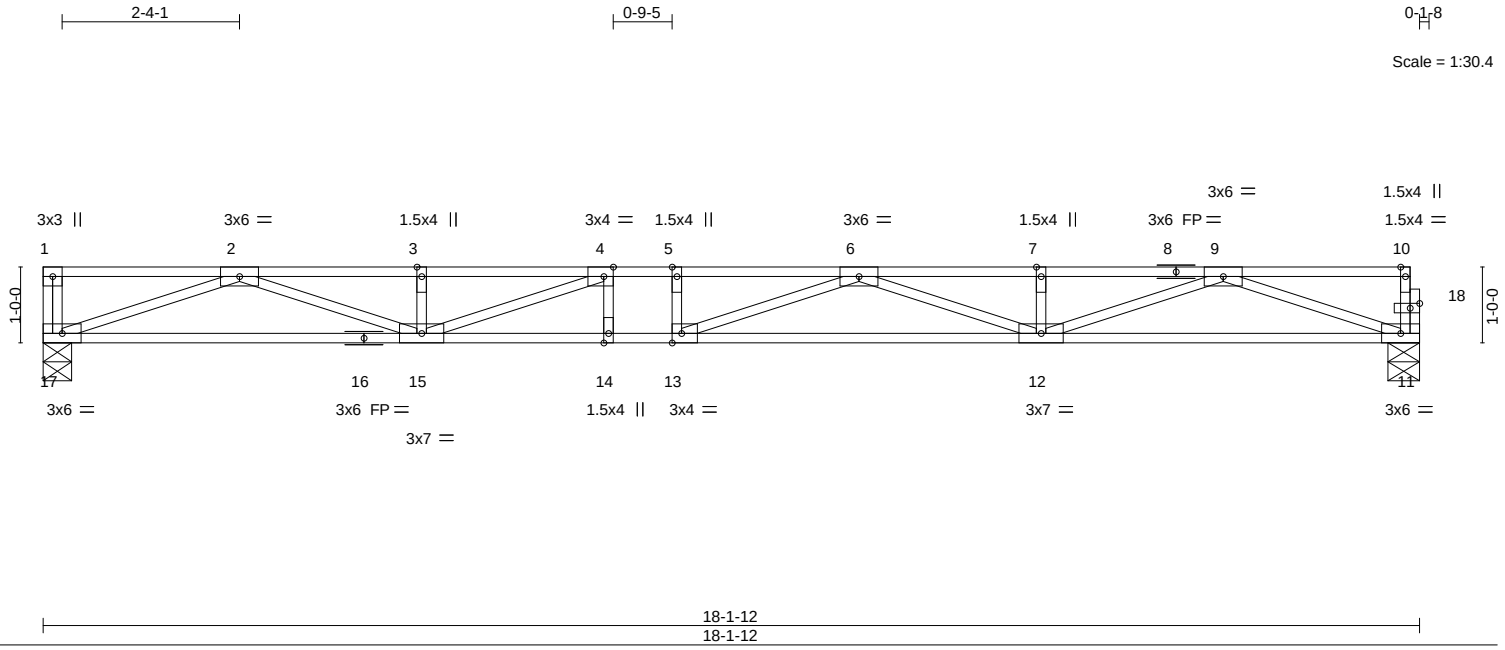


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [13:0-1-8,Edge], [18:0-1-8,0-0-12]

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.30	12-13	>720	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.38	Vert(CT)	-0.42	12-13	>513	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.05	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 88 lb	FT = 20%F, 11%E

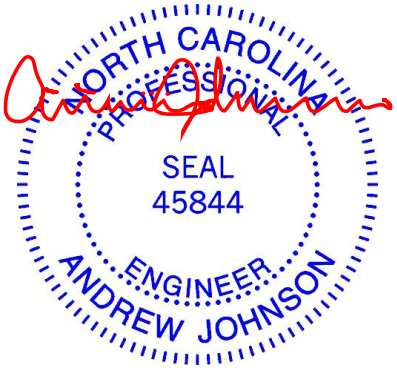
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP DSS(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 17=0-4-8, 11=0-5-0
Max Grav 17=656(LC 1), 11=652(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2676/0, 3-4=-2676/0, 4-5=-3298/0, 5-6=-3298/0, 6-7=-2686/0, 7-9=-2686/0
BOT CHORD 15-17=0/1613, 14-15=0/3298, 13-14=0/3298, 12-13=0/3248, 11-12=0/1617
WEBS 9-11=-1711/0, 2-17=-1711/0, 9-12=0/1139, 2-15=0/1131, 6-12=-597/0, 4-15=-781/0, 6-13=-226/363

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.



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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Pinehurst Crawl
Crawl Pinehurst	CF4	Floor	1	1	I47952637
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Sep 17 09:48:30 2021 Page 1
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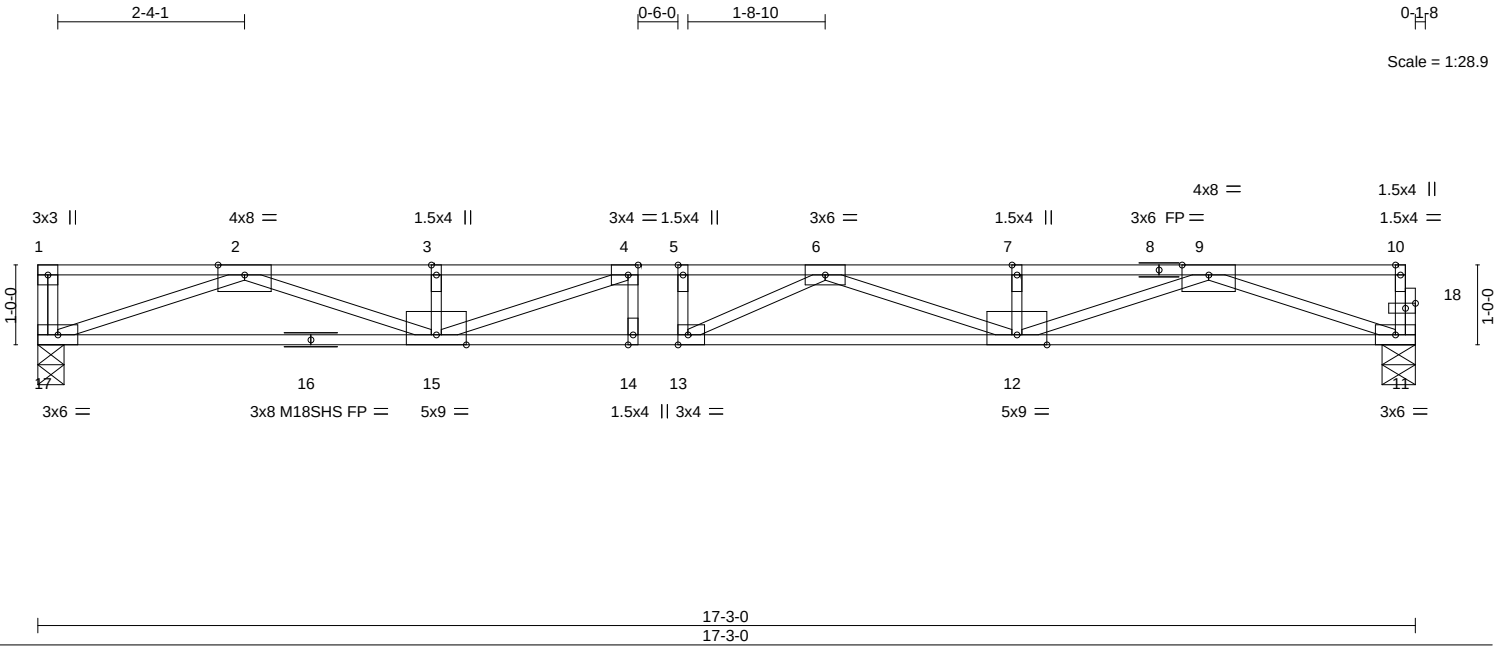


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [13:0-1-8,Edge], [18:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.46	Vert(LL)	-0.38	12-13	>532	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.53	12-13	>383	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.08	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 84 lb	FT = 20%F, 11%E

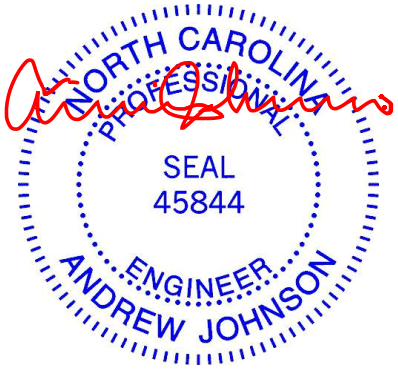
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 17=0-3-15, 11=0-5-0
Max Grav 17=935(LC 1), 11=929(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3755/0, 3-4=-3755/0, 4-5=-4487/0, 5-6=-4487/0, 6-7=-3760/0, 7-9=-3760/0
BOT CHORD 15-17=0/2282, 14-15=0/4487, 13-14=0/4487, 12-13=0/4453, 11-12=0/2281
WEBS 9-11=-2413/0, 2-17=-2421/0, 9-12=0/1573, 2-15=0/1568, 3-15=-254/0, 6-12=-738/0, 4-15=-946/0, 6-13=-314/421

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are MT20 plates unless otherwise indicated.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.



September 18,2021

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

Job	Truss	Truss Type	Qty	Ply	Pinehurst Crawl
Crawl Pinehurst	CF5	FLOOR GIRDER	1	2	I47952638 Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Sep 17 09:48:32 2021 Page 1
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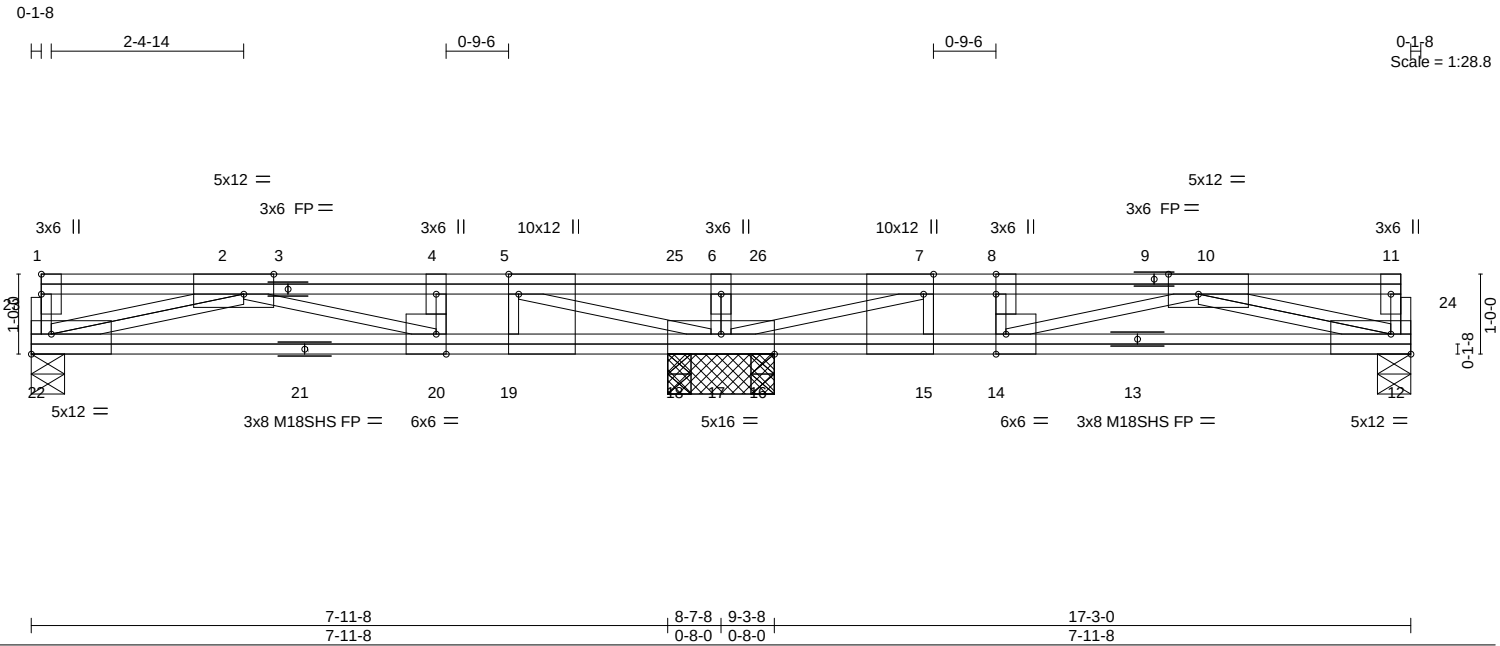


Plate Offsets (X,Y)-- [2:0-4-8,Edge], [5:0-3-0,Edge], [7:0-3-0,Edge], [8:0-3-0,0-0-0], [10:0-4-8,Edge], [12:Edge,0-3-0], [14:0-1-8,Edge], [17:0-8-0,Edge], [20:0-1-8,Edge], [22:Edge,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.13	20-22	>736	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.18	20-22	>527	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.96	Horz(CT)	0.04	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 277 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP DSS(flat)
BOT CHORD 2x4 SP DSS(flat)
WEBS 2x4 SP No.3(flat) *Except*
2-22,5-17,2-20,10-12,7-17,10-14: 2x4 SP No.2(flat)

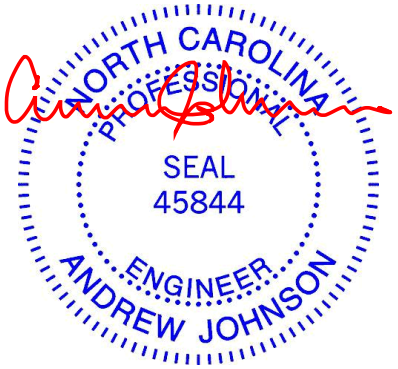
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 0-5-0 except (jt=length) 17=1-4-0, 18=0-3-8, 16=0-3-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) except 22=3711(LC 3), 12=3711(LC 5), 17=5714(LC 1), 18=1807(LC 16), 16=1807(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-22=-865/0, 11-12=-865/0, 2-4=-7555/0, 4-5=-7555/0, 5-6=0/2914, 6-7=0/2914, 7-8=-7555/0, 8-10=-7555/0
BOT CHORD 20-22=0/8726, 19-20=0/7555, 18-19=0/7555, 17-18=0/7555, 16-17=0/7555, 15-16=0/7555, 14-15=0/7555, 12-14=0/8726
WEBS 6-17=-2847/0, 2-22=-9074/0, 5-17=-10797/0, 2-20=-1348/0, 4-20=-347/0, 5-19=0/469, 10-12=-9074/0, 7-17=-10797/0, 10-14=-1348/0, 7-15=0/469, 8-14=-347/0

NOTES-
1) Fasten trusses together to act as a single unit as per standard industry detail, or loads are to be evenly applied to all plies.
2) Unbalanced floor live loads have been considered for this design.
3) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
4) All plates are MT20 plates unless otherwise indicated.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 12-22=-10, 1-11=-980



September 18,2021

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

Job	Truss	Truss Type	Qty	Ply	Pinehurst Crawl
Crawl Pinehurst	CF6	Floor	6	1	I47952639
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Sep 17 09:48:33 2021 Page 1
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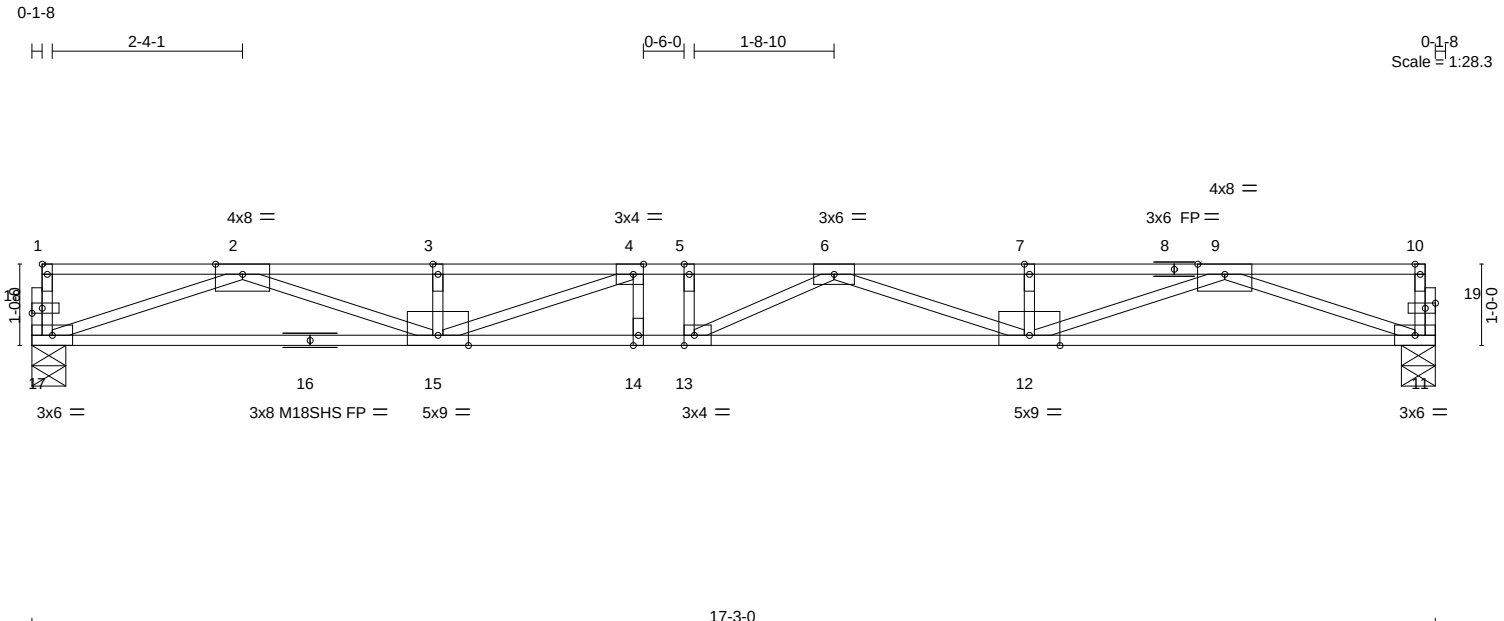


Plate Offsets (X,Y)-- [1:Edge,0-0-12], [4:0-1-8,Edge], [13:0-1-8,Edge], [18:0-1-8,0-0-12], [19:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.46	Vert(LL)	-0.38	12-13	>532	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.53	12-13	>383	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.08	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 84 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 17=0-5-0, 11=0-5-0
Max Grav 17=929(LC 1), 11=929(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3756/0, 3-4=-3756/0, 4-5=-4486/0, 5-6=-4486/0, 6-7=-3759/0, 7-9=-3759/0
BOT CHORD 15-17=0/2279, 14-15=0/4486, 13-14=0/4486, 12-13=0/4453, 11-12=0/2281
WEBS 9-11=-2413/0, 2-17=-2411/0, 9-12=0/1573, 2-15=0/1572, 3-15=-255/0, 6-12=-738/0, 4-15=-945/0, 6-13=-314/421

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

September 18,2021

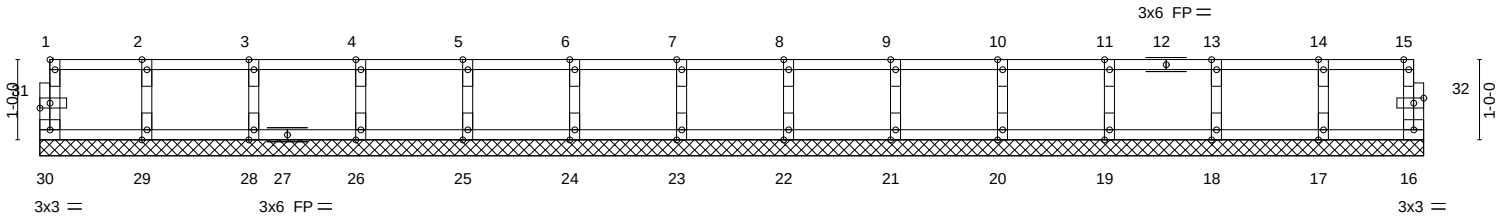
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Pinehurst Crawl
Crawl Pinehurst	CF6E	Floor Supported Gable	1	1	I47952640
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Sep 17 09:48:34 2021 Page 1
ID:Bpn_INCpW2yaJFXxWLaAKgyco9q-rSX?wIjiAtgNOGdst_ilQU0goEUHAMTViPSX_GycmCx

0-1-8 0-1-8

Scale = 1:28.7



17-3-0
17-3-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [31:0-1-8,0-0-12], [32:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	16	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-R							Weight: 68 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 17-3-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

September 18,2021

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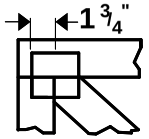
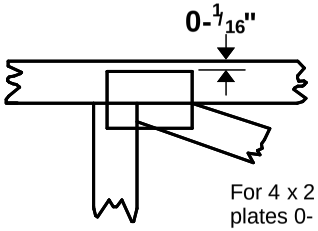
Symbols

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.

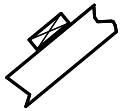
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

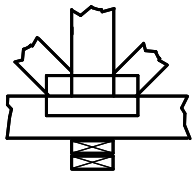
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

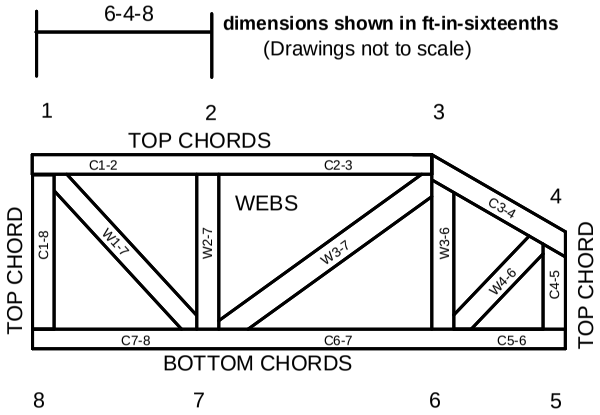


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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
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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.