ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J0424-2337
Lot 14 Duncan's Creek

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J0424-2337
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 12 individual, dated Truss Design Drawings and 0 Additional Drawings.

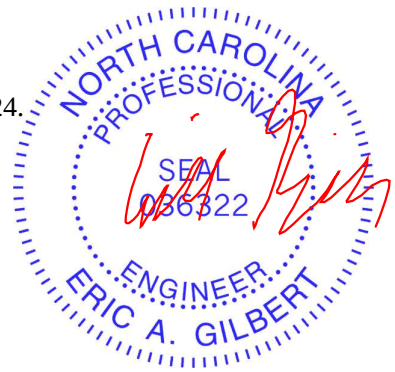
No.	Seal#	Truss Name	Date
1	I64502648	F00	3/27/2024
2	I64502649	F01	3/27/2024
3	I64502650	F02	3/27/2024
4	I64502651	F03	3/27/2024
5	I64502652	F04	3/27/2024
6	I64502653	F05	3/27/2024
7	I64502654	F06	3/27/2024
8	I64502655	F07	3/27/2024
9	I64502656	F08	3/27/2024
10	I64502657	FKW00	3/27/2024
11	I64502658	FKW07	3/27/2024
12	I64502659	FKW08	3/27/2024

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2024.

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.

March 27, 2024

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	F00	Floor	1	1	I64502648
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:53 2024 Page 1
ID:Dm7ZyERNI?2o6wzlFxt7?MyCJDH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

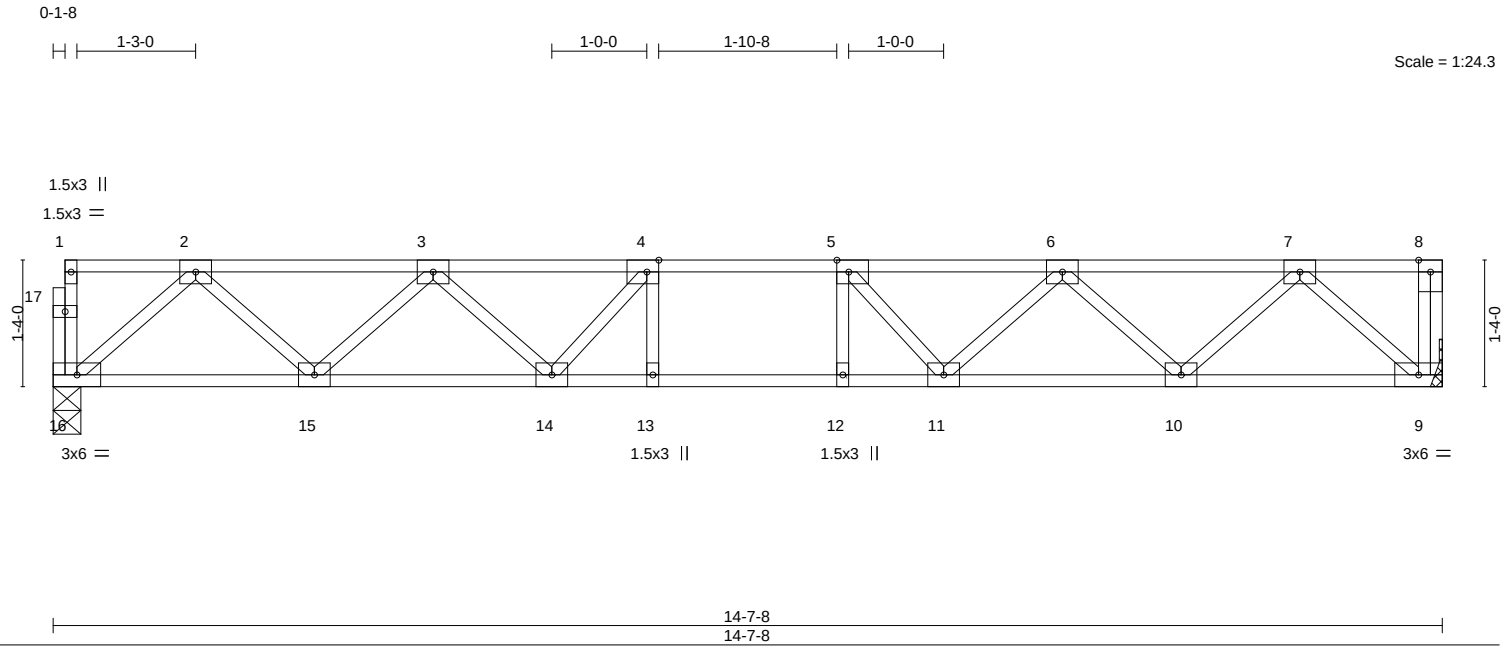


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

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	0.31	Vert(LL)	-0.11	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.64	Vert(CT)	-0.14	11-12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 77 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 16=0-3-8, 9=Mechanical
Max Grav 16=784(LC 1), 9=791(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1378/0, 3-4=-2133/0, 4-5=-2329/0, 5-6=-2133/0, 6-7=-1378/0
BOT CHORD 15-16=0/840, 14-15=0/1886, 13-14=0/2329, 12-13=0/2329, 11-12=0/2329, 10-11=0/1886, 9-10=0/840
WEBS 2-16=-1115/0, 2-15=0/749, 3-15=-707/0, 7-9=-1119/0, 7-10=0/748, 6-10=-706/0, 6-11=0/410, 3-14=0/410, 4-14=-465/0, 5-11=-465/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
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.

March 27,2024

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	F01	Floor	4	1	I64502649
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:54 2024 Page 1
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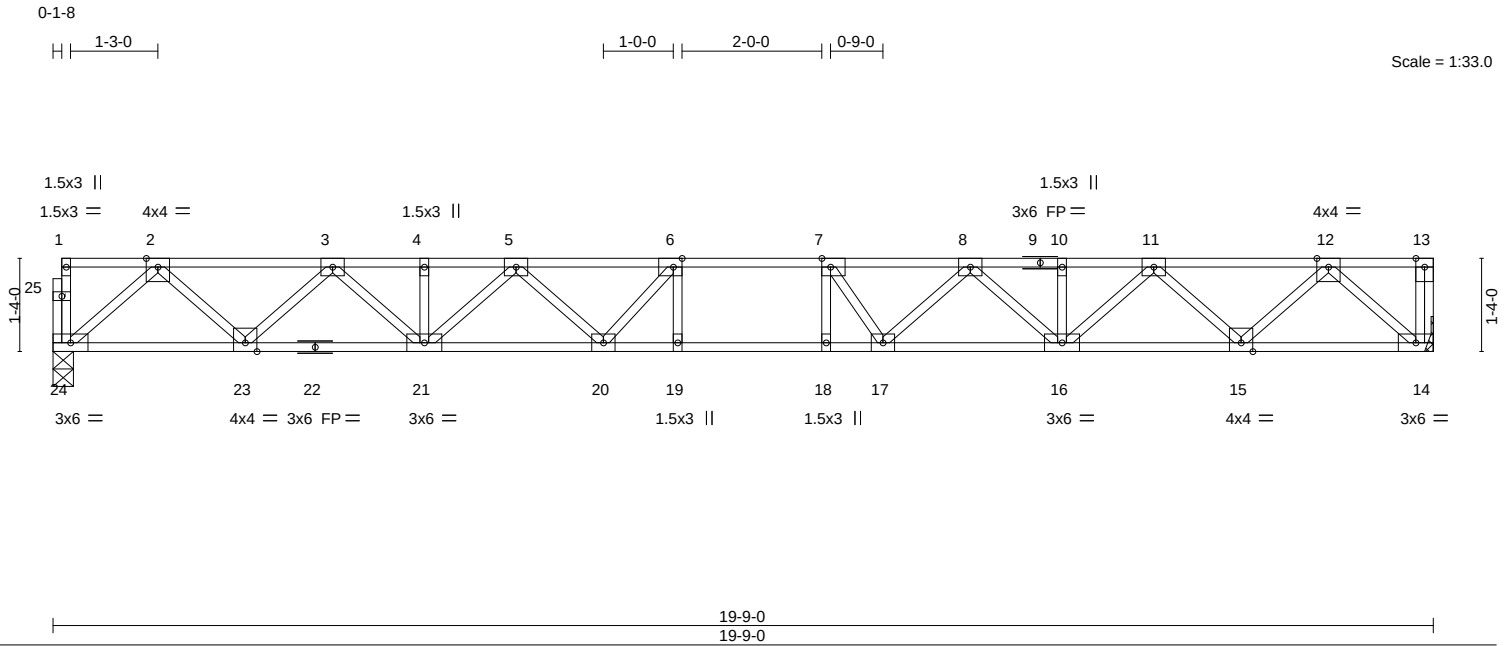

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [7:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.25	19	>919	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.35	18-19	>668	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 105 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 24=0-3-8, 14=Mechanical
Max Grav 24=852(LC 1), 14=857(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1587/0, 3-4=-2695/0, 4-5=-2695/0, 5-6=-3286/0, 6-7=-3433/0, 7-8=-3294/0, 8-10=-2698/0, 10-11=-2698/0, 11-12=-1587/0
BOT CHORD 23-24=0/928, 21-23=0/2222, 20-21=0/3087, 19-20=0/3433, 18-19=0/3433, 17-18=0/3433, 16-17=0/3078, 15-16=0/2222, 14-15=0/929
WEBS 2-24=-1234/0, 2-23=0/916, 3-23=-883/0, 3-21=0/642, 5-21=-532/0, 5-20=0/398, 12-14=-1237/0, 12-15=0/915, 11-15=-883/0, 11-16=0/646, 8-16=-517/0, 8-17=0/428, 7-17=-500/94, 6-20=-465/88

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
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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Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	F02	Floor	4	1	I64502650
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:54 2024 Page 1
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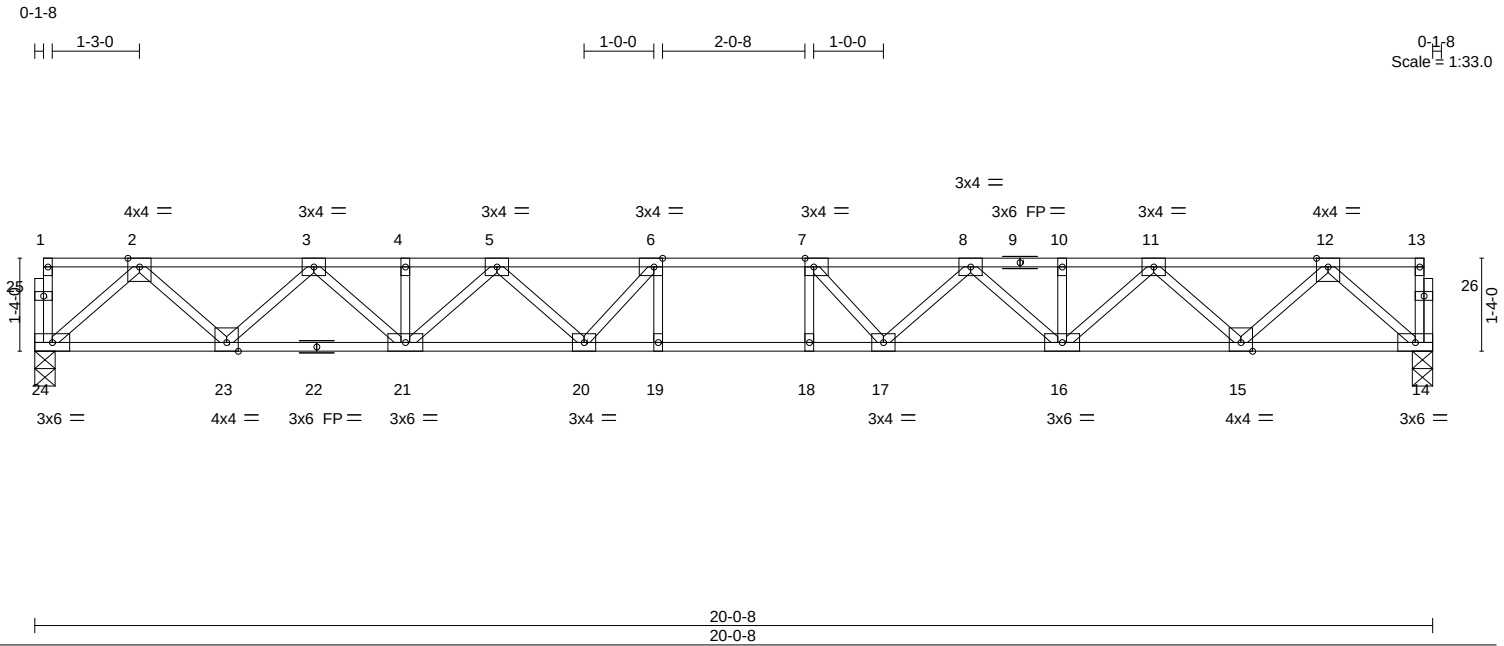

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [7:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.27	18-19	>889	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.37	18-19	>645	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 106 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 24=0-3-8, 14=0-3-8
Max Grav 24=865(LC 1), 14=865(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1615/0, 3-4=-2751/0, 4-5=-2751/0, 5-6=-3368/0, 6-7=-3538/0, 7-8=-3368/0, 8-10=-2751/0, 10-11=-2751/0, 11-12=-1615/0
BOT CHORD 23-24=0/943, 21-23=0/2263, 20-21=0/3154, 19-20=0/3538, 18-19=0/3538, 17-18=0/3538, 16-17=0/3154, 15-16=0/2263, 14-15=0/943
WEBS 2-24=-1253/0, 2-23=0/935, 3-23=-902/0, 3-21=0/662, 12-14=-1253/0, 12-15=0/935, 11-15=-902/0, 11-16=0/662, 8-16=-548/0, 8-17=0/419, 5-21=-548/0, 5-20=0/419, 6-20=-500/77, 7-17=-500/77

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
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.

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Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	F03	Floor	4	1	I64502651
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:55 2024 Page 1
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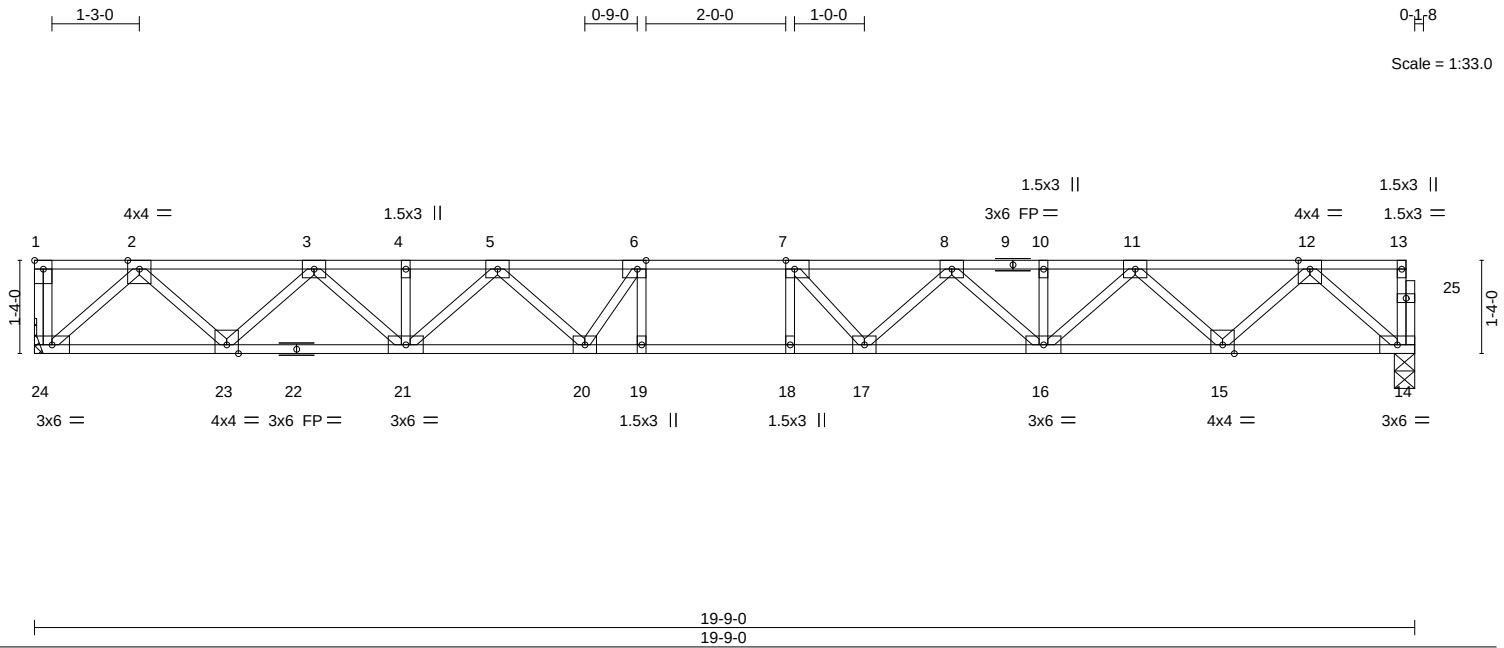

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [6:0-1-8,Edge], [7:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.25	18	>919	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.35	18-19	>668	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 105 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 24=Mechanical, 14=0-3-8
Max Grav 24=857(LC 1), 14=852(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1587/0, 3-4=-2698/0, 4-5=-2698/0, 5-6=-3294/0, 6-7=-3433/0, 7-8=-3286/0, 8-10=-2695/0, 10-11=-2695/0, 11-12=-1587/0
BOT CHORD 23-24=0/929, 21-23=0/2222, 20-21=0/3078, 19-20=0/3433, 18-19=0/3433, 17-18=0/3433, 16-17=0/3087, 15-16=0/2222, 14-15=0/928
WEBS 2-24=-1237/0, 2-23=0/916, 3-23=-883/0, 3-21=0/646, 5-21=-517/0, 5-20=0/428, 6-20=-500/94, 12-14=-1234/0, 12-15=0/916, 11-15=-883/0, 11-16=0/642, 8-16=-532/0, 8-17=0/398, 7-17=-465/88

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
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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Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	F04	Floor	3	1	I64502652
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:55 2024 Page 1
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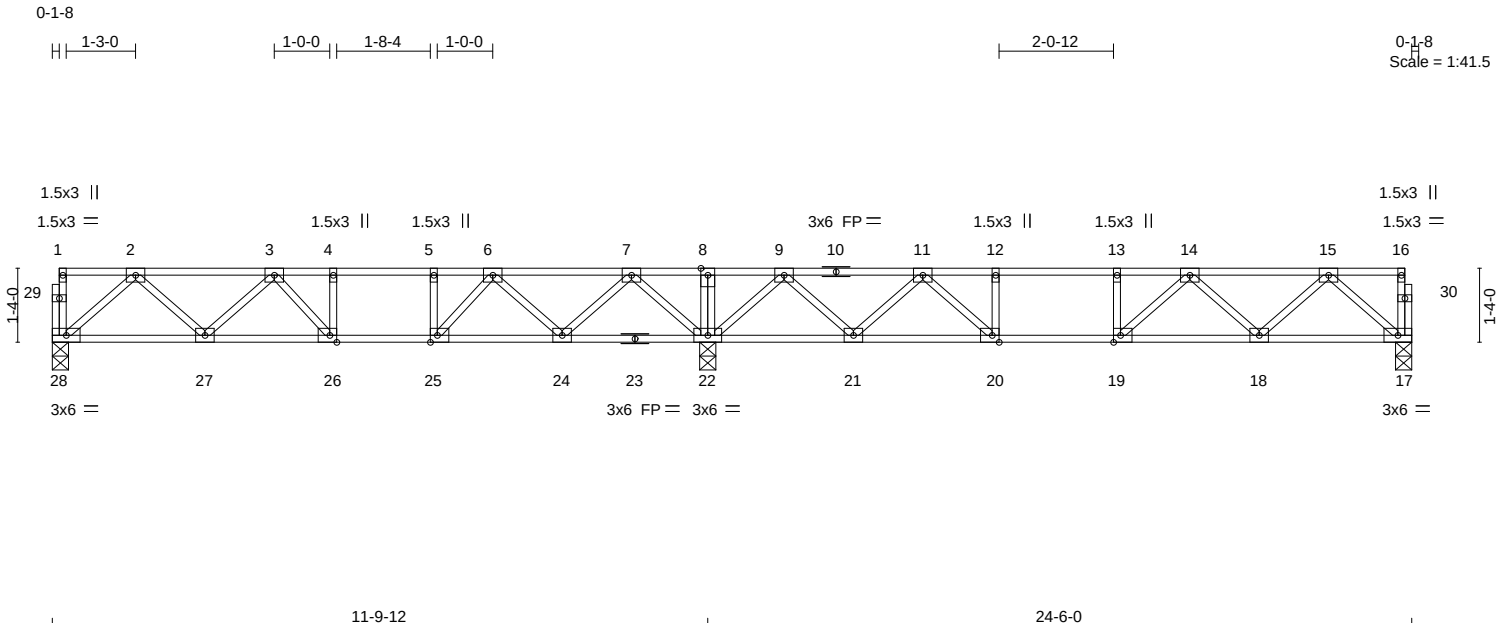

Plate Offsets (X,Y)-- [19:0-1-8,Edge], [20:0-1-8,Edge], [25:0-1-8,Edge], [26:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.08	18-19	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.39	Vert(CT)	-0.10	18-19	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.02	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 127 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 24-25,22-24,21-22.

REACTIONS. (size) 28=0-3-8, 22=0-3-8, 17=0-3-8
Max Grav 28=466(LC 10), 22=1210(LC 1), 17=501(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-755/0, 3-4=-1017/0, 4-5=-1017/0, 5-6=-1017/0, 6-7=-519/148, 7-8=0/796, 8-9=0/796, 9-11=-535/88, 11-12=-1166/0, 12-13=-1166/0, 13-14=-1166/0, 14-15=-831/0
BOT CHORD 27-28=0/492, 26-27=0/984, 25-26=0/1017, 24-25=-18/850, 22-24=-283/181, 20-21=0/910, 19-20=0/1166, 18-19=0/1093, 17-18=0/532
WEBS 2-28=-653/0, 2-27=0/365, 3-27=-319/0, 7-22=-828/0, 7-24=0/526, 6-24=-530/0, 6-25=0/424, 9-22=-869/0, 9-21=0/562, 11-21=-565/0, 15-17=-706/0, 15-18=0/416, 14-18=-365/0, 11-20=0/480

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
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.

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Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	F05	Floor	1	1	I64502653
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:56 2024 Page 1
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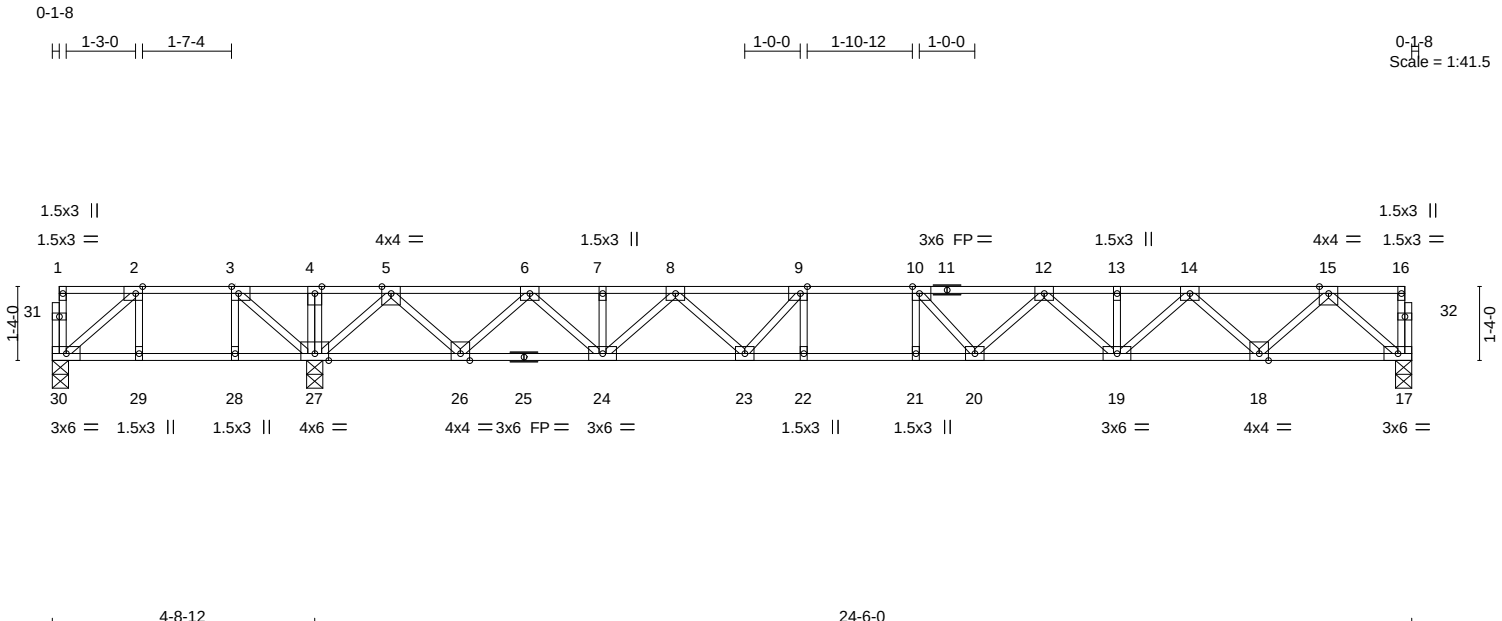

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,Edge], [10:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.71	Vert(LL)	-0.24	21	>991	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.33	21	>722	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.05	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 130 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 29-30,28-29,27-28.

REACTIONS. (size) 30=0-3-8, 27=0-3-8, 17=0-3-8
Max Uplift 30=-184(LC 4)
Max Grav 30=130(LC 3), 27=1363(LC 1), 17=805(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-54/402, 3-4=0/973, 4-5=0/973, 5-6=-852/0, 6-7=-2086/0, 7-8=-2086/0, 8-9=-2804/0, 9-10=-3055/0, 10-12=-2981/0, 12-13=-2491/0, 13-14=-2491/0, 14-15=-1485/0
BOT CHORD 29-30=-402/54, 28-29=-402/54, 27-28=-402/54, 24-26=0/1546, 23-24=0/2531, 22-23=0/3055, 21-22=0/3055, 20-21=0/3055, 19-20=0/2840, 18-19=0/2072, 17-18=0/875
WEBS 2-30=-66/531, 3-27=-860/0, 5-27=-1363/0, 5-26=0/1014, 6-26=-974/0, 6-24=0/742, 15-17=-1163/0, 15-18=0/849, 14-18=-815/0, 14-19=0/570, 12-19=-474/0, 12-20=0/324, 8-24=-611/0, 8-23=0/458, 9-23=-557/0, 10-20=-361/155

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 30=184.
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.

March 27,2024

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	F06	Floor	9	1	I64502654
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:56 2024 Page 1
ID:Dm7ZyERNI?2o6wzlFxt7?MyCJDH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

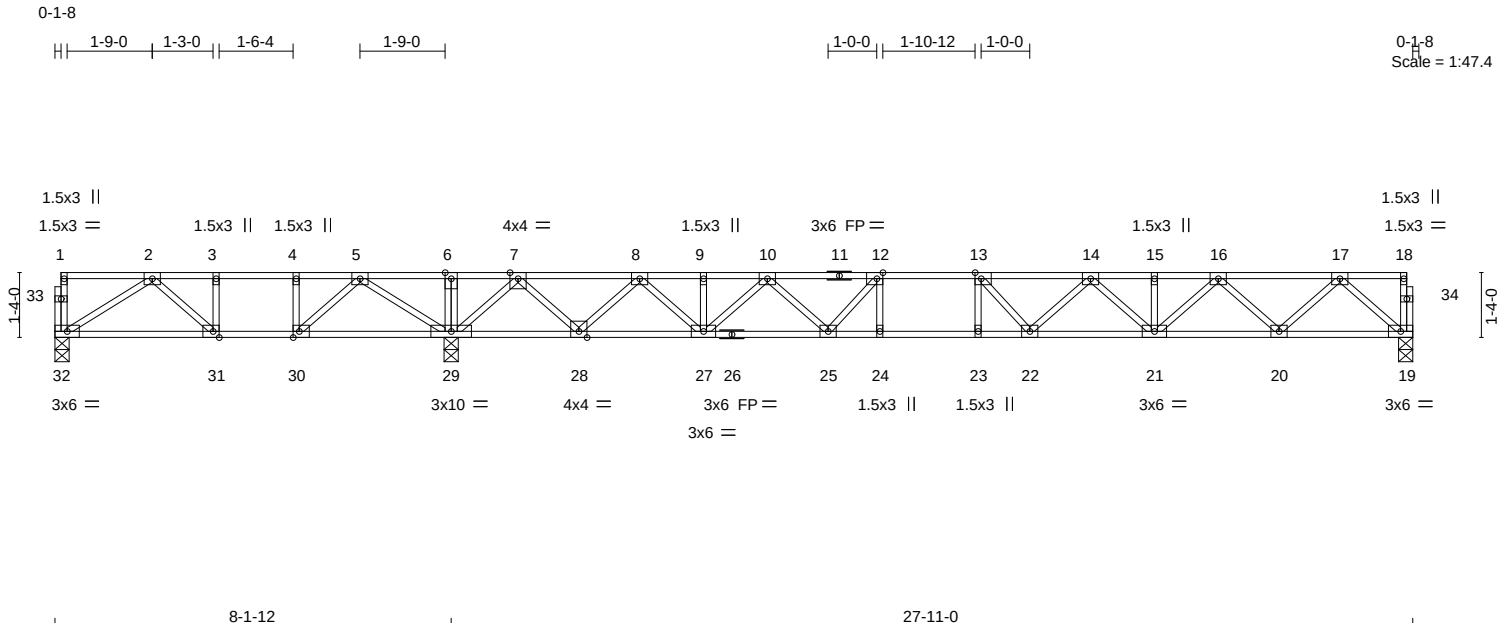

Plate Offsets (X,Y)-- [12:0-1-8,Edge], [13:0-1-8,Edge], [30:0-1-8,Edge], [31:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.23	23	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(CT)	-0.31	23	>755	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.04	19	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 146 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 32=0-3-8, 29=0-3-8, 19=0-3-8
Max Uplift 32=-121(LC 4)
Max Grav 32=275(LC 3), 29=1536(LC 1), 19=774(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-334/555, 3-4=-334/555, 4-5=-334/555, 5-6=0/1546, 6-7=0/1544, 7-8=-413/0, 8-9=-1716/0, 9-10=-1716/0, 10-12=-2500/0, 12-13=-2802/0, 13-14=-2780/0, 14-15=-2356/0, 15-16=-2356/0, 16-17=-1418/0
BOT CHORD 31-32=-231/316, 30-31=-555/334, 29-30=-981/63, 28-29=-519/0, 27-28=0/1143, 25-27=0/2189, 24-25=0/2802, 23-24=0/2802, 22-23=0/2802, 21-22=0/2678, 20-21=0/1972, 19-20=0/840
WEBS 5-29=-904/0, 2-32=-372/275, 2-31=-440/25, 5-30=0/750, 4-30=-380/0, 7-29=-1366/0, 7-28=0/1071, 8-28=-1035/0, 8-27=0/796, 17-19=-1116/0, 17-20=0/805, 16-20=-770/0, 16-21=0/523, 14-21=-437/0, 14-22=-16/271, 10-27=-657/0, 10-25=0/494, 12-25=-610/0, 13-22=-283/209

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 32=121.
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.

March 27,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	F07	Floor	2	1	I64502655
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:57 2024 Page 1
ID:Dm7ZyERNI?2o6wzlFxt7?MyCJDH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

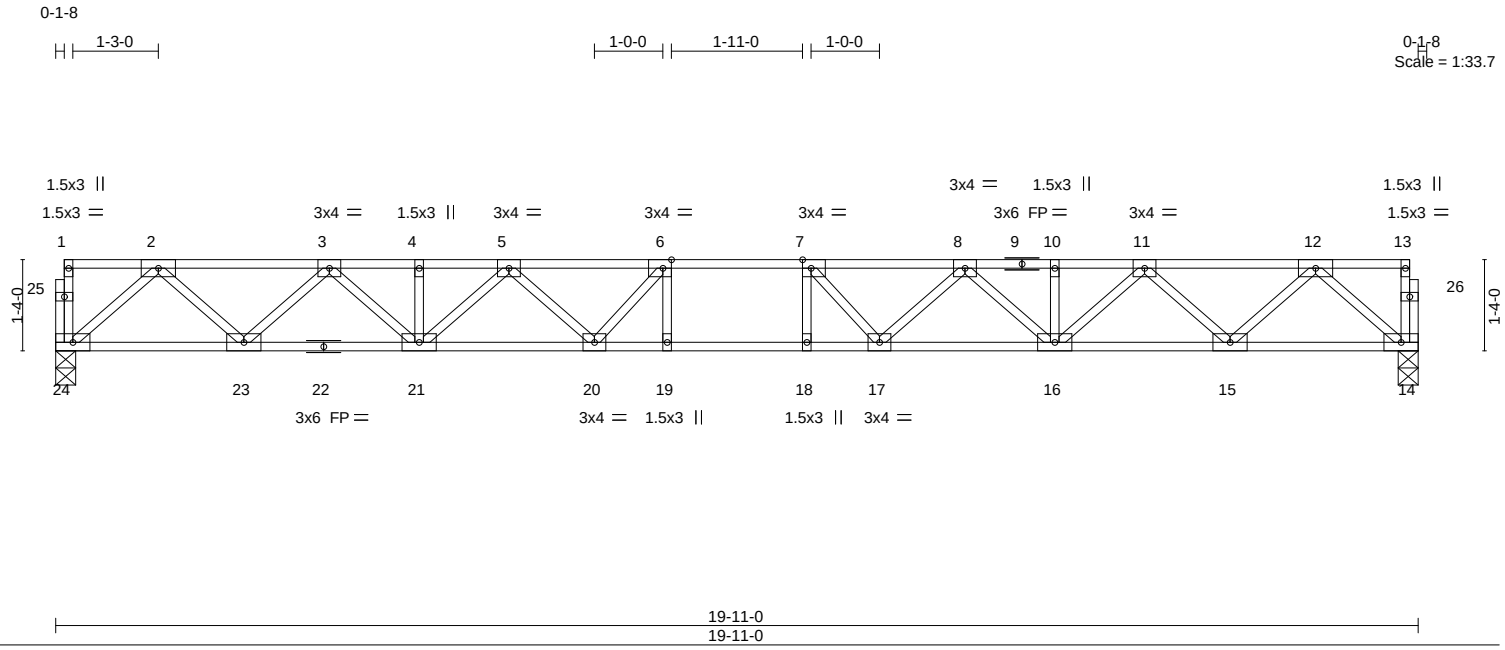

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [7:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.26	18-19	>905	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.36	18-19	>657	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 105 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 24=0-3-8, 14=0-3-8
Max Grav 24=860(LC 1), 14=860(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1603/0, 3-4=-2727/0, 4-5=-2727/0, 5-6=-3333/0, 6-7=-3496/0, 7-8=-3333/0, 8-10=-2727/0, 10-11=-2727/0, 11-12=-1603/0
BOT CHORD 23-24=0/937, 21-23=0/2246, 20-21=0/3125, 19-20=0/3496, 18-19=0/3496, 17-18=0/3496, 16-17=0/3125, 15-16=0/2246, 14-15=0/937
WEBS 2-24=-1245/0, 2-23=0/927, 3-23=-894/0, 3-21=0/654, 5-21=-541/0, 5-20=0/408, 12-14=-1245/0, 12-15=0/927, 11-15=-894/0, 11-16=0/654, 8-16=-541/0, 8-17=0/408, 7-17=-484/79, 6-20=-484/79

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
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.

March 27,2024

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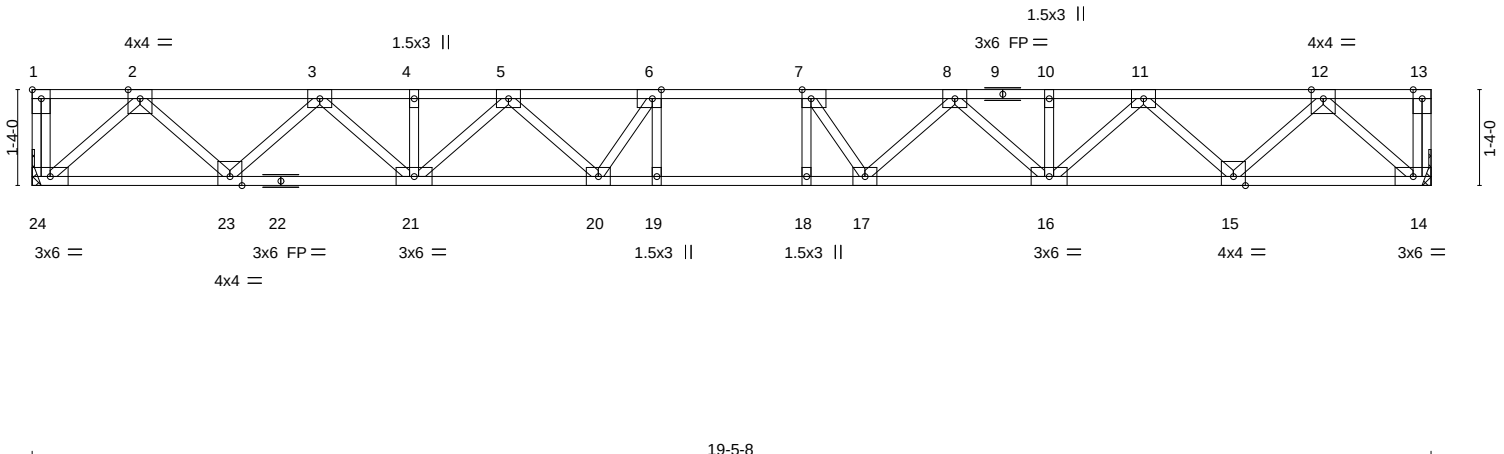
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	F08	Floor	3	1	I64502656
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:57 2024 Page 1
ID:Dm7ZyERNI?2o6wzlFxt7?MyCJDH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-3-0 | 0-9-0 | 1-11-8 | 0-9-0

Scale: 3/8"=1'



19-5-8
19-5-8

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [6:0-1-8,Edge], [7:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.35	Vert(LL)	-0.24	18-19	>969	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.33	18-19	>703	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 104 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 24=Mechanical, 14=Mechanical
Max Grav 24=845(LC 1), 14=845(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1560/0, 3-4=-2642/0, 4-5=-2642/0, 5-6=-3211/0, 6-7=-3331/0, 7-8=-3211/0, 8-10=-2642/0, 10-11=-2642/0, 11-12=-1560/0
BOT CHORD 23-24=0/915, 21-23=0/2181, 20-21=0/3011, 19-20=0/3331, 18-19=0/3331, 17-18=0/3331, 16-17=0/3011, 15-16=0/2181, 14-15=0/915
WEBS 2-24=-1218/0, 2-23=0/897, 3-23=-864/0, 3-21=0/627, 5-21=-502/0, 5-20=0/407, 12-14=-1218/0, 12-15=0/897, 11-15=-864/0, 11-16=0/627, 8-16=-502/0, 8-17=0/407, 7-17=-463/105, 6-20=-463/105

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
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.

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ENGINEERING BY TRENCO
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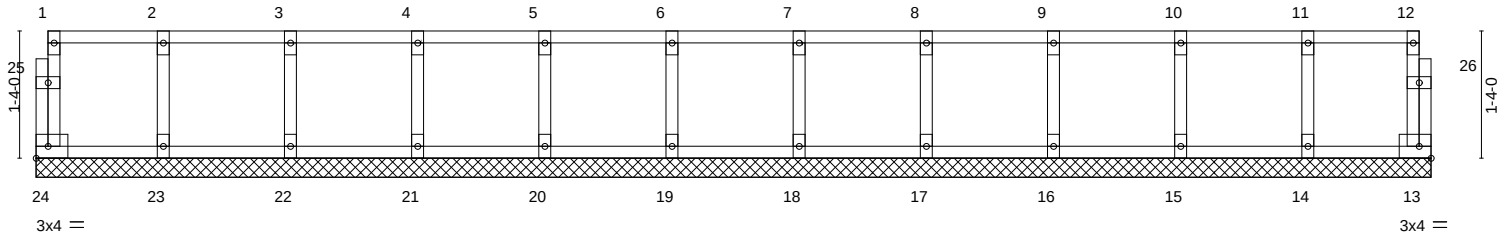
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	FKW00	GABLE	1	1	I64502657
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:58 2024 Page 1
ID:Dm7ZyERNI?2o6wzlFxt7?MyCJDH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8 0-1-8

Scale: 1/2"=1'



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-7-8
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-3-8

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
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	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 65 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)
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 14-7-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 24, 13, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
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.

March 27,2024

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	FKW07	GABLE	1	1	I64502658
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:58 2024 Page 1
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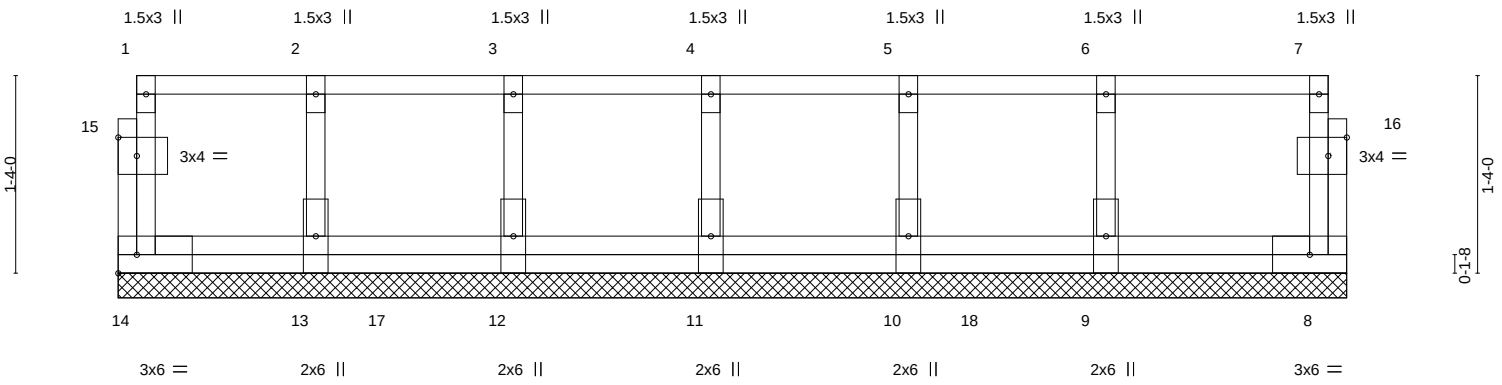
0-1-8 0-1-8

Scale = 1:15.6



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-3-8
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-7-8

Plate Offsets (X,Y)-- [15:0-1-8,0-1-8], [16:0-1-8,0-1-8]

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-R							Weight: 49 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)
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 8-3-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 13, 12, 11, 10, 9

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

NOTES-
1) Plates checked for a plus or minus 1 degree rotation about its center.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
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.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 8-14=-10, 1-7=-100
Concentrated Loads (lb)
Vert: 11=-92 17=-92 18=-92

March 27,2024

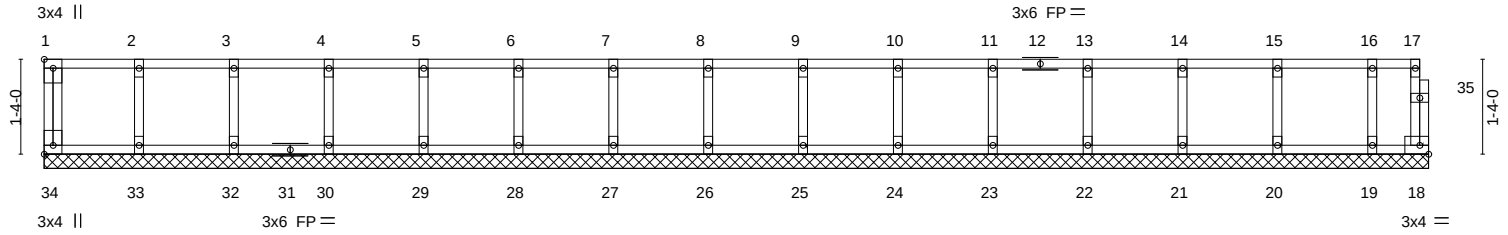
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 14 Duncan's Creek
J0424-2337	FKW08	GABLE	1	1	I64502659
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Mar 26 16:54:58 2024 Page 1
ID:Dm7ZyERNI?2o6wzlFxt7?MyCJDH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8

Scale = 1:32.4



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	19-5-8
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-9-8

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

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
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	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 86 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)
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 19-5-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
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.
7) CAUTION, Do not erect truss backwards.

March 27,2024

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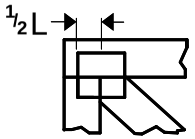
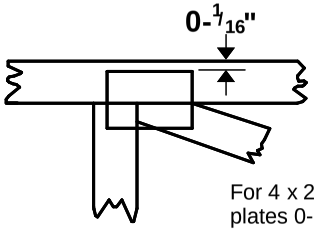
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

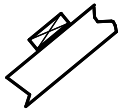
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

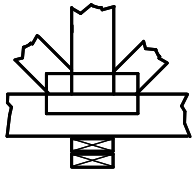
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

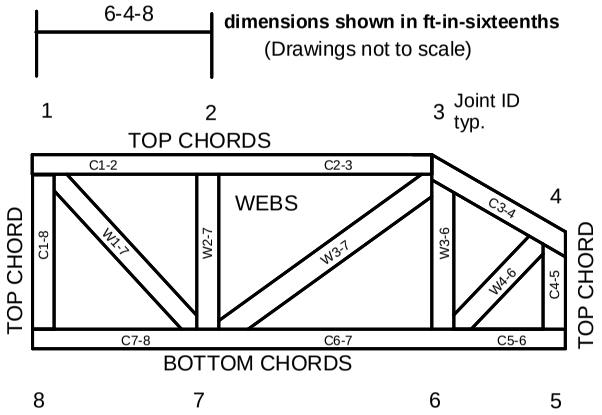


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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 BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

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.