ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J0122-0470
LOT 4 N FARM

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J0122-0470
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 8.3
Wind Code: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 10 individual, dated Truss Design Drawings and 0 Additional Drawings.

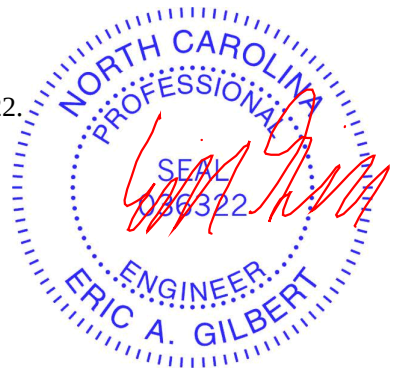
No.	Seal#	Truss Name	Date
1	I49926369	F1	1/27/2022
2	I49926370	F2	1/27/2022
3	I49926371	F2A	1/27/2022
4	I49926372	F3	1/27/2022
5	I49926373	F4	1/27/2022
6	I49926374	F5	1/27/2022
7	I49926375	F6	1/27/2022
8	I49926376	KW2	1/27/2022
9	I49926377	KW4	1/27/2022
10	I49926378	KW5	1/27/2022

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, 2022.

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.

January 27, 2022

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	F1	Floor	4	1	I49926369
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 27 09:28:07 2022 Page 1
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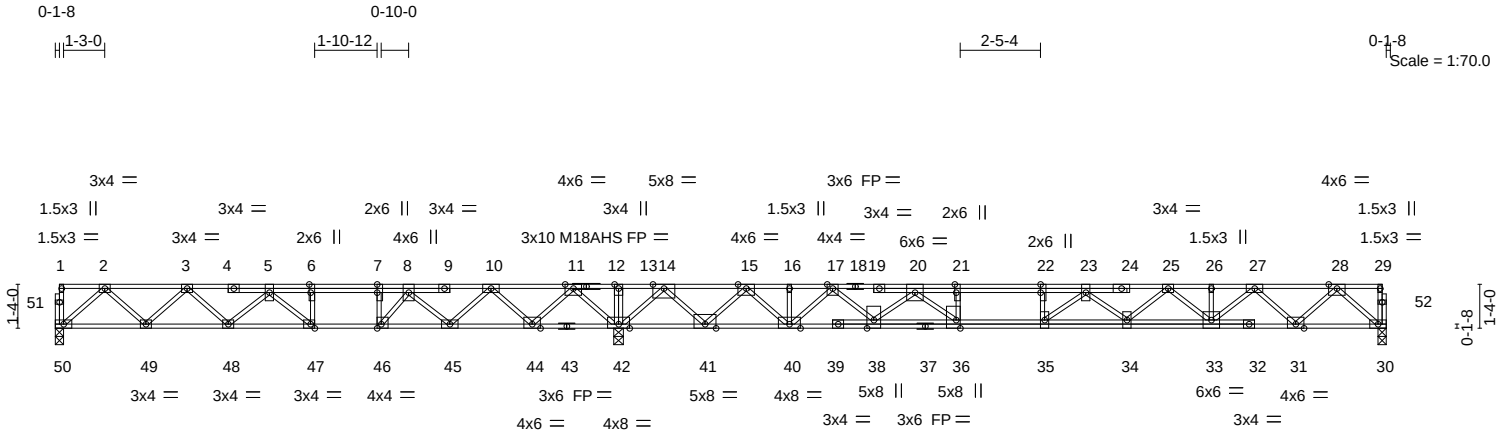

Plate Offsets (X,Y)-- [6:0-3-0,Edge], [7:0-3-0,0-0-0], [21:0-3-0,Edge], [22:0-3-0,0-0-0], [36:0-3-0,Edge], [46:0-1-8,Edge], [47:0-1-8,Edge]

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	0.86	Vert(LL)	-0.35	35	>789	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.64	Vert(CT)	-0.47	34-35	>593	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.05	30	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 244 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 5-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 50=0-3-0, 42=0-3-8, 30=0-3-0
Max Grav 50=786(LC 3), 42=2705(LC 1), 30=1106(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1376/17, 3-5=-2176/176, 5-6=-2345/740, 6-7=-2345/740, 7-8=-2345/740, 8-10=-1361/1451, 10-11=-8/2164, 11-13=0/3977, 13-14=0/3977, 14-15=0/1295, 15-16=-1817/379, 16-17=-1817/379, 17-20=-3481/0, 20-21=-4991/0, 21-22=-4991/0, 22-23=-4991/0, 23-25=-4683/0, 25-26=-3668/0, 26-27=-3668/0, 27-28=-2061/0
BOT CHORD 49-50=0/844, 48-49=-76/1883, 47-48=-328/2436, 46-47=-740/2345, 45-46=-1126/1926, 44-45=-1763/809, 42-44=-2719/0, 41-42=-2374/0, 40-41=-721/830, 38-40=-87/2719, 36-38=0/4282, 35-36=0/4991, 34-35=0/5016, 33-34=0/4237, 31-33=0/2942, 30-31=0/1201
WEBS 2-50=-1121/0, 2-49=-46/740, 3-49=-705/81, 3-48=-139/402, 5-48=-358/206, 5-47=-784/0, 6-47=0/462, 11-42=-1730/0, 11-44=0/1363, 10-44=-1325/0, 10-45=0/929, 8-45=-963/0, 8-46=0/1252, 7-46=-885/0, 28-30=-1596/0, 28-31=0/1196, 27-31=-1226/0, 27-33=0/964, 25-33=-755/0, 25-34=0/598, 23-34=-448/12, 23-35=-579/375, 14-42=-2135/0, 14-41=0/1731, 15-41=-1695/0, 15-40=0/1411, 17-40=-1282/0, 17-38=0/1057, 20-38=-1125/0, 20-36=0/1325, 21-36=-584/0

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

January 27,2022

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

Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	F2	Floor	1	1	I49926370
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 27 09:28:09 2022 Page 1
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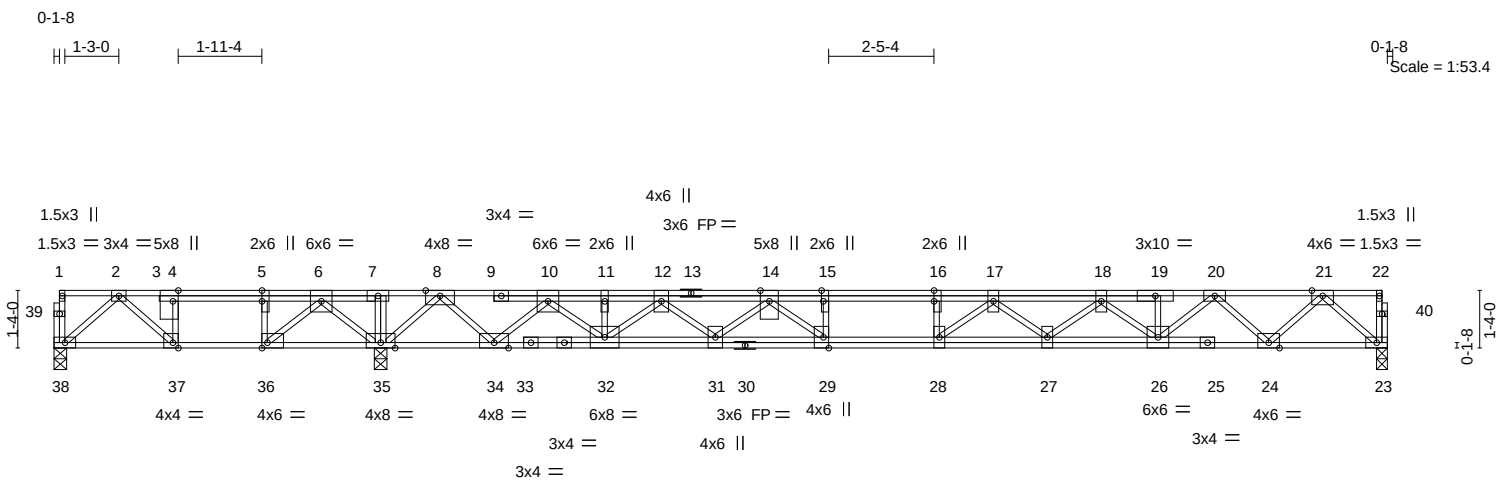

Plate Offsets (X,Y)-- [4:0-3-0,Edge], [5:0-3-0,Edge], [15:0-3-0,Edge], [16:0-3-0,0-0-0], [29:0-3-0,Edge], [36:0-1-8,Edge], [37:0-1-8,Edge]

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	0.74	Vert(LL)	-0.33	28	>838	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.46	28	>612	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.05	23	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 209 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat) *Except*
1-13: 2x4 SP 2400F 2.0E(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) 38=0-3-8, 35=0-3-8, 23=0-3-0
Max Uplift 38=-298(LC 4)
Max Grav 38=272(LC 3), 35=2243(LC 1), 23=1139(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-223/1122, 4-5=-223/1084, 5-6=-223/1084, 6-7=0/2741, 7-8=0/2758, 10-11=-2542/0, 11-12=-2542/0, 12-14=-4128/0, 14-15=-5329/0, 15-16=-5329/0, 16-17=-5329/0, 17-18=-5087/0, 18-19=-3819/0, 19-20=-3812/0, 20-21=-2131/0
BOT CHORD 37-38=-324/246, 36-37=-1084/223, 35-36=-2080/0, 34-35=-1113/0, 32-34=0/1472, 31-32=0/3498, 29-31=0/4769, 28-29=0/5329, 27-28=0/5371, 26-27=0/4686, 24-26=0/3052, 23-24=0/1237
WEBS 2-38=-324/428, 2-37=-1033/0, 4-37=0/651, 6-35=-1056/0, 6-36=0/1582, 5-36=-938/0, 21-23=-1645/0, 21-24=0/1244, 20-24=-1281/0, 20-26=0/1008, 18-26=-1133/0, 18-27=0/531, 17-27=-440/0, 17-28=-466/520, 16-28=-259/131, 8-35=-2181/0, 8-34=0/1653, 10-34=-1701/0, 10-32=0/1392, 12-32=-1253/0, 12-31=0/843, 14-31=-864/0, 14-29=0/1097, 15-29=-492/0

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 38=298.
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.

January 27,2022

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

Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	F2A	Floor	2	1	I49926371
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 27 09:28:10 2022 Page 1
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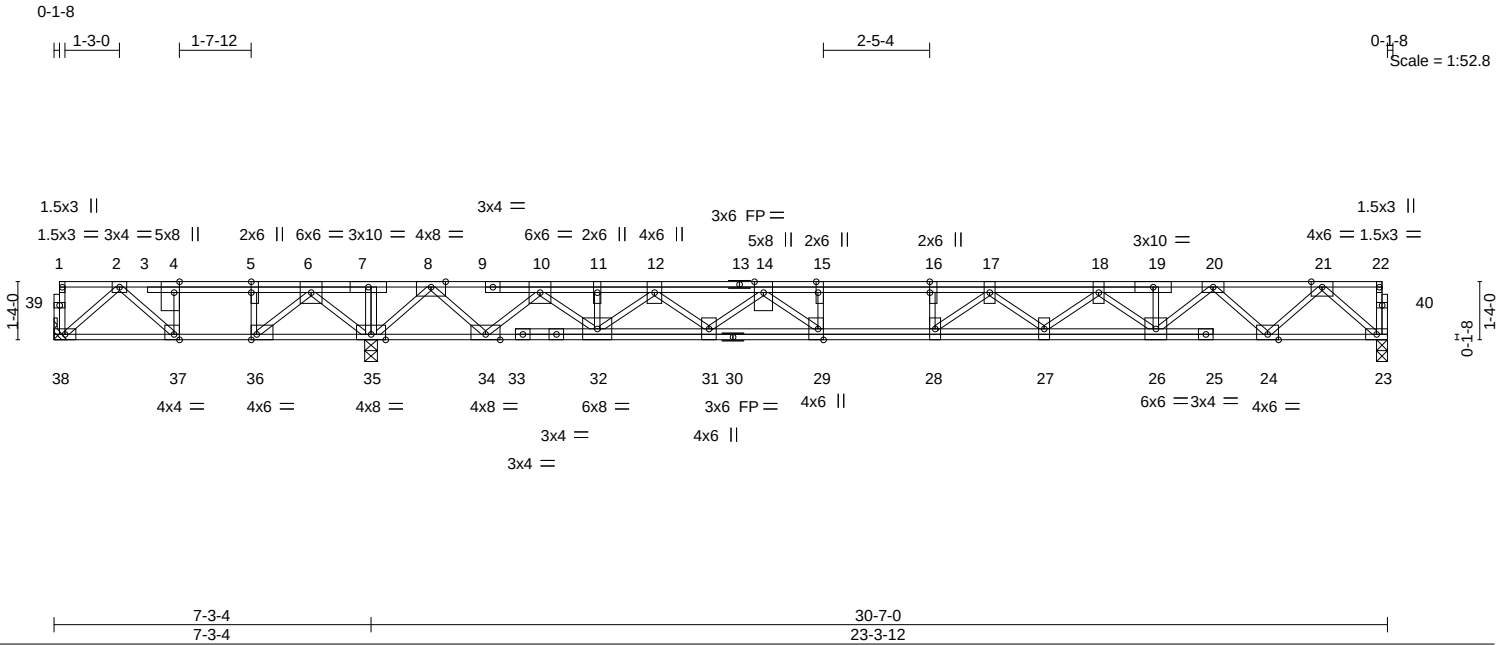

Plate Offsets (X,Y)-- [4:0-3-0,Edge], [5:0-3-0,Edge], [15:0-3-0,Edge], [16:0-3-0,0-0-0], [29:0-3-0,Edge], [36:0-1-8,Edge], [37:0-1-8,Edge]

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	0.91	Vert(LL)	-0.33	28	>850	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.66	Vert(CT)	-0.45	28	>620	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.05	23	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 208 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 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 38=Mechanical, 35=0-3-8, 23=0-3-0
Max Uplift 38=-353(LC 4)
Max Grav 38=243(LC 3), 35=2287(LC 1), 23=1128(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-152/1255, 4-5=-152/1229, 5-6=-152/1229, 6-7=0/2926, 7-8=0/2942, 8-10=-84/262, 10-11=-2364/0, 11-12=-2364/0, 12-14=-3974/0, 14-15=-5214/0, 15-16=-5214/0, 16-17=-5214/0, 17-18=-5013/0, 18-19=-3771/0, 19-20=-3764/0, 20-21=-2108/0
BOT CHORD 37-38=-398/211, 36-37=-1229/152, 35-36=-2232/0, 34-35=-1274/0, 32-34=0/1294, 31-32=0/3334, 29-31=0/4630, 28-29=0/5214, 27-28=0/5282, 26-27=0/4623, 24-26=0/3017, 23-24=0/1225
WEBS 2-38=-278/528, 2-37=-1130/0, 4-37=0/712, 6-35=-1121/0, 6-36=0/1563, 5-36=-924/0, 21-23=-1628/0, 21-24=0/1228, 20-24=-1265/0, 20-26=0/991, 18-26=-1113/0, 18-27=0/516, 17-27=-427/0, 17-28=-483/497, 8-35=-2211/0, 8-34=0/1663, 10-34=-1709/0, 10-32=0/1391, 12-32=-1268/0, 12-31=0/854, 14-31=-880/0, 14-29=0/1114, 15-29=-498/0

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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 38=353.
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.

January 27,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	F3	Floor Girder	1	1	I49926372
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 27 09:28:12 2022 Page 1
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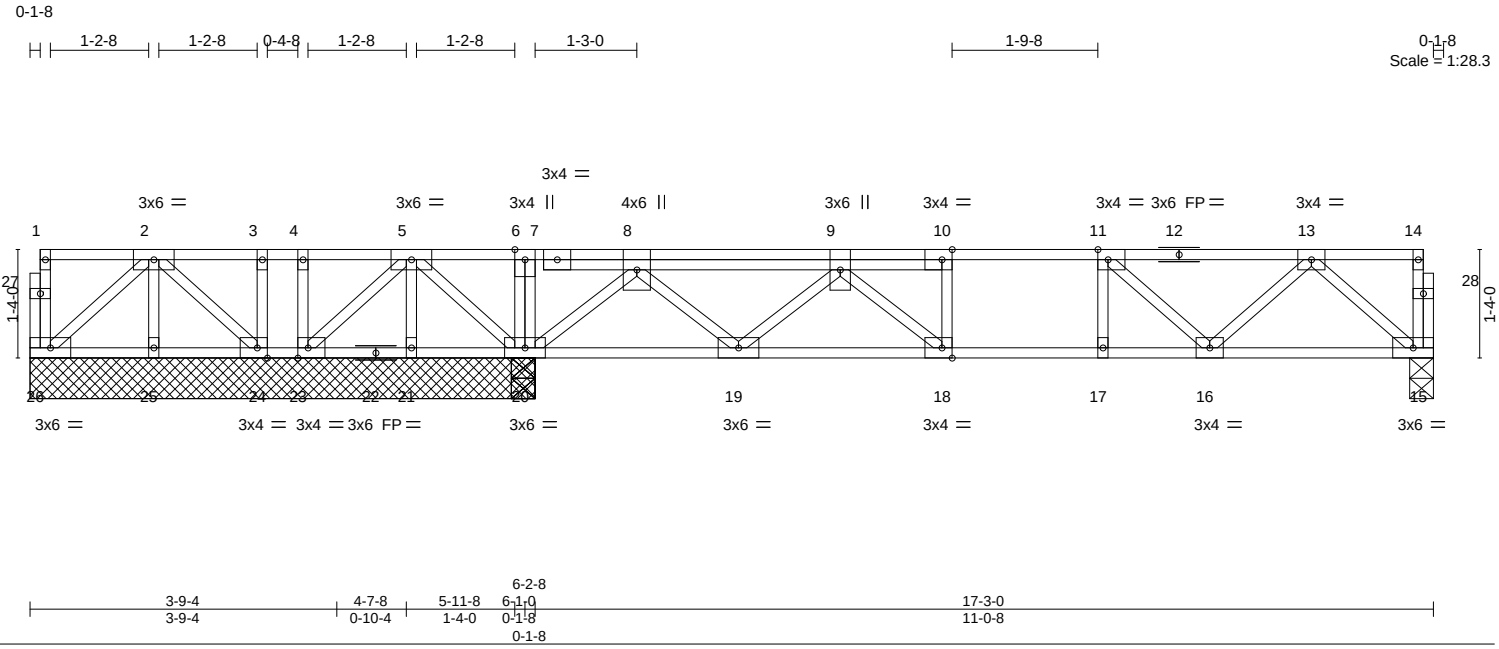


Plate Offsets (X,Y)-- [10:0-1-8,Edge], [11:0-1-8,Edge], [18:0-1-8,Edge], [23:0-1-8,Edge], [24:0-1-8,Edge]

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	0.39	Vert(LL)	-0.05	18-19	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.36	Vert(CT)	-0.06	18-19	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.01	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 103 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)

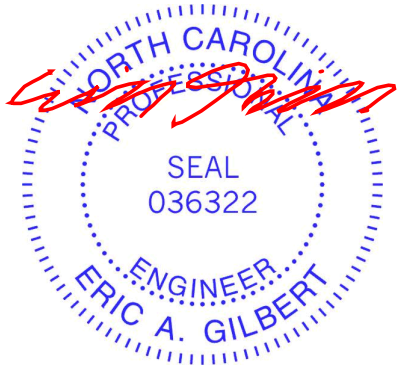
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 6-2-8 except (jt=length) 15=0-3-8.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 26 except 21=-206(LC 4), 23=-308(LC 4)
Max Grav All reactions 250 lb or less at joint(s) 26, 25, 21, 23, 24 except 20=1635(LC 9), 20=1595(LC 1), 15=557(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 5-6=-30/1405, 6-8=-31/1406, 8-9=-427/0, 9-10=-1179/0, 10-11=-1174/0, 11-13=-883/0
BOT CHORD 21-23=-646/36, 20-21=-646/36, 19-20=-506/247, 18-19=0/1068, 17-18=0/1174, 16-17=0/1174, 15-16=0/583
WEBS 5-20=-1002/0, 5-23=-53/553, 8-20=-1249/0, 8-19=0/933, 9-19=-897/0, 9-18=-58/355, 13-15=-774/0, 13-16=0/417, 11-16=-396/0

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26 except (jt=lb) 21=206, 23=308.
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.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 350 lb down and 195 lb up at 9-8-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 15-26=-10, 1-14=-100
Concentrated Loads (lb)
Vert: 9=-270(F)



January 27,2022

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TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	F4	Floor	8	1	I49926373
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 27 09:28:13 2022 Page 1
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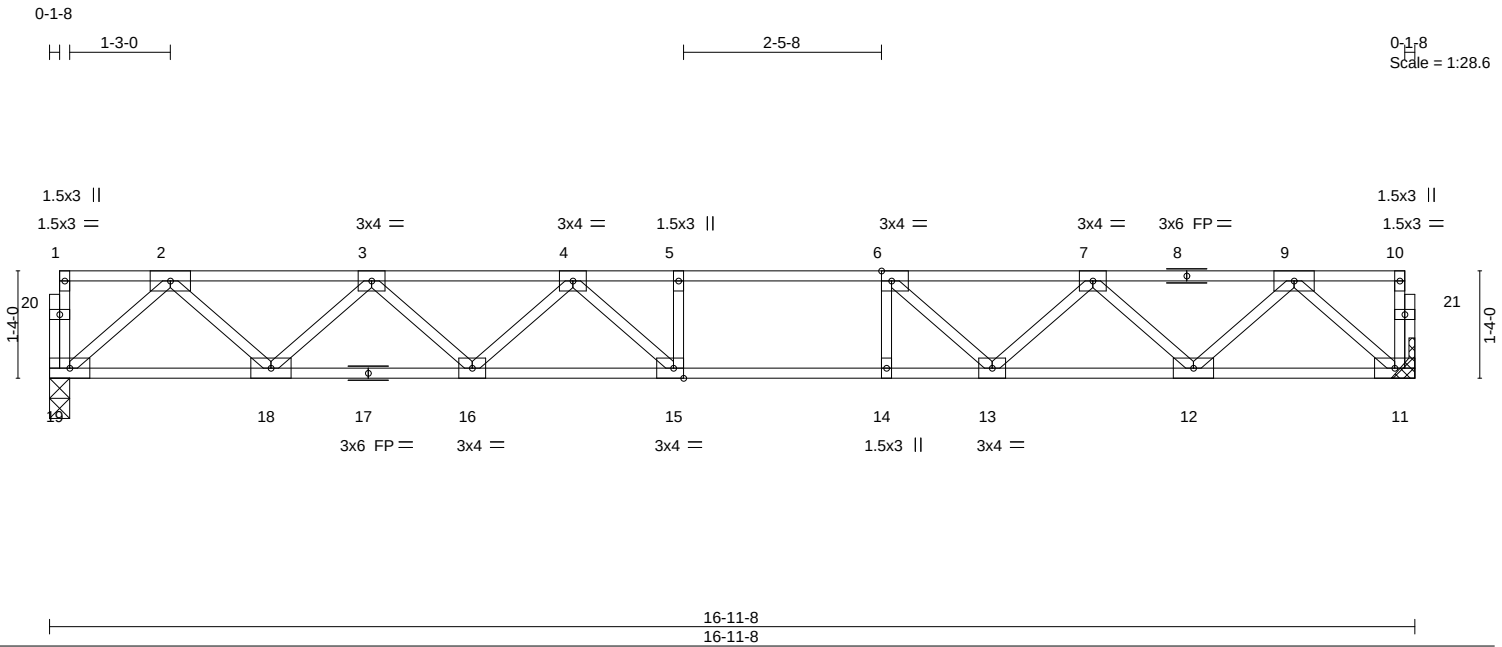

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [15:0-1-8,Edge]

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	0.72	Vert(LL)	-0.26	15-16	>761	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.34	15-16	>582	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.05	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							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)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.

REACTIONS. (size) 19=0-3-0, 11=Mechanical
Max Grav 19=913(LC 1), 11=913(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1655/0, 3-4=-2679/0, 4-5=-3115/0, 5-6=-3115/0, 6-7=-2678/0, 7-9=-1655/0
BOT CHORD 18-19=0/983, 16-18=0/2304, 15-16=0/3008, 14-15=0/3115, 13-14=0/3115, 12-13=0/2287, 11-12=0/988
WEBS 2-19=-1305/0, 2-18=0/935, 3-18=-903/0, 3-16=0/523, 4-16=-457/0, 9-11=-1313/0, 9-12=0/928, 7-12=-879/0, 7-13=0/590, 6-13=-756/0, 4-15=-141/503, 5-15=-250/0

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) 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.

January 27,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	F5	Floor	11	1	I49926374
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 27 09:28:14 2022 Page 1
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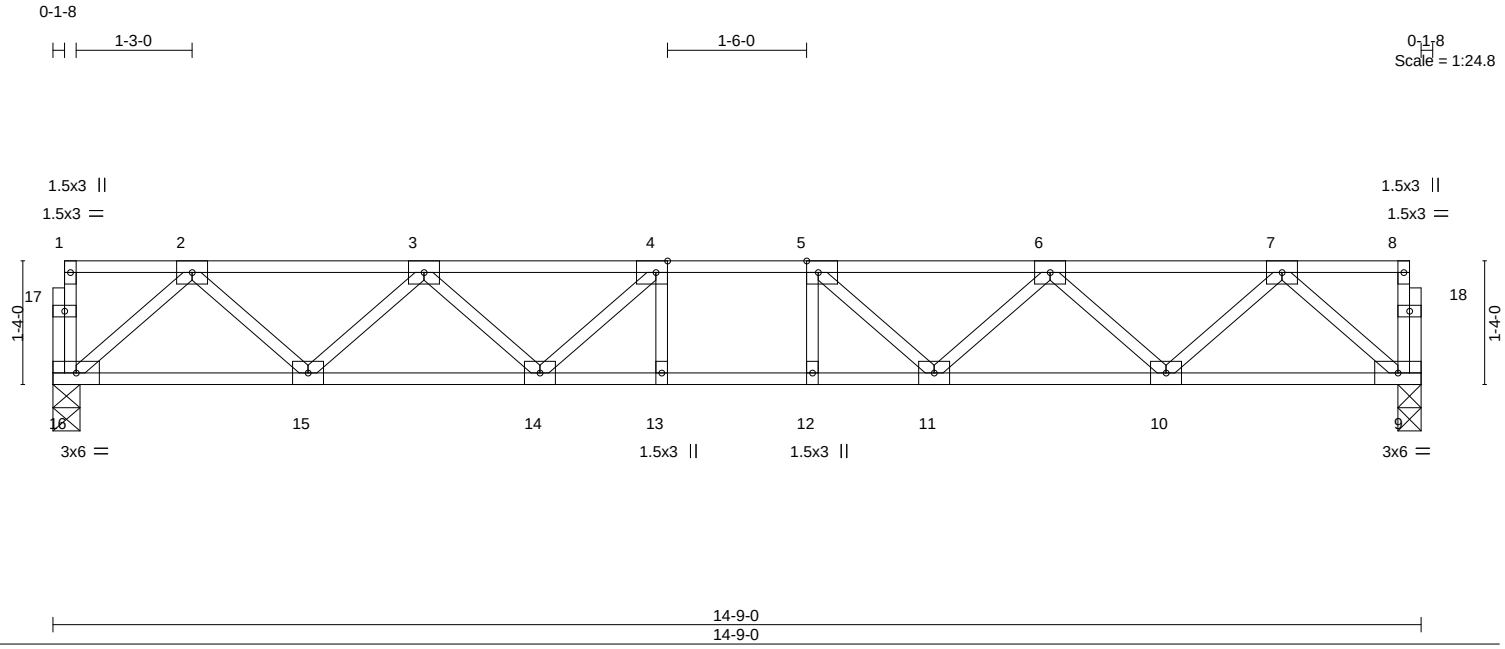

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

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	0.30	Vert(LL)	-0.10	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.61	Vert(CT)	-0.14	12-13	>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=0-3-0
Max Grav 16=791(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=-1395/0, 3-4=-2154/0, 4-5=-2385/0, 5-6=-2154/0, 6-7=-1395/0
BOT CHORD 15-16=0/845, 14-15=0/1915, 13-14=0/2385, 12-13=0/2385, 11-12=0/2385, 10-11=0/1915, 9-10=0/845
WEBS 2-16=-1122/0, 2-15=0/765, 3-15=-723/0, 3-14=0/386, 4-14=-462/0, 7-9=-1122/0, 7-10=0/765, 6-10=-723/0, 6-11=0/386, 5-11=-462/0

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) 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.

January 27,2022

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	F6	Floor Girder	1	1	I49926375
					Job Reference (optional)

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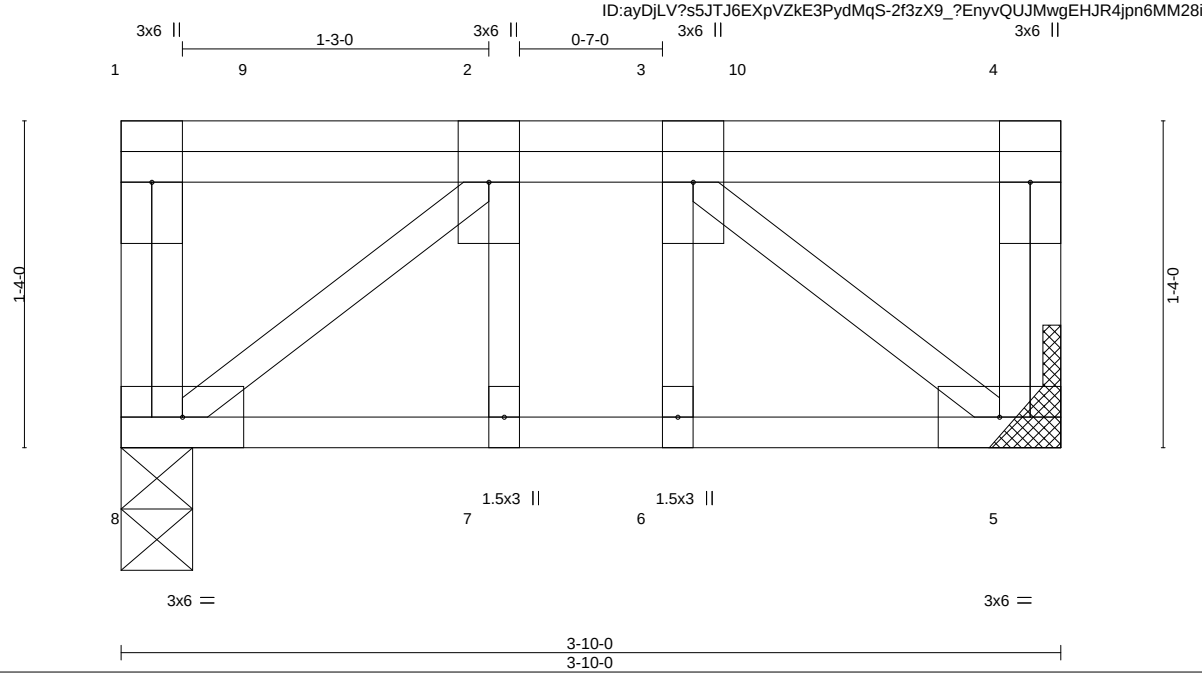

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.16	Vert(LL)	0.00	6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.07	Vert(CT)	0.00	6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 30 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 3-10-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 5=Mechanical
Max Uplift 8=-346(LC 10), 5=-237(LC 9)
Max Grav 8=383(LC 1), 5=322(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-276/212
BOT CHORD 7-8=-212/276, 6-7=-212/276, 5-6=-212/276
WEBS 3-5=-353/271, 2-8=-353/271

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=346, 5=237.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 225 lb down and 429 lb up at 0-7-12, and 198 lb down and 453 lb up at 2-7-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 9=-167(F) 10=-143(F)

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Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	KW2	GABLE	1	1	I49926376
					Job Reference (optional)

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ID:ayDjLV?s5JTJ6EXpVZkE3PydMqS-WrdLIV?d?44m2euYUNlWsfcvSATX5XjrdC5uf1zrBxk

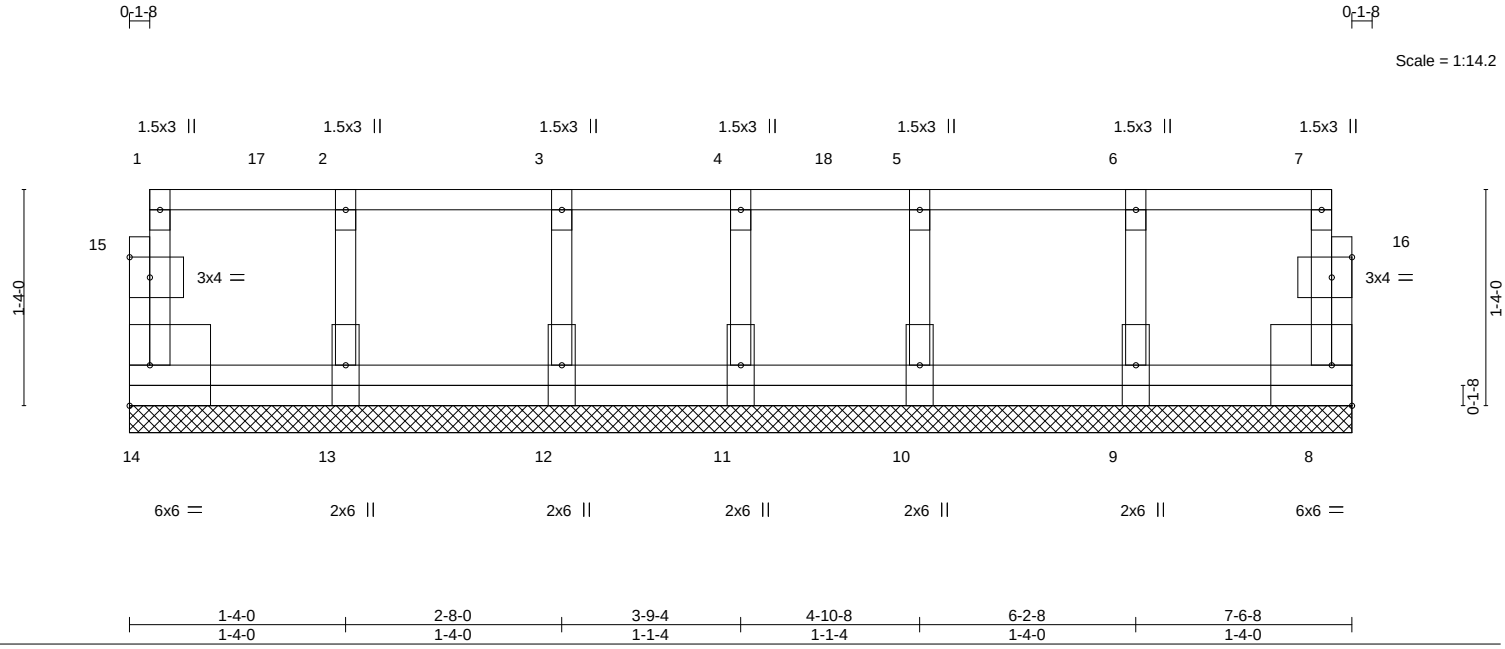

Plate Offsets (X,Y)-- [15:0-1-8,0-1-8], [16:0-1-8,0-1-8]

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	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 46 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 7-6-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 11, 9, 10, 13, 12

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.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down at 0-10-12, 73 lb down at 2-4-12, and 73 lb down at 4-4-12, and 73 lb down at 6-4-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + 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: 6=-73(F) 3=-73(F) 17=-76(F) 18=-73(F)

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Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	KW4	Floor Supported Gable	1	1	I49926377
					Job Reference (optional)

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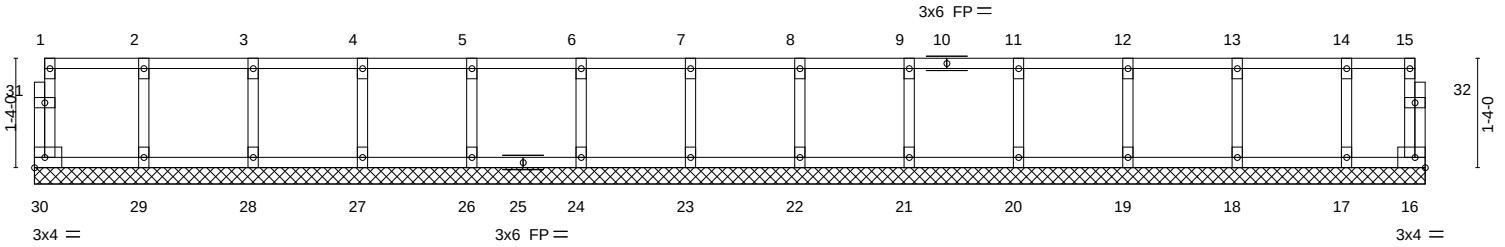
ID:ayDjLV?s5JTJ6EXpVZkE3PydMqS-_2Bjyr0FmOCdgoTl25GlPs95qaplq_A?ssqRBTzrBxj

0-1-8 0-1-8

Scale = 1:28.1



16-11-8
16-11-8

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	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 75 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 16-11-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 27, 26, 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) 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.

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Job	Truss	Truss Type	Qty	Ply	LOT 4 N FARM
J0122-0470	KW5	Floor Supported Gable	1	1	I49926378
					Job Reference (optional)

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ID:ayDjLV?s5JTJ6EXpVZkE3PydMqS-SEl6AB1tXiKUHy2xcon_x4iFR_90ZRR85Wa?jvzrBxi

0-1-8 0-1-8

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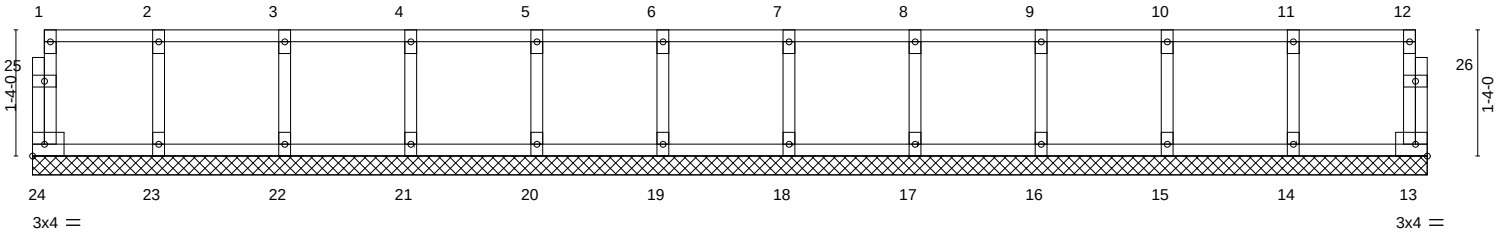

14-9-0
14-9-0

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	0.07	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: 66 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 14-9-0.
(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.

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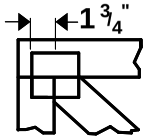
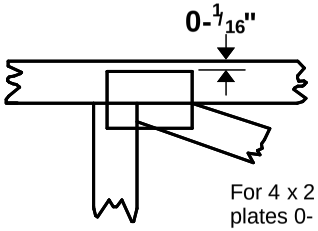
Symbols

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.

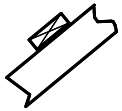
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

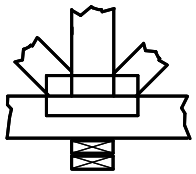
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

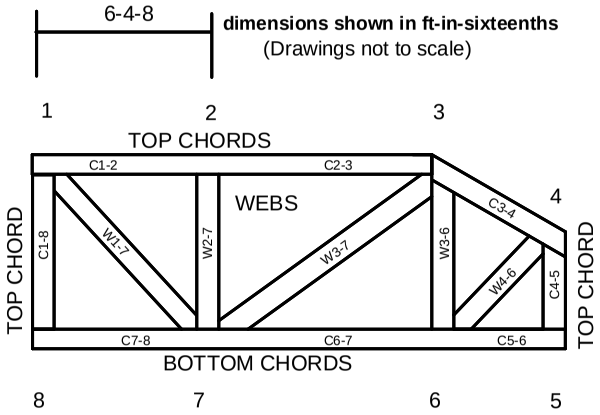


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.