ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Master_FT
MCKEE; NELSON

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Apex,NC.

Pages or sheets covered by this seal: I40242918 thru I40242936

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844

February 13,2020

Liu, Xuegang

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F02	ROOF TRUSS	6	1	I40242919
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:06 2020 Page 1
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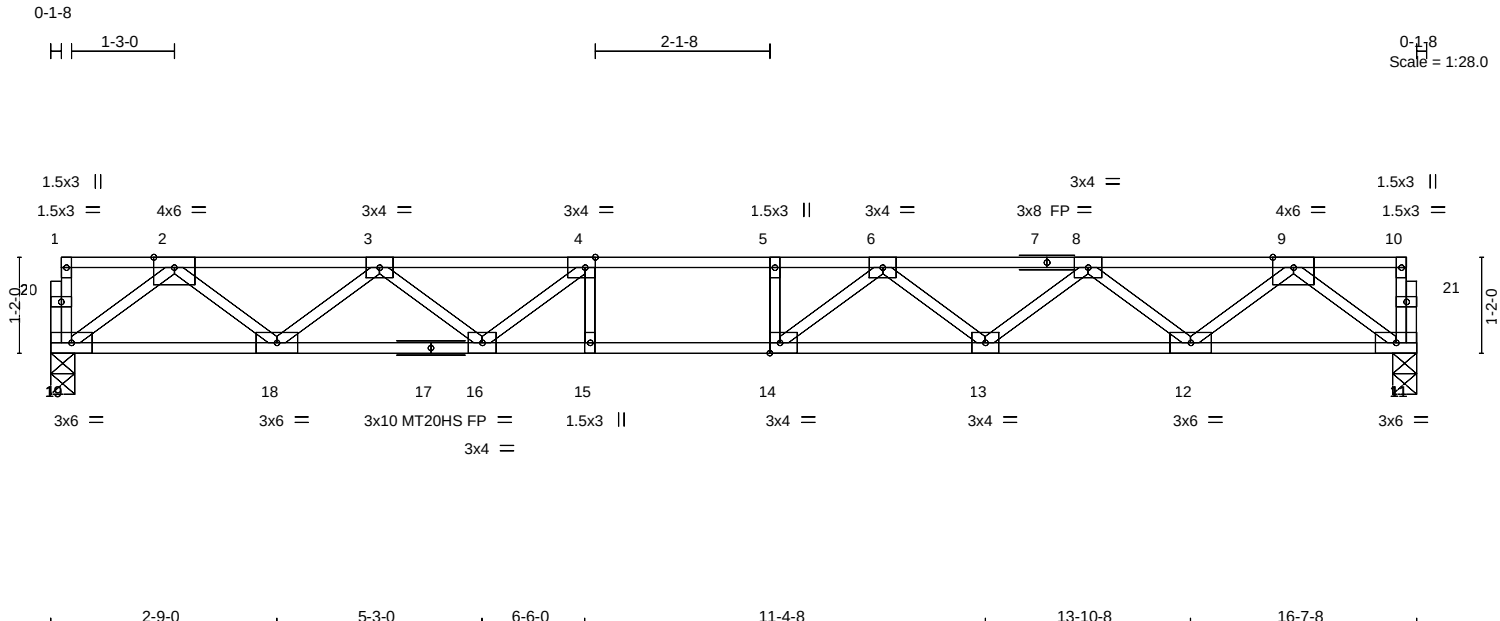

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [14:0-1-8,Edge]

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	0.83	Vert(LL)	-0.27	13-14	>726	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.37	13-14	>533	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 82 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except*
11-17: 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 2-2-0 oc bracing.

REACTIONS. (lb/size) 19=894/0-3-8, 11=894/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1873/0, 3-4=-3008/0, 4-5=-3475/0, 5-6=-3475/0, 6-8=-3014/0, 8-9=-1871/0
BOT CHORD 18-19=0/1119, 16-18=0/2587, 15-16=0/3475, 14-15=0/3475, 13-14=0/3375, 12-13=0/2601, 11-12=0/1114
WEBS 9-11=-1395/0, 2-19=-1401/0, 9-12=0/985, 2-18=0/981, 8-12=-949/0, 3-18=-929/0, 8-13=0/538, 3-16=0/595, 6-13=-470/0, 4-16=-762/0, 6-14=-168/494

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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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818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F03	ROOF TRUSS	6	1	I40242920
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:07 2020 Page 1
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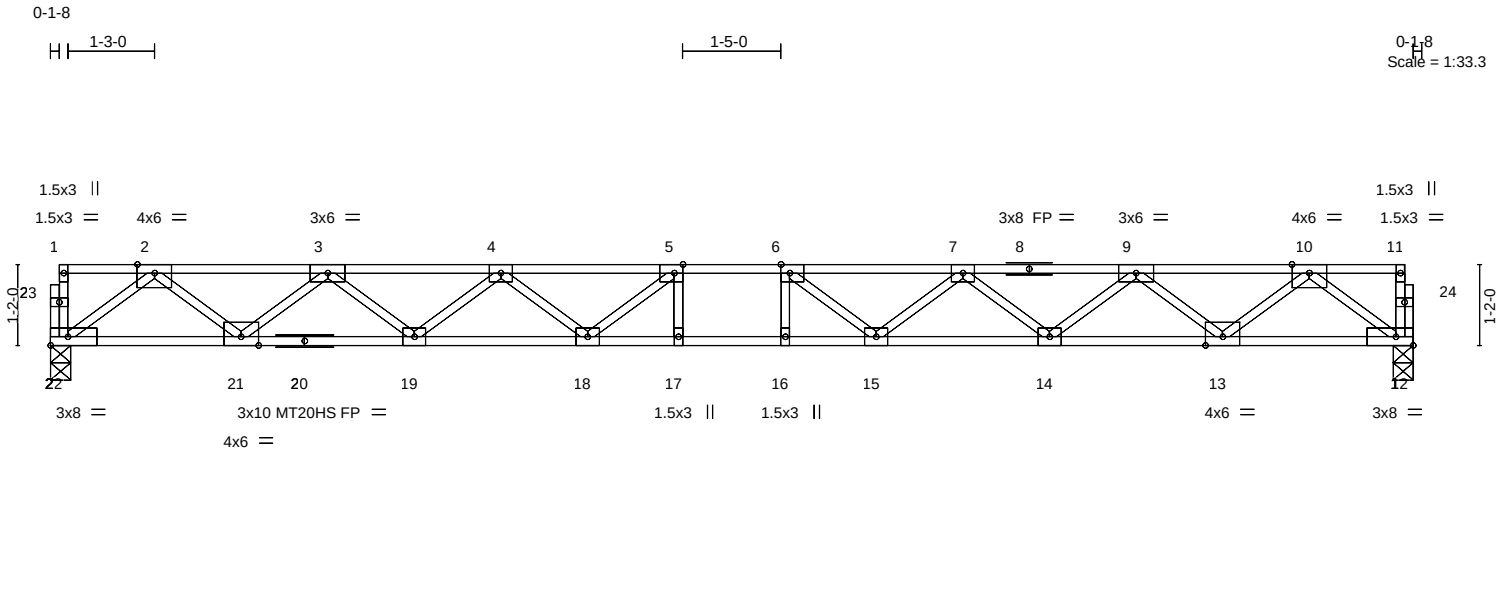

2-9-0	5-3-0	7-9-0	11-11-0	14-5-0	16-11-0	19-8-0
2-9-0	2-6-0	2-6-0	4-2-0	2-6-0	2-6-0	2-9-0

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [6:0-1-8,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	0.46	Vert(LL)	-0.37	16-17	>632	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.63	Vert(CT)	-0.51	16-17	>459	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.08	12	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 98 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(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. (lb/size) 22=1062/0-3-8, 12=1062/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2291/0, 3-4=-3830/0, 4-5=-4694/0, 5-6=-4957/0, 6-7=-4694/0, 7-9=-3830/0, 9-10=-2291/0
BOT CHORD 21-22=0/1336, 19-21=0/3213, 18-19=0/4419, 17-18=0/4957, 16-17=0/4957, 15-16=0/4957, 14-15=0/4419, 13-14=0/3213, 12-13=0/1336
WEBS 10-12=-1673/0, 2-22=-1673/0, 10-13=0/1243, 2-21=0/1243, 9-13=-1200/0, 3-21=-1200/0, 9-14=0/804, 3-19=0/804, 7-14=-767/0, 4-19=-767/0, 7-15=0/498, 4-18=0/498, 6-15=-615/93, 5-18=-615/93

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 3x4 MT20 unless otherwise indicated.
4) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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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Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F04G	ROOF TRUSS	1	1	I40242921
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:07 2020 Page 1
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0-1-8 0-1-8

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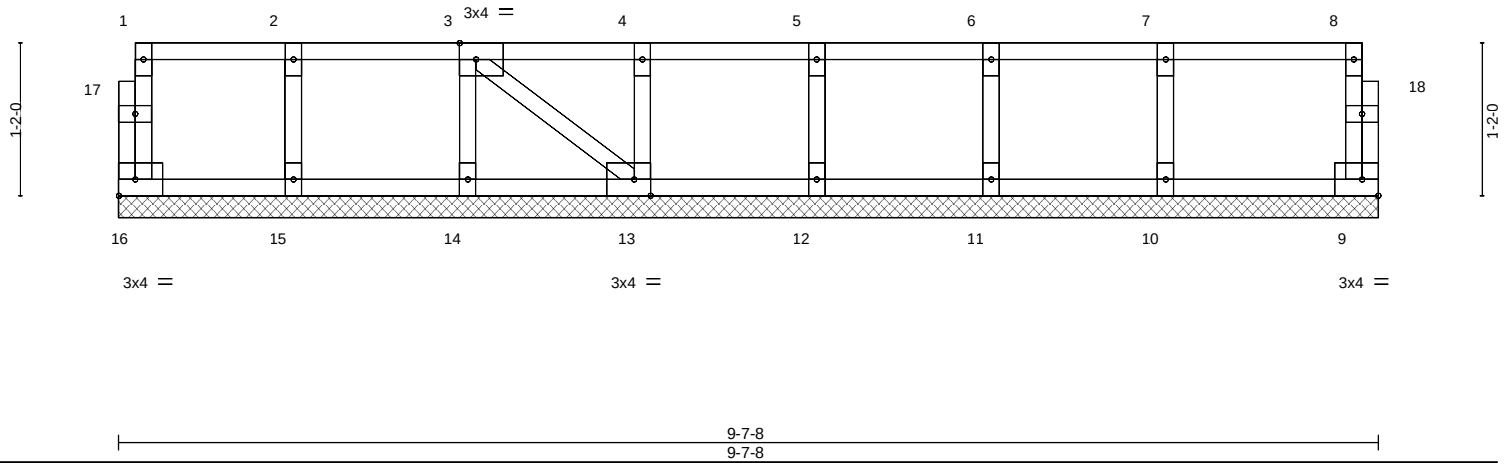

9-7-8
9-7-8

Plate Offsets (X,Y)-- [3:0-1-8,Edge], [13:0-1-8,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	0.12	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	NO	WB	0.04	Horz(CT)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 44 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP 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 9-7-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 16, 9, 15, 14, 13, 12, 11, 10

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) 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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	MCKEE; NELSON
Master_FT	F05GR	ROOF TRUSS	1	1	I40242922
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:08 2020 Page 1
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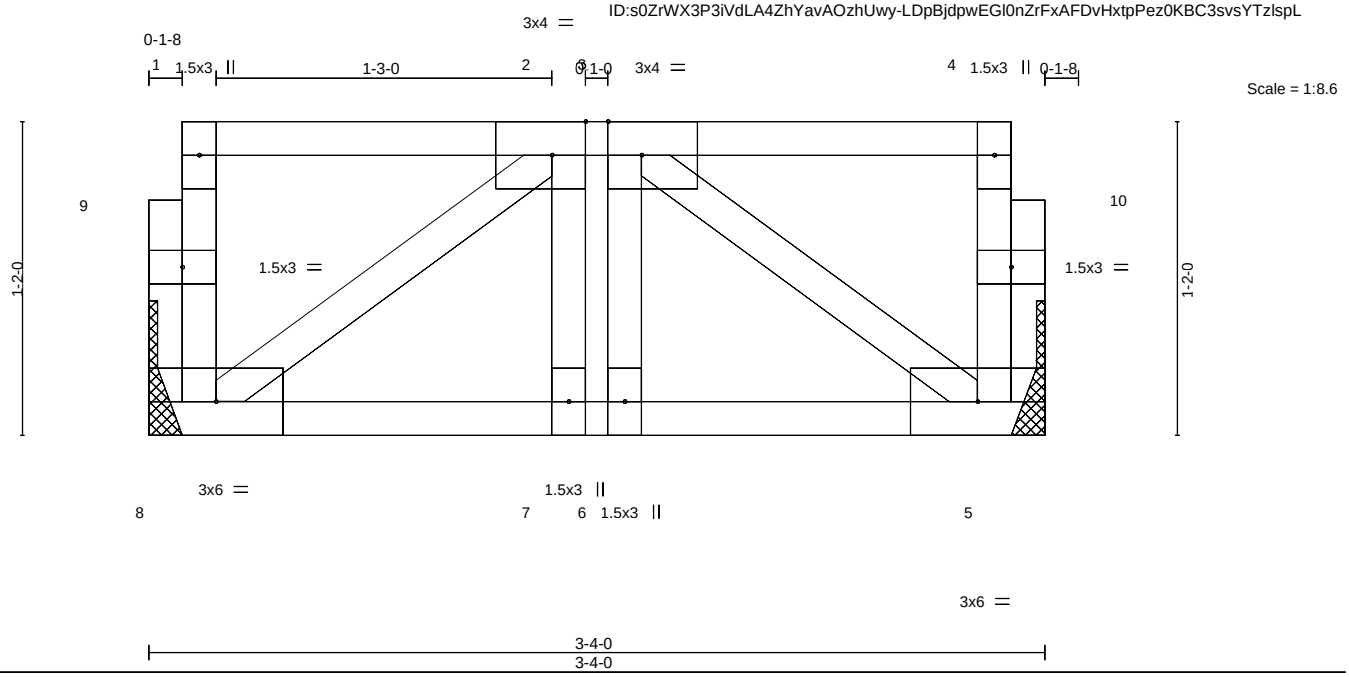

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge]

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	0.33	Vert(LL)	-0.01	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.42	Vert(CT)	-0.01	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 22 lb	FT = 20%F, 11%E

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

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

REACTIONS. (lb/size) 8=741/Mechanical, 5=687/Mechanical

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-817/0
BOT CHORD 7-8=0/817, 6-7=0/817, 5-6=0/817
WEBS 3-5=-1002/0, 2-8=-999/0, 2-7=-263/0, 3-6=0/273

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be User Defined crushing capacity of 565 psi.
3) Refer to girder(s) for truss to truss connections.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 805 lb down at 1-8-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
6) 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=-200(F=-100)
Concentrated Loads (lb)
Vert: 2=-805(F)

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Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F06GR	ROOF TRUSS	1	1	I40242923
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:09 2020 Page 1
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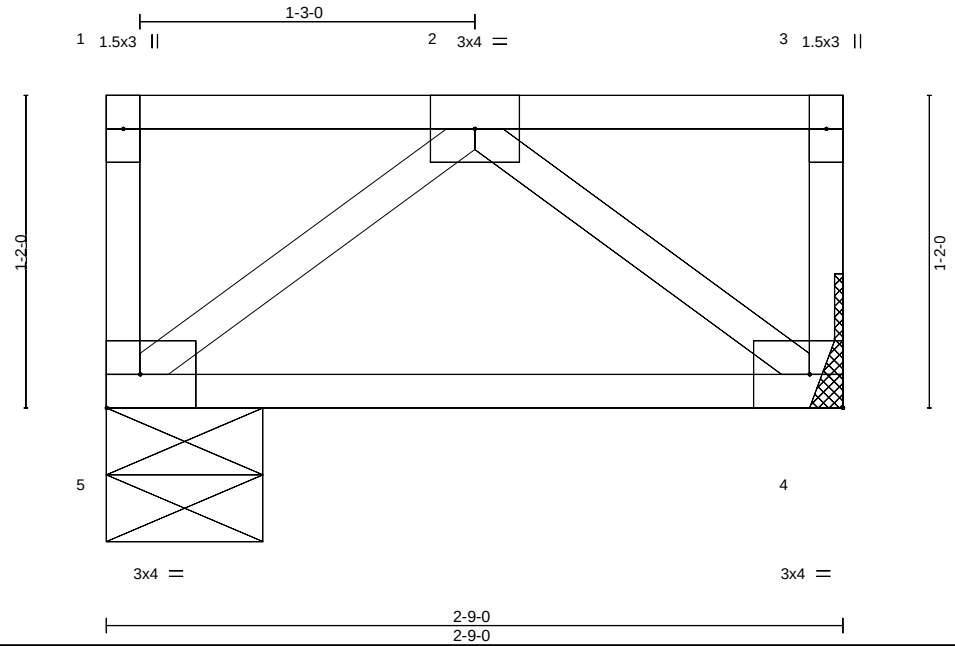

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.11	Vert(LL)	0.00	5	****	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.13	Vert(CT)	-0.01	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-P							Weight: 16 lb	FT = 20%F, 11%E

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=235/0-7-0, 4=235/Mechanical

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-275/0, 2-4=-275/0

NOTES-
1) All bearings are assumed to be User Defined crushing capacity of 565 psi.
2) Refer to girder(s) for truss to truss connections.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 182 lb down at 1-2-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
5) 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: 4-5=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 2=-182(F)

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Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F07	ROOF TRUSS	1	1	I40242924
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:09 2020 Page 1
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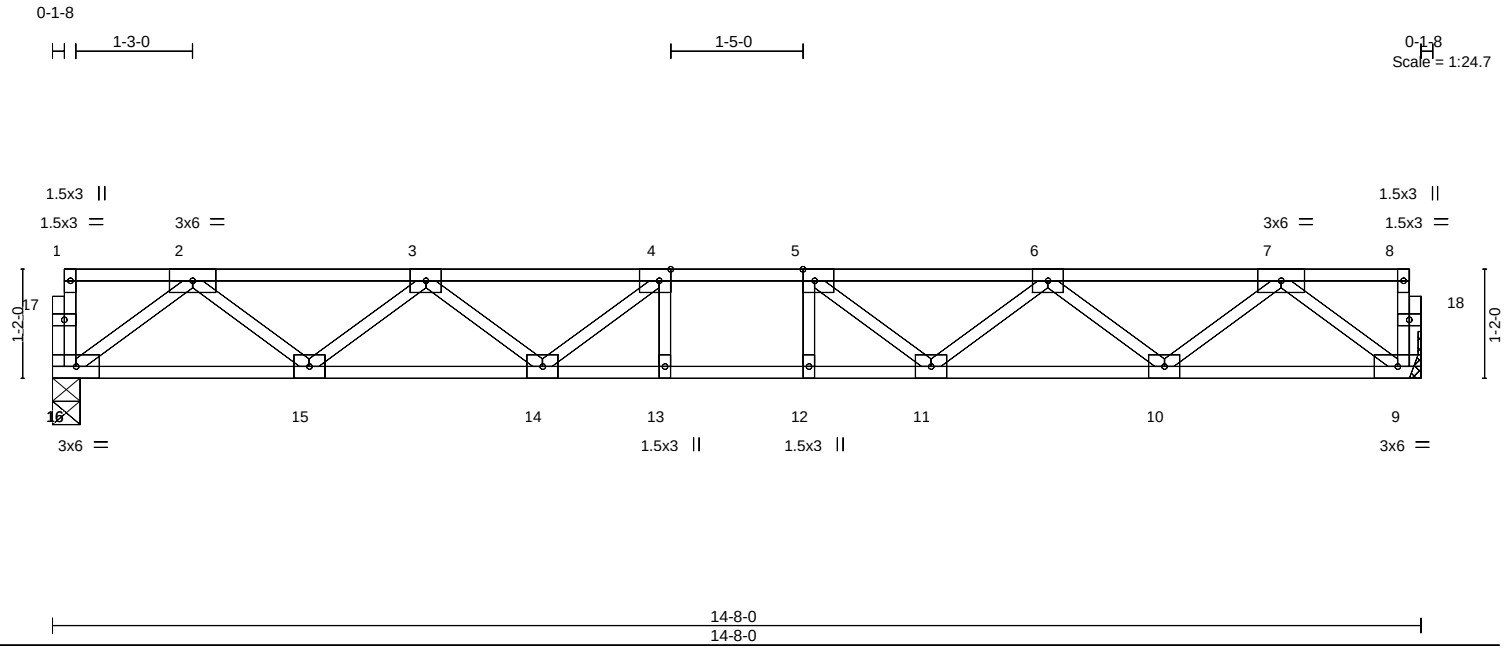

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

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	0.43	Vert(LL)	-0.15	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(CT)	-0.20	12-13	>845	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 74 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP 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 10-0-0 oc bracing.

REACTIONS. (lb/size) 16=787/0-3-8, 9=787/Mechanical

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1605/0, 3-4=-2473/0, 4-5=-2734/0, 5-6=-2473/0, 6-7=-1605/0
BOT CHORD 15-16=0/973, 14-15=0/2202, 13-14=0/2734, 12-13=0/2734, 11-12=0/2734, 10-11=0/2202, 9-10=0/973
WEBS 7-9=-1218/0, 2-16=-1218/0, 7-10=0/822, 2-15=0/822, 6-10=-777/0, 3-15=-777/0, 6-11=0/410, 3-14=0/410, 5-11=-491/0, 4-14=-491/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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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Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F08GR	ROOF TRUSS	1	1	I40242925
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:10 2020 Page 1
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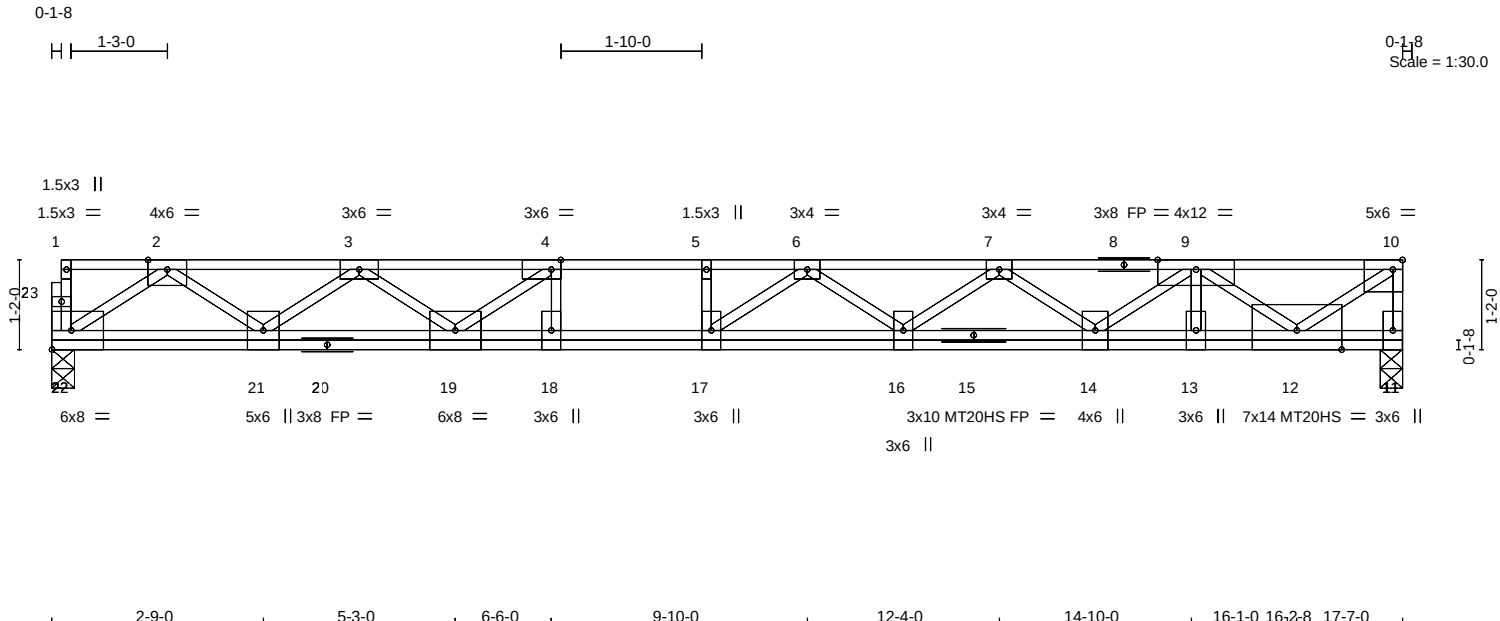

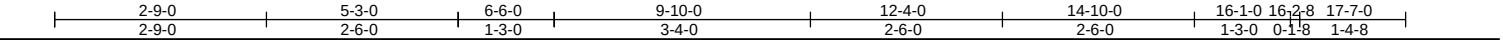

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [10:0-1-8,Edge]

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	0.63	Vert(LL)	-0.28	16-17	>730	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.57	Vert(CT)	-0.39	16-17	>530	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 111 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(flat)
WEBS 2x4 SP No.3(flat) *Except*
10-12: 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. (lb/size) 22=1057/0-3-8, 11=1536/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-1507/0, 2-3=-2348/0, 3-4=-3925/0, 4-5=-4840/0, 5-6=-4840/0, 6-7=-5055/0, 7-9=-4294/0, 9-10=-1875/0
BOT CHORD 21-22=0/1437, 19-21=0/3292, 18-19=0/4840, 17-18=0/4840, 16-17=0/5113, 14-16=0/4831, 13-14=0/3747, 12-13=0/3747
WEBS 2-22=-1712/0, 10-12=0/2339, 2-21=0/1160, 9-12=-2335/0, 3-21=-1199/0, 7-14=-683/0, 3-19=0/811, 7-16=0/284, 4-19=-1294/0, 6-17=-580/85, 4-18=0/559, 9-14=0/682

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 687 lb down at 14-9-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
6) 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: 11-22=-10, 1-10=-100
Concentrated Loads (lb)
Vert: 9=-687(F)

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F09	ROOF TRUSS	1	1	I40242926
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:11 2020 Page 1
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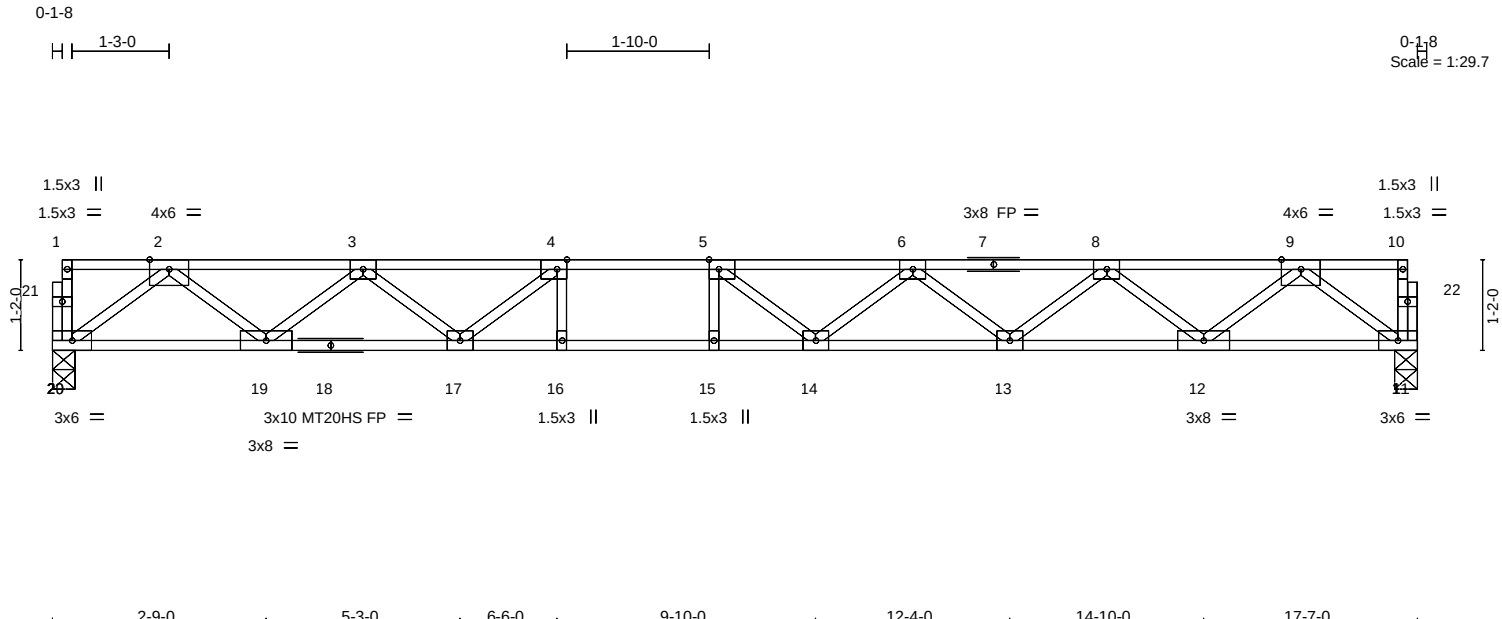

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

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	0.89	Vert(LL)	-0.32	14-15	>649	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.81	Vert(CT)	-0.44	14-15	>472	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 87 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except*
11-18: 2x4 SP SS(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 10-0-0 oc bracing.

REACTIONS. (lb/size) 20=947/0-3-8, 11=947/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2006/0, 3-4=-3259/0, 4-5=-3855/0, 5-6=-3859/0, 6-8=-3269/0, 8-9=-2004/0
BOT CHORD 19-20=0/1190, 17-19=0/2776, 16-17=0/3855, 15-16=0/3855, 14-15=0/3855, 13-14=0/3737, 12-13=0/2784, 11-12=0/1187
WEBS 9-11=-1487/0, 2-20=-1490/0, 9-12=0/1063, 2-19=0/1063, 8-12=-1016/0, 3-19=-1002/0, 8-13=0/632, 3-17=0/655, 6-13=-609/0, 4-17=-897/0, 6-14=-4/334, 5-14=-376/286, 5-15=-288/90, 4-16=-59/319

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 3x4 MT20 unless otherwise indicated.
4) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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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Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F10	ROOF TRUSS	1	1	I40242927
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:12 2020 Page 1
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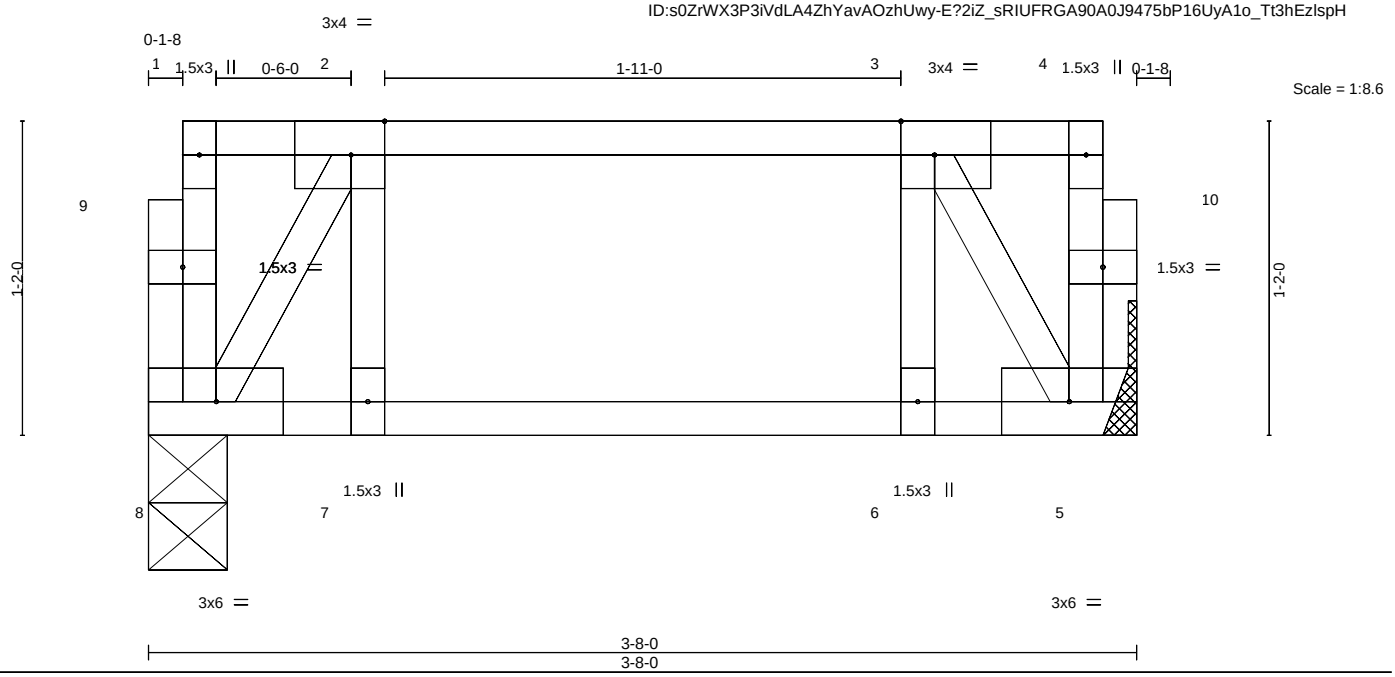

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge]

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	0.16	Vert(LL)	-0.00	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.06	Vert(CT)	-0.00	7	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 21 lb	FT = 20%F, 11%E

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

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

REACTIONS. (lb/size) 8=182/0-3-8, 5=182/Mechanical

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

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be User Defined crushing capacity of 565 psi.
3) Refer to girder(s) for truss to truss connections.
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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ENGINEERING BY TRENCO
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F11GR	ROOF TRUSS	1	1	I40242928
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:13 2020 Page 1
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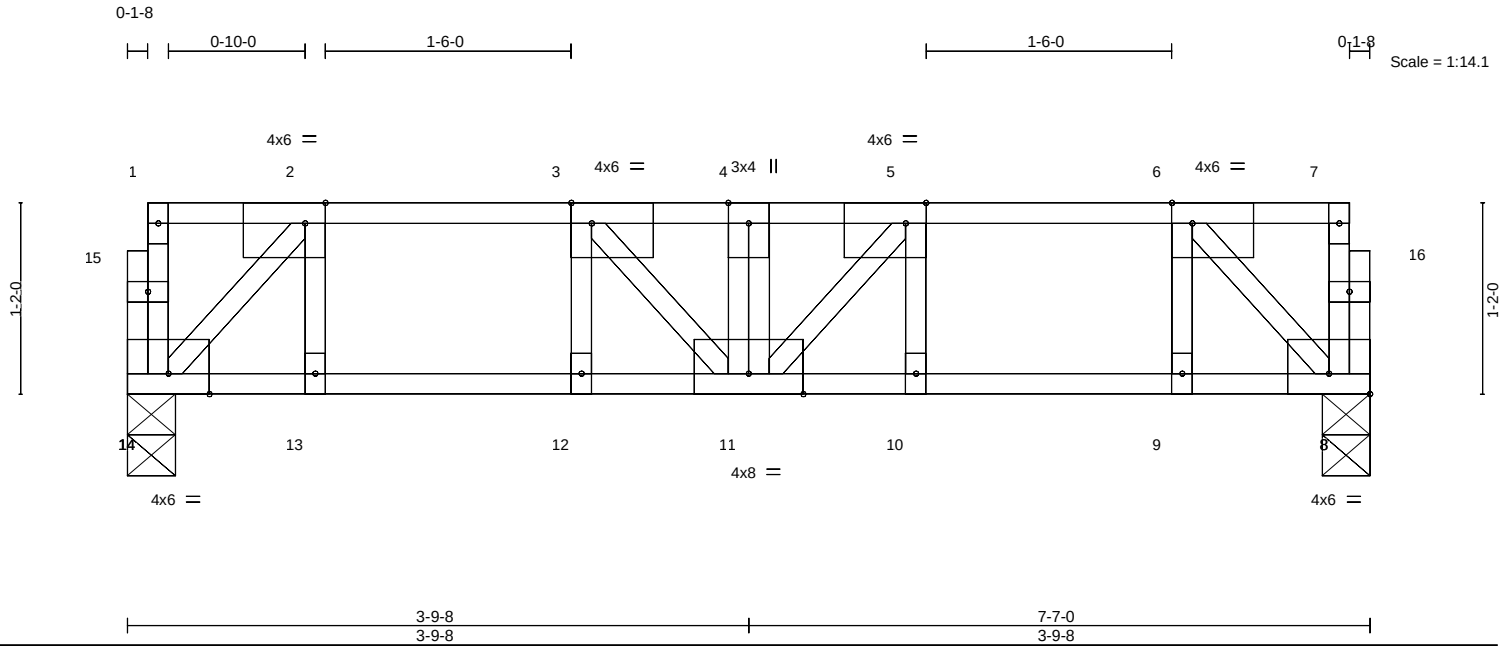

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge], [5:0-1-8,Edge], [6:0-1-8,Edge], [8:Edge,0-1-8]

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	0.84	Vert(LL)	-0.17	10-11	>518	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.23	10-11	>377	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.01	8	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 43 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(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. (lb/size) 14=698/0-3-8, 8=1052/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1030/0, 3-4=-1939/0, 4-5=-1939/0, 5-6=-1322/0
BOT CHORD 13-14=0/1030, 12-13=0/1030, 11-12=0/1030, 10-11=0/1322, 9-10=0/1322, 8-9=0/1322
WEBS 4-11=-972/0, 2-14=-1487/0, 2-13=0/458, 3-11=0/1315, 3-12=-529/0, 6-8=-1899/0, 6-9=0/457, 5-11=0/898, 5-10=-532/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 235 lb down at 3-9-12 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, 1-4=-100, 4-7=-300(F=-200)
Concentrated Loads (lb)
Vert: 4=-235(F)

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F12G	ROOF TRUSS	1	1	I40242929
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:13 2020 Page 1
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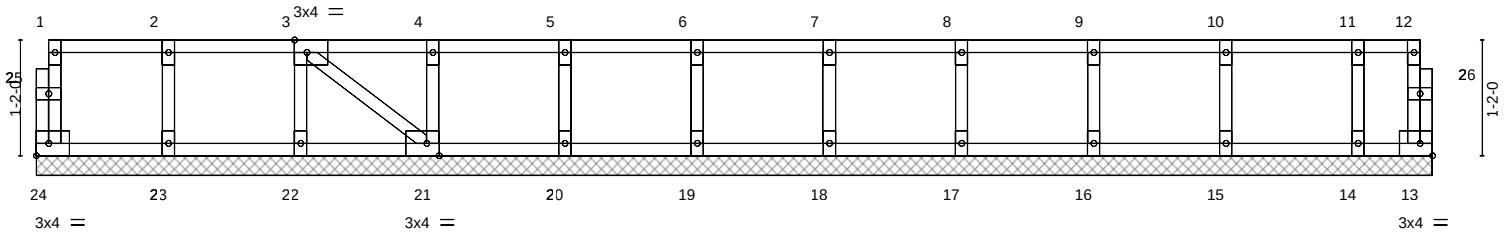

Plate Offsets (X,Y)-- [3:0-1-8,Edge], [21:0-1-8,Edge]

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	0.09	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	NO	WB	0.03	Horz(CT)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 62 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP 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 14-1-0.
(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) 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F13	ROOF TRUSS	5	1	I40242930
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:14 2020 Page 1
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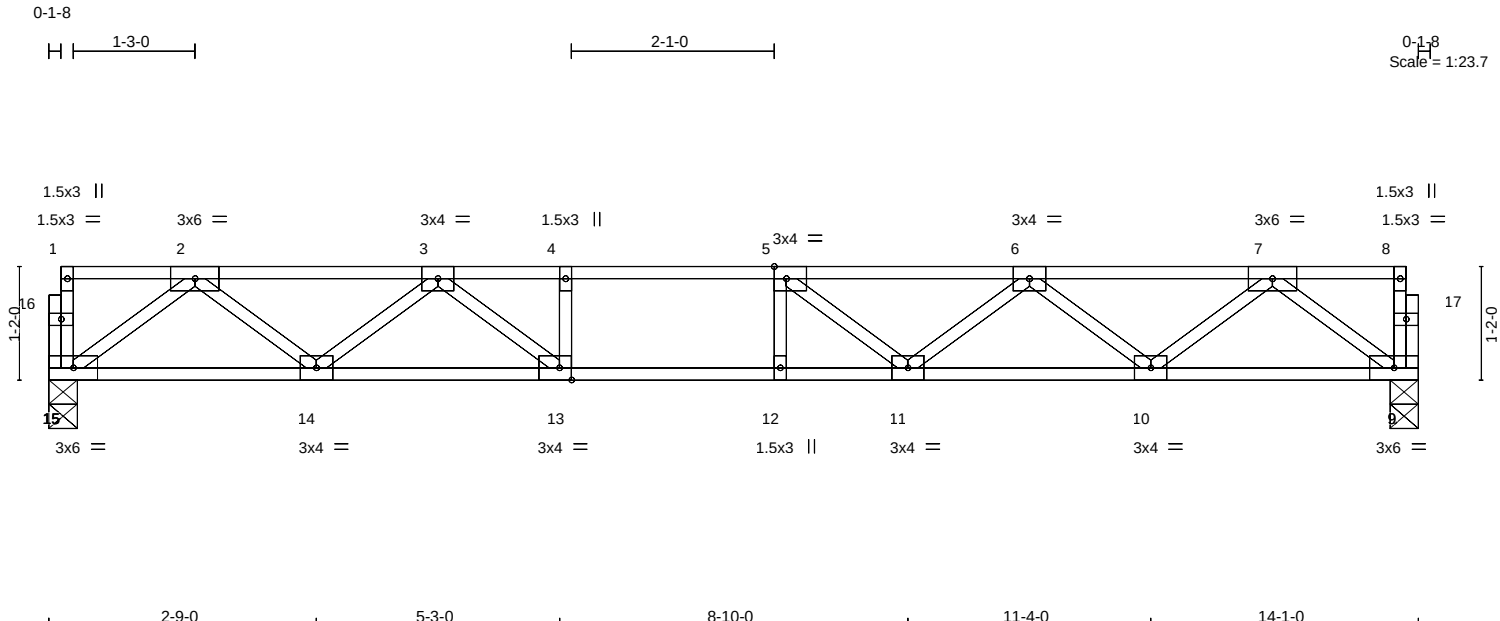

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [13:0-1-8,Edge]

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	0.68	Vert(LL)	-0.17	11-12	>965	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.23	11-12	>724	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 70 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(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. (lb/size) 15=755/0-3-8, 9=755/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1505/0, 3-4=-2466/0, 4-5=-2466/0, 5-6=-2317/0, 6-7=-1524/0
BOT CHORD 14-15=0/935, 13-14=0/2070, 12-13=0/2466, 11-12=0/2466, 10-11=0/2092, 9-10=0/928
WEBS 7-9=-1161/0, 2-15=-1171/0, 7-10=0/776, 2-14=0/742, 6-10=-739/0, 3-14=-735/0, 6-11=0/372, 3-13=0/685, 5-11=-408/35, 4-13=-278/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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.

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ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F14	ROOF TRUSS	3	1	I40242931
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:15 2020 Page 1
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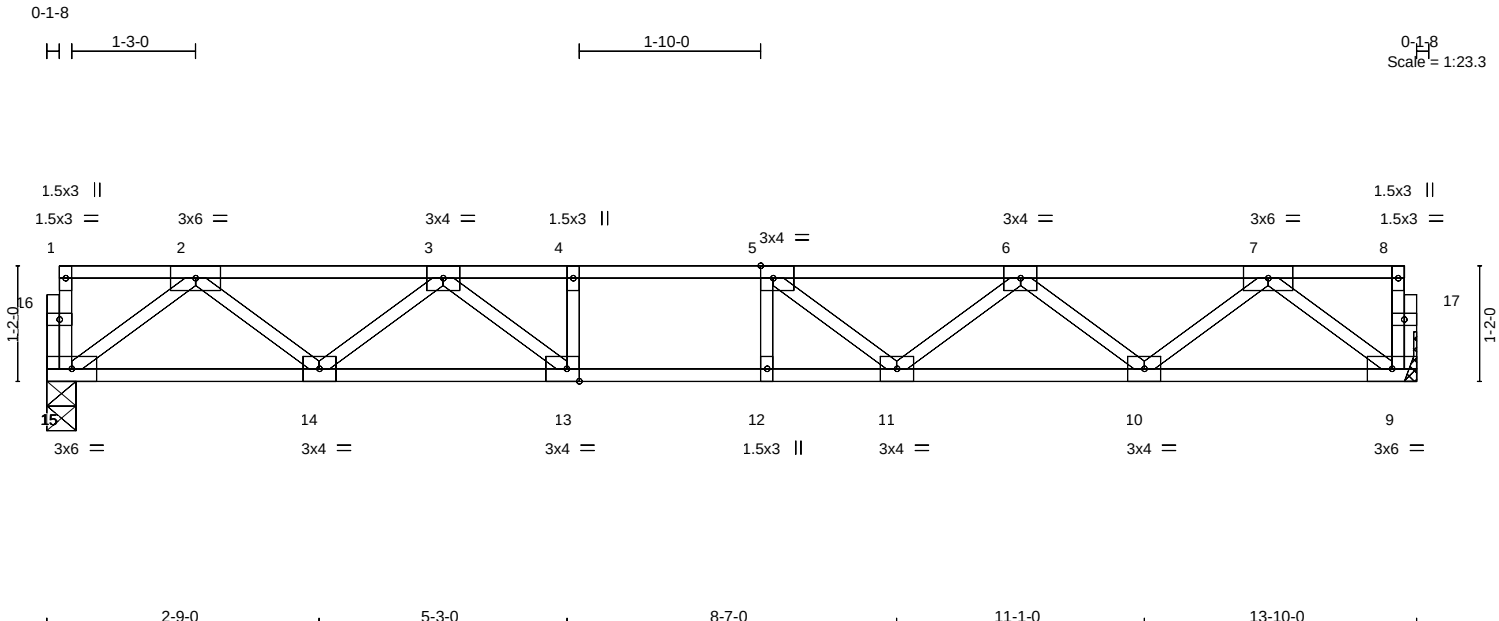

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [13:0-1-8,Edge]

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	0.59	Vert(LL)	-0.15	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.20	11-12	>817	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: 69 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(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. (lb/size) 15=741/0-3-8, 9=741/Mechanical

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1472/0, 3-4=-2383/0, 4-5=-2383/0, 5-6=-2249/0, 6-7=-1490/0
BOT CHORD 14-15=0/917, 13-14=0/2019, 12-13=0/2383, 11-12=0/2383, 10-11=0/2041, 9-10=0/910
WEBS 7-9=-1138/0, 2-15=-1148/0, 7-10=0/755, 2-14=0/723, 6-10=-718/0, 3-14=-713/0, 6-11=0/349, 3-13=0/637, 5-11=-379/47, 4-13=-251/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be User Defined crushing capacity of 565 psi.
3) Refer to girder(s) for truss to truss connections.
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	MCKEE; NELSON
Master_FT	F15	ROOF TRUSS	3	1	I40242932
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:16 2020 Page 1
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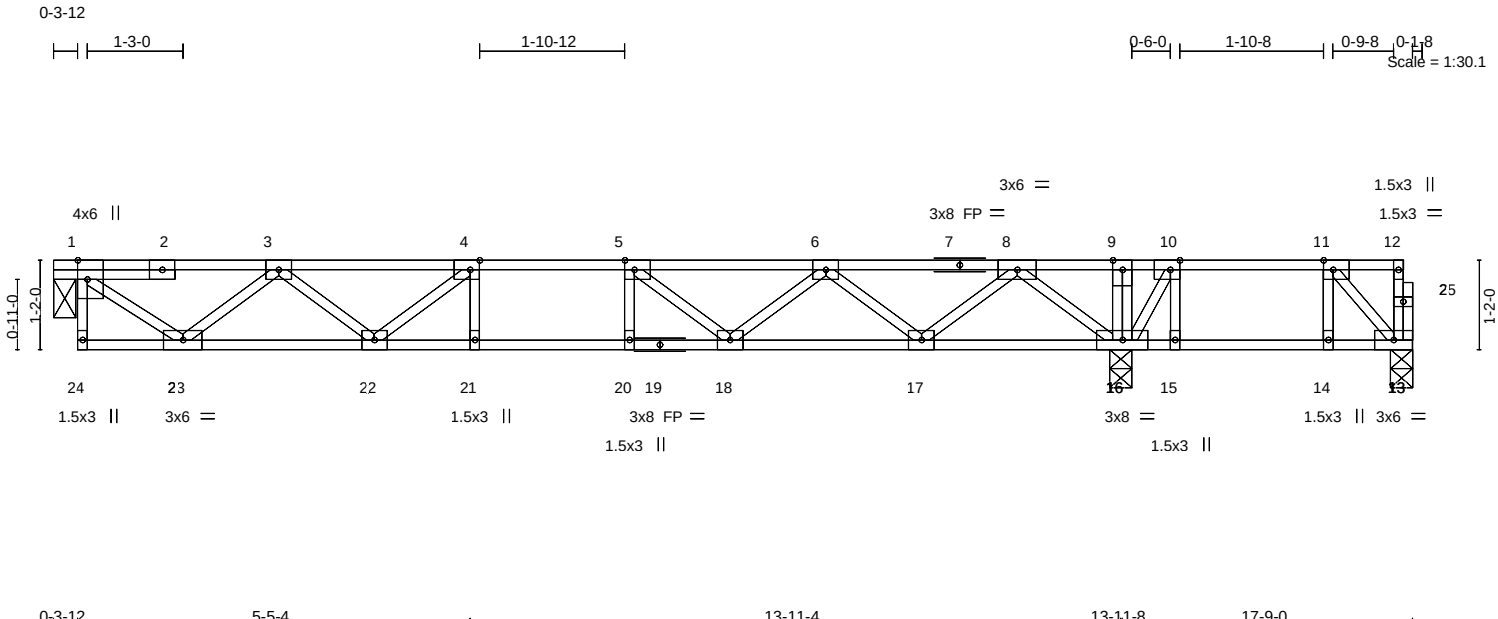

0-3-12	5-5-4	13-11-4	13-11-8	17-9-0
0-3-12	5-1-8	8-6-0	0-0-4	3-9-8

Plate Offsets (X,Y)-- [1:0-3-0,Edge], [4:0-1-8,Edge], [5:0-1-8,Edge], [10:0-1-8,Edge], [11:0-1-8,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	0.65	Vert(LL)	-0.14	18-20	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.18	18-20	>901	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.01	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 90 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP 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 2-2-0 oc bracing.

REACTIONS. (lb/size) 1=713/0-3-8, 13=73/0-3-8, 16=1105/0-3-8
Max Uplift 13=-75(LC 3)
Max Grav 1=714(LC 10), 13=169(LC 4), 16=1105(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-785/0, 3-4=-1811/0, 4-5=-2195/0, 5-6=-1981/0, 6-8=-1143/0, 8-9=0/462, 9-10=0/463
BOT CHORD 22-23=0/1449, 21-22=0/2195, 20-21=0/2195, 18-20=0/2195, 17-18=0/1728, 16-17=0/527
WEBS 1-23=0/974, 8-16=-1197/0, 3-23=-869/0, 8-17=0/806, 3-22=0/471, 6-17=-767/0, 4-22=-571/0, 6-18=0/371, 5-18=-424/0, 11-13=-145/295, 10-16=-652/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) All bearings are assumed to be User Defined crushing capacity of 565 psi.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 13.
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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
7) CAUTION, Do not erect truss backwards.

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F16	ROOF TRUSS	1	1	I40242933
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:17 2020 Page 1
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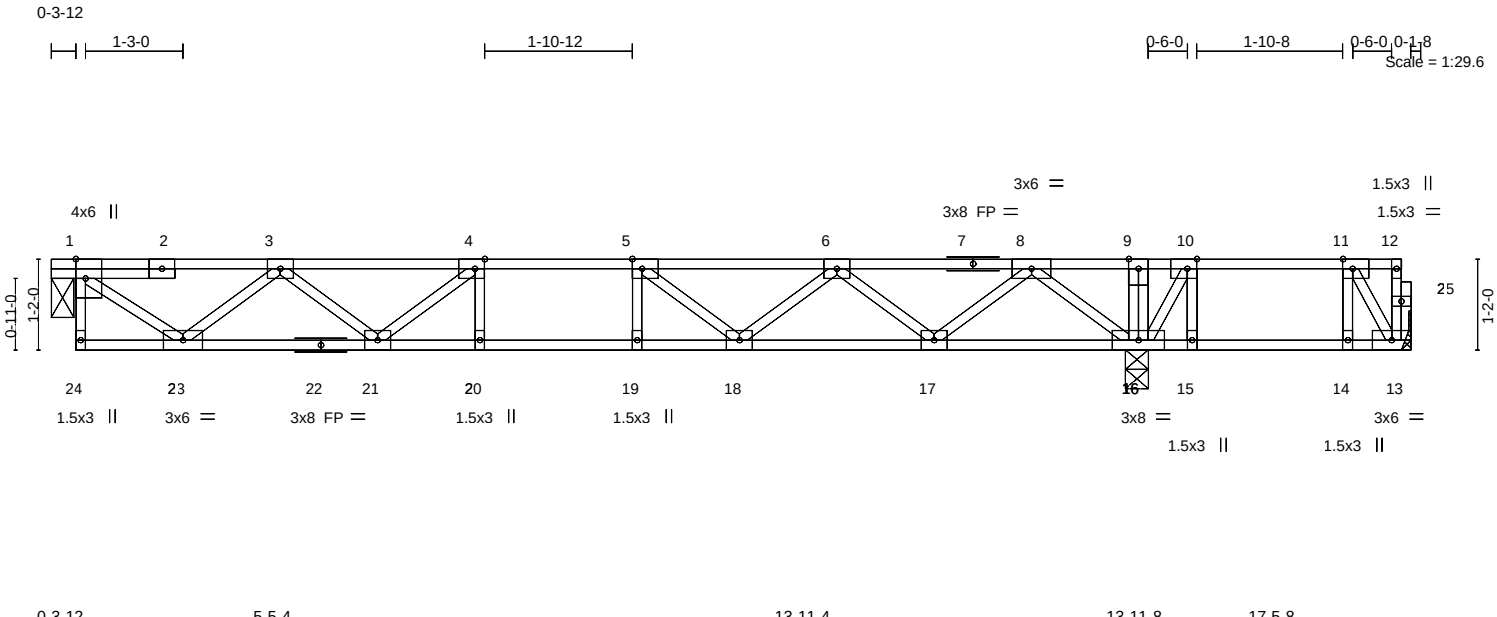

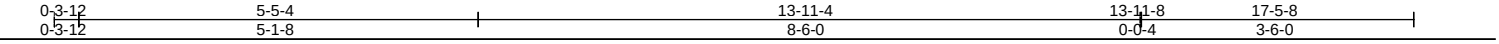

Plate Offsets (X,Y)-- [1:0-3-0,Edge], [4:0-1-8,Edge], [5:0-1-8,Edge], [10:0-1-8,Edge], [11:0-1-8,Edge]

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	0.63	Vert(LL)	-0.14	18-19	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.18	18-19	>904	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.01	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 89 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP 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 2-2-0 oc bracing.

REACTIONS. (lb/size) 1=712/0-3-8, 13=44/Mechanical, 16=1103/0-3-8
Max Uplift 13=-85(LC 3)
Max Grav 1=713(LC 10), 13=142(LC 4), 16=1103(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-784/0, 3-4=-1808/0, 4-5=-2191/0, 5-6=-1976/0, 6-8=-1136/0, 8-9=0/455, 9-10=0/456
BOT CHORD 21-23=0/1447, 20-21=0/2191, 19-20=0/2191, 18-19=0/2191, 17-18=0/1722, 16-17=0/520
WEBS 1-23=0/973, 8-16=-1195/0, 3-23=-868/0, 8-17=0/805, 3-21=0/470, 6-17=-767/0, 4-21=-569/0, 6-18=0/374, 5-18=-429/0, 11-13=-115/343, 10-16=-633/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) All bearings are assumed to be User Defined crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 13.
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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
8) CAUTION, Do not erect truss backwards.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F17	ROOF TRUSS	1	1	I40242934
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:18 2020 Page 1
ID:s0ZrWX3P3iVdLA4ZhYavAOzhUwy-39Pzp2xBuK0b_5cAWHQZJOLXARzvMnihMPKOvtzlspB

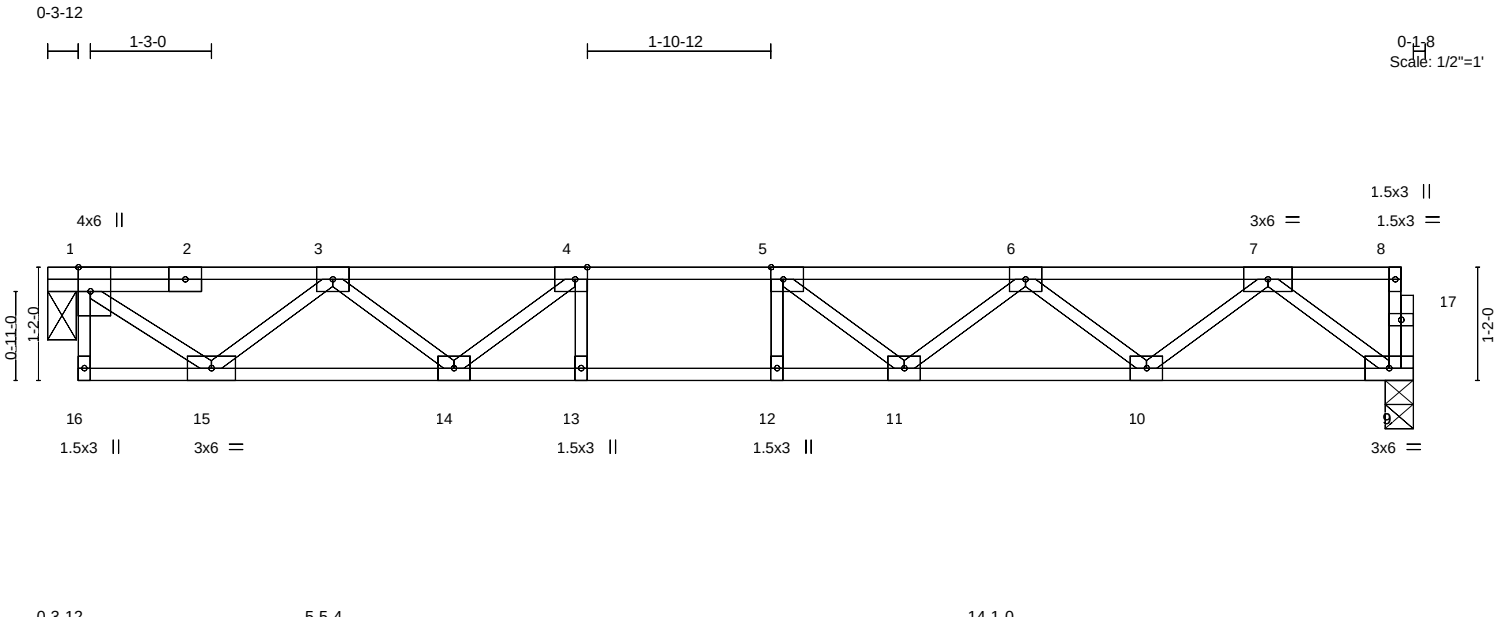

Plate Offsets (X,Y)-- [1:0-3-0,Edge], [4:0-1-8,Edge], [5:0-1-8,Edge]

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	0.53	Vert(LL)	-0.15	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.20	11-12	>802	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.01	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 71 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(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. (lb/size) 9=741/0-3-8, 1=747/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-828/0, 3-4=-1931/0, 4-5=-2389/0, 5-6=-2249/0, 6-7=-1490/0
BOT CHORD 14-15=0/1525, 13-14=0/2389, 12-13=0/2389, 11-12=0/2389, 10-11=0/2040, 9-10=0/910
WEBS 7-9=-1139/0, 1-15=0/1028, 7-10=0/755, 3-15=-914/0, 6-10=-717/0, 3-14=0/528, 6-11=0/346, 4-14=-673/0, 5-11=-392/51

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
6) CAUTION, Do not erect truss backwards.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F18	ROOF TRUSS	4	1	I40242935
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:19 2020 Page 1
ID:s0ZrWX3P3iVdLA4ZhYavAOzhUwy-XLzL1Oxqee8ScFBM4_yosbuforJf5Fwqb34xRKzlspA

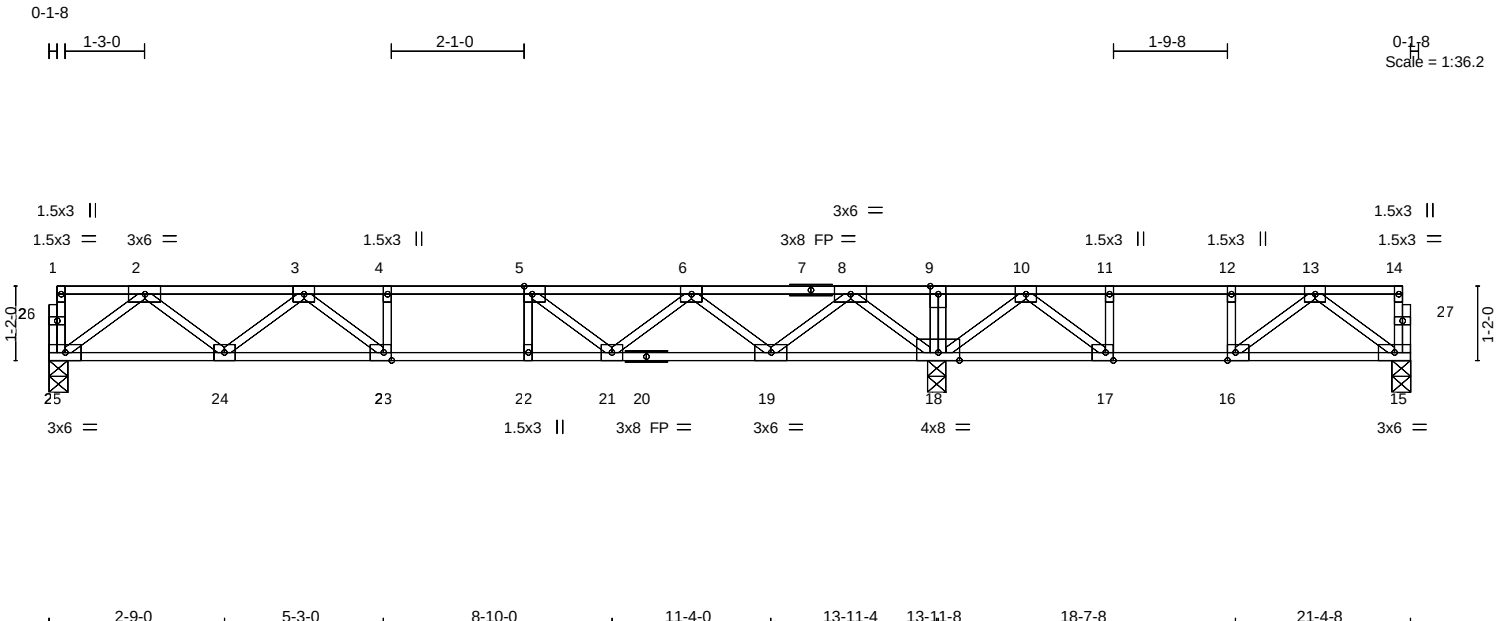

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,Edge], [23:0-1-8,Edge]

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	0.73	Vert(LL)	-0.12	21-22	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.15	21-22	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.03	18	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.2(flat)
BOT CHORD 2x4 SP 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. (lb/size) 25=681/0-3-8, 15=256/0-3-8, 18=1374/0-3-8
Max Uplift 15=-20(LC 3)
Max Grav 25=692(LC 10), 15=347(LC 4), 18=1374(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1358/0, 3-4=-2091/0, 4-5=-2091/0, 5-6=-1800/0, 6-8=-855/0, 8-9=0/1041, 9-10=0/1041, 10-11=-512/258, 11-12=-512/258, 12-13=-512/258
BOT CHORD 24-25=0/855, 23-24=0/1833, 22-23=0/2091, 21-22=0/2091, 19-21=0/1489, 17-18=-610/165, 16-17=-258/512, 15-16=-59/371
WEBS 2-25=-1070/0, 8-18=-1270/0, 2-24=0/655, 8-19=0/898, 3-24=-618/0, 6-19=-852/0, 3-23=0/476, 6-21=0/439, 5-21=-501/0, 13-15=-462/74, 10-18=-753/0, 13-16=-254/179, 10-17=0/705, 11-17=-342/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) All bearings are assumed to be User Defined crushing capacity of 565 psi.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 15.
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.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
Master_FT	F19G	ROOF TRUSS	1	1	I40242936
					Job Reference (optional)

Builders FirstSource, Apex, NC - 27523, 8.240 s Dec 6 2019 MiTek Industries, Inc. Wed Feb 12 13:36:20 2020 Page 1
ID:s0ZrWX3P3iVdLA4ZhYavAOzhUwy-?XXjEjySPyGJDPmYeiT1OpR_QFq6qoLzqjpVzmzlsp9

0-1-8 0-1-8

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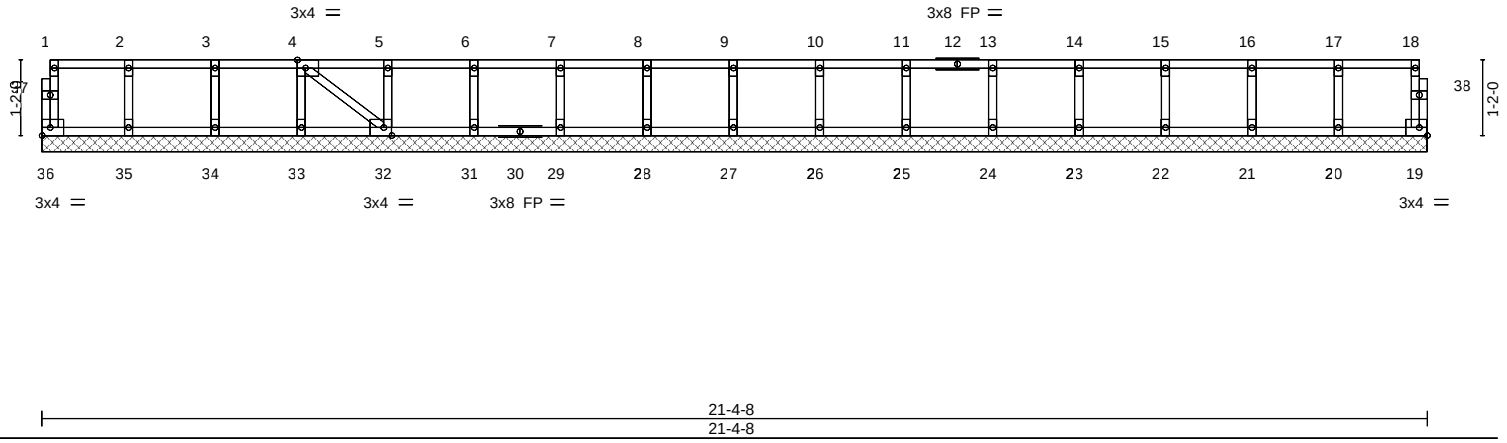

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [32:0-1-8,Edge]

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	0.09	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	NO	WB	0.03	Horz(CT)	0.00	19	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 91 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP 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 21-4-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 36, 19, 35, 34, 33, 32, 31, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20

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) 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
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.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
MASTER_FT	F20G	GABLE	1	1	I41737599
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jun 19 18:40:35 2020 Page 1
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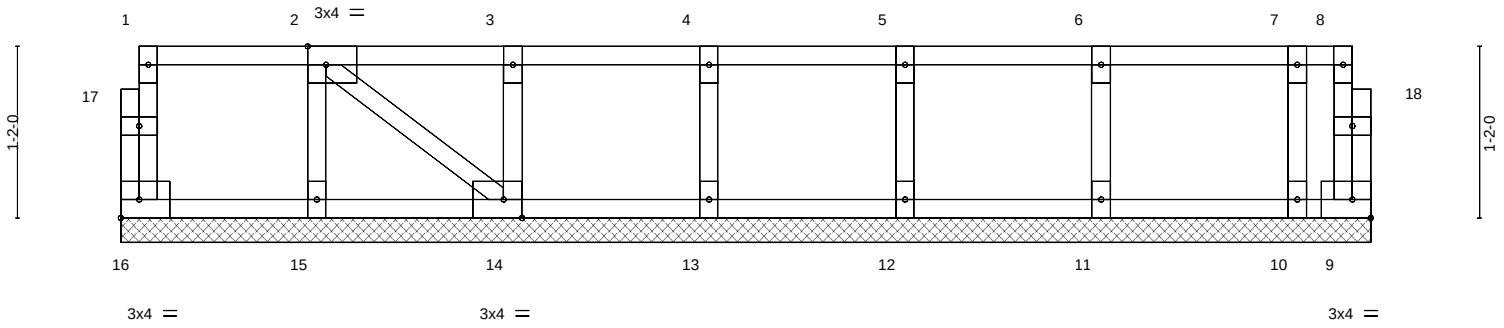

1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	8-6-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-6-0

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [14:0-1-8,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	0.09	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	NO	WB	0.03	Horz(CT)	0.00	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 40 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP 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 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 15-16,14-15.

REACTIONS. All bearings 8-6-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 9
Max Grav All reactions 250 lb or less at joint(s) 16, 15, 14, 13, 12, 11, 10

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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.
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.

June 22,2020

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

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
MASTER_FT	F21	ROOF TRUSS	1	1	I41737600
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jun 19 18:40:36 2020 Page 1
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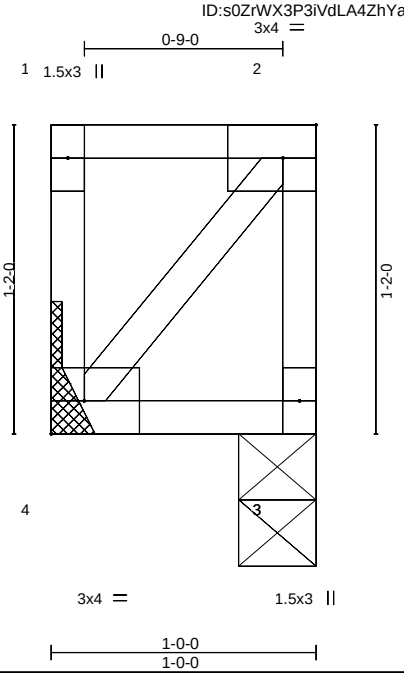

Plate Offsets (X,Y)-- [2:0-1-8,Edge]

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	0.05	Vert(LL)	0.00	4	****	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	-0.00	4	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 7 lb	FT = 20%F, 11%E

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=0-3-8, 4=Mechanical
Max Grav 3=48(LC 1), 4=48(LC 1)

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

NOTES-
1) Refer to girder(s) for truss to truss connections.
2) 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.

June 22,2020

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

Job	Truss	Truss Type	Qty	Ply	MCKEE; NELSON
MASTER_FT	F22	ROOF TRUSS	1	1	I41737601
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jun 19 18:40:36 2020 Page 1
ID:s0ZrWX3P3iVdLA4ZhYavAOzhUwy-W5XGFAClIEyz7endzikfKzJe4_a5zGhf2bG0uez4dy9

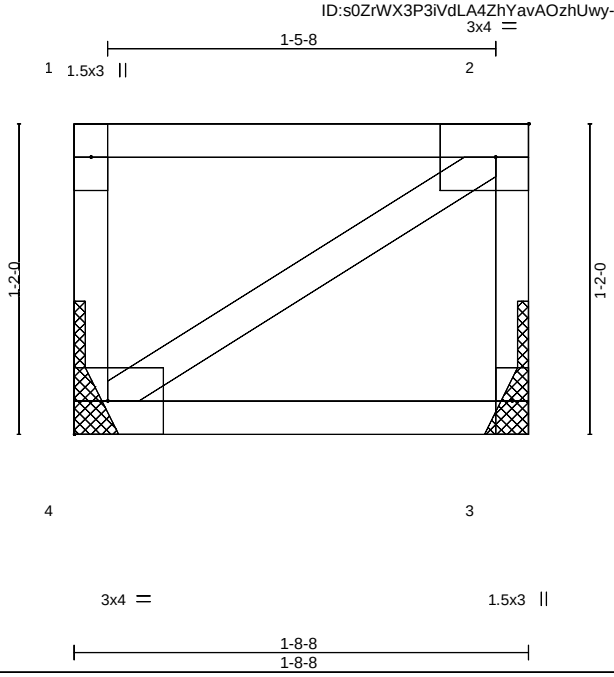

Plate Offsets (X,Y)-- [2:0-1-8,Edge]

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	0.19	Vert(LL)	0.00	4	****	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	-0.00	3-4	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 10 lb	FT = 20%F, 11%E

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-8-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 3=Mechanical
Max Grav 4=87(LC 1), 3=87(LC 1)

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

NOTES-
1) Refer to girder(s) for truss to truss connections.
2) 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.

June 22,2020

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

Job	Truss	Truss Type	Qty	Ply	McKee; Nelson
MASTER_FT	F23G	FLOOR	1	1	I45243570
					Job Reference (optional)

Builders FirstSource, Apex, NC 27523 — 8.420 s Oct 9 2020 MiTek Industries, Inc. Thu Mar 18 09:33:04 2021 Page 1

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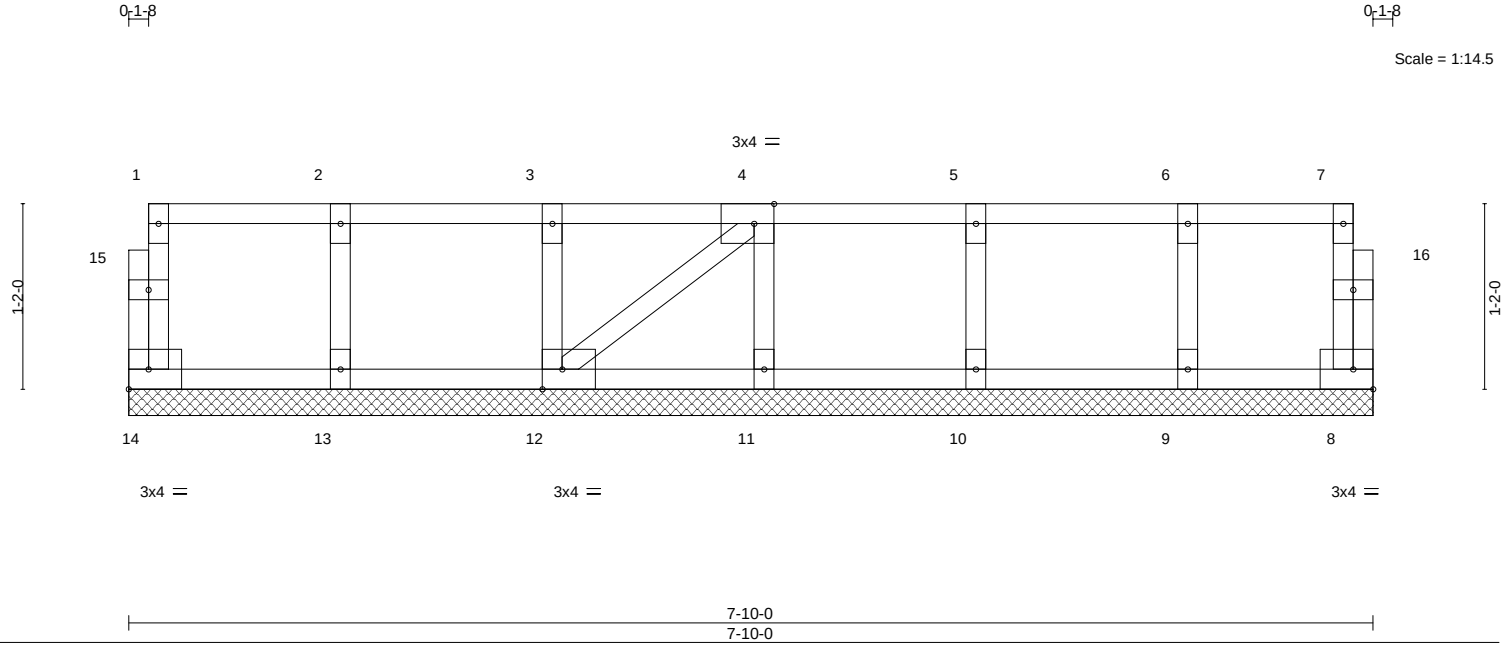


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [12:0-1-8,Edge]

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	0.09	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	NO	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 37 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP 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 7-10-0.
(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-

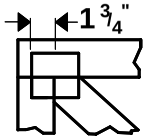
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) All bearings are assumed to be User Defined .
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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 19,2021

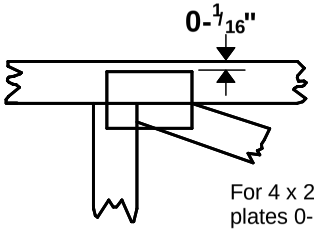
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

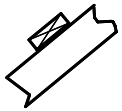
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

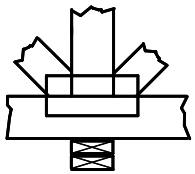
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

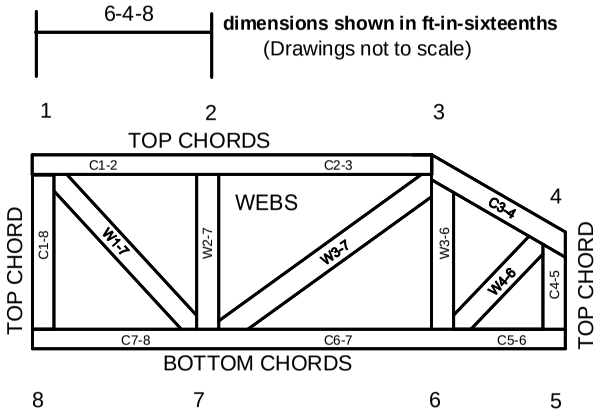


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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