ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0920-4494
Precision/Lot 40 Summerlin/Harnett

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

Pages or sheets covered by this seal: E15101717 thru E15101742

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

North Carolina COA: C-0844

November 16,2020

Gilbert, Eric

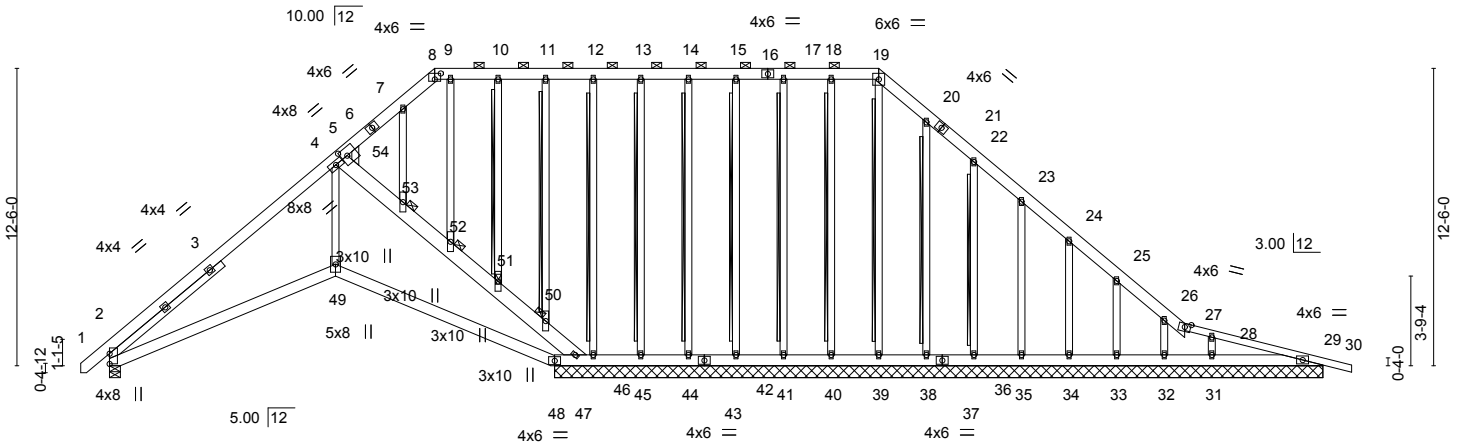
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A01-GE	GABLE	1	1	E15101717
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:51:59 2020 Page 1
ID:52SygMJAaHxrWTaExlrbuZyFiSD-Zm?DTaGOiCQ2bJwOT4nYB6DzXViMHIrD5FbwdAyIdhE

-1-2-8	9-6-0	13-8-0	23-0-0	32-4-0	38-9-2	45-2-5	51-0-0	52-2-8
1-2-8	9-6-0	4-2-0	9-4-0	9-4-0	6-5-2	6-5-2	5-9-11	1-2-8

Scale: 1/8"=1'



9-6-0	18-8-8	27-8-8	36-8-8	45-8-8	45-10-11	51-0-0
9-6-0	9-2-8	9-0-0	9-0-0	9-0-0	0-2-3	5-1-5

Plate Offsets (X,Y)-- [5:0-2-4,0-0-0], [8:0-3-0,0-3-0], [54:0-2-15,0-3-12], [54:0-0-7,0-2-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.06	48-49	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.14	2-49	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.08	29	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.05	2-49	>999	240	Weight: 538 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1 *Except* 27-30: 2x4 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 4-47: 2x8 SP No.1
OTHERS	2x4 SP No.2
SLIDER	Left 2x4 SP No.2 - 6-2-10

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 8-19.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 2-49,48-49,47-48.
WEBS	T-Brace: 2x4 SPF No.2 - 19-39, 18-40, 17-41, 15-42 , 14-44, 13-45, 12-46, 11-50, 10-51, 20-38, 22-36 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.
JOINTS	1 Brace at Jt(s): 50, 51, 52, 53

REACTIONS. All bearings 32-3-8 except (jt=length) 2=0-5-8.
(lb) - Max Horz 2=-379(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 40, 41, 42, 44, 45, 38 except 2=-176(LC 12), 29=-138(LC 9), 47=-164(LC 13), 46=-706(LC 9), 36=-123(LC 13), 35=-111(LC 13), 34=-107(LC 13), 33=-143(LC 13), 31=-124(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 39, 40, 41, 42, 44, 45, 38, 36, 35, 34, 33, 32 except 2=924(LC 1), 29=262(LC 24), 47=766(LC 3), 46=940(LC 22), 31=389(LC 24)

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

TOP CHORD	2-4=-1509/285, 4-5=-481/511, 5-7=-186/308, 7-8=-215/324, 8-9=-186/297, 9-10=-186/297, 10-11=-186/297, 11-12=-186/297, 12-13=-186/297, 13-14=-186/297, 14-15=-186/297, 15-17=-186/297, 17-18=-186/297, 18-19=-187/297, 19-20=-209/333, 20-22=-183/253, 25-26=-258/239, 27-28=-251/210, 28-29=-292/238
BOT CHORD	2-49=-387/1293, 48-49=-376/1266, 47-48=-331/1136, 46-47=-233/319, 45-46=-233/319, 44-45=-233/319, 42-44=-233/319, 41-42=-233/319, 40-41=-233/319, 39-40=-233/319, 38-39=-233/319, 36-38=-233/319, 35-36=-233/319, 34-35=-233/319, 33-34=-233/319, 32-33=-233/319, 31-32=-233/319, 29-31=-233/319
WEBS	4-49=-166/1138, 4-54=-1484/706, 53-54=-1267/466, 52-53=-1347/507, 51-52=-1395/487, 50-51=-1389/505, 47-50=-1401/522, 12-46=-367/158, 5-54=-393/428, 28-31=-267/168

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.

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NOTES-

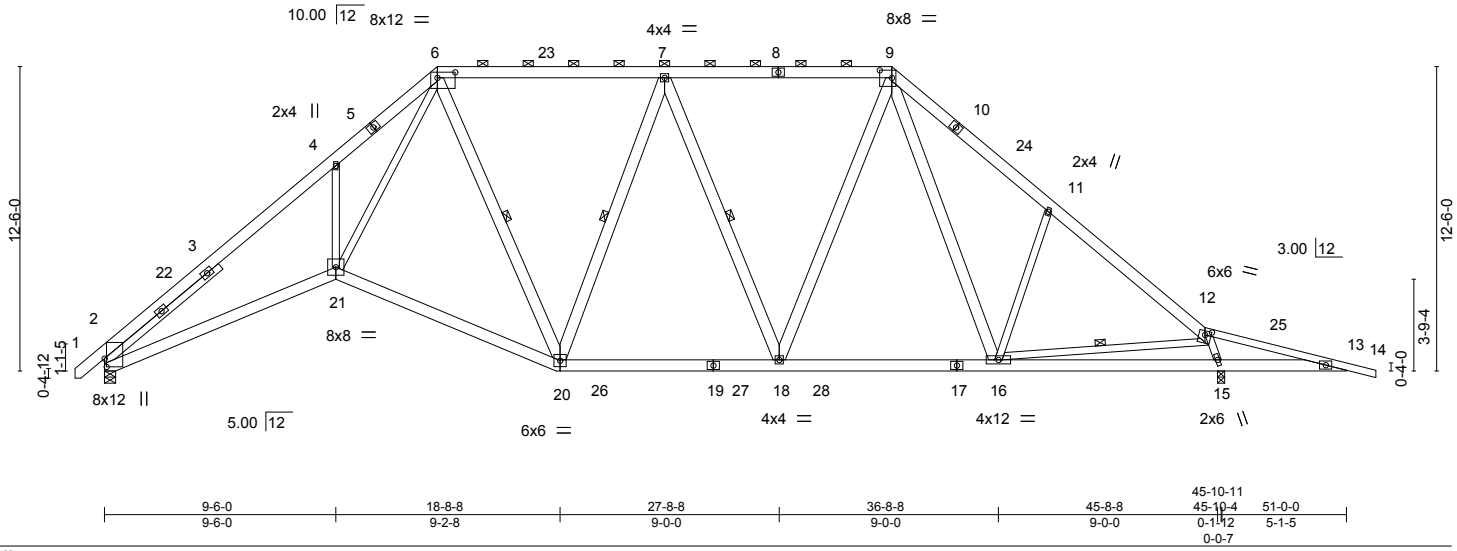
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 40, 41, 42, 44, 45, 38 except (jt=lb) 2=176, 29=138, 47=164, 46=706, 36=123, 35=111, 34=107, 33=143, 31=124.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A02	PIGGYBACK BASE	5	1	E15101718
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:01 2020 Page 1
ID:52SygMJAaHxrWTaExlrbuZyFiSD-W87_uGIfEpgmqd4naVp0HXJAaIJrl5JWYY40h3yIdhC

-1-2-8 | 9-6-0 | 13-8-0 | 23-0-0 | 32-4-0 | 38-9-2 | 45-2-5 | 51-0-0 | 52-2-8
1-2-8 | 9-6-0 | 4-2-0 | 9-4-0 | 9-4-0 | 6-5-2 | 6-5-2 | 5-9-11 | 1-2-8

Scale = 1:94.6



9-6-0 | 18-8-8 | 27-8-8 | 36-8-8 | 45-8-8 | 45-10-11 | 51-0-0
9-6-0 | 9-2-8 | 9-0-0 | 9-0-0 | 9-0-0 | 45-10-4 0-1-12 0-0-7 | 5-1-5

Plate Offsets (X,Y)-- [2:0-4-2,0-1-0], [6:0-8-12,0-2-12], [9:0-6-0,0-3-12], [12:0-3-0,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.19	18-20	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.34	20-21	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.22	15	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.09	21	>999	240	Weight: 462 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except* 12-14: 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except* 4-21,6-21,11-16,12-16,12-15: 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -x 6-2-10

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-3 oc purlins, except 2-0-0 oc purlins (5-7-2 max.): 6-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-20, 7-20, 7-18, 12-16

REACTIONS. (size) 2=0-5-8, 15=0-3-8
Max Horz 2=-297(LC 10)
Max Uplift 2=-60(LC 12), 15=-107(LC 13)
Max Grav 2=1868(LC 1), 15=2359(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3975/649, 4-6=-3719/921, 6-7=-1724/538, 7-9=-1774/525, 9-11=-2221/573, 11-12=-2317/408, 12-13=-1129/1108
BOT CHORD 2-21=-307/3220, 20-21=-115/1965, 18-20=-109/1841, 16-18=-21/1509, 15-16=-84/809, 13-15=-1048/1156
WEBS 4-21=-396/402, 6-21=-479/2565, 6-20=-304/140, 7-20=-419/210, 7-18=-438/232, 9-18=-116/785, 9-16=-137/529, 11-16=-498/319, 12-16=-890/1613, 12-15=-2377/805

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-1 to 3-3-12, Interior(1) 3-3-12 to 13-8-0, Exterior(2) 13-8-0 to 18-0-13, Interior(1) 18-0-13 to 32-4-0, Exterior(2) 32-4-0 to 36-8-12, Interior(1) 36-8-12 to 52-2-8 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 4x6 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 15=107.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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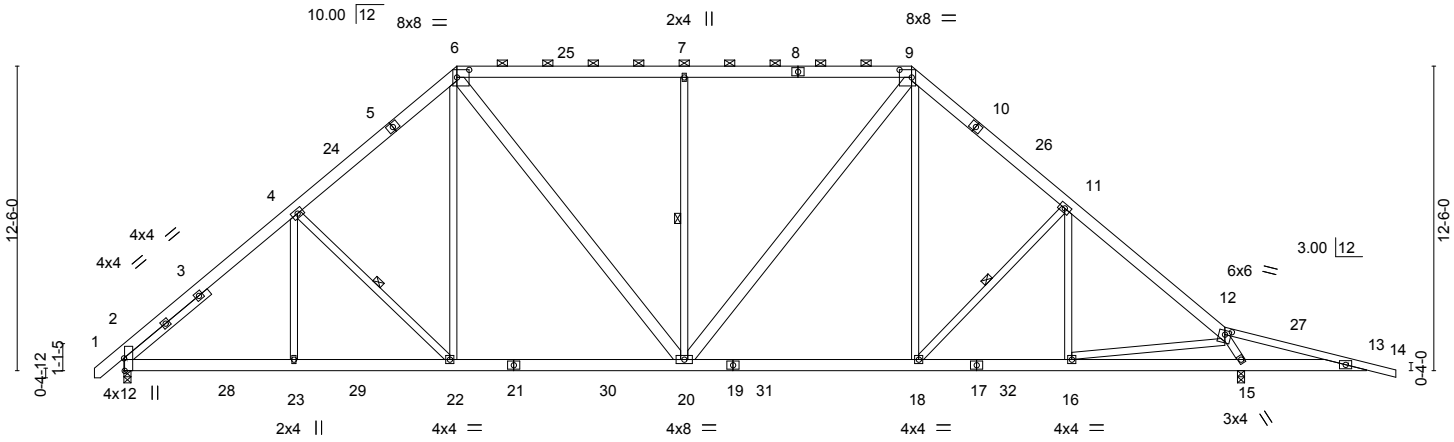
Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A03	PIGGYBACK BASE	2	1	E15101719
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:03 2020 Page 1
ID:52SygMJAaHxrWTaExlrbuZyFiSD-SXFkIyJvmRwU4wD9iwrUMyOcw60HD1Cp0sZ7mxyIdhA

-1-2-8	6-11-12	13-8-0	23-0-0	32-4-0	38-9-2	45-2-5	51-0-0	52-2-8
1-2-8	6-11-12	6-8-4	9-4-0	9-4-0	6-5-2	6-5-2	5-9-11	1-2-8

Scale = 1:94.6



6-11-12	13-8-0	23-0-0	32-4-0	38-9-2	45-2-5	46-0-0	51-0-0
6-11-12	6-8-4	9-4-0	9-4-0	6-5-2	6-5-2	0-9-11	5-0-0

Plate Offsets (X,Y)-- [2:0-6-3,Edge], [6:0-6-0,0-3-12], [9:0-6-0,0-3-12], [12:0-3-0,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.14	20-22	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.23	20-22	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.07	15	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.04	20	>999	240	Weight: 442 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1 *Except* 12-14: 2x4 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 6-20,9-20: 2x6 SP No.1
SLIDER	Left 2x4 SP No.2 -x 4-5-13

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-4-8 oc purlins, except 2-0-0 oc purlins (5-2-0 max.): 6-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-15.
WEBS	1 Row at midpt 4-22, 7-20, 11-18

REACTIONS. (size) 2=0-3-8, 15=0-3-8
Max Horz 2=-296(LC 10)
Max Uplift 2=-58(LC 12), 15=-107(LC 13)
Max Grav 2=2148(LC 2), 15=2458(LC 2)

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

TOP CHORD	2-4=-2817/509, 4-6=-2345/584, 6-7=-2056/584, 7-9=-2057/584, 9-11=-2294/543, 11-12=-2417/379, 12-13=-1007/1031
BOT CHORD	2-23=-209/2111, 22-23=-209/2111, 20-22=-56/1752, 18-20=-26/1670, 16-18=-131/1807, 15-16=0/724, 13-15=-965/1034
WEBS	4-23=0/345, 4-22=-499/240, 6-22=-72/734, 6-20=-176/605, 7-20=-628/301, 9-20=-191/694, 9-18=-40/670, 11-18=-441/184, 11-16=-204/262, 12-16=-694/1407, 12-15=-2565/807

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-1 to 3-3-12, Interior(1) 3-3-12 to 13-8-0, Exterior(2) 13-8-0 to 18-0-13, Interior(1) 18-0-13 to 32-4-0, Exterior(2) 32-4-0 to 36-8-12, Interior(1) 36-8-12 to 52-2-8 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 4x6 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 15=107.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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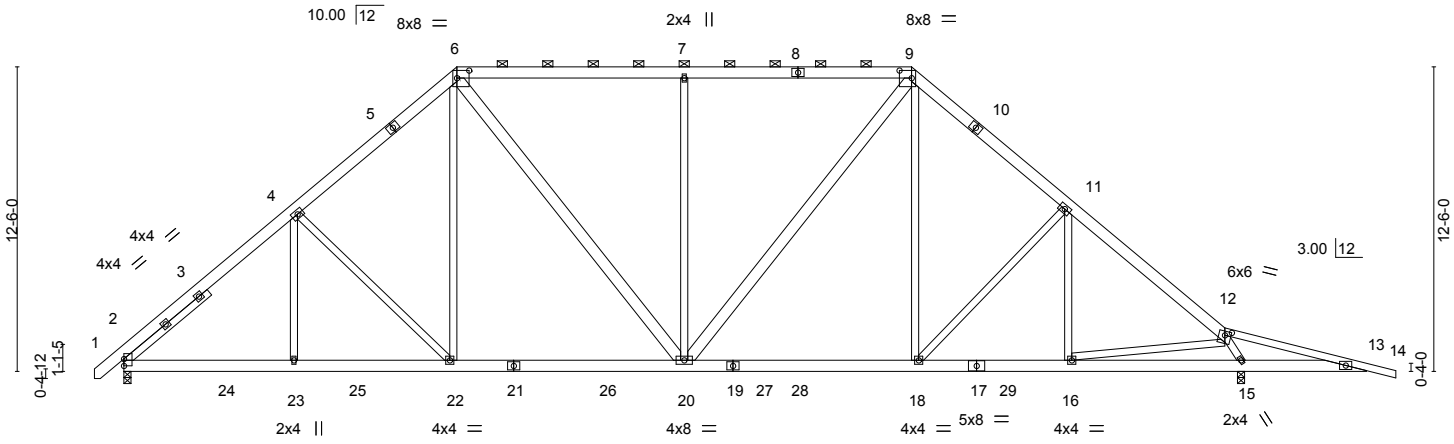
Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A04	PIGGYBACK BASE	1	2	E15101720
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:06 2020 Page 1
ID:52SygMJAaHxrWTaExlrbuZyFiSD-s6wtxzMn3MJ3xOykN3PB_b09CJxXQR5FiqonMGyIdh7

-1-2-8	6-11-12	13-8-0	23-0-0	32-4-0	38-9-2	45-2-5	51-0-0	52-2-8
1-2-8	6-11-12	6-8-4	9-4-0	9-4-0	6-5-2	6-5-2	5-9-11	1-2-8

Scale = 1:94.6



6-11-12	13-8-0	23-0-0	32-4-0	38-9-2	45-2-5	46-0-0	51-0-0
6-11-12	6-8-4	9-4-0	9-4-0	6-5-2	6-5-2	0-9-11	5-0-0

Plate Offsets (X,Y)-- [6:0-6-0,0-3-12], [9:0-6-0,0-3-12], [12:0-3-0,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.26	18-20	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.45	18-20	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.05	15	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.15	18-20	>999	240	Weight: 883 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1 *Except* 12-14: 2x4 SP No.1
BOT CHORD	2x6 SP No.1 *Except* 17-19: 2x6 SP 2400F 2.0E
WEBS	2x4 SP No.2 *Except* 6-20,9-20: 2x6 SP No.1
SLIDER	Left 2x4 SP No.2 -x 4-5-13

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-15.

REACTIONS. (size) 2=0-3-8, 15=0-3-8
Max Horz 2=-296(LC 25)
Max Uplift 2=-132(LC 8), 15=-218(LC 9)
Max Grav 2=2795(LC 2), 15=3433(LC 2)

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

TOP CHORD	2-4=-3772/188, 4-6=-3265/258, 6-7=-3373/281, 7-9=-3374/281, 9-11=-3900/323, 11-12=-3721/199, 12-13=-557/949
BOT CHORD	2-23=-212/2701, 22-23=-212/2701, 20-22=-138/2449, 18-20=-40/2891, 16-18=-31/2821, 15-16=-53/1156, 13-15=-885/574
WEBS	4-23=0/386, 4-22=-491/217, 6-22=-137/741, 6-20=-289/1587, 7-20=-611/232, 9-20=-210/850, 9-18=-142/1445, 11-18=-379/319, 11-16=-596/200, 12-16=-313/1849, 12-15=-3582/313

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are 4x6 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=132, 15=218.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

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NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1622 lb down and 193 lb up at 27-8-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-6=-60, 6-9=-60, 9-12=-60, 12-14=-60, 2-13=-20
   Concentrated Loads (lb)
   Vert: 28=-1445(B)

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A05	PIGGYBACK BASE	3	1	E15101721
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:07 2020 Page 1
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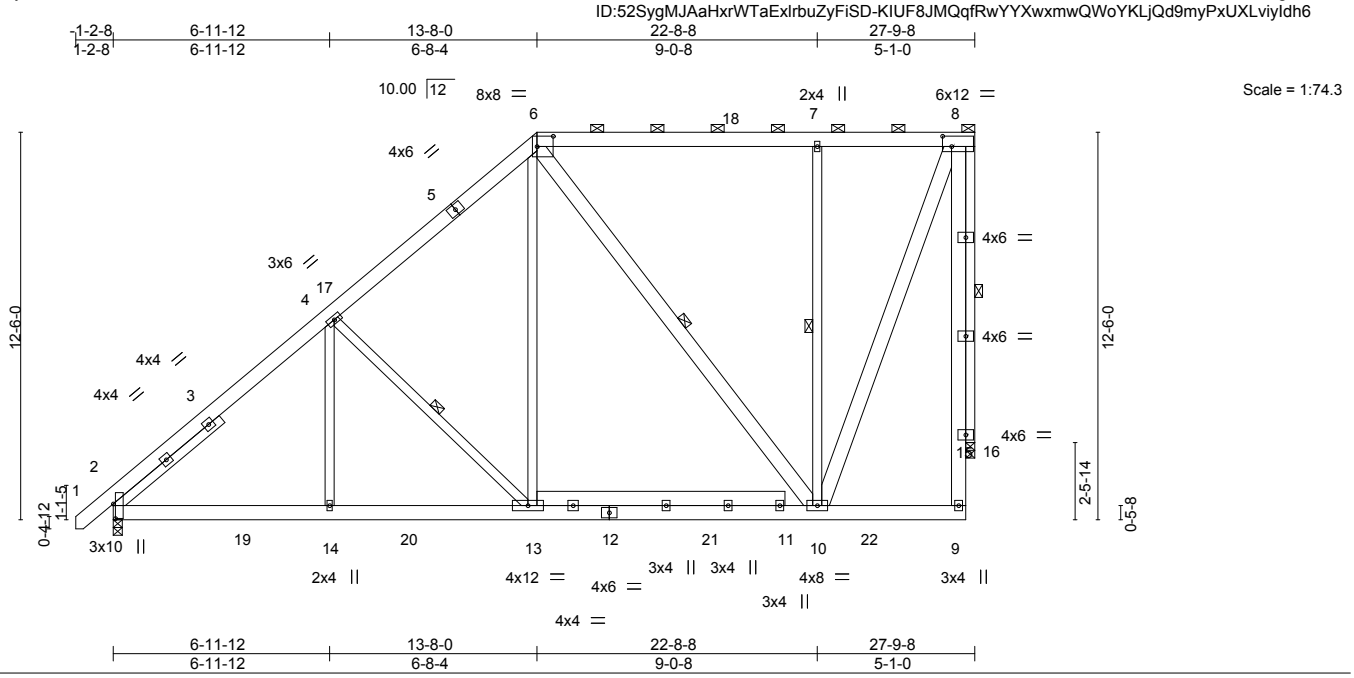

Plate Offsets (X,Y)-- [2:0-5-11,0-0-13], [6:0-6-4,0-4-0], [8:0-3-8,0-4-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.05	10-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.09	10-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.03	16	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	10-13	>999	240	Weight: 329 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
8-9,6-10,8-10: 2x6 SP No.1
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -x 4-5-13

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-13, 6-10, 7-10, 8-16

REACTIONS. (size) 2=0-3-8, 16=0-3-8
Max Horz 2=400(LC 12)
Max Uplift 2=-7(LC 12), 16=-143(LC 9)
Max Grav 2=1359(LC 19), 16=1275(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1606/165, 4-6=-1133/237, 6-7=-469/136, 7-8=-468/136
BOT CHORD 2-14=-466/1223, 13-14=-466/1223, 10-13=-275/800
WEBS 4-14=0/388, 4-13=-580/272, 6-13=-94/776, 6-10=-597/228, 7-10=-507/264, 8-10=-354/1194, 8-16=-1276/336

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-1 to 3-3-12, Interior(1) 3-3-12 to 13-8-0, Exterior(2) 13-8-0 to 19-10-11, Interior(1) 19-10-11 to 27-3-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 16=143.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A06	PIGGYBACK BASE	1	2	E15101722
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:09 2020 Page 1
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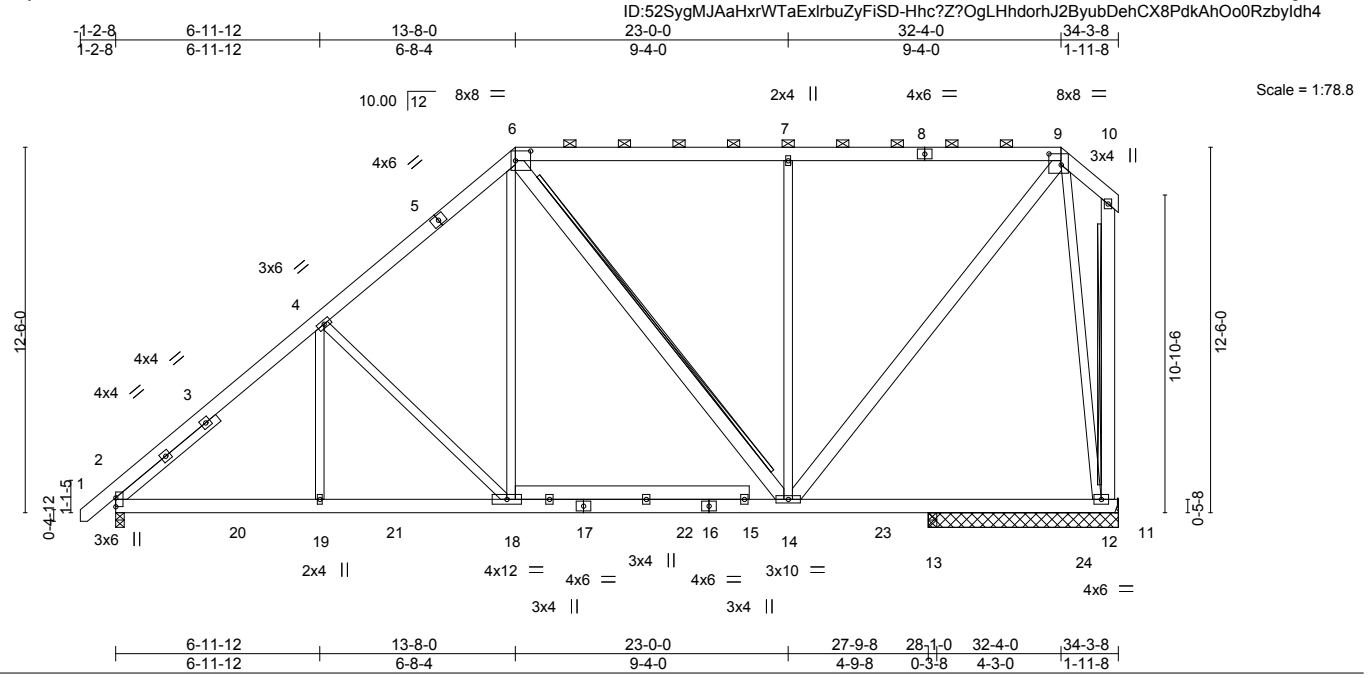

Plate Offsets (X,Y)-- [6:0-6-4,0-4-0], [9:0-5-0,0-4-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.04	14-18	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.07	14-18	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.02	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	14-18	>999	240	Weight: 736 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
6-14,9-14,10-12: 2x6 SP No.1
SLIDER Left 2x4 SP No.2 -x 4-5-13

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 10-12
2x6 SPF No.2 - 6-14
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 6-6-0 except (jt=length) 2=0-3-8, 13=0-3-8.
(lb) - Max Horz 2=371(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 2, 12 except 11=-607(LC 14), 13=-209(LC 5)
Max Grav All reactions 250 lb or less at joint(s) except 2=1563(LC 15), 12=1796(LC 2), 12=1277(LC 1), 13=2690(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1934/51, 4-6=-1479/140, 6-7=-891/139, 7-9=-892/139
BOT CHORD 2-19=-280/1450, 18-19=-280/1450, 14-18=-154/1048
WEBS 4-19=0/373, 4-18=-552/210, 6-18=-47/790, 6-14=-366/94, 7-14=-644/226, 9-14=-175/1181, 9-12=-1215/239

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12 except (jt=lb) 11=607, 13=209.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2356 lb down and 270 lb up at 27-8-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-6=-60, 6-9=-60, 9-10=-60, 2-11=-20
   Concentrated Loads (lb)
   Vert: 13=-2057(F)

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett	E15101723
J0920-4494	A07	PIGGYBACK BASE	2	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:11 2020 Page 1
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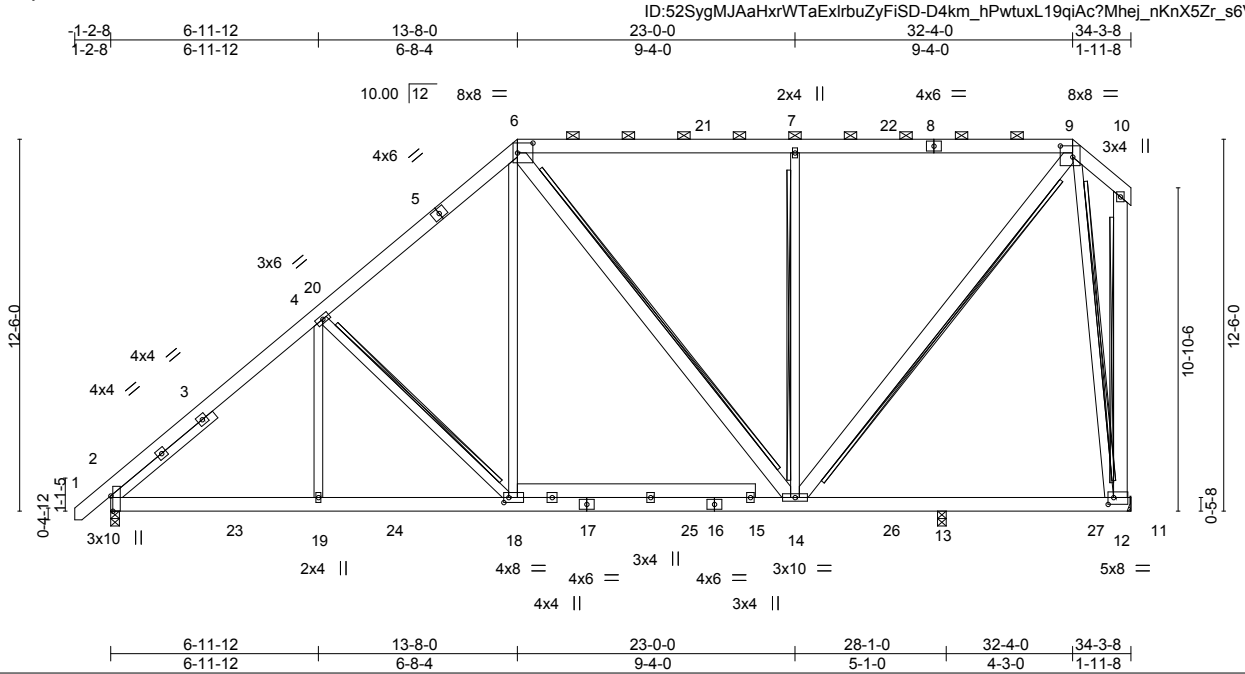

Plate Offsets (X,Y)-- [2:0-6-3,Edge], [6:0-6-4,0-4-0], [9:0-5-0,0-4-8], [12:0-2-4,0-2-12], [18:0-2-0,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.08	14-18	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.13	14-18	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.03	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	14-18	>999	240	Weight: 368 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 6-14,9-14,10-12: 2x6 SP No.1
SLIDER	Left 2x4 SP No.2 -x 4-5-13

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-7-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	T-Brace: 2x4 SPF No.2 - 4-18, 7-14, 9-14, 10-12, 9-12 2x6 SPF No.2 - 6-14 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 12=Mechanical, 13=0-3-8
Max Horz 2=371(LC 12)
Max Uplift 2=-41(LC 12), 12=-163(LC 9)
Max Grav 2=1561(LC 19), 12=1340(LC 2), 13=428(LC 18)

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

TOP CHORD	2-4=-1932/318, 4-6=-1477/394, 6-7=-888/346, 7-9=-888/347
BOT CHORD	2-19=-522/1448, 18-19=-522/1448, 14-18=-338/1046
WEBS	4-19=0/373, 4-18=-552/261, 6-18=-90/791, 6-14=-370/93, 7-14=-644/319, 9-14=-358/1172, 9-12=-1208/484

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-1 to 3-3-12, Interior(1) 3-3-12 to 13-8-0, Exterior(2) 13-8-0 to 19-10-11, Interior(1) 19-10-11 to 32-4-0, Exterior(2) 32-4-0 to 33-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 12=163.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A08	ATTIC	1	1	E15101724
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:13 2020 Page 1
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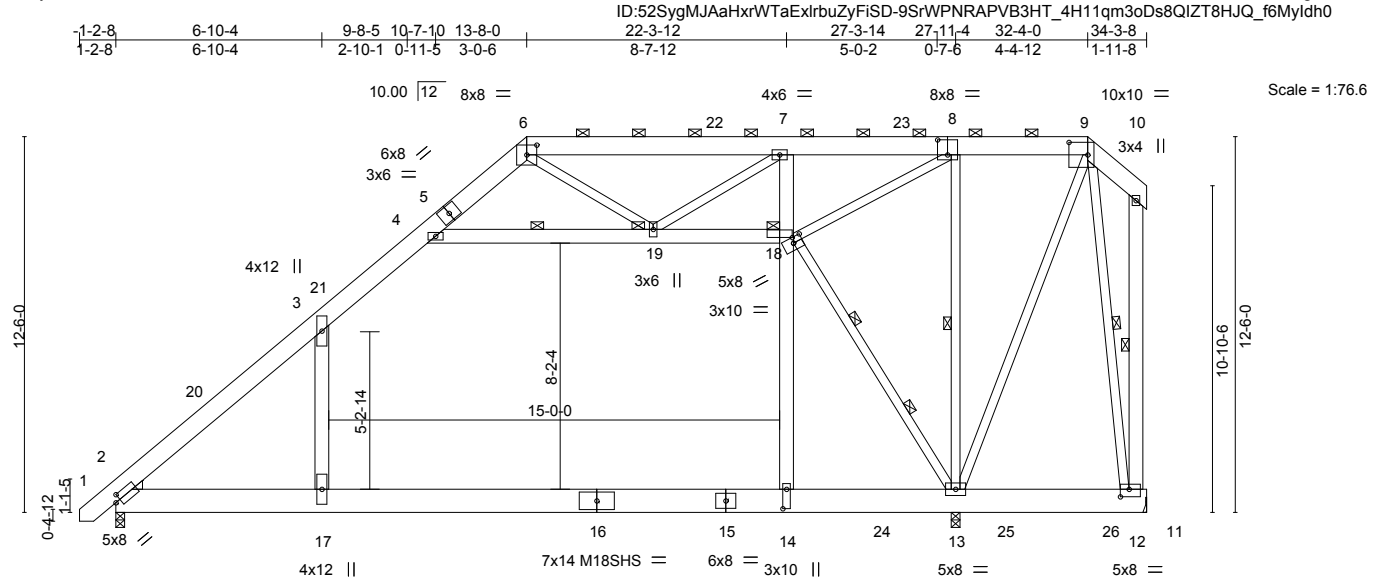

6-10-4	13-8-0	22-3-12	27-11-4	34-3-8
6-10-4	6-9-12	8-7-12	5-7-8	6-4-4

Plate Offsets (X,Y)-- [2:0-2-1,0-2-8], [6:0-4-0,0-3-15], [8:0-4-0,0-6-0], [9:0-7-8,0-5-0], [12:0-3-8,0-3-0], [14:0-7-12,0-1-8], [18:0-3-12,0-2-4], [18:0-0-8,0-2-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.33	14-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.55	14-17	>601	240	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.02	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.10	14-17	>999	240	Weight: 440 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP No.1
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
3-17,4-18,7-14,10-12: 2x6 SP No.1
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-19, 8-13, 10-12, 9-12
2 Rows at 1/3 pts 13-18
JOINTS 1 Brace at Jt(s): 18, 19

REACTIONS. (size) 2=0-3-8, 13=0-3-8, 12=Mechanical
Max Horz 2=367(LC 12)
Max Uplift 13=-1(LC 8), 12=-80(LC 12)
Max Grav 2=2017(LC 20), 13=1769(LC 27), 12=851(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2559/0, 3-4=-1766/63, 4-6=-373/154, 6-7=-253/101, 7-8=-193/304, 8-9=-312/126
BOT CHORD 2-17=-127/1763, 14-17=-127/1763, 13-14=-130/1733
WEBS 3-17=0/1039, 4-19=-1852/72, 18-19=-1899/374, 14-18=0/1861, 7-18=-700/316, 8-18=-703/364, 9-13=-110/564, 9-12=-570/176, 6-19=-32/307, 7-19=-101/321, 13-18=-2741/127

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-11 to 3-5-2, Interior(1) 3-5-2 to 13-8-0, Exterior(2) 13-8-0 to 19-10-11, Interior(1) 19-10-11 to 32-4-0, Exterior(2) 32-4-0 to 33-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Ceiling dead load (10.0 psf) on member(s). 3-4, 4-19, 18-19; Wall dead load (5.0psf) on member(s).3-17, 14-18
8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 14-17
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 12.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Attic room checked for L/360 deflection.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A09	ATTIC	3	2	E15101725
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:15 2020 Page 1
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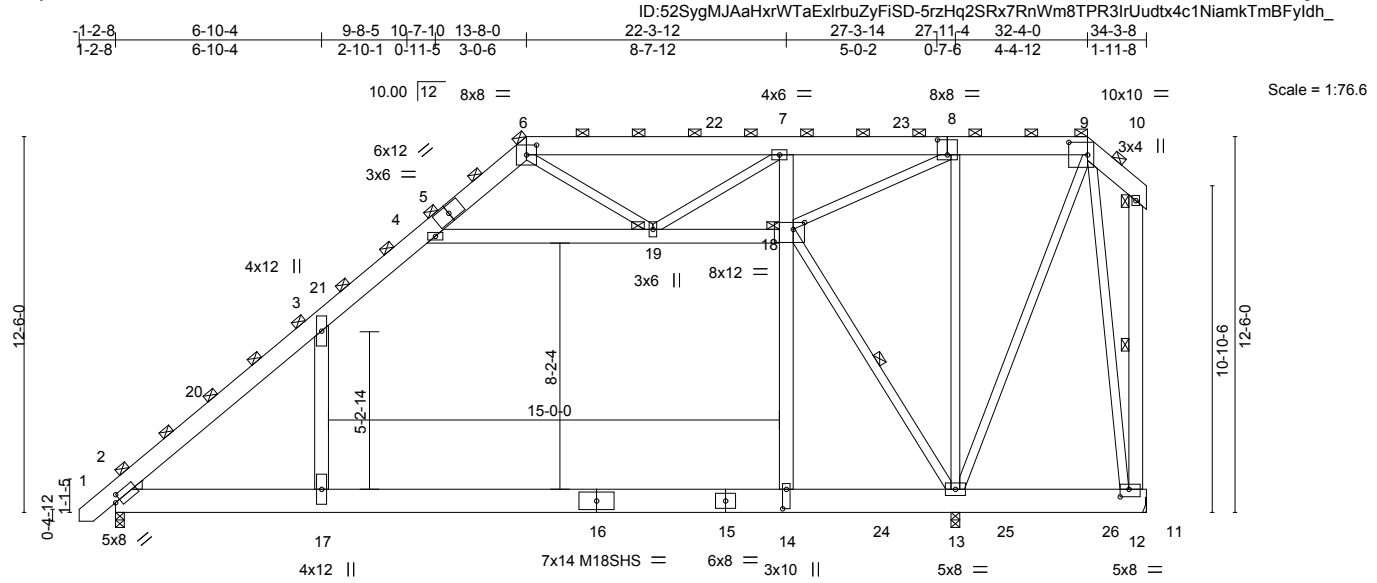


6-10-4 13-8-0 22-3-12 27-11-4 34-3-8
6-10-4 6-9-12 8-7-12 5-7-8 6-4-4

Plate Offsets (X,Y)-- [2:0-2-1,0-2-8], [6:0-4-0,0-3-15], [8:0-4-0,0-6-0], [9:0-7-8,0-5-0], [12:0-3-8,0-3-0], [14:0-7-12,0-1-8], [18:0-4-8,0-2-12]

LOADING (psf)		SPACING- 4-3-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.33	14-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.55	14-17	>602	240	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.94	Horz(CT)	0.02	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.10	14-17	>999	240	Weight: 881 lb	FT = 20%

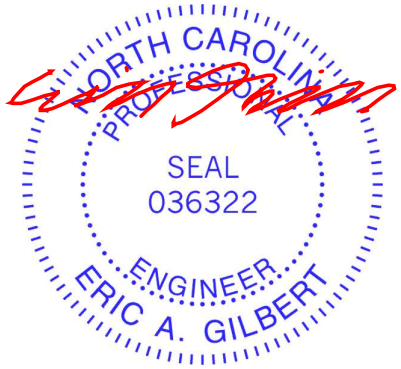
LUMBER-
TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
3-17,4-18,7-14,10-12: 2x6 SP No.1, 13-18: 2x4 SP No.1
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 10-12, 13-18
JOINTS 1 Brace at Jt(s): 6, 9, 18, 10, 19

REACTIONS. (size) 2=0-3-8, 13=0-3-8, 12=Mechanical
Max Horz 2=781(LC 12)
Max Uplift 13=-50(LC 8), 12=-170(LC 12)
Max Grav 2=4318(LC 20), 13=3629(LC 27), 12=1953(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5521/0, 3-4=-3799/134, 4-6=-809/320, 6-7=-556/200, 7-8=-430/890, 8-9=-719/273, 10-12=-257/114
BOT CHORD 2-17=-268/3802, 14-17=-268/3802, 13-14=-266/3788
WEBS 3-17=0/2279, 4-19=-3979/142, 18-19=-4480/844, 14-18=0/3910, 7-18=-1701/716, 8-18=-1787/781, 8-13=-450/534, 9-13=-243/1355, 9-12=-1322/382, 6-19=-42/655, 7-19=-299/1090, 13-18=-5929/242

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-11 to 3-5-2, Interior(1) 3-5-2 to 13-8-0, Exterior(2) 13-8-0 to 19-10-11, Interior(1) 19-10-11 to 32-4-0, Exterior(2) 32-4-0 to 33-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Ceiling dead load (10.0 psf) on member(s). 3-4, 4-19, 18-19; Wall dead load (5.0psf) on member(s).3-17, 14-18
10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 14-17
11) Refer to girder(s) for truss to truss connections.



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NOTES-

12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 12=170.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Attic room checked for L/360 deflection.

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A09-A	ATTIC	1	2	E15101726
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:17 2020 Page 1
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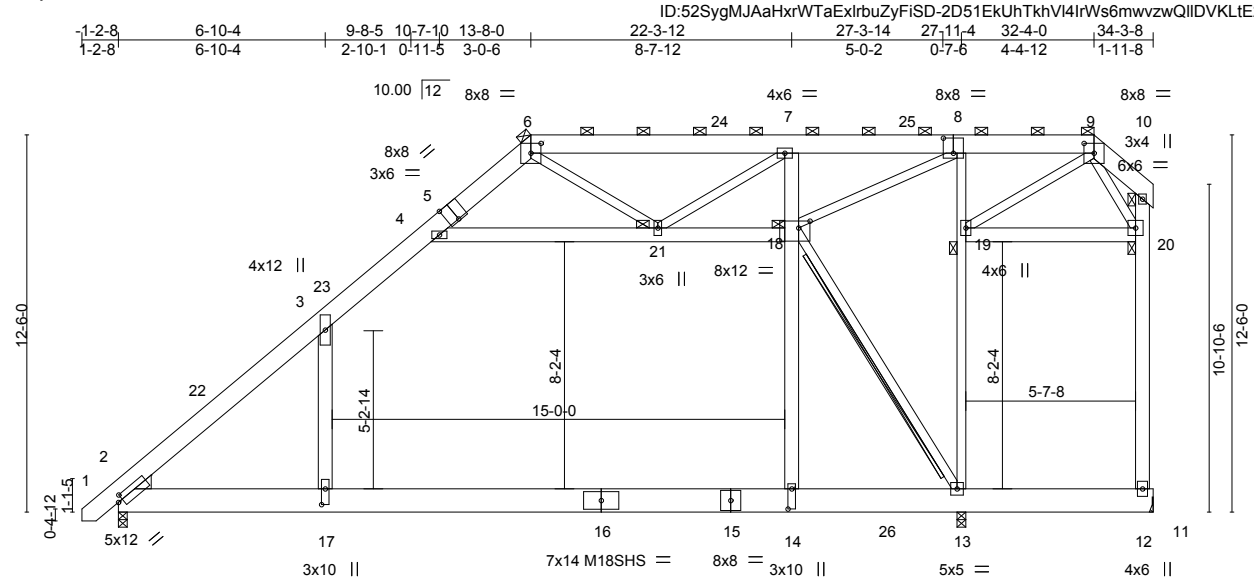

Plate Offsets (X,Y)-- [2:0-2-0,0-2-4], [5:0-4-0,Edge], [6:0-4-0,0-3-15], [8:0-4-0,0-6-0], [9:0-4-0,0-3-15], [14:0-8-0,0-1-8], [17:0-6-4,0-1-8], [18:0-4-8,0-2-12]

LOADING (psf)		SPACING- 5-1-8		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.39	14-17	>847	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.66	14-17	>502	240	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.02	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.12	14-17	>999	240	Weight: 863 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
3-17,4-18,7-14,10-12,19-20: 2x6 SP No.1, 13-18: 2x4 SP 2400F 2.0E
WEDGE
Left: 2x6 SP No.2

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x6 SPF No.2 - 13-18
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.
JOINTS 1 Brace at Jt(s): 6, 9, 18, 19, 10, 20, 21

REACTIONS. (size) 2=0-3-8, 13=0-3-8, 12=Mechanical
Max Horz 2=941(LC 12)
Max Grav 2=4886(LC 20), 13=6465(LC 2), 12=1446(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6241/0, 3-4=-4150/0, 4-6=-758/550, 6-7=-845/1106, 7-8=-1541/2847, 8-9=-346/256, 9-10=-297/432, 12-20=-619/24, 10-20=-287/330
BOT CHORD 2-17=-827/4206, 14-17=-827/4206, 13-14=-821/4188, 12-13=-330/316
WEBS 3-17=0/2727, 4-21=-4771/101, 18-21=-6277/1709, 14-18=0/4707, 7-18=-2337/1174, 8-18=-2871/1323, 13-19=-854/754, 8-19=-390/990, 9-19=-542/644, 9-20=-465/181, 6-21=-746/1085, 7-21=-867/2181, 13-18=-7879/932, 19-20=-537/457

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-11 to 3-5-2, Interior(1) 3-5-2 to 13-8-0, Exterior(2) 13-8-0 to 19-10-11, Interior(1) 19-10-11 to 32-4-0, Exterior(2) 32-4-0 to 33-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Ceiling dead load (10.0 psf) on member(s). 3-4, 4-21, 18-21, 19-20; Wall dead load (5.0psf) on member(s).3-17, 14-18, 13-19
10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 14-17, 12-13
11) Refer to girder(s) for truss to truss connections.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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NOTES-

13) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
14) Attic room checked for L/360 deflection.

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A10-GE	ATTIC	1	1	E15101727
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:18 2020 Page 1
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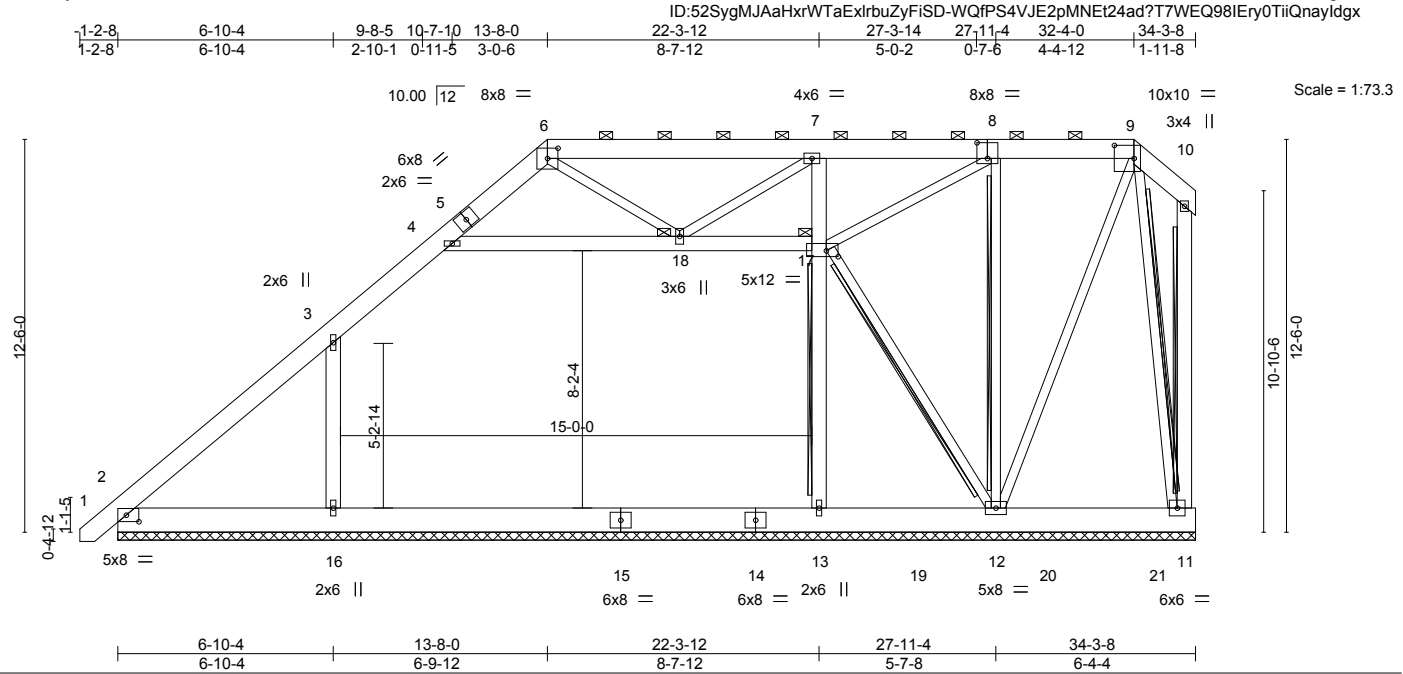

Plate Offsets (X,Y)-- [2:0-4-12,0-2-8], [6:0-4-0,0-3-15], [8:0-4-0,0-6-0], [9:0-7-8,0-5-0], [17:0-4-8,0-2-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.01	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 440 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x4 SP No.2 *Except*
3-16,4-17,7-13,10-11: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 13-17, 8-12, 10-11, 9-11, 12-17
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.
JOINTS 1 Brace at Jt(s): 17, 18

REACTIONS. All bearings 34-3-8.
(lb) - Max Horz 2=533(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 13, 11 except 16=-253(LC 12), 12=-227(LC 9)
Max Grav All reactions 250 lb or less at joint(s) except 2=607(LC 24), 16=1378(LC 20), 13=1295(LC 27), 12=698(LC 1), 11=410(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-697/25, 3-4=-750/140, 4-6=-514/172
BOT CHORD 2-16=-172/426, 13-16=-172/426, 12-13=-173/429
WEBS 3-16=-734/385, 17-18=-596/232, 13-17=-480/260, 7-17=-777/327, 8-17=-303/115, 7-18=-43/483, 12-17=-694/271

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Ceiling dead load (10.0 psf) on member(s). 3-4, 4-18, 17-18; Wall dead load (5.0psf) on member(s).3-16, 13-17
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 11 except (jt=lb) 16=253, 12=227.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
11) Attic room checked for L/360 deflection.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	A11	Flat	1	2	E15101728
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:20 2020 Page 1
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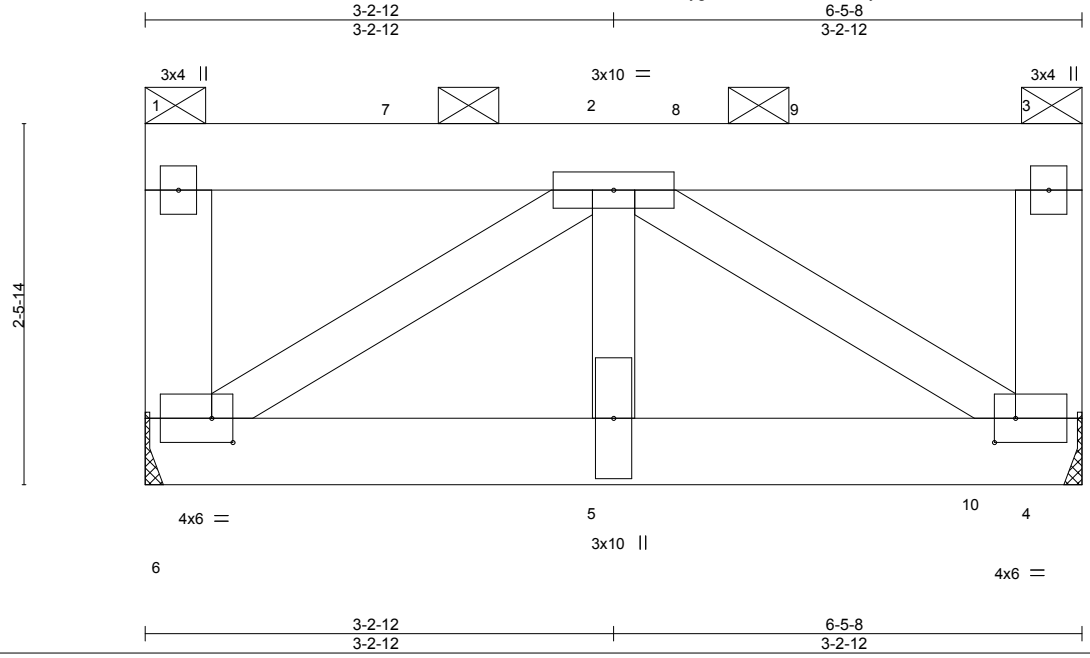

Plate Offsets (X,Y)-- [4:0-1-12,0-2-0], [6:0-1-12,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.01	4-5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.01	5	>999	240	Weight: 98 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
1-6,3-4: 2x6 SP No.1

BRACING-
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 4=Mechanical
Max Uplift 6=-175(LC 8), 4=-271(LC 8)
Max Grav 6=1692(LC 2), 4=2438(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-491/101
BOT CHORD 5-6=-227/1711, 4-5=-227/1711
WEBS 2-4=-2066/274, 2-6=-2066/274

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 6-2-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=175, 4=271.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1225 lb down and 180 lb up at 1-9-12, and 1225 lb down and 180 lb up at 3-9-12 on top chord, and 1261 lb down and 157 lb up at 5-9-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-60, 4-6=-20

Concentrated Loads (lb)

Vert: 7=-1015 8=-1015 10=-1061

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	B1-GE	GABLE	1	1	E15101729
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:21 2020 Page 1
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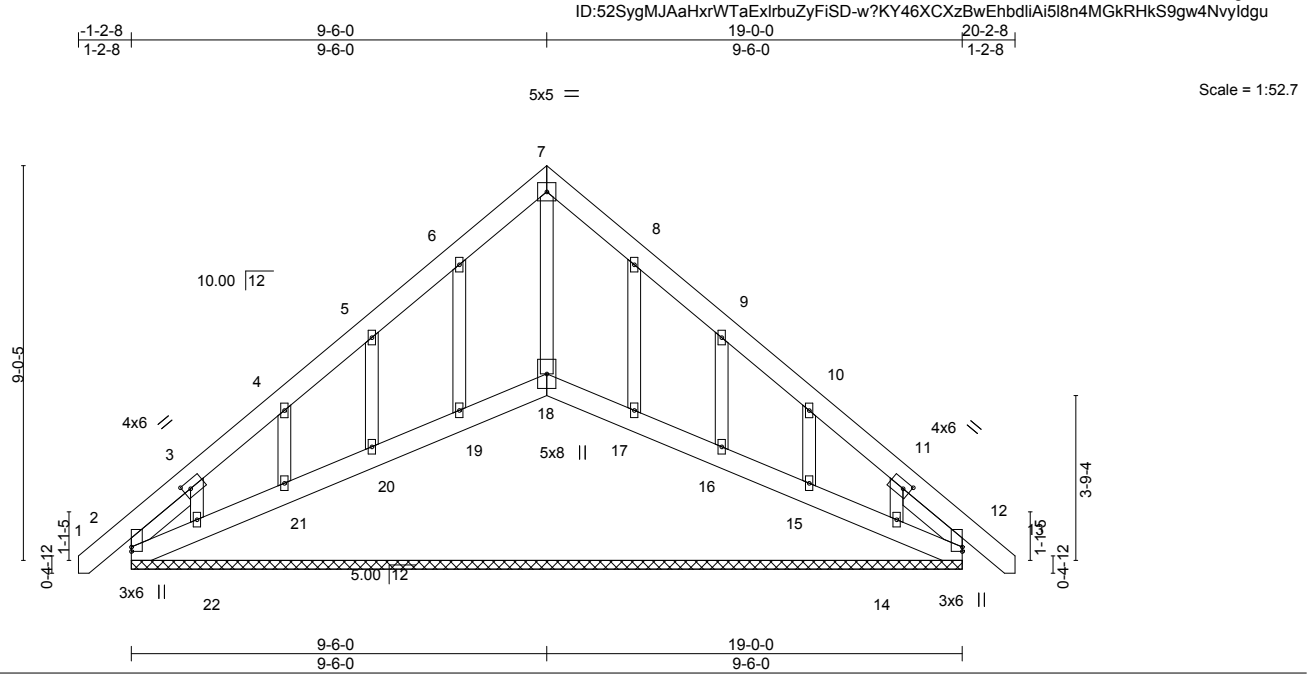

Plate Offsets (X,Y)-- [3:0-2-0,0-2-0], [11:0-2-0,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	13	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 154 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -x 1-10-12, Right 2x4 SP No.2 -x 1-10-12

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

REACTIONS. All bearings 19-0-0.
(lb) - Max Horz 2=-264(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 18, 12, 19, 17 except 2=-213(LC 8), 20=-117(LC 12), 21=-117(LC 12), 22=-215(LC 12), 16=-120(LC 13), 15=-115(LC 13), 14=-188(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 12, 19, 20, 21, 22, 17, 16, 15, 14 except 2=300(LC 20), 18=405(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-340/258, 11-12=-259/177

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 12, 19, 17 except (jt=lb) 2=213, 20=117, 21=117, 22=215, 16=120, 15=115, 14=188.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 18, 19, 20, 21, 22, 17, 16, 15, 14.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	B2	SCISSORS	3	1	E15101730
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:21 2020 Page 1
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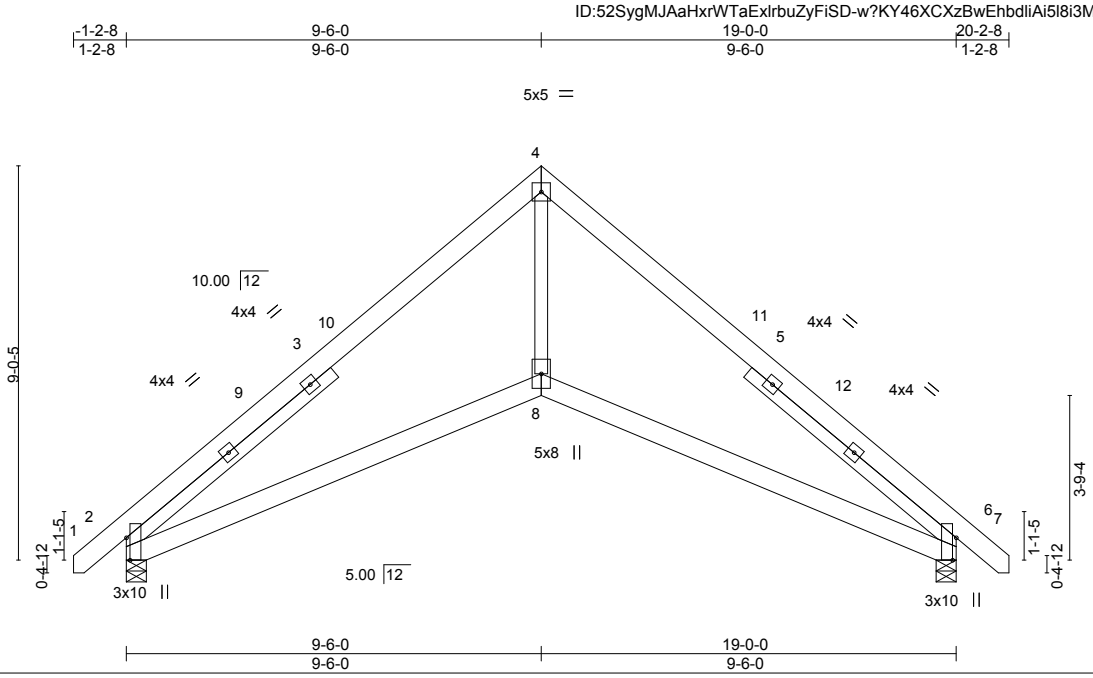

Plate Offsets (X,Y)-- [2:0-6-3,Edge], [6:0-6-3,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.06	6-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.13	6-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	-0.04	8	>999	240	Weight: 140 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -x 6-2-10, Right 2x4 SP No.2 -x 6-2-10

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

REACTIONS. (size) 2=0-5-8, 6=0-5-8
Max Horz 2=-212(LC 10)
Max Uplift 2=-46(LC 12), 6=-46(LC 13)
Max Grav 2=822(LC 1), 6=822(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1228/128, 4-6=-1228/123
BOT CHORD 2-8=0/957, 6-8=0/952
WEBS 4-8=0/912

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-1 to 3-3-12, Interior(1) 3-3-12 to 9-6-0, Exterior(2) 9-6-0 to 13-10-13, Interior(1) 13-10-13 to 20-1-1 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.

November 16,2020

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	C1-GE	ATTIC	1	1	E15101731
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:22 2020 Page 1
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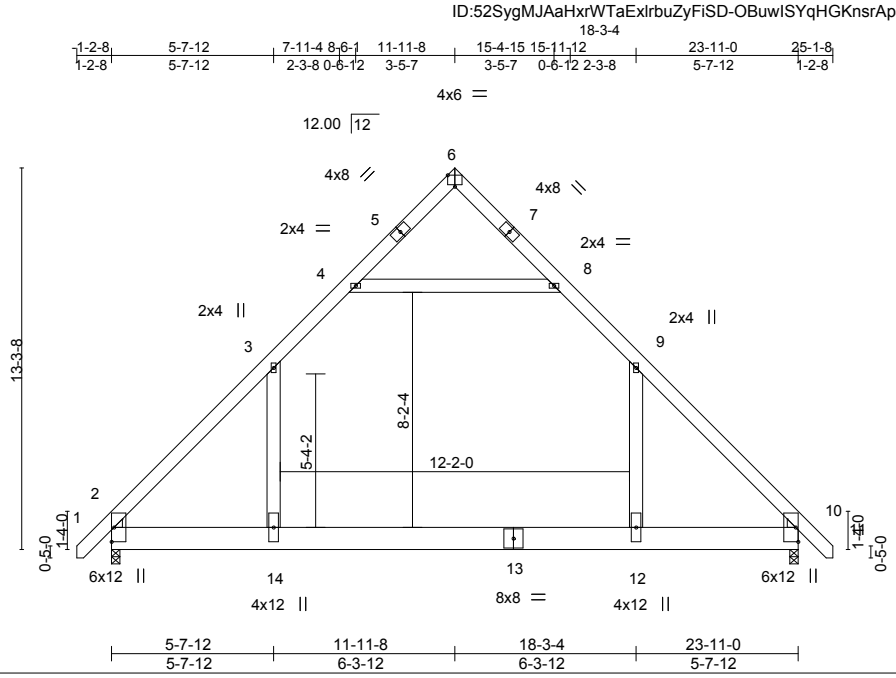

Scale = 1:80.3

Plate Offsets (X,Y)-- [2:0-1-1,0-3-6], [2:0-0-8,0-0-8], [6:0-3-0,Edge], [10:0-0-8,0-0-8], [10:0-1-1,0-3-6]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.28	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.48	12-14	>593	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.13	12-14	>999	240	Weight: 227 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
1-5,7-11: 2x6 SP 2400F 2.0E
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-11-2 oc bracing.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-391(LC 10)
Max Grav 2=1601(LC 20), 10=1601(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2166/4, 3-4=-1166/186, 8-9=-1165/186, 9-10=-2165/3
BOT CHORD 2-14=0/1268, 12-14=0/1268, 10-12=0/1268
WEBS 9-12=0/1051, 3-14=0/1051, 4-8=-1360/239

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Ceiling dead load (10.0 psf) on member(s). 3-4, 8-9, 4-8; Wall dead load (5.0psf) on member(s).9-12, 3-14
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
7) Attic room checked for L/360 deflection.

November 16,2020

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	C2	ATTIC	3	1	E15101732
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:23 2020 Page 1
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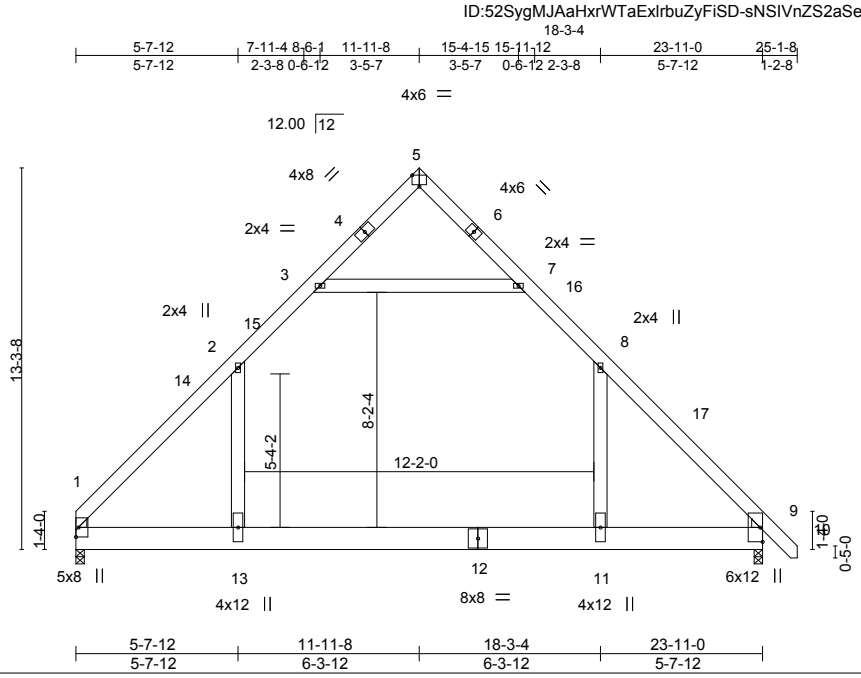

Scale = 1:80.3

Plate Offsets (X,Y)-- [1:0-1-1,0-3-6], [1:0-0-8,0-0-8], [5:0-3-0,Edge], [9:0-0-8,0-0-8], [9:0-1-1,0-3-6]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.30	11-13	>936	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.52	11-13	>544	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.10	11-13	>999	240	Weight: 224 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
6-10: 2x6 SP 2400F 2.0E
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 8-2-13 oc bracing.

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=-309(LC 8)
Max Grav 1=1549(LC 21), 9=1608(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2094/0, 2-3=-1164/148, 7-8=-1152/141, 8-9=-2143/0
BOT CHORD 1-13=0/1237, 11-13=0/1237, 9-11=0/1237
WEBS 8-11=0/1061, 2-13=0/984, 3-7=-1374/163

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 11-11-8, Exterior(2) 11-11-8 to 16-4-5, Interior(1) 16-4-5 to 25-0-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Ceiling dead load (10.0 psf) on member(s). 2-3, 7-8, 3-7; Wall dead load (5.0psf) on member(s).8-11, 2-13
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
7) Attic room checked for L/360 deflection.

November 16,2020

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	C3	ATTIC	6	1	E15101733
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:24 2020 Page 1
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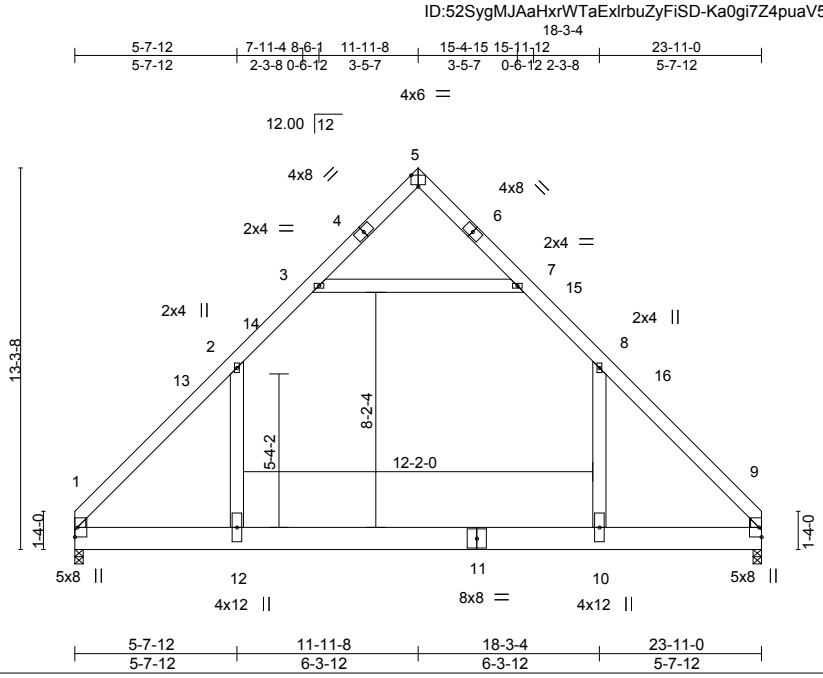

Scale = 1:80.3

Plate Offsets (X,Y)-- [1:0-1-1,0-3-6], [1:0-0-8,0-0-8], [5:0-3-0,Edge], [9:0-0-8,0-0-8], [9:0-1-1,0-3-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.33	10-12	>869	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.56	10-12	>502	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.11	10-12	>999	240	Weight: 220 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 7-6-8 oc bracing.

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=302(LC 9)
Max Grav 1=1551(LC 21), 9=1551(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2096/0, 2-3=-1155/148, 7-8=-1154/148, 8-9=-2095/0
BOT CHORD 1-12=0/1226, 10-12=0/1226, 9-10=0/1226
WEBS 8-10=0/994, 2-12=0/994, 3-7=-1375/166

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 11-11-8, Exterior(2) 11-11-8 to 16-4-5, Interior(1) 16-4-5 to 23-9-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Ceiling dead load (10.0 psf) on member(s). 2-3, 7-8, 3-7; Wall dead load (5.0psf) on member(s).8-10, 2-12
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 10-12
7) Attic room checked for L/360 deflection.

November 16,2020

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	C4	ATTIC GIRDER	1	2	E15101734
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:26 2020 Page 1
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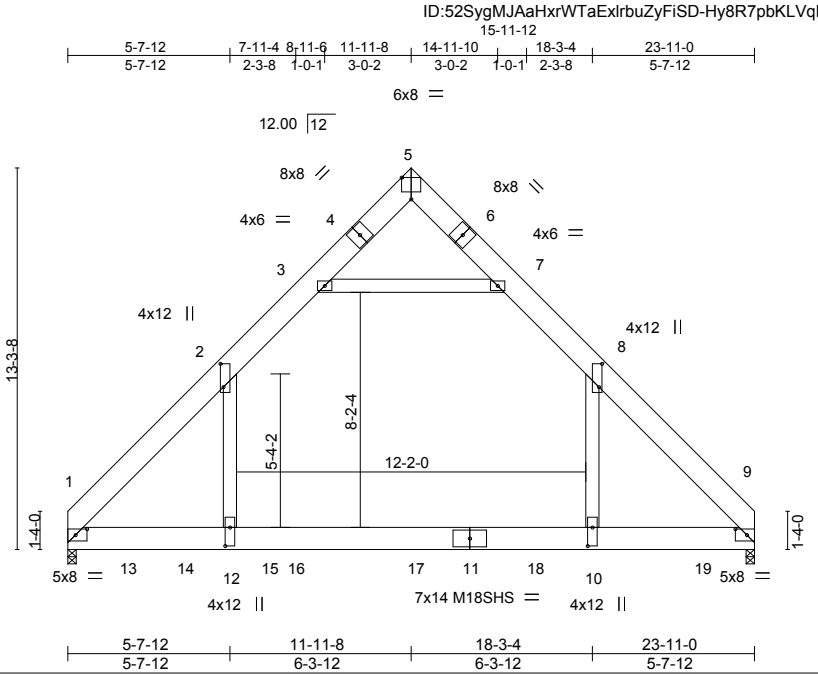

Scale = 1:80.3

Plate Offsets (X,Y)-- [1:0-4-13,0-2-8], [2:0-9-12,0-1-4], [5:0-4-0,Edge], [8:0-9-12,0-1-4], [9:0-4-13,0-2-8], [10:0-7-12,0-2-0], [12:0-7-12,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.28	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.52	10-12	>544	240	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.17	10-12	>999	240	Weight: 546 lb	FT = 20%

LUMBER-
TOP CHORD 2x10 SP 2400F 2.0E
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x6 SP No.1

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

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=-296(LC 24)
Max Uplift 1=-326(LC 9)
Max Grav 1=6904(LC 2), 9=5926(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-7702/124, 2-3=-3309/82, 3-5=-131/1512, 5-7=-33/1253, 7-8=-3568/181, 8-9=-7405/6
BOT CHORD 1-12=0/4375, 10-12=0/4418, 9-10=0/4381
WEBS 8-10=0/5178, 2-12=-234/5952, 3-7=-6311/204

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-6-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Ceiling dead load (10.0 psf) on member(s). 2-3, 7-8, 3-7; Wall dead load (5.0psf) on member(s).8-10, 2-12
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 10-12
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=326.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1320 lb down and 183 lb up at 2-0-12, 1320 lb down and 183 lb up at 4-0-12, 747 lb down and 100 lb up at 6-0-12, 1678 lb down and 217 lb up at 7-11-0, 1678 lb down and 217 lb up at 12-1-0, and 1370 lb down at 16-3-0, and 1682 lb down and 213 lb up at 22-1-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) Attic room checked for L/360 deflection.

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LOAD CASE(S) Standard

Continued on page 2

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LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-3=-80, 3-5=-60, 5-7=-60, 7-8=-80, 8-9=-60, 1-12=-20, 10-12=-40, 9-10=-20, 3-7=-20
   Drag: 8-10=-10, 2-12=-10
   Concentrated Loads (lb)
   Vert: 13=-1222(B) 14=-1222(B) 15=-607(B) 16=-1371(B) 17=-1371(B) 18=-945(B) 19=-1375(B)

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	M1	ROOF SPECIAL	3	1	E15101735
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:26 2020 Page 1
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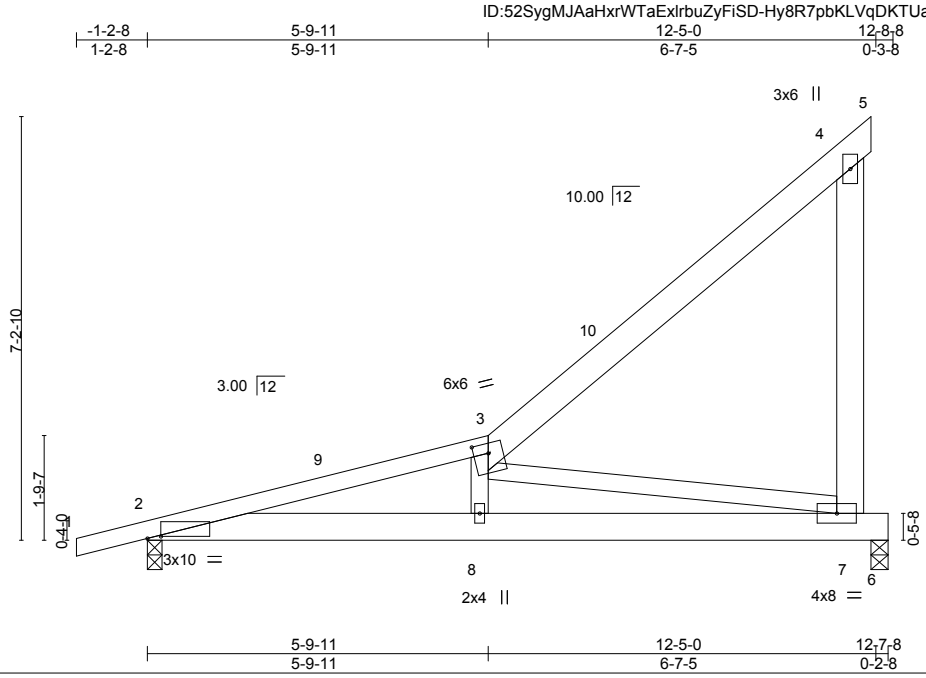

Plate Offsets (X,Y)-- [2:0-2-12,0-0-7], [3:0-3-0,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.04	8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.09	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.09	7-8	>999	240	Weight: 86 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1 *Except*
3-5: 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
4-7: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-2-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-1-3 oc bracing.

REACTIONS. (size) 2=0-3-0, 6=0-3-8
Max Horz 2=225(LC 12)
Max Uplift 2=-182(LC 8), 6=-178(LC 9)
Max Grav 2=578(LC 1), 6=481(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1260/945, 4-7=-259/190
BOT CHORD 2-8=-1158/1186, 7-8=-1119/1170
WEBS 3-8=-353/280, 3-7=-1151/1093

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 12-4-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=182, 6=178.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	PB1	GABLE	2	1	E15101736
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:28 2020 Page 1
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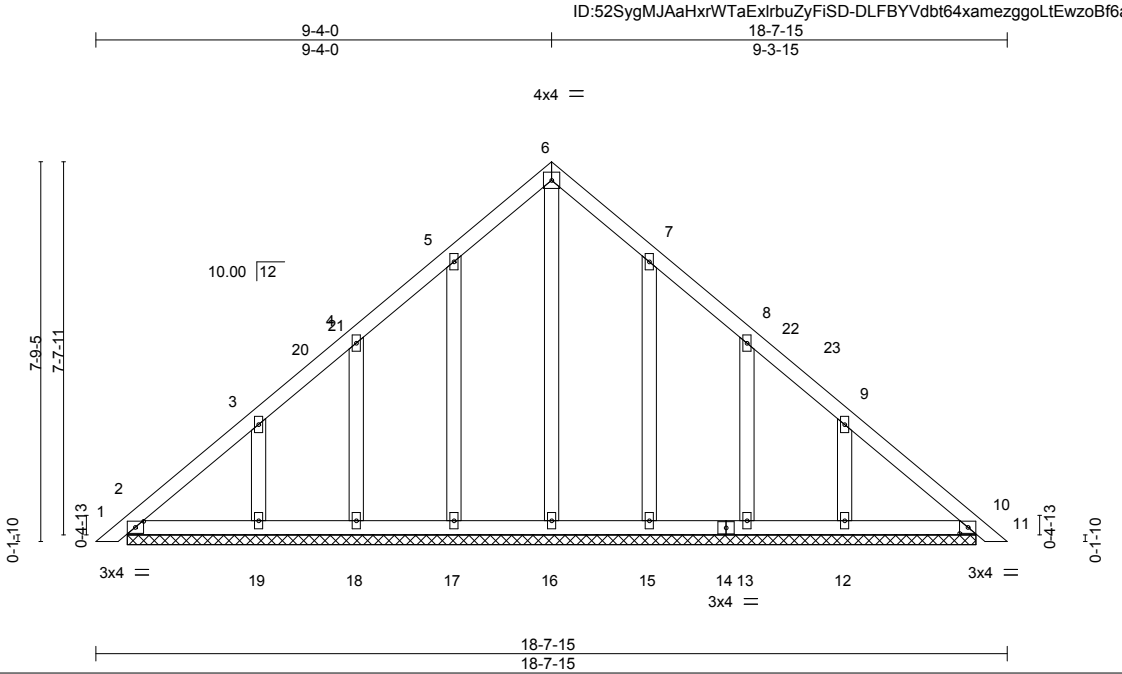

Plate Offsets (X,Y)-- [2:0-2-1,0-1-8], [7:0-0-0,0-0-0], [8:0-0-0,0-0-0], [9:0-0-0,0-0-0], [10:0-2-1,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	10	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 106 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 17-4-8.
(lb) - Max Horz 2=-182(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 17, 18, 19, 15, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 16, 17, 18, 10, 19, 15, 13, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 9-4-0, Exterior(2) 9-4-0 to 13-8-12, Interior(1) 13-8-12 to 18-5-3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 17, 18, 19, 15, 13, 12.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

November 16,2020

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

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	PB2	PIGGYBACK	12	1	E15101737
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:29 2020 Page 1
ID:52SygMJAaHxrWTaExlrbuZyFiSD-hXpZmrdDeQCoBwD9DOJaPRT5maw8JtTe?vsVfRyIdgm

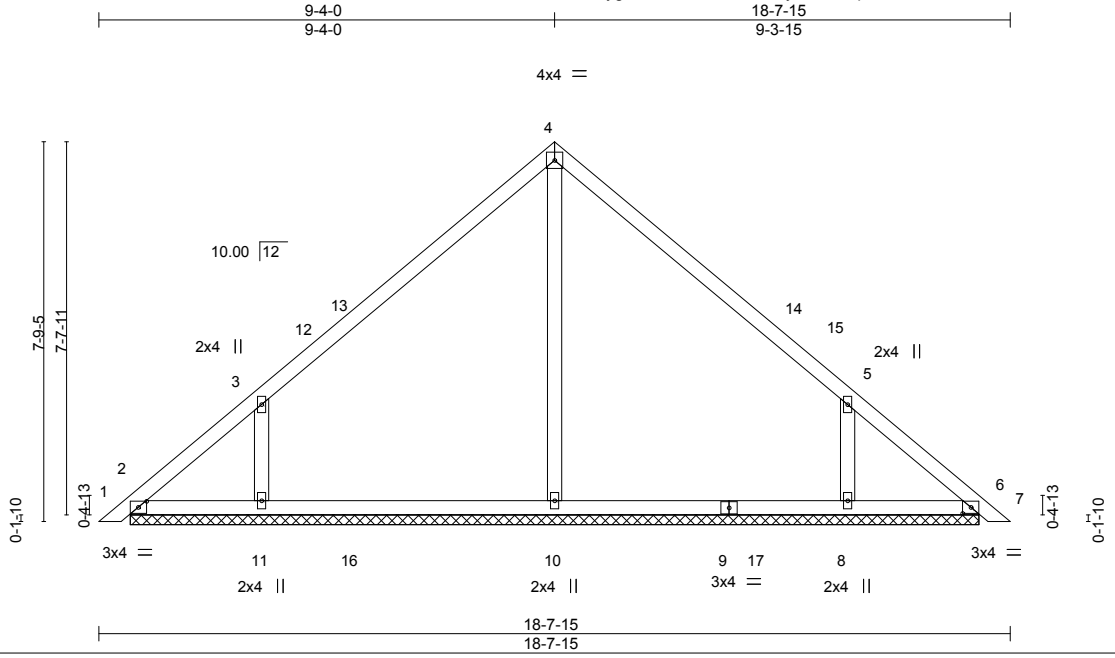

Plate Offsets (X,Y)-- [2:0-2-1,0-1-8], [5:0-0-0,0-0-0], [6:0-2-1,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.00	7	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.00	7	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 79 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 17-4-8.
(lb) - Max Horz 2=-182(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 11=-187(LC 12), 8=-187(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 6 except 10=624(LC 19), 11=558(LC 19), 8=557(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-11=-463/320, 5-8=-463/320

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 9-4-0, Exterior(2) 9-4-0 to 13-8-12, Interior(1) 13-8-12 to 18-5-3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 11=187, 8=187.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

November 16,2020

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	PB3	PIGGYBACK	3	1	E15101738
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:30 2020 Page 1
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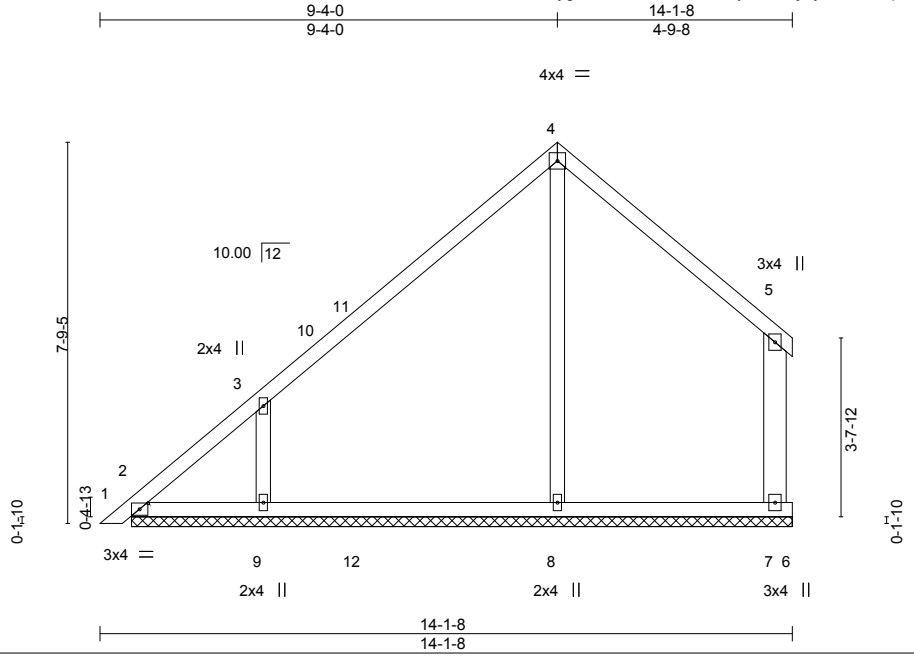

Plate Offsets (X,Y)-- [2:0-2-1,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 69 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x6 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 13-5-12.
(lb) - Max Horz 2=176(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 7, 2 except 9=-187(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 2 except 7=306(LC 20), 8=647(LC 19), 9=575(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-8=-285/67, 3-9=-481/339

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 9-4-0, Exterior(2) 9-4-0 to 13-9-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2 except (jt=lb) 9=187.
6) Non Standard bearing condition. Review required.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	PB4	PIGGYBACK	4	1	E15101739
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:31 2020 Page 1
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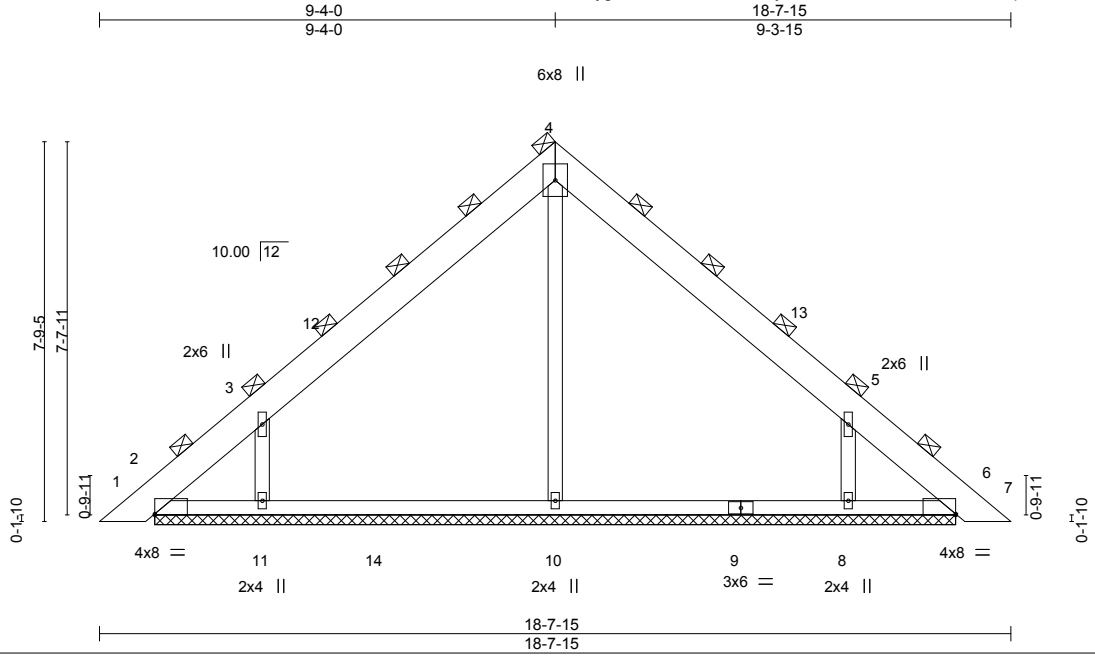

Plate Offsets (X,Y)-- [2:Edge,0-0-4], [5:0-0-0,0-0-0], [6:0-0-0,0-0-4]

LOADING (psf)		SPACING- 5-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.00	7	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	0.00	6	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 114 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 7-2-13 oc bracing.

REACTIONS. All bearings 16-4-13.
(lb) - Max Horz 2=442(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 6 except 2=-207(LC 8), 11=-473(LC 12), 8=-463(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except 2=384(LC 20), 10=1466(LC 19), 11=1332(LC 19), 8=1332(LC 20), 6=311(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-548/363, 3-4=-627/458, 4-5=-588/466, 5-6=-415/185
BOT CHORD 2-11=-95/311, 10-11=-94/290, 8-10=-94/290, 6-8=-79/300
WEBS 4-10=-505/6, 3-11=-1111/786, 5-8=-1113/785

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-11 to 4-10-7, Interior(1) 4-10-7 to 9-4-0, Exterior(2) 9-4-0 to 13-8-12, Interior(1) 13-8-12 to 18-2-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=207, 11=473, 8=463.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	VA1	GABLE	1	1	E15101740
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:31 2020 Page 1
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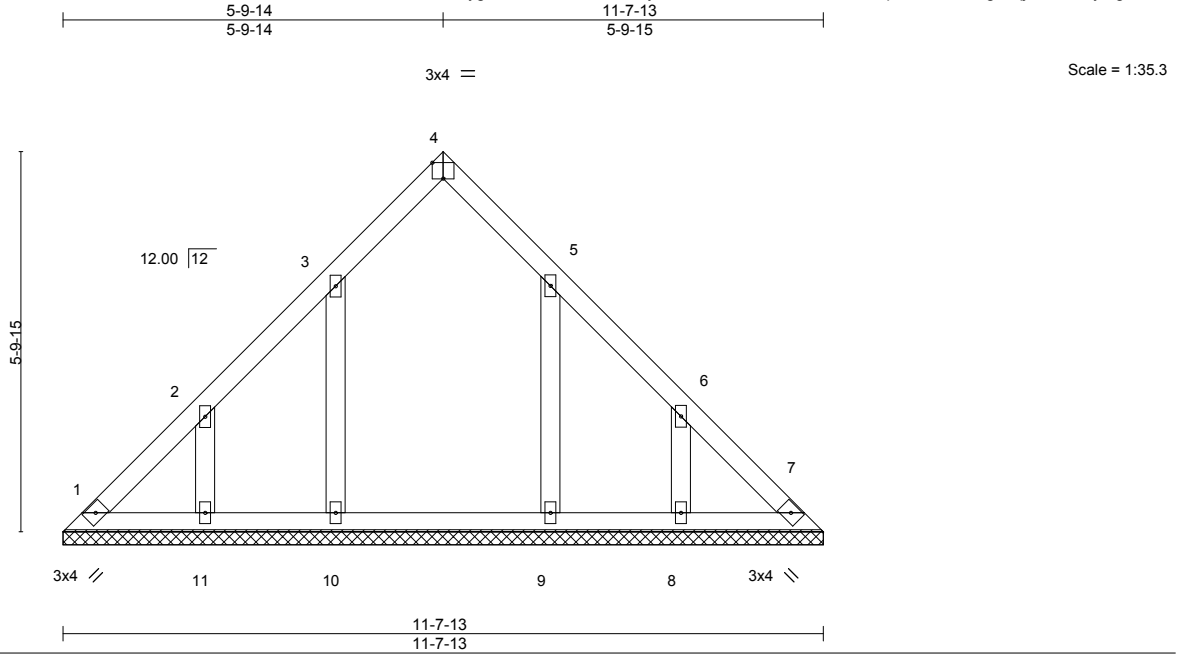

Plate Offsets (X,Y)-- [4:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 11-7-13.
(lb) - Max Horz 1=-164(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 10=-109(LC 12), 11=-160(LC 12), 9=-105(LC 13), 8=-161(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 11, 8 except 10=298(LC 19), 9=293(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 10=109, 11=160, 9=105, 8=161.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	VA2	VALLEY	1	1	E15101741
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:32 2020 Page 1
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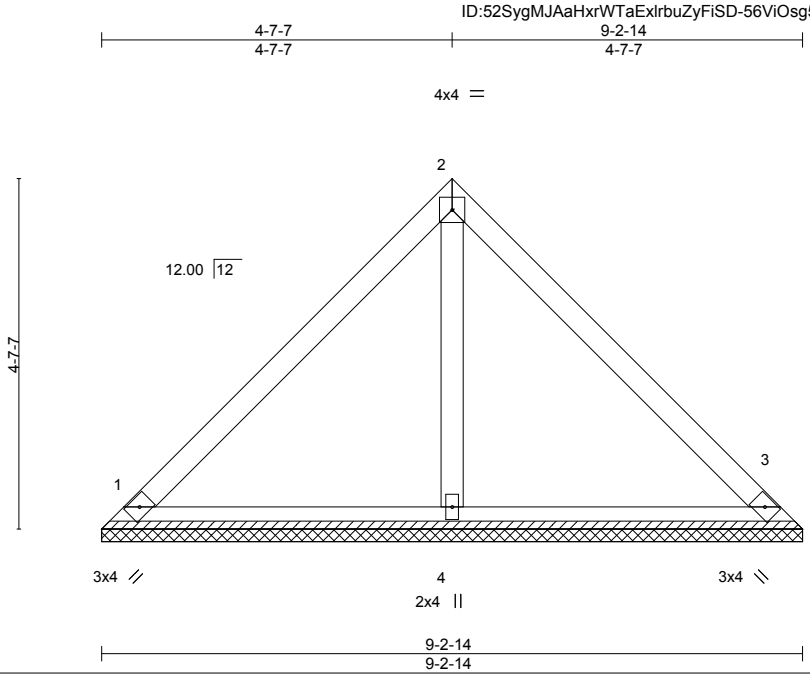

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 38 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. (size) 1=9-2-14, 3=9-2-14, 4=9-2-14
Max Horz 1=-102(LC 8)
Max Uplift 1=-25(LC 13), 3=-25(LC 13)
Max Grav 1=194(LC 1), 3=194(LC 1), 4=296(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

November 16,2020

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 40 Summerlin/Harnett
J0920-4494	VA3	VALLEY	1	1	E15101742
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Nov 16 10:52:33 2020 Page 1
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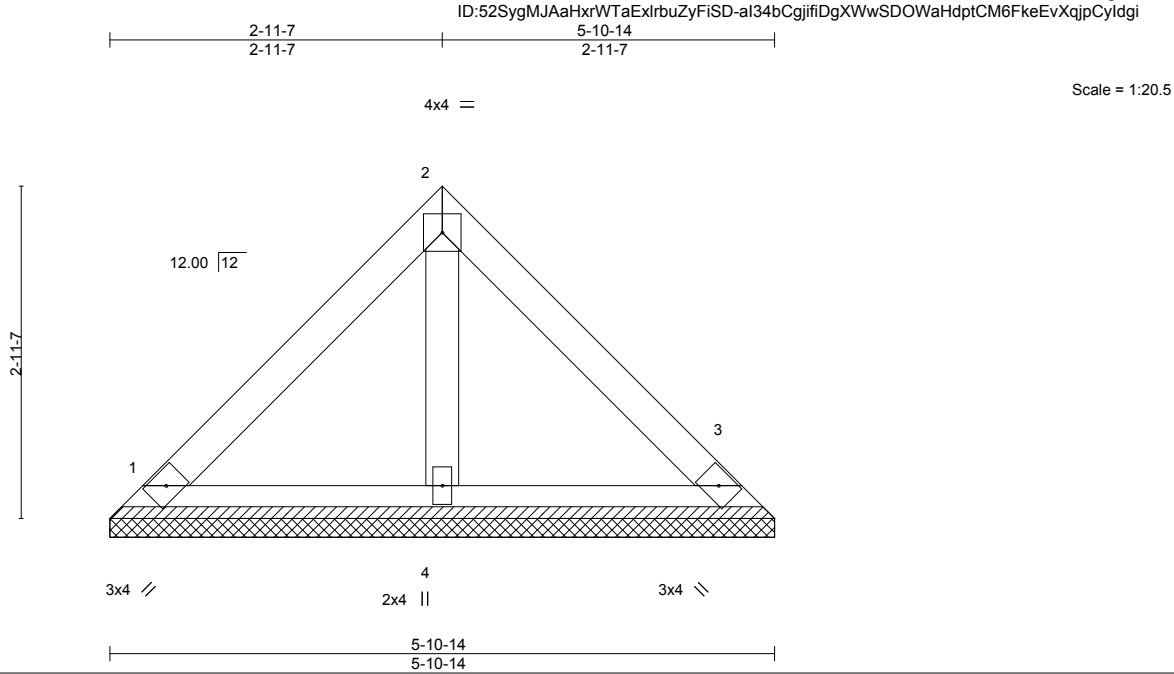

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-10-14, 3=5-10-14, 4=5-10-14
Max Horz 1=-62(LC 8)
Max Uplift 1=-23(LC 13), 3=-23(LC 13)
Max Grav 1=127(LC 1), 3=127(LC 1), 4=163(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

November 16,2020

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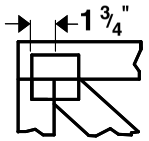
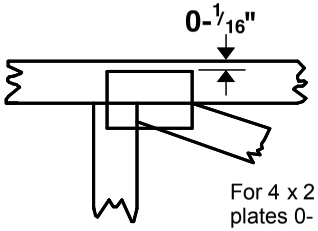
Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

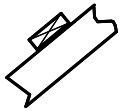
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

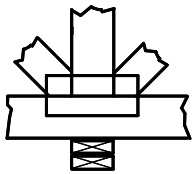
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

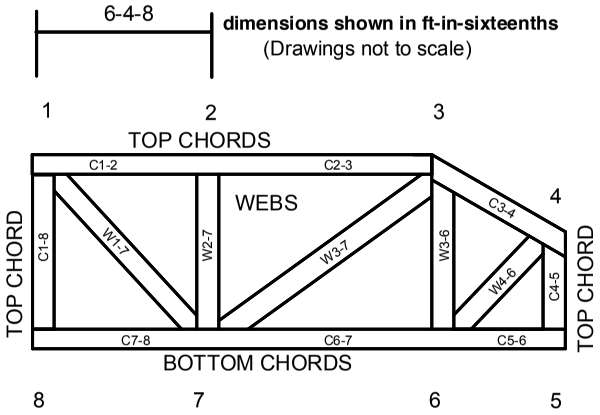


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

General Safety Notes

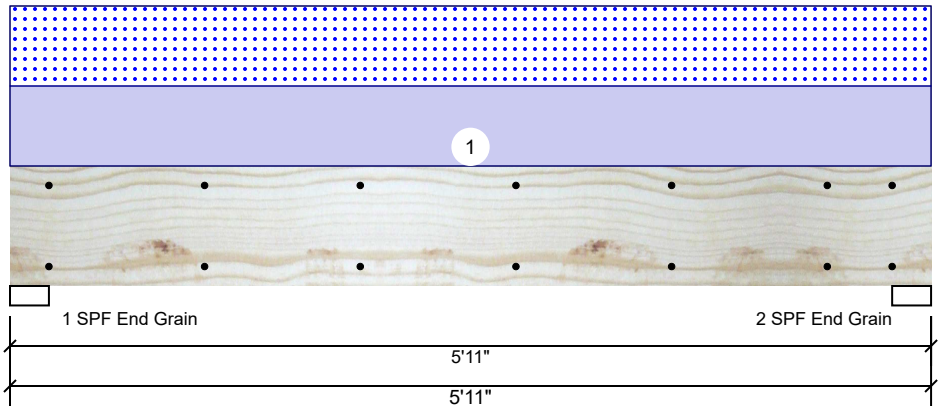
Failure to Follow Could Cause Property Damage or Personal Injury

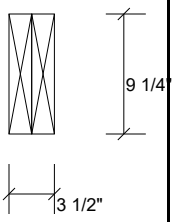
1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed 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.

BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1764	1742	0	0
2	0	1764	1742	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	38%	1764 / 1742	3506	L	D+S
2 - SPF End Grain	3.000"	38%	1764 / 1742	3506	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4550 ft-lb	2'11 1/2"	14423 ft-lb	0.315 (32%)	D+S	L
Unbraced	4550 ft-lb	2'11 1/2"	11027 ft-lb	0.413 (41%)	D+S	L
Shear	2370 lb	11 1/2"	7943 lb	0.298 (30%)	D+S	L
LL Defl inch	0.035 (L/1894)	2'11 1/2"	0.139 (L/480)	0.250 (25%)	S	L
TL Defl inch	0.071 (L/941)	2'11 1/2"	0.185 (L/360)	0.380 (38%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	589 PLF	0 PLF	589 PLF	0 PLF	0 PLF	A02
	Self Weight				7 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 12/11/2021

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
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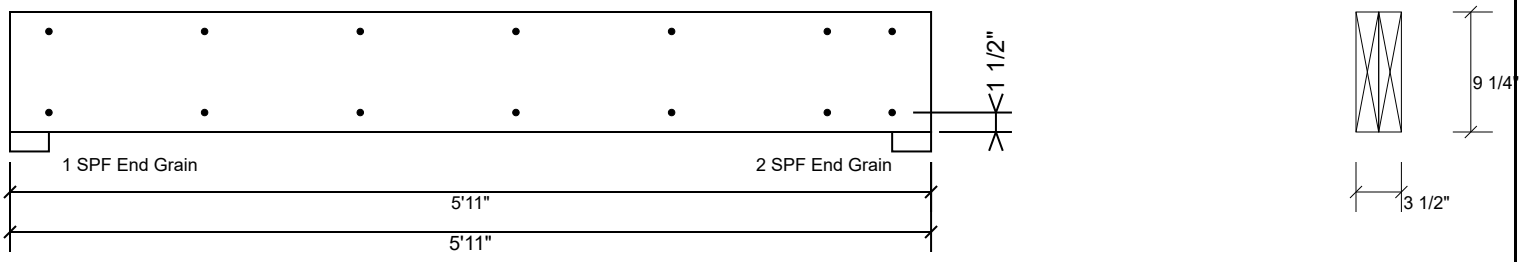
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

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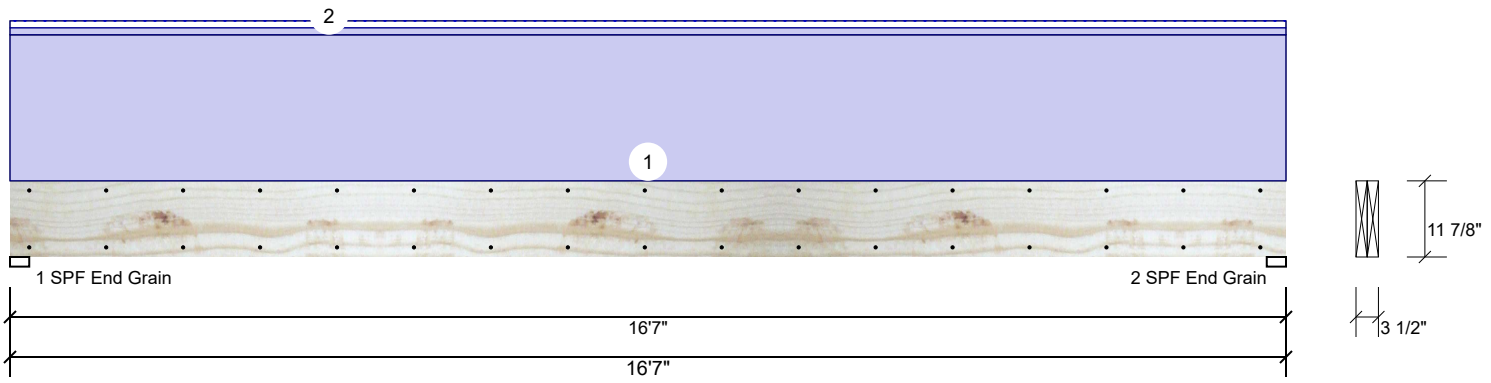
910-864-TRUS

GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1901	83	0	0
2	0	1901	83	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	22%	1901 / 83	1984	L	D+S
2 - SPF End Grain	3.000"	22%	1901 / 83	1984	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7528 ft-lb	8'3 1/2"	17919 ft-lb	0.420 (42%)	D	Uniform
Unbraced	7856 ft-lb	8'3 1/2"	7862 ft-lb	0.999 (100%)	D+S	L
Shear	1631 lb	15'4 7/8"	7980 lb	0.204 (20%)	D	Uniform
LL Defl inch	0.017 (L/11572)	8'3 9/16"	0.405 (L/480)	0.040 (4%)	S	L
TL Defl inch	0.402 (L/484)	8'3 9/16"	0.540 (L/360)	0.740 (74%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 12'4 1/2" o.c.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	210 PLF	0 PLF	0 PLF	0 PLF	0 PLF	C1-GE
2	Tie-In	0-0-0 to 16-7-0	(Span)1-0-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	RAKE OH
	Self Weight				9 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

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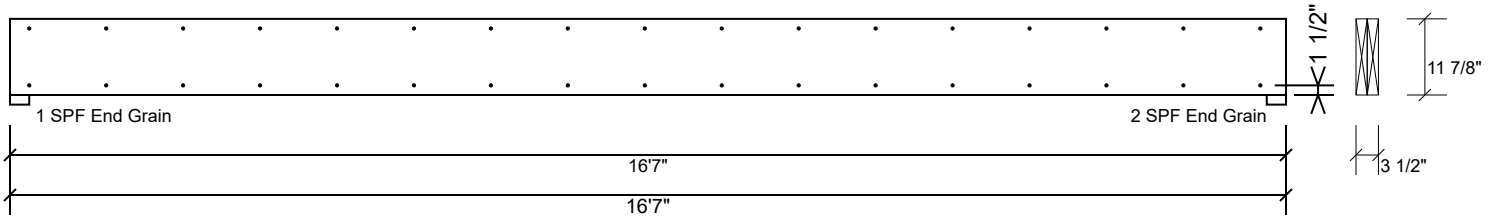
GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
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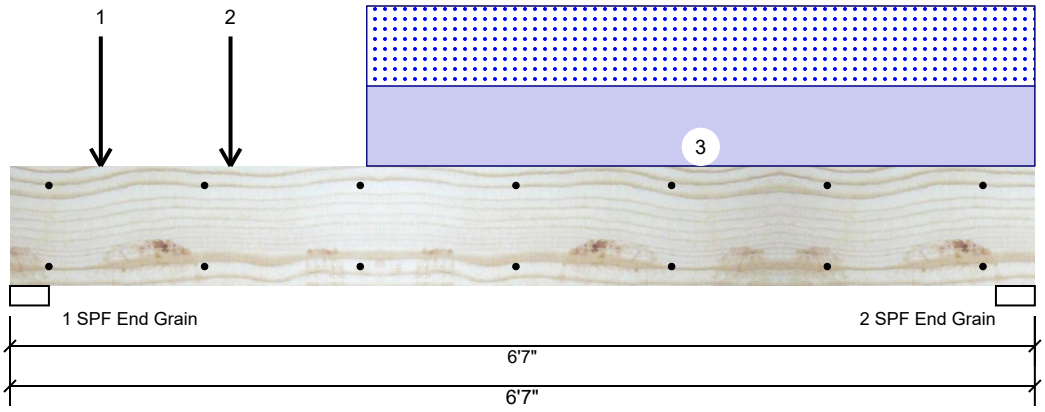
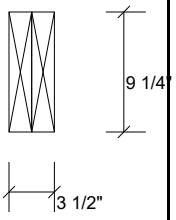
BM4 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1806	1783	0	0
2	0	1366	1342	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	39%	1806 / 1783	3589	L	D+S
2 - SPF End Grain	3.000"	30%	1366 / 1342	2708	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4163 ft-lb	3'1 3/4"	14423 ft-lb	0.289 (29%)	D+S	L
Unbraced	4163 ft-lb	3'1 3/4"	10370 ft-lb	0.401 (40%)	D+S	L
Shear	2930 lb	11 1/2"	7943 lb	0.369 (37%)	D+S	L
LL Defl inch	0.039 (L/1911)	3'2 11/16"	0.155 (L/480)	0.250 (25%)	S	L
TL Defl inch	0.079 (L/948)	3'2 11/16"	0.207 (L/360)	0.380 (38%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Point	0-7-0		Top	670 lb	0 lb	670 lb	0 lb	0 lb	A05
2	Point	1-5-0		Top	781 lb	0 lb	781 lb	0 lb	0 lb	A06
3	Part. Uniform	2-3-8 to 6-7-0		Top	390 PLF	0 PLF	390 PLF	0 PLF	0 PLF	A07
	Self Weight				7 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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6. For flat roofs provide proper drainage to prevent ponding

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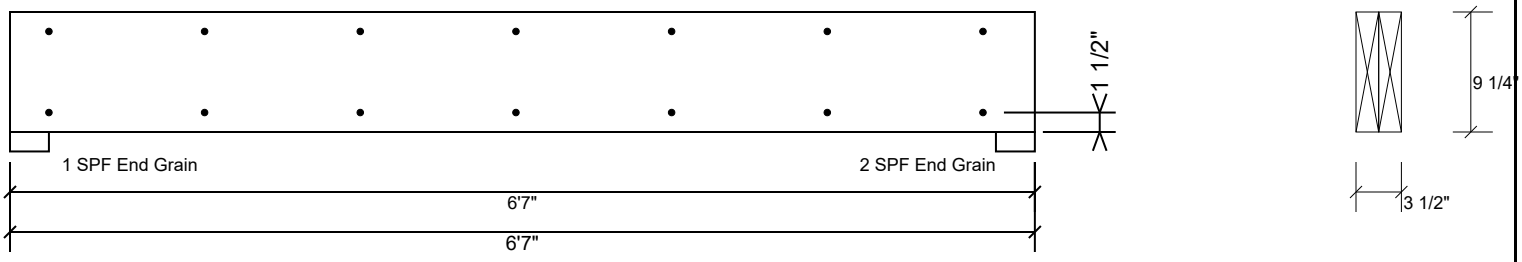
BM4 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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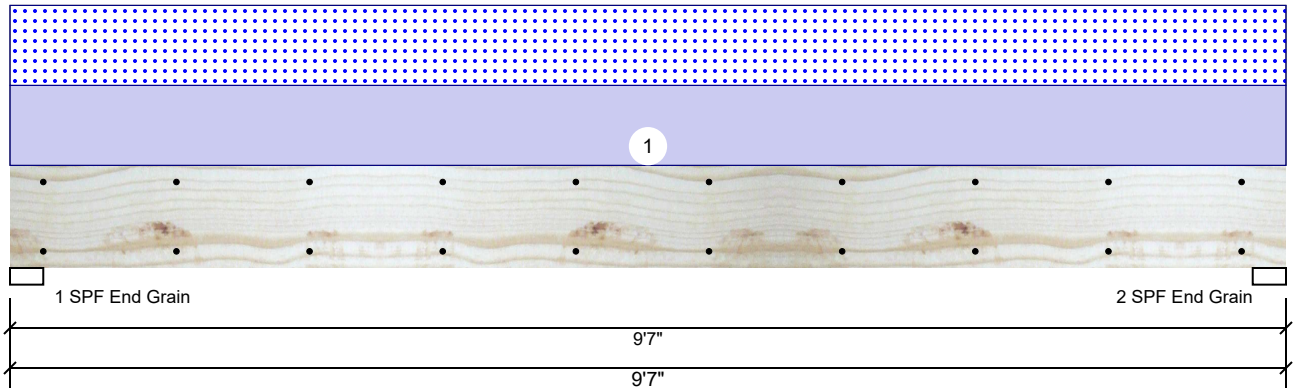
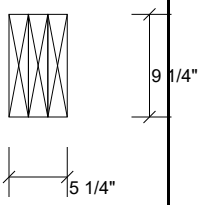
BM2 Kerto-S LVL 1.750" X 9.250" 3-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	2289	2238	0	0
2	0	2289	2238	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	33%	2289 / 2238	4527	L	D+S
2 - SPF End Grain	3.000"	33%	2289 / 2238	4527	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10014 ft-lb	4'9 1/2"	22500 ft-lb	0.445 (45%)	D+S	L
Unbraced	10014 ft-lb	4'9 1/2"	11921 ft-lb	0.840 (84%)	D+S	L
Shear	3622 lb	8'7 1/2"	11914 lb	0.304 (30%)	D+S	L
LL Defl inch	0.121 (L/914)	4'9 1/2"	0.230 (L/480)	0.520 (52%)	S	L
TL Defl inch	0.244 (L/452)	4'9 1/2"	0.307 (L/360)	0.800 (80%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	467 PLF	0 PLF	467 PLF	0 PLF	0 PLF	
	Self Weight				11 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 12/11/2021

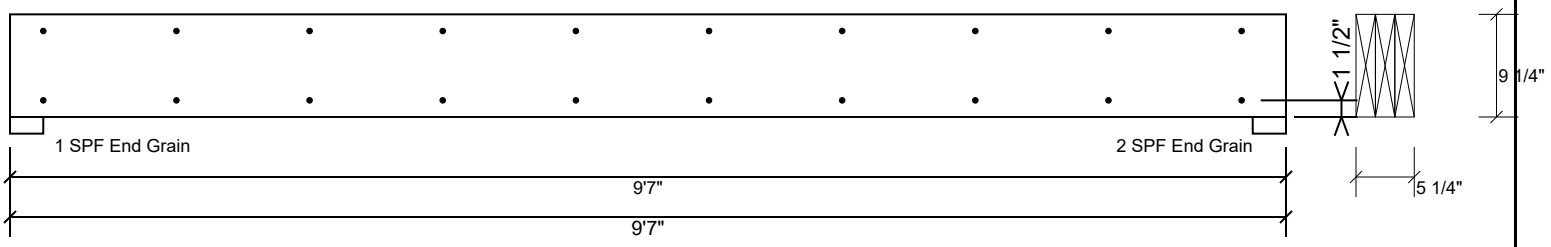
Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

BM2 Kerto-S LVL 1.750" X 9.250" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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Handling & Installation

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2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
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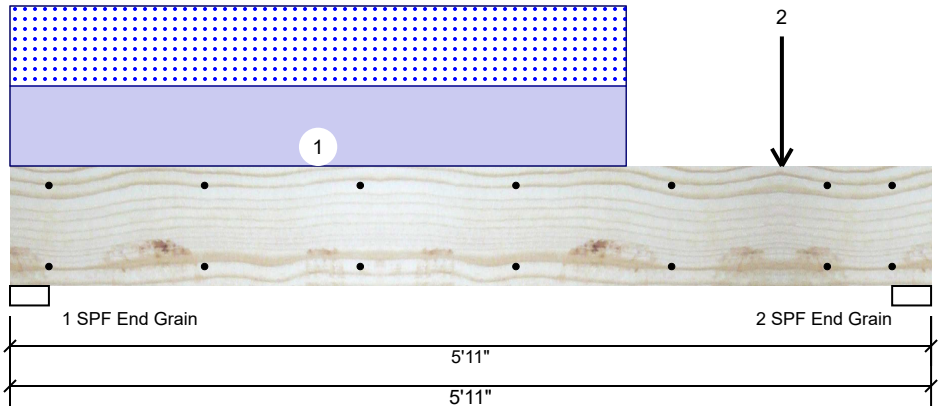
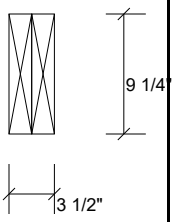
BM3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1653	1632	0	0
2	0	1920	1899	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	36%	1653 / 1632	3286	L	D+S
2 - SPF End Grain	3.000"	42%	1920 / 1899	3818	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4395 ft-lb	3' 7/16"	14423 ft-lb	0.305 (30%)	D+S	L
Unbraced	4395 ft-lb	3' 7/16"	11027 ft-lb	0.399 (40%)	D+S	L
Shear	3811 lb	4'11 1/2"	7943 lb	0.480 (48%)	D+S	L
LL Defl inch	0.034 (L/1933)	3' 1/16"	0.139 (L/480)	0.250 (25%)	S	L
TL Defl inch	0.069 (L/961)	3' 1/16"	0.185 (L/360)	0.370 (37%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 3-11-8		Top	537 PLF	0 PLF	537 PLF	0 PLF	0 PLF	A03
2	Point	4-11-8		Top	1405 lb	0 lb	1405 lb	0 lb	0 lb	A04
	Self Weight				7 PLF					

Notes

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Handling & Installation

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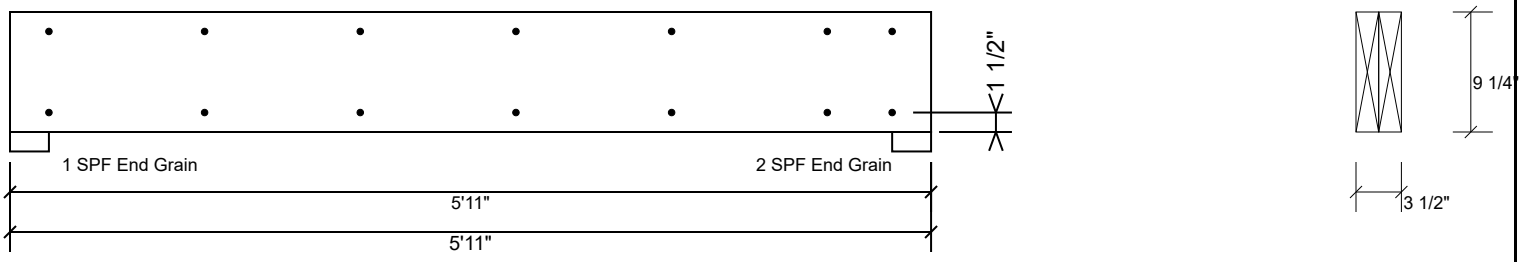

Multi-Ply Analysis

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Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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