

Mark Morris, P.E.

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The truss drawing(s) listed below have been prepared by **Atlantic Building Components** under my direct supervision based on the parameters provided by the truss designers.

AST #: 42107

JOB: 23-7721-R01

JOB NAME: LOT 28 PROVIDENCE CREEK

Wind Code: 37

Wind Speed: Vult= 120mph

Exposure Category: B

Mean Roof Height (feet): 35

These truss designs comply with IRC 2015 as well as IRC 2018.

20 Truss Design(s)

Trusses:

P01, R01, R02, R02A, R03, R04, R05, R06, R07, R08, R09, R10, R11, R12, R13, V01, V02, V03, V04, V05

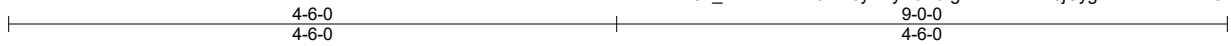


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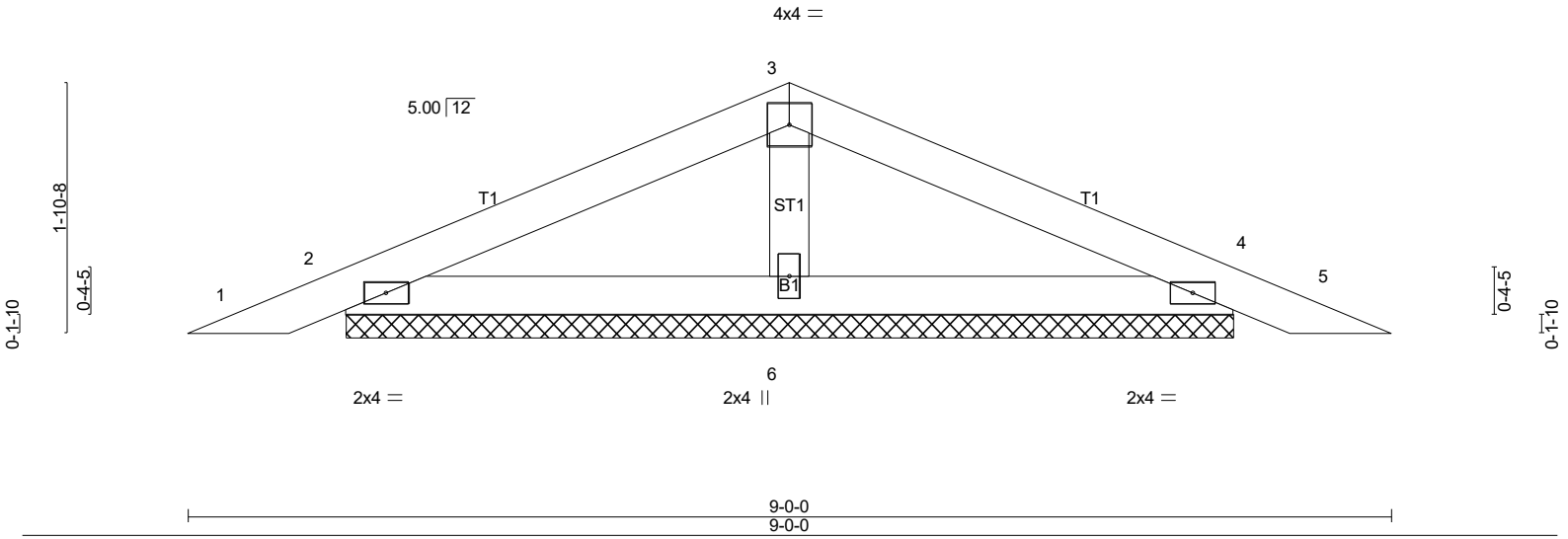
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Scale = 1:17.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	0.01 5 n/r 180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	0.01 5 n/r 80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00 4 n/a n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P				Weight: 26 lb	FT = 20%
BCDL	10.0								

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.3
 OTHERS 2x4 SP No.3

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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

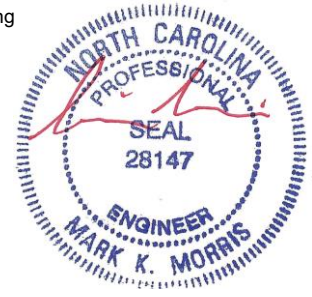
REACTIONS. (lb/size) 2=184/6-7-10 (min. 0-1-8), 4=184/6-7-10 (min. 0-1-8), 6=258/6-7-10 (min. 0-1-8)
 Max Horz 2=26(LC 14)
 Max Uplift 2=-48(LC 14), 4=-52(LC 15), 6=-4(LC 14)
 Max Grav 2=256(LC 21), 4=256(LC 22), 6=258(LC 1)

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

NOTES-

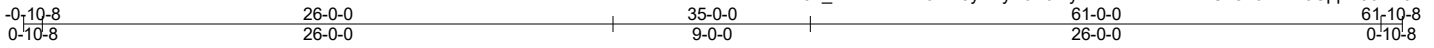
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 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 1-0-0 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, 4, 6.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



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Scale = 1:105.0

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.05	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 38 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.25	Vert(CT) -0.00 38 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.01 38 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014				
				Weight: 624 lb	FT = 20%

LUMBER-
 TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3
 OTHERS 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 -° 1-11-0, Right 2x4 SP No.3 -° 1-11-0

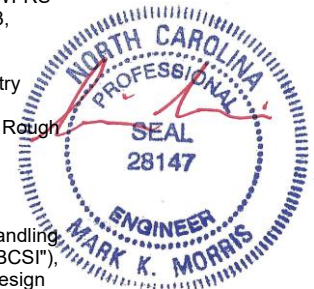
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 20-57, 19-58, 18-59, 16-61, 15-62, 14-63, 17-60, 21-55, 22-54, 24-52, 25-51, 26-50, 23-53

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 61-0-0.
 (lb) - Max Horz 2=167(LC 15)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 57, 58, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 55, 52, 51, 50, 49, 48, 46, 45, 44, 43, 42, 41, 40 except 73=105(LC 14)
 Max Grav All reactions 250 lb or less at joint(s) 2, 38, 59, 69, 70, 71, 72, 60, 54, 44, 43, 42, 41, 53, 73, 40 except 57=291(LC 44), 58=292(LC 44), 61=254(LC 45), 62=294(LC 45), 63=287(LC 45), 64=286(LC 45), 65=287(LC 45), 67=289(LC 45), 68=266(LC 45), 55=292(LC 44), 52=254(LC 45), 51=294(LC 45), 50=287(LC 45), 49=286(LC 45), 48=287(LC 45), 46=289(LC 45), 45=266(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 14-15=-111/263, 15-16=-127/299, 16-76=-135/317, 17-76=-130/320, 17-18=-130/312, 18-19=-130/312, 19-20=-130/312, 20-21=-130/312, 21-22=-130/312, 22-23=-130/312, 23-77=-130/320, 24-77=-135/317, 24-25=-127/299, 25-26=-111/263

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 5-2-11, Exterior(2N) 5-2-11 to 19-10-13, Corner(3R) 19-10-13 to 41-1-3, Exterior(2N) 41-1-3 to 55-9-5, Corner(3E) 55-9-5 to 61-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.



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8) Provide adequate drainage to prevent water ponding.
 Continued on page 2. Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI I-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R01	GABLE	1	1	Job Reference (optional) # 42107

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NOTES-

- 9) All plates are 2x4 MT20 unless otherwise indicated.
- 10) Gable requires continuous bottom chord bearing.
- 11) Gable studs spaced at 2-0-0 oc.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 57, 58, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 55, 52, 51, 50, 49, 48, 46, 45, 44, 43, 42, 41, 40 except (jt=lb) 73=105.

LOAD CASE(S) Standard

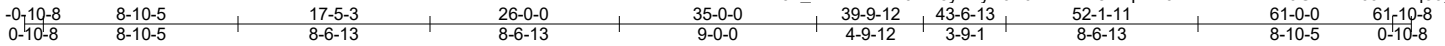


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Job 23-7721-R01	Truss R02	Truss Type Piggyback Base	Qty 3	Ply 1	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
Job Reference (optional)					# 42107

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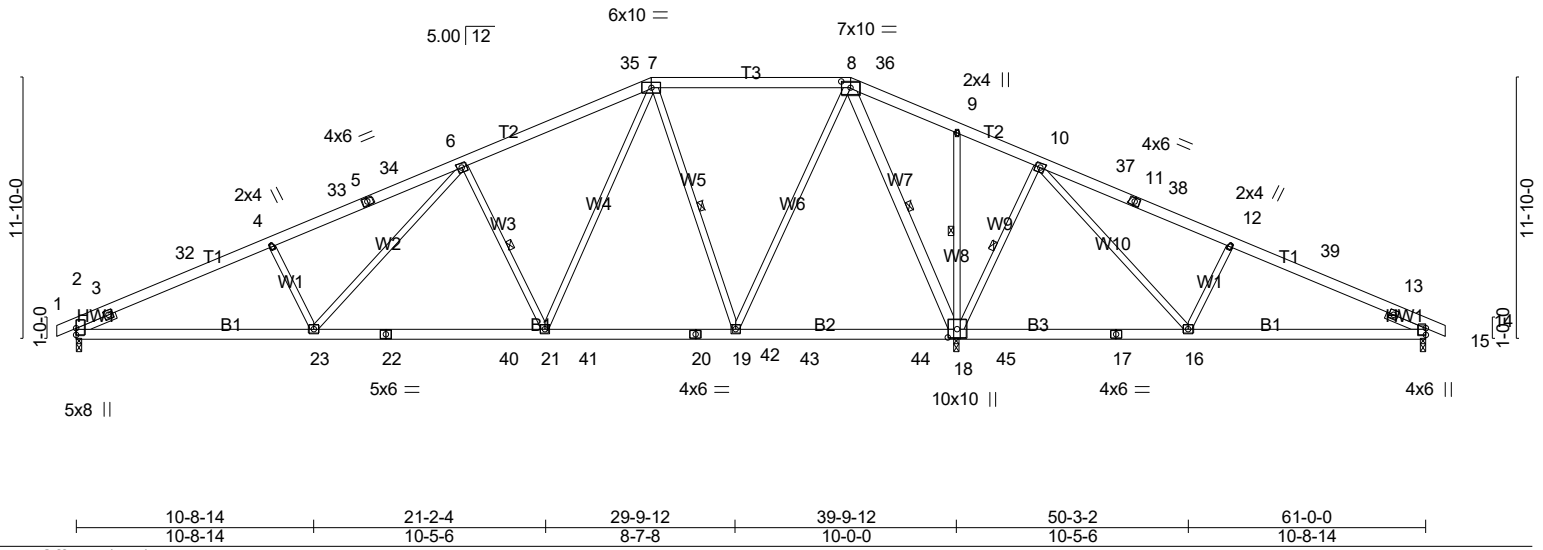


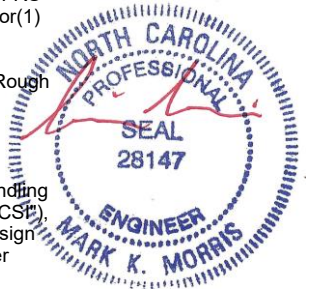
Plate Offsets (X,Y)-- [8:0-5-0,0-3-7], [18:0-4-8,0-5-0]					
LOADING (psf)	SPACING	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.83	Vert(LL) -0.31 21-23 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.93	Vert(CT) -0.47 21-23 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MSH	Horz(CT) 0.05 18 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 466 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-2 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 6-21, 7-19, 8-18, 10-18, 9-18
W7: 2x6 SP DSS	
SLIDER Left 2x4 SP No.3 -° 1-11-0, Right 2x4 SP No.3 -° 1-11-0	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1412/0-3-8 (min. 0-1-14), 14=461/0-3-8 (min. 0-1-8), 18=3112/0-3-8 (min. 0-2-13)
 Max Horz 2=-167(LC 15)
 Max Uplift 2=-222(LC 14), 14=-145(LC 15), 18=-232(LC 11)
 Max Grav 2=1577(LC 39), 14=583(LC 55), 18=4124(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-975/1, 3-32=-2865/374, 4-32=-2774/390, 4-33=-2709/391, 5-33=-2628/394, 5-34=-2613/395, 6-34=-2510/412, 6-35=-1782/341, 7-35=-1533/343, 7-8=-646/242, 8-36=0/1500, 9-36=0/1429, 9-10=-26/1462, 10-37=-256/493, 11-37=-280/374, 11-38=-286/363, 12-38=-388/332, 12-39=-432/315, 13-39=-582/270, 13-14=-402/2
BOT CHORD 2-23=-433/2561, 22-23=-250/1951, 22-40=-250/1951, 21-40=-250/1951, 21-41=-26/1001, 20-41=-26/1001, 20-42=-26/1001, 19-42=-26/1001, 19-43=-256/220, 43-44=-256/220, 18-44=-256/220, 18-45=-905/158, 17-45=-905/158, 16-17=-905/158, 14-16=-249/483
WEBS 4-23=-421/229, 6-23=-131/727, 6-21=-1190/324, 7-21=-217/1520, 7-19=-1292/235, 8-19=-138/1835, 8-18=-2747/243, 10-18=-1061/267, 10-16=-158/1081, 12-16=-599/251, 9-18=-347/97

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 5-2-11, Interior(1) 5-2-11 to 17-4-8, Exterior(2R) 17-4-8 to 43-6-6, Interior(1) 43-6-6 to 55-9-5, Exterior(2E) 55-9-5 to 61-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSP"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 5x5 MT20 unless otherwise indicated.



10/23/2023

9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 Continued on page 2. Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R02	Piggyback Base	3	1	Job Reference (optional) # 42107

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NOTES-

- 10) * 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide metal plate or equivalent at bearing(s) 18 to support reaction shown.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=222, 14=145, 18=232.

LOAD CASE(S) Standard



10/23/2023

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Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R02A	Piggyback Base	6	1	Job Reference (optional) # 42107

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NOTES-

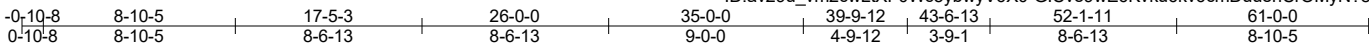
- 8) All plates are 5x5 MT20 unless otherwise indicated.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide metal plate or equivalent at bearing(s) 18 to support reaction shown.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=212, 14=148, 18=144.

LOAD CASE(S) Standard



10/23/2023

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Scale = 1:105.9

10-8-14	21-2-4	29-9-12	35-0-0	39-9-12	50-3-2	61-0-0
10-8-14	10-5-6	8-7-8	5-2-4	4-9-12	10-5-6	10-8-14

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

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.85	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.87	Vert(LL) -0.33 24-26 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.93	Vert(CT) -0.50 24-26 >956 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MSH	Horz(CT) 0.06 17 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 478 lb	FT = 20%

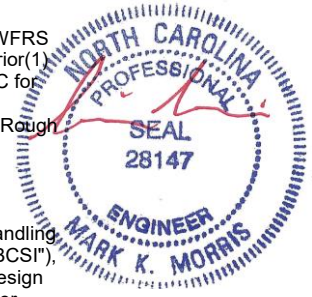
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-7-0 oc purlins.
BOT CHORD 2x6 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
B3: 2x4 SP No.2, B2: 2x6 SP No.1	6-0-0 oc bracing: 19-21
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 6-24, 7-22, 8-19, 10-17, 9-17
W8: 2x6 SP DSS	
SLIDER Left 2x4 SP No.3 -° 1-11-0, Right 2x4 SP No.3 -° 1-11-0	

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1430/0-3-8 (min. 0-1-14), 14=397/0-3-8 (min. 0-1-8), 17=3295/0-3-8 (min. 0-3-2)
 Max Horz2=172(LC 14)
 Max Uplift2=-211(LC 14), 14=-129(LC 15), 17=-147(LC 11)
 Max Grav2=1594(LC 39), 14=520(LC 55), 17=4539(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-985/0, 3-35=-2961/349, 4-35=-2869/365, 4-36=-2806/366, 5-36=-2725/369, 5-37=-2709/370, 6-37=-2606/387, 6-38=-1879/314, 7-38=-1629/316, 7-8=-773/208, 8-39=0/1540, 9-39=0/1470, 9-10=-24/1504, 10-40=-237/547, 11-40=-261/430, 11-41=-267/418, 12-41=-369/391, 12-42=-413/374, 13-42=-563/326, 13-14=-411/0
BOT CHORD 2-26=-416/2648, 25-26=-231/2042, 25-43=-231/2042, 24-43=-231/2042, 24-44=-5/1102, 23-44=-5/1102, 23-45=-5/1102, 22-45=-5/1102, 22-46=-28/418, 18-46=-28/418, 18-47=-28/418, 17-47=-28/418, 21-48=-326/9, 20-48=-326/9, 20-49=-326/9, 19-49=-326/9, 17-50=-948/143, 16-50=-948/143, 15-16=-948/143, 14-15=-301/466
WEBS 4-26=-418/230, 6-26=-132/726, 6-24=-1190/323, 7-24=-224/1483, 7-22=-1262/252, 21-22=-118/1830, 8-21=-97/2041, 8-19=-2954/203, 17-19=-3171/184, 10-17=-1057/270, 10-15=-163/1064, 12-15=-604/251, 18-20=-323/0, 9-17=-348/97

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 5-2-11, Interior(1) 5-2-11 to 17-4-8, Exterior(2R) 17-4-8 to 43-6-6, Interior(1) 43-6-6 to 54-10-13, Exterior(2E) 54-10-13 to 61-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.



7) Provide adequate drainage to prevent water ponding.
 Continued on page 2. Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI I-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R03	PIGGYBACK BASE	1	1	Job Reference (optional) # 42107

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NOTES-

- 8) All plates are 5x5 MT20 unless otherwise indicated.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide metal plate or equivalent at bearing(s) 17 to support reaction shown.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=211, 14=129, 17=147.

LOAD CASE(S) Standard



10/23/2023

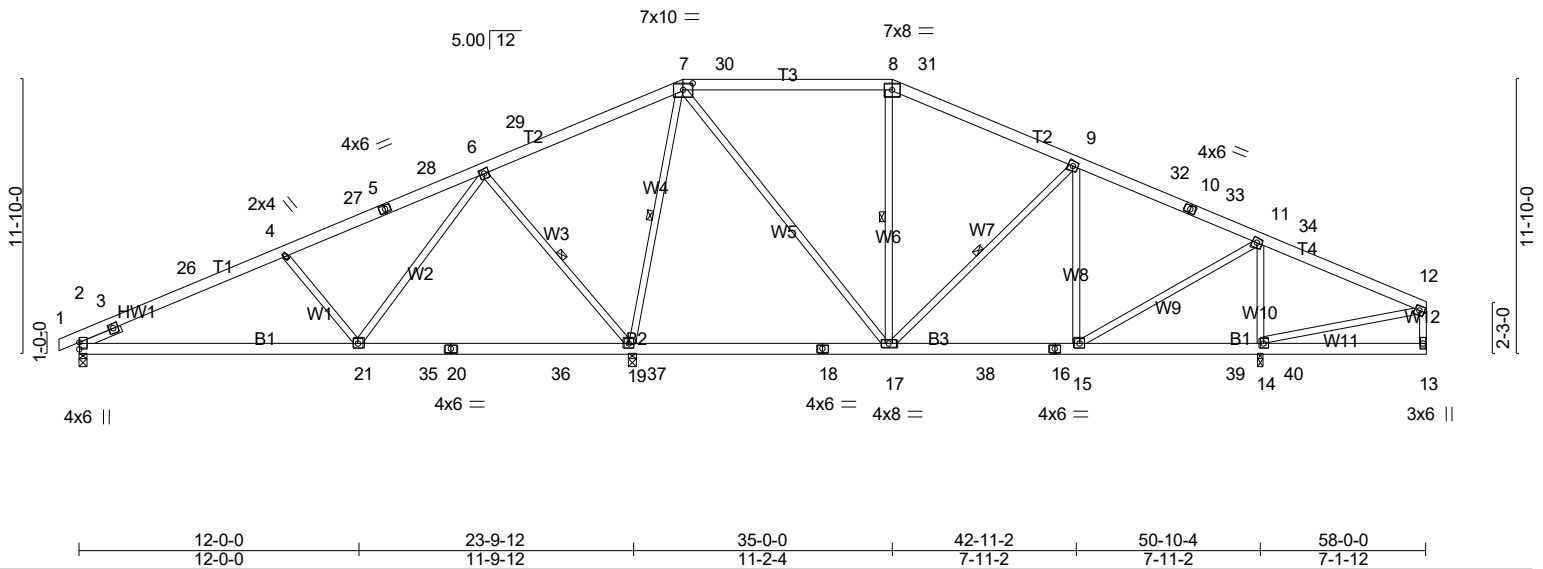
Warning !—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job 23-7721-R01	Truss R04	Truss Type Piggyback Base	Qty 3	Ply 1	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC Job Reference (optional) # 42107
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Scale = 1:99.2



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.17	19-21	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.22	19-21	>999	180	Weight: 435 lb FT = 20%		
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.02	13	n/a	n/a			
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS									
BCDL	10.0												

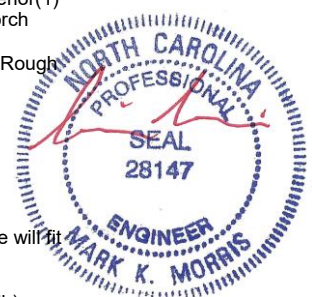
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2 *Except* B2: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* W4: 2x4 SP No.2	WEBS 1 Row at midpt 6-19, 7-19, 8-17, 9-17
SLIDER Left 2x4 SP No.3 -° 1-11-0	

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 0-3-8 except (jt=length) 13=Mechanical.
(lb) - Max Horz 2=172(LC 18)
Max Uplift All uplift 100 lb or less at joint(s) 13 except 2=-126(LC 14), 19=-276(LC 14), 14=-217(LC 15)
Max Grav All reactions 250 lb or less at joint(s) 13 except 2=882(LC 39), 19=3049(LC 45), 14=1599(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-707/0, 3-26=-1232/167, 4-26=-1107/183, 4-27=-923/136, 5-27=-813/148, 5-28=-805/149, 6-28=-697/166, 6-29=-24/436, 7-29=-22/714, 7-30=-611/247, 8-30=-611/247, 8-31=-574/227, 9-31=-756/225, 9-32=-800/185, 10-32=-881/169, 10-33=-905/166, 11-33=-975/157
BOT CHORD 2-21=-246/1075, 21-35=-38/311, 20-35=-38/311, 20-36=-38/311, 19-36=-38/311, 17-38=-17/813, 16-38=-17/813, 15-16=-17/813
WEBS 4-21=-527/246, 6-21=-97/840, 6-19=-1309/325, 7-19=-1600/239, 7-17=-98/1109, 8-17=-401/111, 9-17=-483/154, 9-15=-350/116, 11-15=-49/993, 11-14=-1397/286

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 4-11-2, Interior(1) 4-11-2 to 17-9-9, Exterior(2R) 17-9-9 to 42-11-2, Interior(1) 42-11-2 to 52-0-10, Exterior(2E) 52-0-10 to 57-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 5x5 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 2=126, 19=276, 14=217.



10/23/2023

Continued on Page 2 Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R04	Piggyback Base	3	1	Job Reference (optional) # 42107

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NOTES-

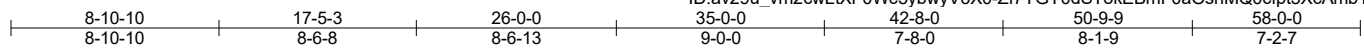
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

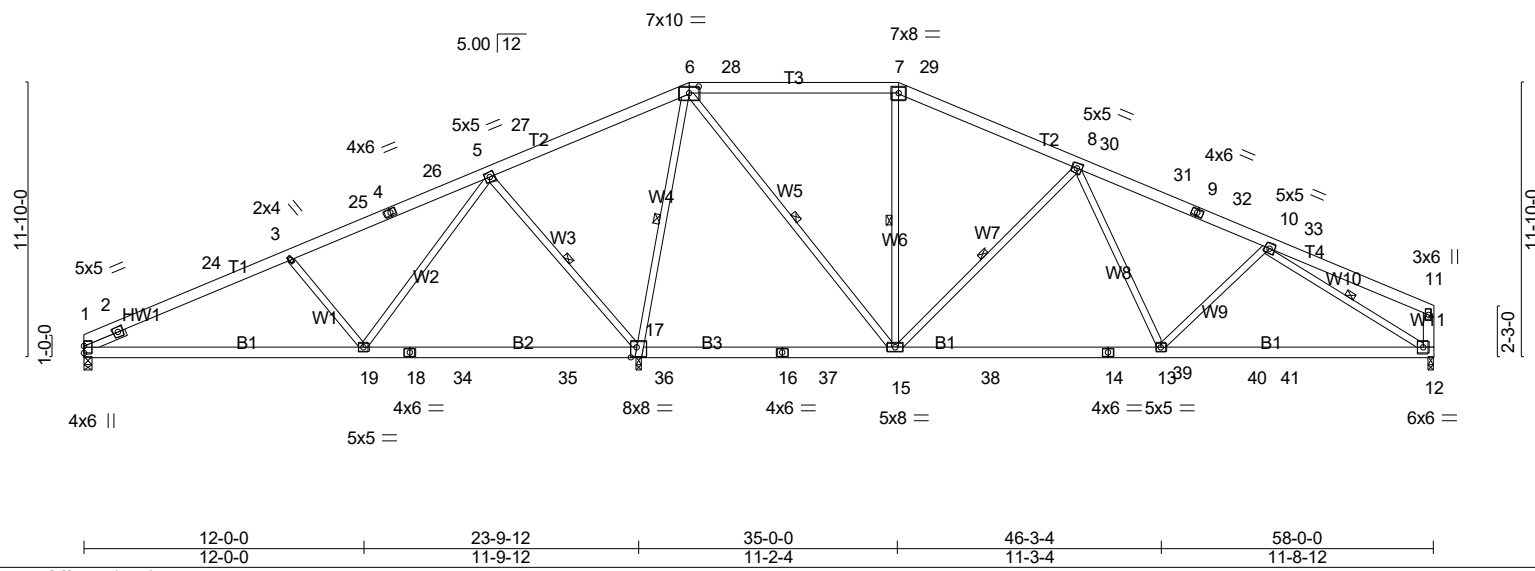


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Warning !—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



Scale = 1:99.0



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.75	Vert(LL) -0.28 17-19 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 1.00	Vert(CT) -0.37 17-19 >769 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.04 12 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 427 lb	FT = 20%

LUMBER-
 TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3 *Except*
 W4: 2x4 SP SS, W11: 2x6 SP No.2
 SLIDER Left 2x4 SP No.3 -° 1-11-0

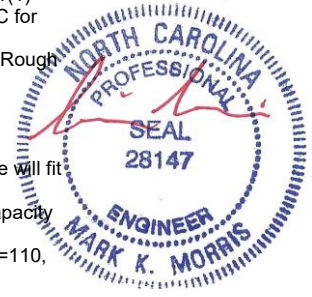
BRACING-
 TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 5-17, 6-17, 6-15, 7-15, 8-15, 10-12

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=674/0-3-8 (min. 0-1-8), 17=2787/0-3-8 (min. 0-1-8), 12=1160/0-3-8 (min. 0-1-9)
 Max Horz 1=161(LC 18)
 Max Uplift 1=-110(LC 14), 17=-272(LC 14), 12=-188(LC 15)
 Max Grav 1=743(LC 40), 17=3632(LC 44), 12=1332(LC 38)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-639/0, 2-24=-1036/167, 3-24=-936/184, 3-25=-738/121, 4-25=-644/134, 4-26=-635/135, 5-26=-543/151, 5-27=-19/790, 6-27=-17/1058, 6-28=-735/260, 7-28=-735/260, 7-29=-721/243, 8-29=-873/242, 8-30=-1555/279, 30-31=-1659/277, 9-31=-1674/263, 9-32=-1697/260, 10-32=-1767/251, 11-33=-308/74, 11-12=-288/99
 BOT CHORD 1-19=-247/896, 17-36=-453/172, 16-36=-453/172, 16-37=-453/172, 15-37=-453/172, 15-38=-108/1349, 14-38=-108/1349, 14-39=-108/1349, 13-39=-108/1349, 13-40=-234/1579, 40-41=-234/1579, 12-41=-234/1579
 WEBS 3-19=-546/248, 5-19=-91/914, 5-17=-1329/321, 6-17=-2201/292, 6-15=-160/1725, 7-15=-338/105, 8-15=-1122/261, 8-13=-4/510, 10-12=-1674/266

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 5-9-10, Interior(1) 5-9-10 to 17-9-9, Exterior(2R) 17-9-9 to 43-2-7, Interior(1) 43-2-7 to 51-11-10, Exterior(2E) 51-11-10 to 57-9-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=110, 17=272, 12=188.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 17.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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Continued on page 2. Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R05	PIGGYBACK BASE	6	1	Job Reference (optional) # 42107

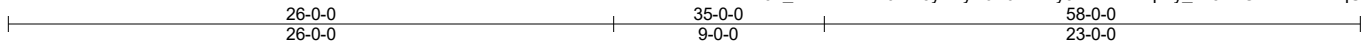
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LOAD CASE(S) Standard

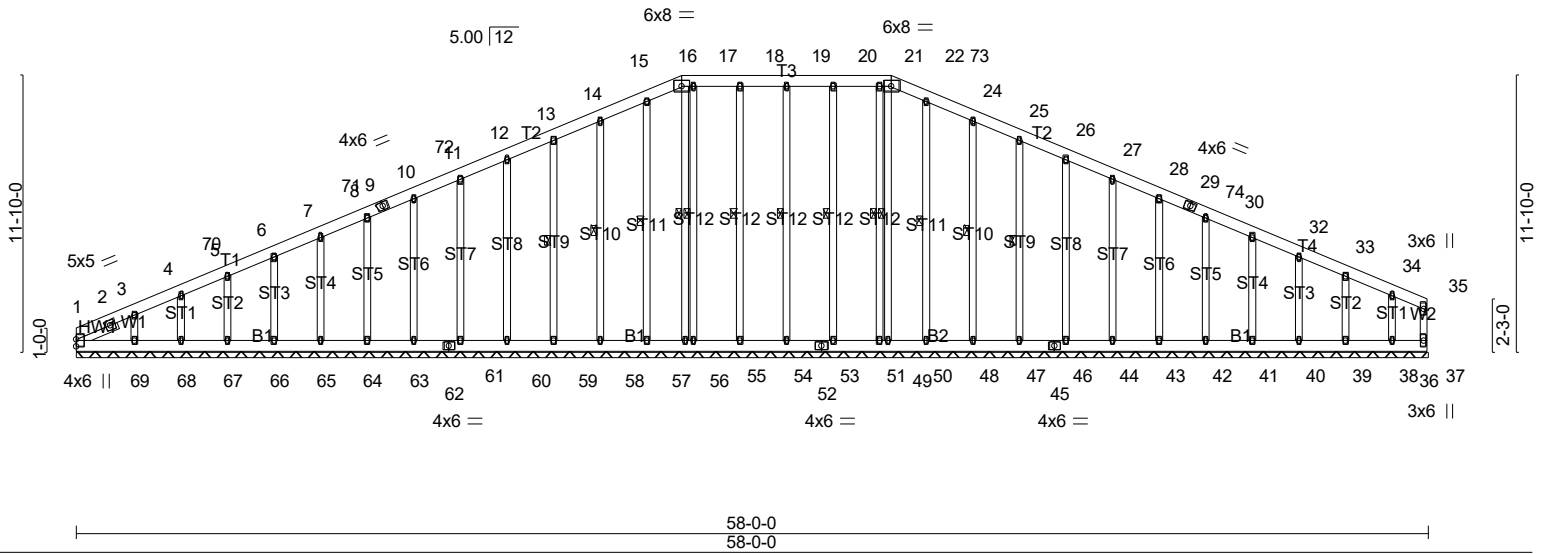


10/23/2023

Warning !—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



Scale = 1:98.9



LOADING (psf)	TCLL (roof) 20.0 Snow (Pf) 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING-	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2021/TPI2014	CSI.	TC 0.10 BC 0.03 WB 0.25 Matrix-SH	DEFL.	in (loc) l/defl L/d Vert(LL) n/a - n/a 999 Vert(CT) n/a - n/a 999 Horz(CT) 0.00 36 n/a n/a	PLATES	GRIP
								MT20	244/190
								Weight: 603 lb FT = 20%	

LUMBER-
 TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3
 OTHERS 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 -° 1-11-20

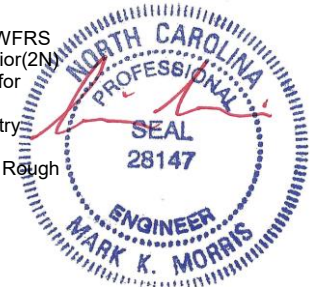
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 19-53, 18-54, 17-55, 15-57, 14-58, 13-59, 16-56, 20-51, 21-50, 23-48, 24-47, 25-46, 22-49

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 58-0-0.
 (lb) - Max Horz 1=174(LC 14)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 53, 54, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 51, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37 except 69=103(LC 14)
 Max Grav All reactions 250 lb or less at joint(s) 1, 55, 65, 66, 67, 68, 56, 50, 40, 39, 38, 37, 49, 36, 69 except 53=291(LC 43), 54=292(LC 43), 57=255(LC 44), 58=294(LC 44), 59=287(LC 44), 60=286(LC 44), 61=287(LC 44), 63=289(LC 44), 64=266(LC 44), 51=292(LC 43), 48=255(LC 44), 47=294(LC 44), 46=287(LC 44), 44=286(LC 44), 43=287(LC 44), 42=289(LC 44), 41=266(LC 44)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 11-72=-95/250, 11-12=-114/285, 12-13=-128/319, 13-14=-143/354, 14-15=-159/390, 15-16=-166/408, 16-17=-160/396, 17-18=-159/395, 18-19=-159/395, 19-20=-159/395, 20-21=-159/395, 21-22=-160/396, 22-73=-161/408, 23-73=-166/406, 23-24=-159/390, 24-25=-143/354, 25-26=-128/319, 26-27=-114/285, 27-28=-99/250

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 5-9-10, Exterior(2N) 5-9-10 to 20-2-6, Corner(3R) 20-2-6 to 40-6-0, Exterior(2N) 40-6-0 to 52-0-10, Corner(3E) 52-0-10 to 57-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



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Continued on Page 2 Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R06	GABLE	1	1	Job Reference (optional) # 42107

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 24 15:52:15 2023 Page 2
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NOTES-

- 11) * 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 53, 54, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 51, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37 except (jt=lb) 69=103.

LOAD CASE(S) Standard

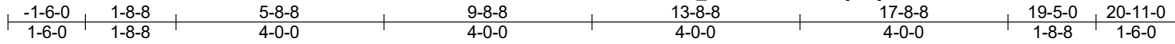


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Warning !—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D’Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R07	Common Structural Gable	1	1	# 42107

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 24 15:52:18 2023 Page 1
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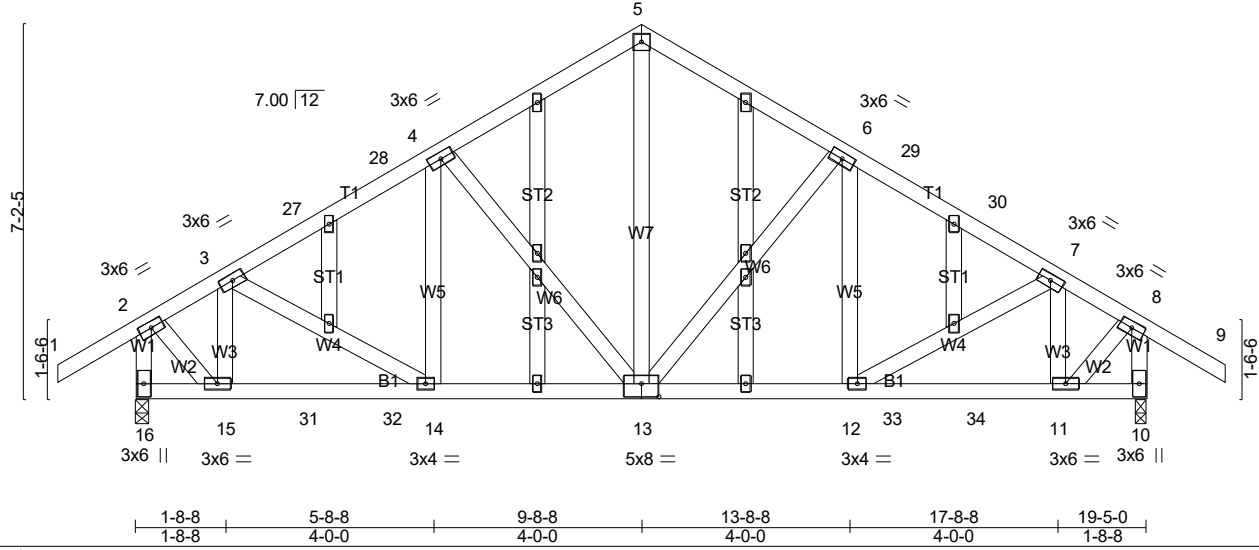


Plate Offsets (X,Y)-- [13:0-4-0,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.31	Vert(LL) 0.03	12-13	>999	240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.20	Vert(CT) -0.04	12-13	>999	180		
TCDL 10.0	Rep Stress Incr YES		WB 0.42	Horz(CT) 0.01	10	n/a	n/a		
BCLL 0.0 *	Code IRC2021/TPI2014		Matrix-AS						
BCDL 10.0								Weight: 156 lb	FT = 20%

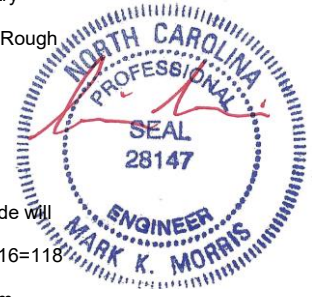
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 OTHERS 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 16=864/0-3-0 (min. 0-1-8), 10=864/0-3-0 (min. 0-1-8)
 Max Horz 16=-186(LC 12)
 Max Uplift 16=-118(LC 14), 10=-118(LC 15)
 Max Grav 16=906(LC 21), 10=906(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-620/460, 3-27=-892/614, 27-28=-842/615, 4-28=-777/626, 4-5=-721/558,
 5-6=-721/558, 6-29=-777/626, 29-30=-842/615, 7-30=-892/614, 7-8=-620/460,
 2-16=-894/590, 8-10=-894/590
 BOT CHORD 15-31=-293/509, 31-32=-293/509, 14-32=-293/509, 13-14=-397/728, 12-13=-397/728,
 12-33=-293/509, 33-34=-293/509, 11-34=-293/509
 WEBS 5-13=-464/395, 6-13=-295/202, 7-11=-380/166, 4-13=-295/202, 3-15=-380/166,
 2-15=-430/682, 8-11=-430/682

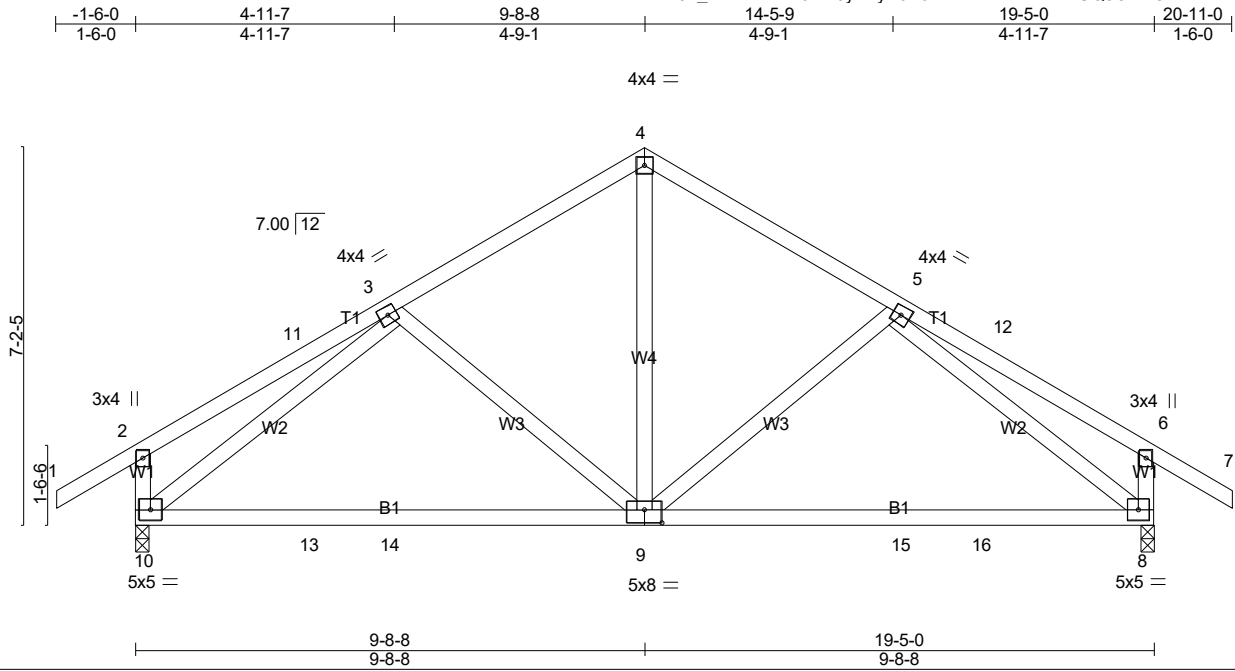
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-3-10, Interior(1) 3-3-10 to 4-10-14, Exterior(2R) 4-10-14 to 14-6-2, Interior(1) 14-6-2 to 16-1-6, Exterior(2E) 16-1-6 to 20-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 5) Unbalanced snow loads have been considered for this design.
 - 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 7) All plates are 2x4 MT20 unless otherwise indicated.
 - 8) Gable studs spaced at 2-0-0 oc.
 - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 10) * 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 1-0-0 wide will fit between the bottom chord and any other members.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=118, 10=118.
 - 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



WARNING - Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R08	Common	1	1	Job Reference (optional) # 42107

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Scale = 1:43.9

Plate Offsets (X,Y)-- [9:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)		l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.63	Vert(LL) 0.25	9-10	>930	240		MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.83	Vert(CT) -0.30	8-9	>766	180			
TCDL 10.0	Lumber DOL 1.15	WB 0.61	Horz(CT) 0.02	8	n/a	n/a			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS							
BCDL 10.0	Code IRC2021/TPI2014								
								Weight: 116 lb	FT = 20%

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

BRACING-
 TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 10=864/0-3-0 (min. 0-1-8), 8=864/0-3-0 (min. 0-1-8)
 Max Horz 10=-186(LC 12)
 Max Uplift 10=-118(LC 14), 8=-118(LC 15)
 Max Grav 10=909(LC 21), 8=909(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-11=-223/261, 3-11=-181/282, 3-4=-773/602, 4-5=-773/602, 5-12=-181/282,
 6-12=-223/261, 2-10=-308/237, 6-8=-308/237
 BOT CHORD 10-13=-357/720, 13-14=-357/720, 9-14=-357/720, 9-15=-357/720, 15-16=-357/720,
 8-16=-357/720
 WEBS 4-9=-482/427, 3-10=-820/322, 5-8=-820/322

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-3-10, Interior(1) 3-3-10 to 4-10-1, Exterior(2R) 4-10-1 to 14-6-15, Interior(1) 14-6-15 to 16-1-6, Exterior(2E) 16-1-6 to 20-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=-118, 8=-118.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

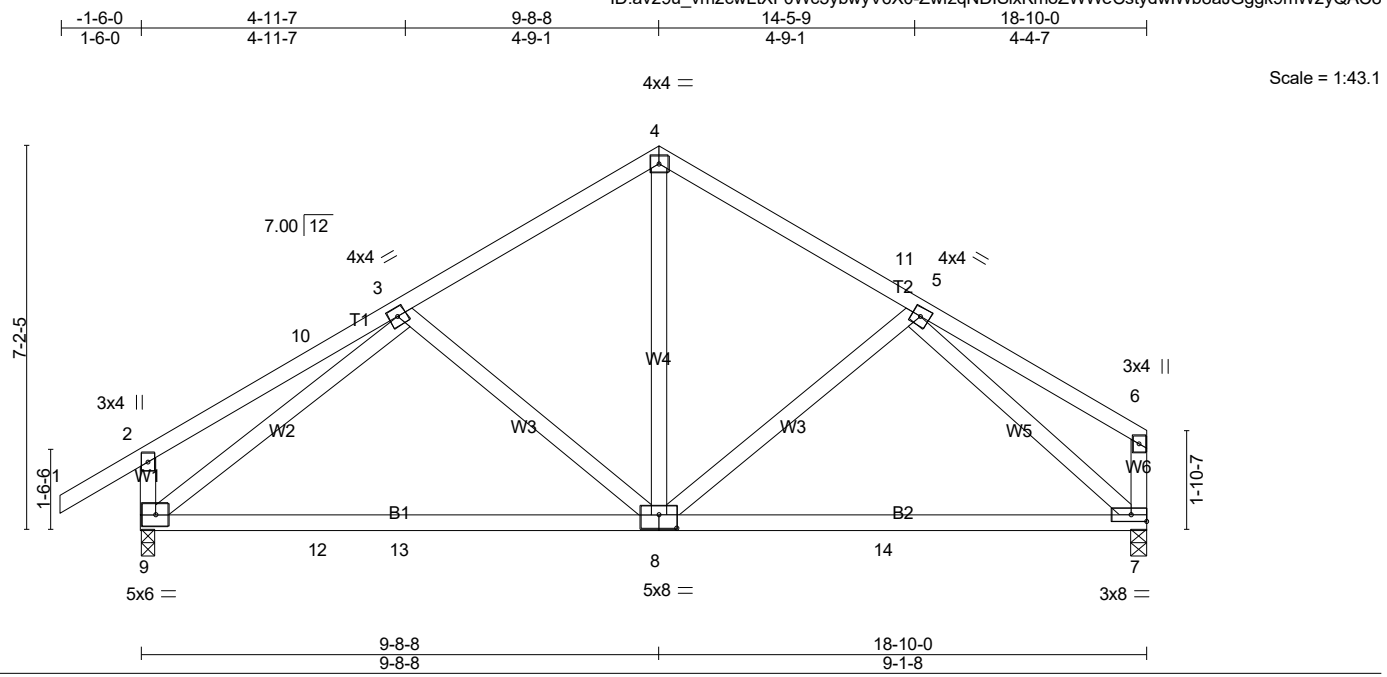


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Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R09	Common	1	1	# 42107

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 24 15:52:21 2023 Page 1
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Scale = 1:43.1

Plate Offsets (X,Y)-- [8:0-4-0,0-3-0]	
LOADING (psf)	SPACING-
TCLL (roof) 20.0	2-0-0
Snow (Pf) 20.0	Plate Grip DOL 1.15
TCDL 10.0	Lumber DOL 1.15
BCLL 0.0 *	Rep Stress Incr YES
BCDL 10.0	Code IRC2021/TPI2014
	CSI.
	TC 0.65
	BC 0.79
	WB 0.59
	Matrix-AS
	DEFL.
	in (loc) l/defl L/d
	Vert(LL) 0.26 8-9 >852 240
	Vert(CT) -0.31 8-9 >707 180
	Horz(CT) 0.02 7 n/a n/a
	PLATES
	MT20
	GRIP
	244/190
	Weight: 112 lb FT = 20%

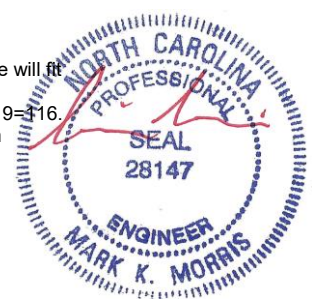
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 9=845/0-3-0 (min. 0-1-8), 7=737/0-3-8 (min. 0-1-8)
 Max Horz 9=183(LC 13)
 Max Uplift 9=116(LC 14), 7=-81(LC 15)
 Max Grav 9=892(LC 21), 7=784(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-10=-228/268, 3-10=-186/289, 3-4=-745/572, 4-11=-615/572, 5-11=-739/550, 2-9=-309/242
 BOT CHORD 9-12=-378/700, 12-13=-378/700, 8-13=-378/700, 8-14=-344/651, 7-14=-344/651
 WEBS 4-8=-452/398, 3-9=-791/287, 5-7=-805/372

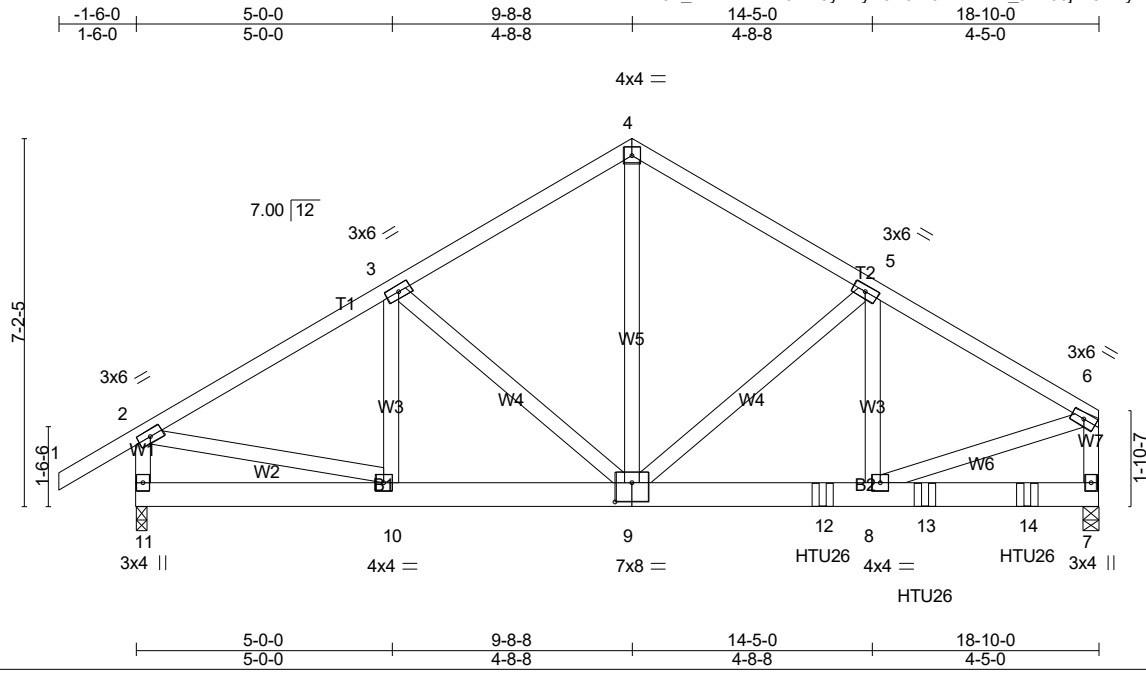
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-3-10, Interior(1) 3-3-10 to 4-10-1, Exterior(2R) 4-10-1 to 13-10-10, Exterior(2E) 13-10-10 to 18-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 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 1-0-0 wide will fit between the bottom chord and any other members.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 9=116
 - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



10/23/2023

Warning !—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



Scale = 1:45.1

Plate Offsets (X,Y)-- [9:0-4-0,0-4-8]					
LOADING (psf)	SPACING-	CSI.	DEFL.		PLATES
TCLL (roof) 20.0	2-0-0	TC 0.46	in (loc) l/defl L/d		GRIP
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.35	Vert(LL) -0.02 8-9 >999 240		MT20 244/190
TCDL 10.0	Lumber DOL 1.15	WB 0.42	Vert(CT) -0.05 8-9 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MSH	Horz(CT) 0.01 7 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014				Weight: 134 lb FT = 20%

LUMBER-	BRACING-	
TOP CHORD 2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-11-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 10-11.
WEBS 2x4 SP No.3		

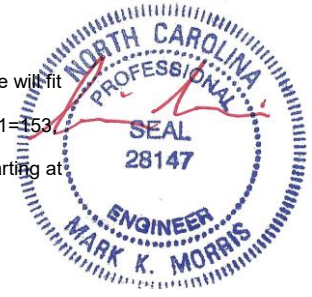
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 11=945/0-3-0 (min. 0-1-8), 7=1207/0-3-8 (min. 0-1-8)
 Max Horz 11=180(LC 9)
 Max Uplift 11=-153(LC 12), 7=-251(LC 13)
 Max Grav 11=987(LC 19), 7=1249(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1056/156, 3-4=-887/194, 4-5=-882/196, 5-6=-1238/239, 2-11=-931/171, 6-7=-1047/210
 BOT CHORD 9-10=-213/854, 9-12=-179/1027, 8-12=-179/1027
 WEBS 3-9=-258/134, 4-9=-111/513, 5-9=-492/207, 2-10=-79/832, 6-8=-155/1025

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 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 1-0-0 wide will fit between the bottom chord and any other members.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=-153, 7=251.
 - 9) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 13-5-4 from the left end to 17-5-4 to connect truss(es) R04 (1 ply 2x6 SP) to back face of bottom chord.
 - 10) Fill all nail holes where hanger is in contact with lumber.
 - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



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Continued on Page 2 Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R10	Common Girder	1	1	Job Reference (optional) # 42107

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 24 15:52:23 2023 Page 2
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LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-60, 2-4=-60, 4-6=-60, 7-11=-20

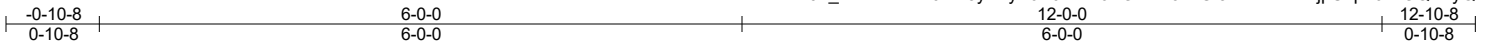
Concentrated Loads (lb)

Vert: 12=-190(B) 13=-190(B) 14=-190(B)

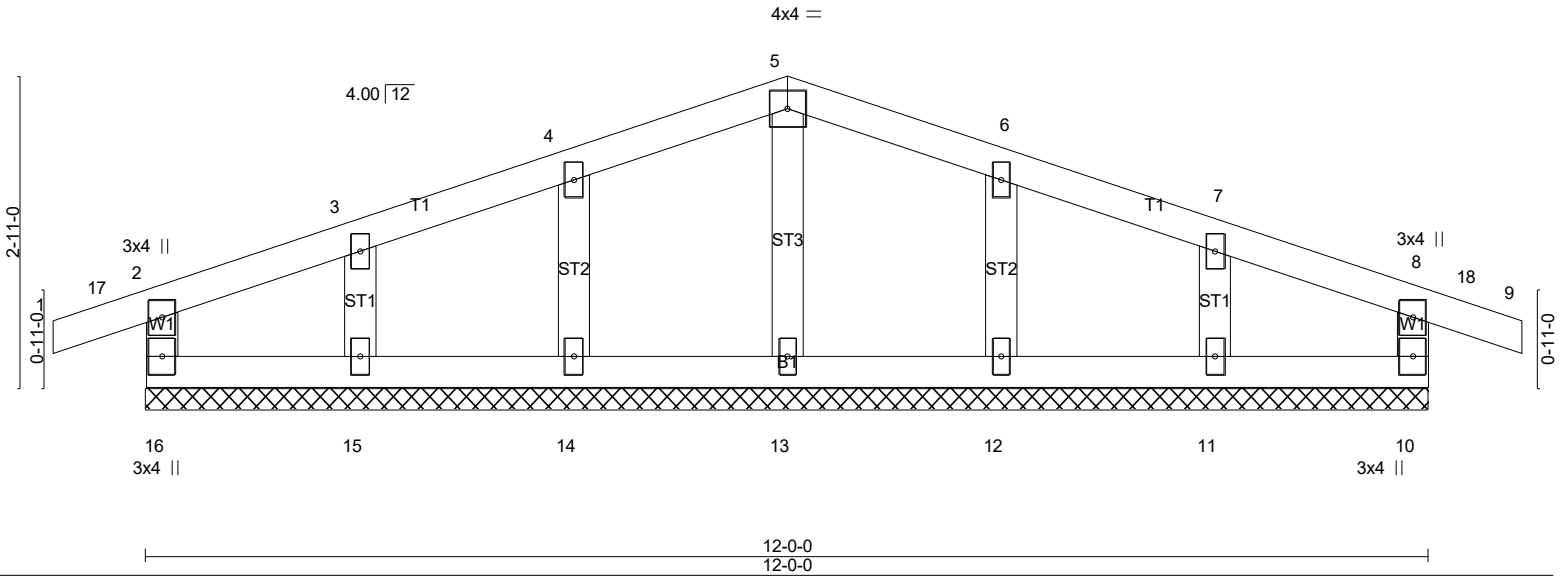


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Scale = 1:21.6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.12	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.05	Vert(LL) -0.00 9 n/r 180		
TCDL 10.0	Rep Stress Incr YES	WB 0.04	Vert(CT) -0.00 9 n/r 80		
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-R	Horz(CT) 0.00 10 n/a n/a		
BCDL 10.0				Weight: 52 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.3
 WEBS 2x4 SP No.3
 OTHERS 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 12-0-0.
 (lb) - Max Horz 16=15(LC 18)
 Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11
 Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

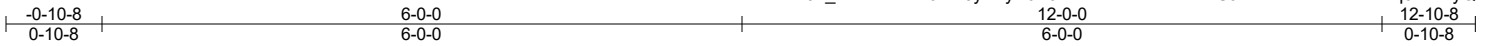
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 4-0-0, Corner(3R) 4-0-0 to 8-0-0, Corner(3E) 8-0-0 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10, 14, 15, 12, 11.

LOAD CASE(S) Standard

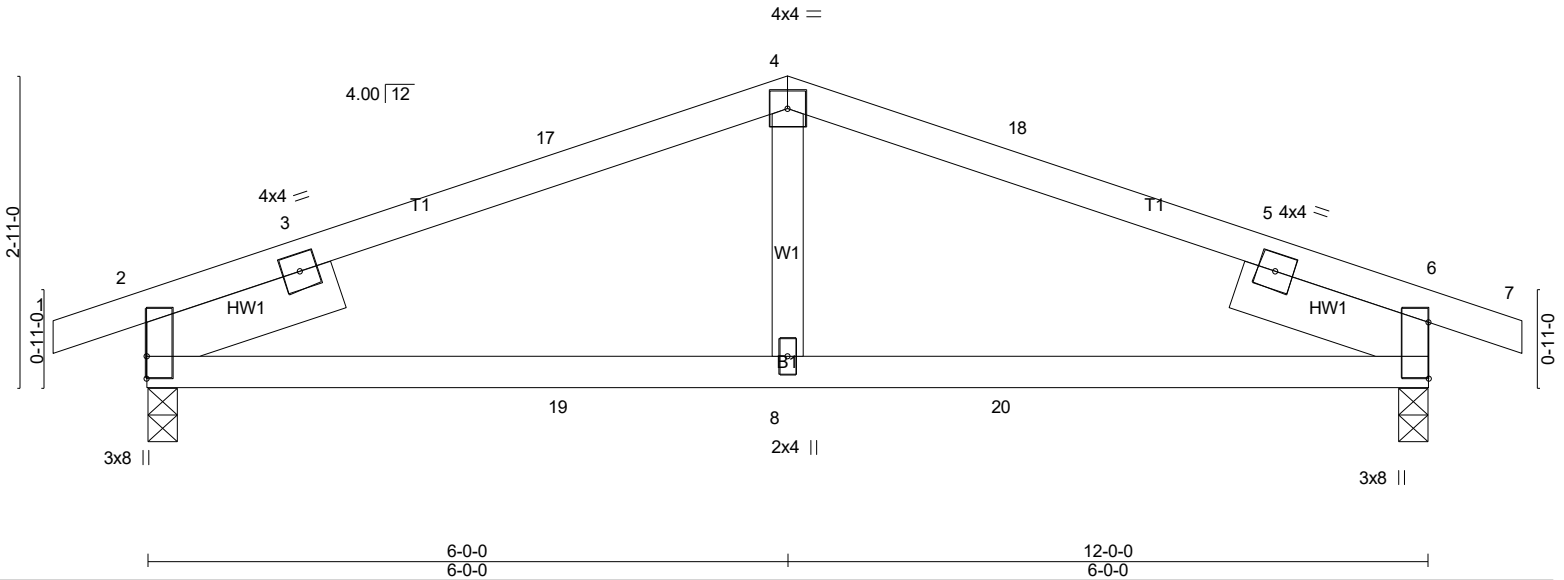


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Scale = 1:21.6



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0	Plate Grip DOL	1.15	TC	0.41	in (loc)	l/defl	L/d	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.33	Vert(LL)	0.05 8-15	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Vert(CT)	-0.06 8-15	>999	180		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS		Horz(CT)	0.02 6	n/a	n/a		
BCDL	10.0									Weight: 52 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 SLIDER Left 2x6 SP No.2 -° 1-11-0, Right 2x6 SP No.2 -° 1-11-0

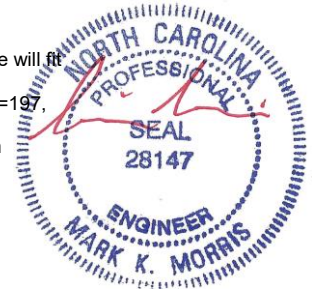
BRACING-
 TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied.
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=532/0-3-8 (min. 0-1-8), 6=533/0-3-8 (min. 0-1-8)
 Max Horz 2=-34(LC 19)
 Max Uplift 2=-197(LC 10), 6=-197(LC 11)
 Max Grav 2=614(LC 21), 6=614(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-187/278, 3-17=-648/918, 4-17=-620/925, 4-18=-620/925, 5-18=-648/918, 5-6=-187/278
 BOT CHORD 2-19=-783/593, 8-19=-783/593, 8-20=-783/593, 6-20=-783/593
 WEBS 4-8=-359/219

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Exterior(2R) 3-11-2 to 8-0-14, Exterior(2E) 8-0-14 to 12-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 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 1-0-0 wide will fit between the bottom chord and any other members.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=197, 6=197.
 - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC
23-7721-R01	R13	Common	1	1	# 42107

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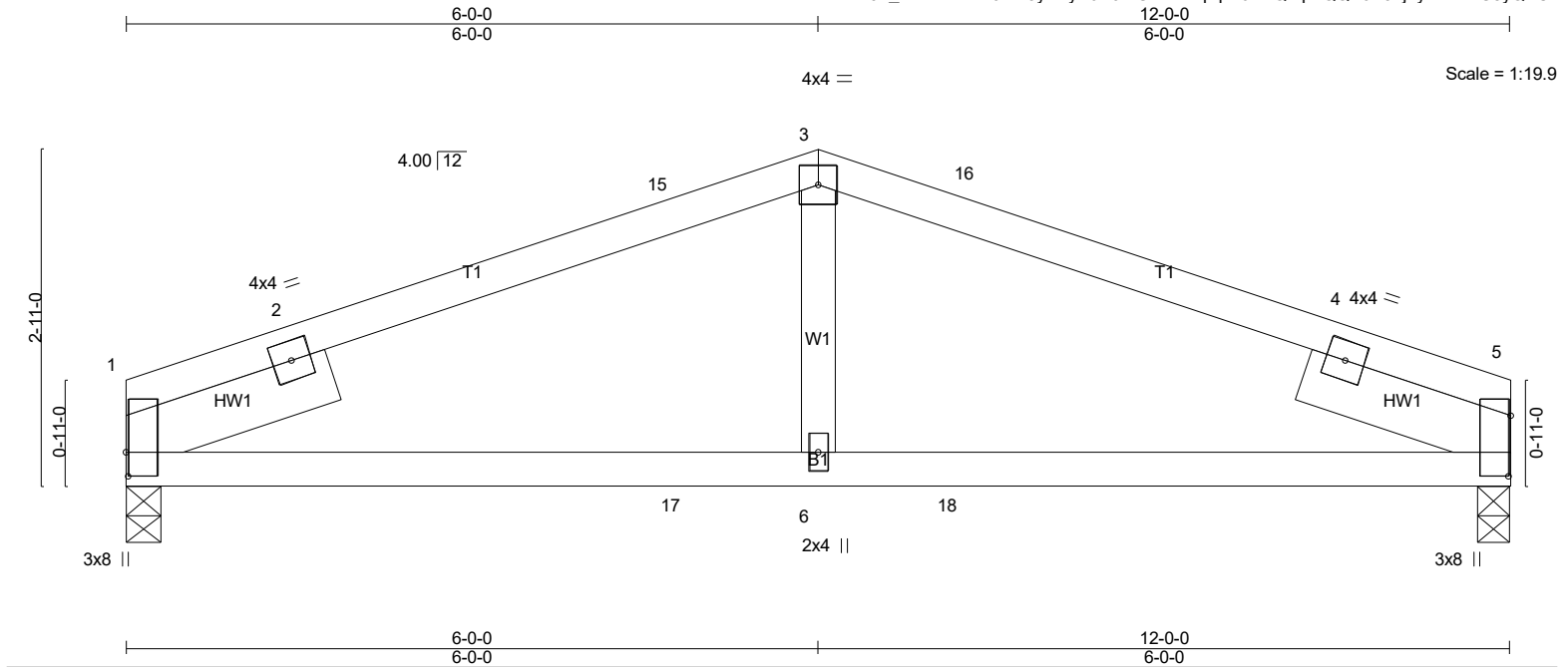


Plate Offsets (X,Y)-- [1:0-2-8,0-0-4], [5:0-6-5,0-0-4]					
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.42	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.32	Vert(LL) 0.05 6-13 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Vert(CT) -0.06 6-13 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 1 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 49 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 -° 1-11-0, Right 2x6 SP No.2 -° 1-11-0	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=480/0-3-8 (min. 0-1-8), 5=480/0-3-8 (min. 0-1-8)
 Max Horz 1=-30(LC 15)
 Max Uplift 1=-165(LC 10), 5=-165(LC 11)
 Max Grav 1=561(LC 20), 5=561(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-200/301, 2-15=-657/901, 3-15=-618/908, 3-16=-618/908, 4-16=-657/901, 4-5=-200/301
 BOT CHORD 1-17=-788/604, 6-17=-788/604, 6-18=-788/604, 5-18=-788/604
 WEBS 3-6=-353/220

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 4-9-10, Exterior(2R) 4-9-10 to 7-2-6, Exterior(2E) 7-2-6 to 12-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL); Lum DOL=1.15 Plate DOL=1.15; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 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 1-0-0 wide will fit between the bottom chord and any other members.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=165 5=165.
 - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

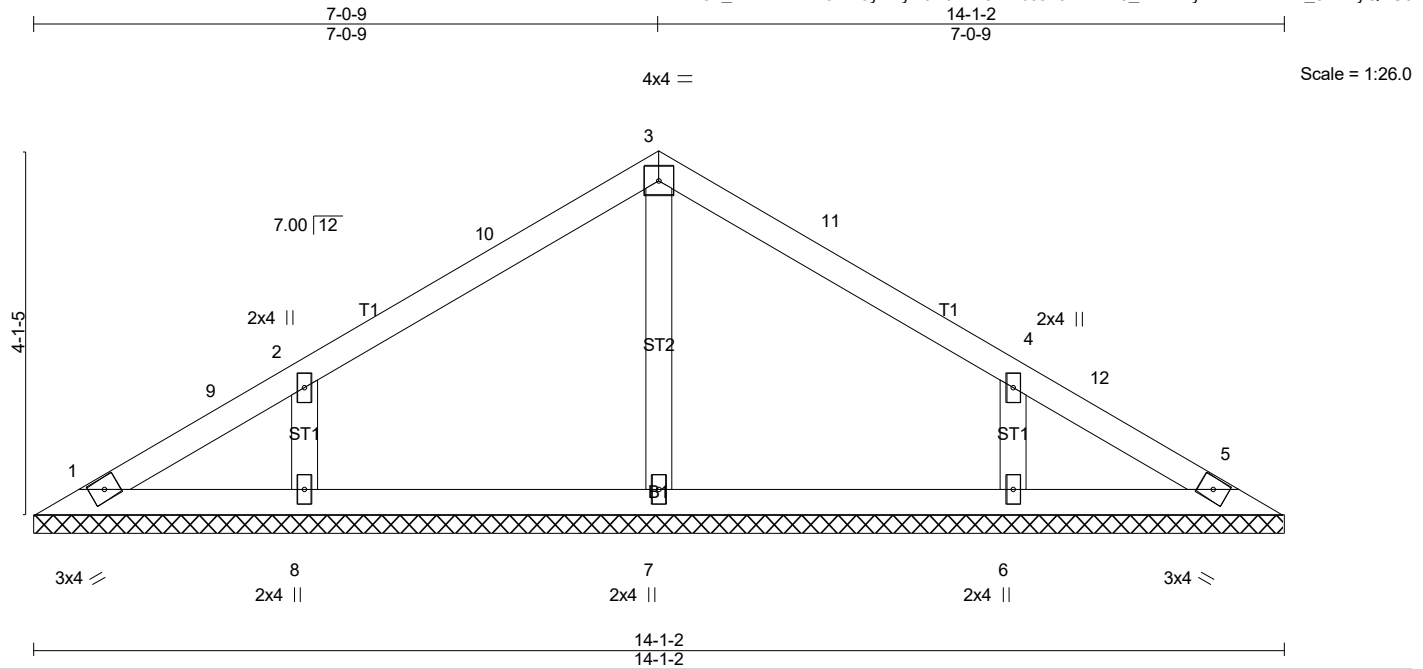


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Job 23-7721-R01	Truss V01	Truss Type Valley	Qty 1	Ply 1	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC Job Reference (optional) # 42107
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.20	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 52 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD
BOT CHORD

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 14-1-2.
(lb) - Max Horz 1=84(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-108(LC 14), 6=-108(LC 15)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=290(LC 21), 8=429(LC 20), 6=429(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-359/143, 4-6=-359/143

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 8-9-1, Exterior(2E) 8-9-1 to 13-6-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=108, 6=108.

LOAD CASE(S) Standard

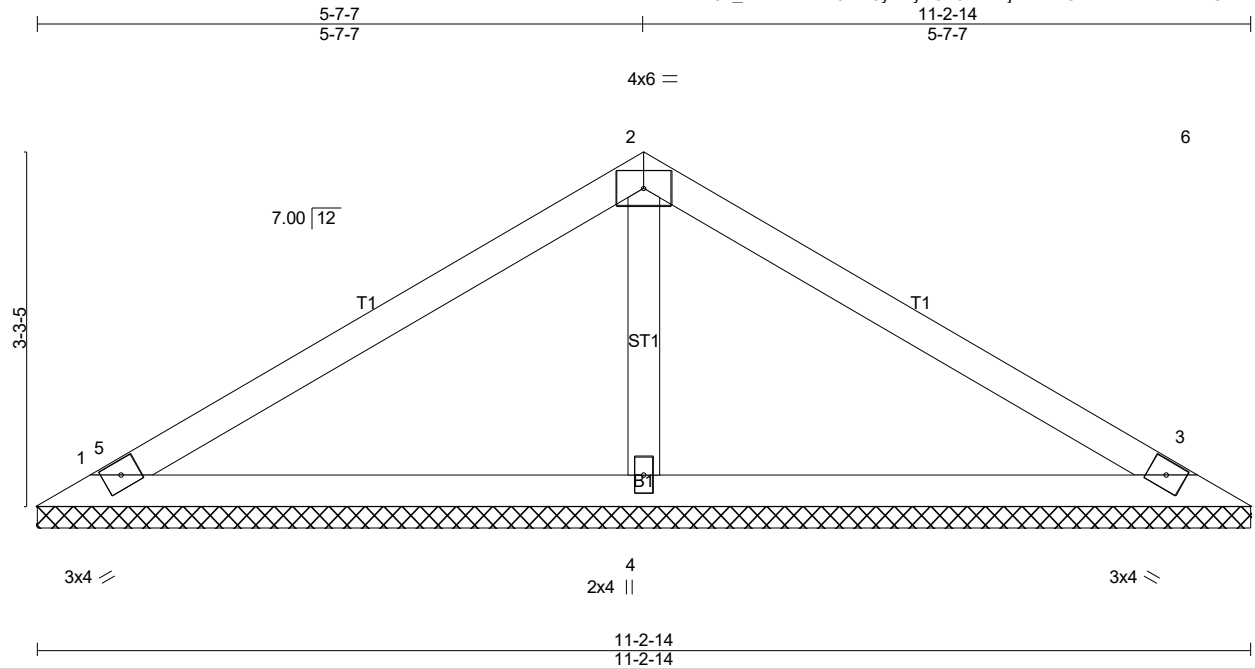


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Job 23-7721-R01	Truss V02	Truss Type Valley	Qty 1	Ply 1	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC Job Reference (optional) # 42107
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.59	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.43	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) n/a - n/a 999		
BCDL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 38 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=192/11-2-14 (min. 0-1-8), 3=192/11-2-14 (min. 0-1-8), 4=429/11-2-14 (min. 0-1-8)
Max Horz 1=-65(LC 10)
Max Uplift 1=-37(LC 14), 3=-46(LC 15), 4=-23(LC 14)
Max Grav 1=272(LC 20), 3=272(LC 21), 4=449(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-299/105

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

LOAD CASE(S) Standard

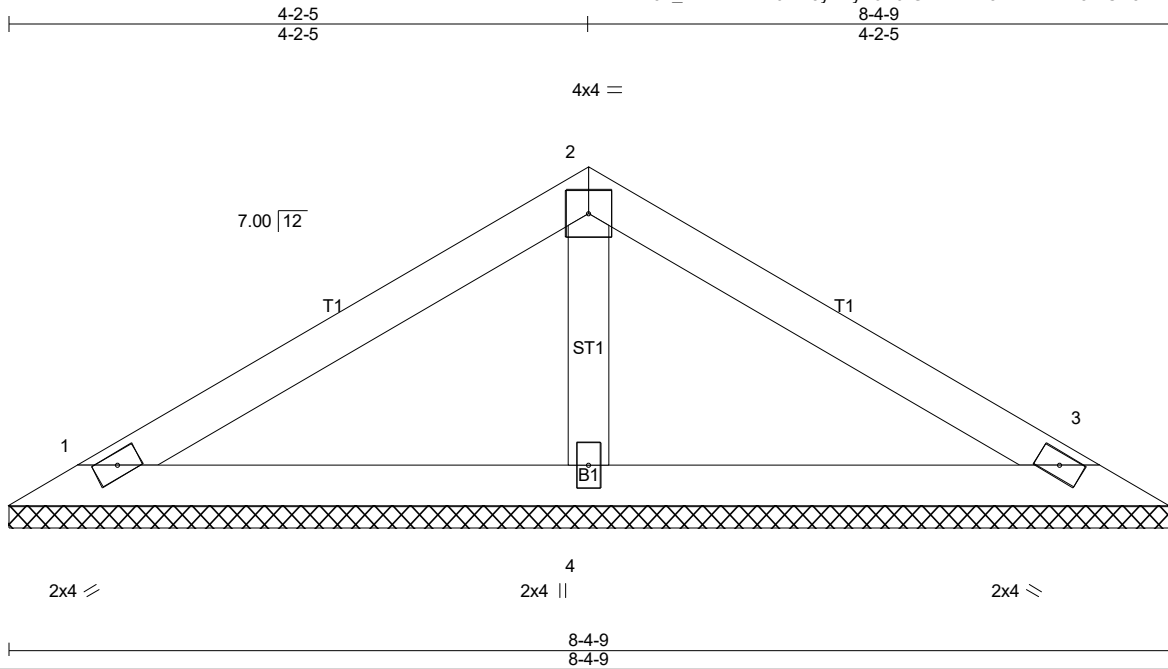


10/23/2023

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Job 23-7721-R01	Truss V03	Truss Type Valley	Qty 1	Ply 1	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC Job Reference (optional) # 42107
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Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 24 15:52:31 2023 Page 1
ID:av29u_vm2cwLtxF0Wc5ybywV6X0-GrFlwnLZ5mBvzKKR5INCH32ivY9LwzL8zHaltTyQAC_



Scale = 1:16.6

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.38	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.23	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 28 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD
BOT CHORD

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=152/8-4-9 (min. 0-1-8), 3=152/8-4-9 (min. 0-1-8), 4=280/8-4-9 (min. 0-1-8)
Max Horz 1=47(LC 13)
Max Uplift 1=-33(LC 14), 3=-40(LC 15), 4=-2(LC 14)
Max Grav 1=209(LC 20), 3=209(LC 21), 4=284(LC 20)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

LOAD CASE(S) Standard

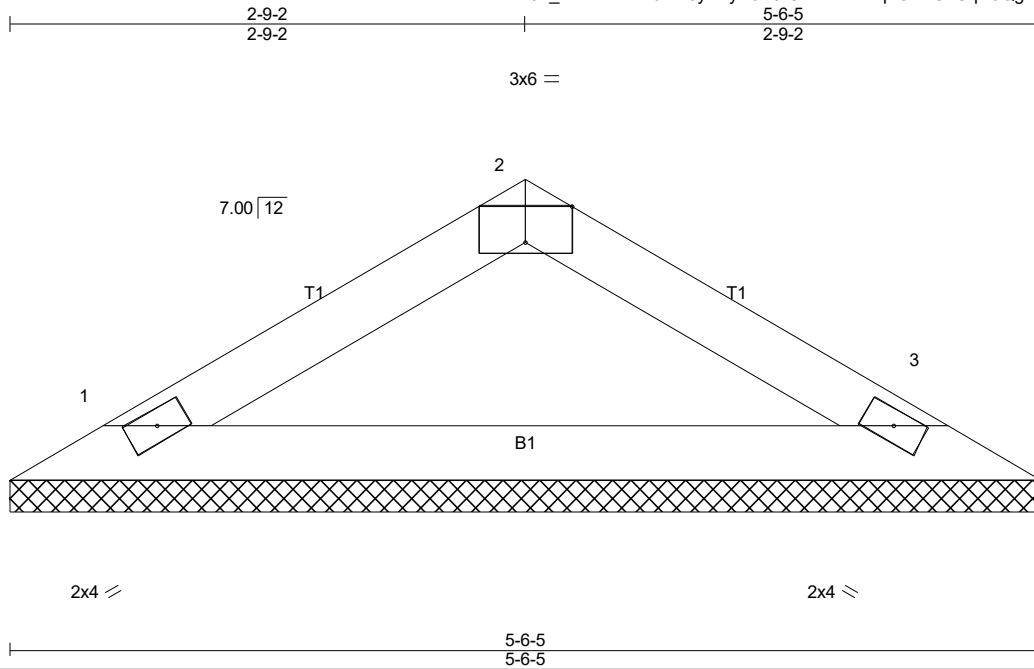


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Job 23-7721-R01	Truss V04	Truss Type Valley	Qty 1	Ply 1	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC Job Reference (optional) # 42107
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Scale = 1:12.3

LOADING (psf)		SPACING-		CSI.	DEFL.				PLATES	GRIP	
TCLL (roof)	20.0	2-0-0	Plate Grip DOL	1.15	TC	0.12	in (loc)	l/defl	L/d	MT20	244/190
Snow (Pf)	20.0	1.15	Lumber DOL	1.15	BC	0.42	n/a	-	n/a		
TCDL	10.0	YES	Rep Stress Incr	YES	WB	0.00	n/a	-	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014	Matrix-P		Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0									Weight: 16 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=178/5-6-5 (min. 0-1-8), 3=178/5-6-5 (min. 0-1-8)
Max Horz 1=29(LC 13)
Max Uplift 1=-21(LC 14), 3=-21(LC 15)
Max Grav 1=203(LC 20), 3=203(LC 21)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BC DL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TC LL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

LOAD CASE(S) Standard

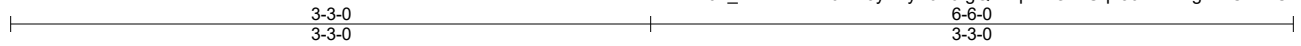


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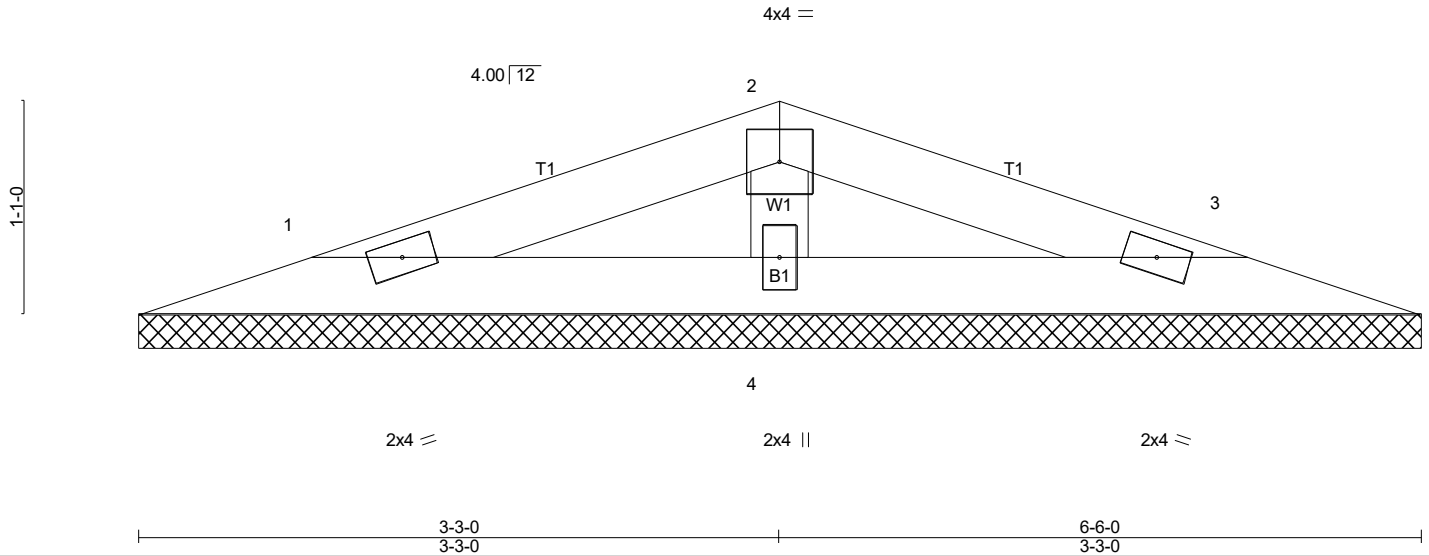
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Job 23-7721-R01	Truss V05	Truss Type Valley	Qty 1	Ply 1	LOT 28 PROVIDENCE CREEK 29 COTTONSEED LANE FUQUAY-VARINA, NC Job Reference (optional) # 42107
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Scale = 1:11.7



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.13	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.09	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 18 lb	FT = 20%

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

BRACING-
TOP CHORD
BOT CHORD

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=91/6-6-0 (min. 0-1-8), 3=91/6-6-0 (min. 0-1-8), 4=195/6-6-0 (min. 0-1-8)
Max Horz 1=12(LC 14)
Max Uplift 1=-21(LC 10), 3=-22(LC 11), 4=-11(LC 10)
Max Grav 1=113(LC 20), 3=113(LC 21), 4=195(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

LOAD CASE(S) Standard



10/23/2023

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