

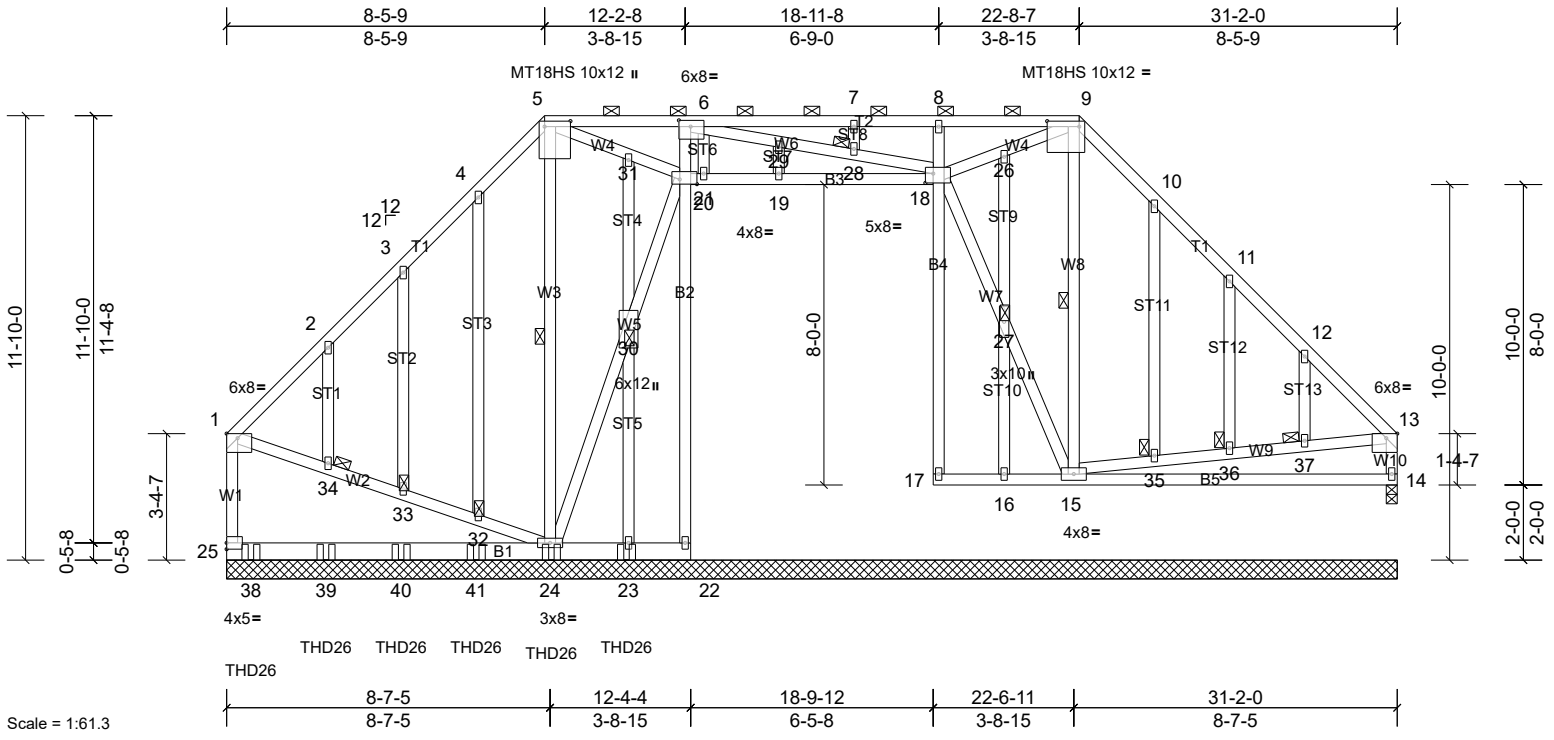
Job 22050131	Truss A01	Truss Type Piggyback Base Girder	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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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	0.84	Vert(LL)	-0.11	24-25	>953	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.23	24-25	>450	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.98	Horz(CT)	0.03	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 332 lb	FT = 20%

LUMBER	BRACING
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 5-9.
BOT CHORD 2x4 SP No.3 *Except* B1:2x6 SP 2400F 2.0E, B3,B5:2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* W1:2x4 SP 2400F 2.0E	WEBS 1 Row at midpt 5-24, 9-15
OTHERS 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 27, 28, 30, 32, 33, 34, 35, 36, 37

REACTIONS	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
All bearings 31-2-0.	
(lb) - Max Horiz 25=-243 (LC 7)	
Max Uplift All uplift 100 (lb) or less at joint(s) 14, 16, 17, 22 except 15=-187 (LC 10), 20=-109 (LC 8), 23=-595 (LC 25), 24=-334 (LC 9), 25=-149 (LC 5)	
Max Grav All reactions 250 (lb) or less at joint(s) 14, 16, 17, 19, 20, 23 except 15=945 (LC 25), 22=280 (LC 25), 24=2432 (LC 24), 25=860 (LC 24)	

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

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	4-5=-114/273, 9-10=0/274
BOT CHORD	25-38=-233/303, 38-39=-233/303, 39-40=-233/303, 40-41=-233/303, 24-41=-233/303, 14-15=-112/263
WEBS	5-24=-387/133, 18-27=-312/233, 15-27=-334/252, 9-15=-385/10, 1-34=-335/229, 33-34=-340/232, 32-33=-377/246, 24-32=-380/249, 15-35=-403/220, 35-36=-395/215, 36-37=-382/207, 13-37=-382/207

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - The Fabrication Tolerance at joint 5 = 8%
  - Gable studs spaced at 2-0-0 oc.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 25, 22, and 24. This connection is for uplift only and does not consider lateral forces.

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
22050131	A01	Piggyback Base Girder	1	1	

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- 12) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17, 14, 15, 16, 19, and 20. This connection is for uplift only and does not consider lateral forces.
- 13) One RT8A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 23. This connection is for uplift only and does not consider lateral forces.
- 14) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-7-12 from the left end to 10-7-12 to connect truss(es) H03 (1 ply 2x4 SP), H05 (1 ply 2x4 SP) to front face of bottom chord.
- 17) Fill all nail holes where hanger is in contact with lumber.
- 18) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (lb/ft)
    - Vert: 1-5=-48, 5-9=-58, 9-13=-48, 22-25=-20, 18-21=-20, 14-17=-20
  - Concentrated Loads (lb)
    - Vert: 24=-318 (F), 23=-318 (F), 38=-346 (F), 39=-318 (F), 40=-318 (F), 41=-318 (F)

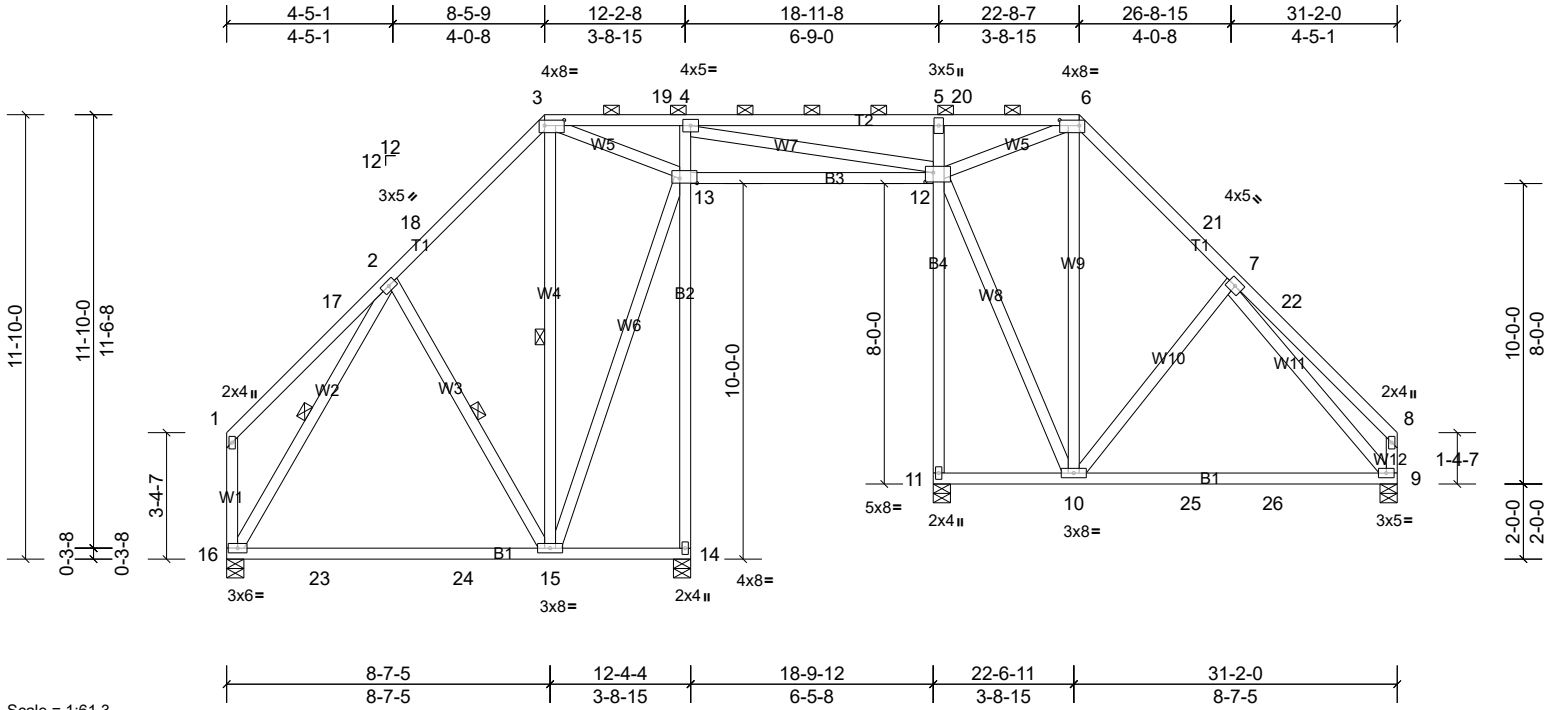
Job 22050131	Truss A02	Truss Type Piggyback Base	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:61.3

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [6:0-6-4,0-1-12], [12:0-2-8,0-3-0], [13:0-5-8,0-1-8]

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	0.50	Vert(LL)	-0.20	15-16	>727	240	MT20 244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.34	15-16	>424	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.02	9	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										Weight: 263 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* B2,B4:2x4 SP No.3  
WEBS 2x4 SP No.3

**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.): 3-6.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 3-15, 2-16, 2-15

**REACTIONS** All bearings 0-5-8.  
(lb) - Max Horiz 16=-245 (LC 11)  
Max Uplift All uplift 100 (lb) or less at joint(s) 9, 16 except 14=-122 (LC 10)  
Max Grav All reactions 250 (lb) or less at joint(s) except 9=531 (LC 25), 11=777 (LC 2), 14=762 (LC 2), 16=567 (LC 25)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-18=-426/280, 3-18=-392/312, 6-21=-398/280, 7-21=-432/248, 8-22=-274/84, 8-9=-254/98  
BOT CHORD 16-23=-104/261, 23-24=-104/261, 15-24=-104/261, 13-14=-776/122, 4-13=-344/113, 11-12=-770/52, 5-12=-349/128  
WEBS 13-15=-88/474, 10-12=0/320, 2-16=-380/172, 7-10=-253/169

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-3-2, Interior (1) 3-3-2 to 8-5-9, Exterior (2) 8-5-9 to 11-7-0, Interior (1) 11-7-0 to 22-8-7, Exterior (2) 22-8-7 to 25-9-13, Interior (1) 25-9-13 to 31-0-4 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14, 11, 16, and 9. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



Job 22050131	Truss A03	Truss Type Piggyback Base	Qty 1	Ply 1	Job Reference (optional)
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- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

Job 22050131	Truss A04	Truss Type Piggyback Base	Qty 4	Ply 1	Job Reference (optional)
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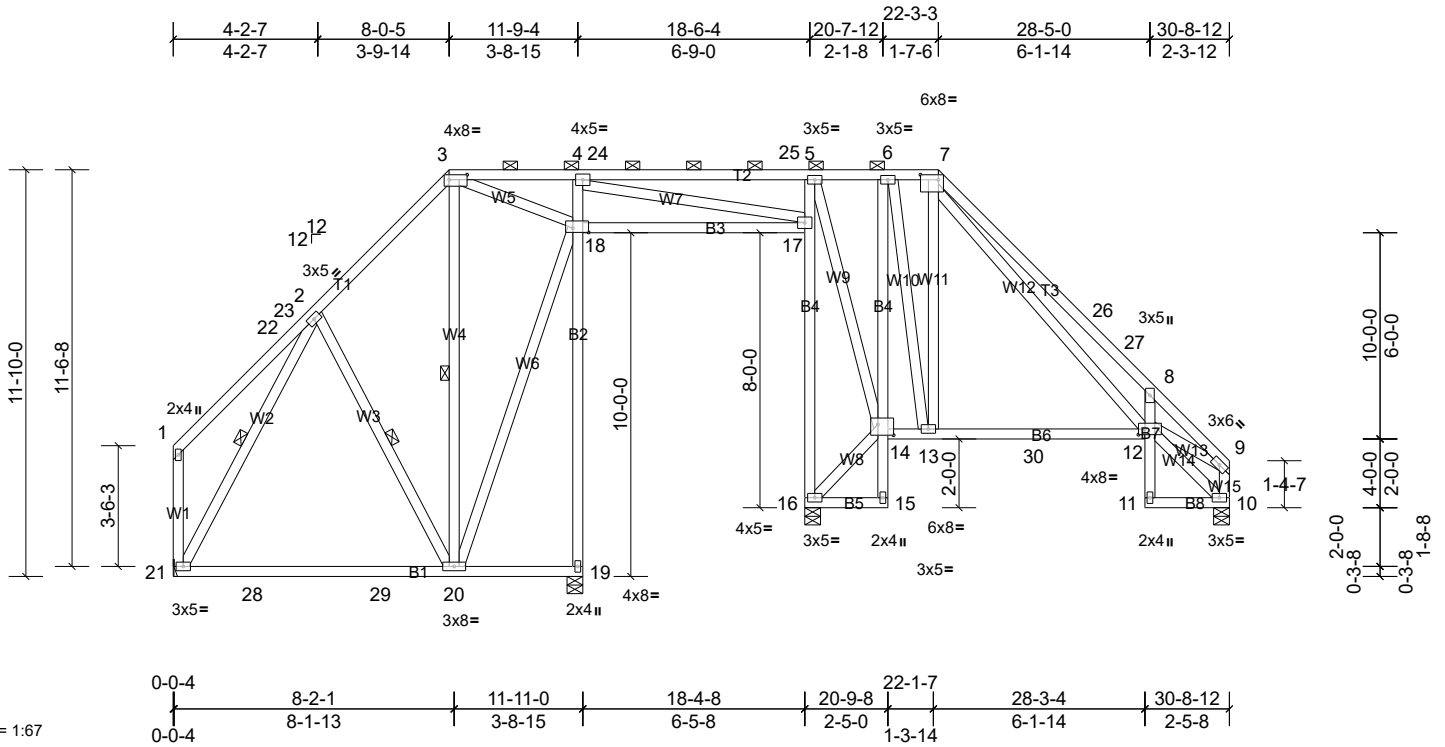


Plate Offsets (X, Y): [3:0-6-4,0-1-12], [7:0-6-4,0-1-12], [12:0-2-4,0-2-0], [14:0-5-8,0-3-12], [18:0-5-8,0-1-8]

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	0.61	Vert(LL)	-0.17	20-21	>830	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.28	20-21	>489	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 288 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* B2,B4,B7:2x4 SP No.3  
 WEBS 2x4 SP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 3-9-14 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 19-20,18-19,16-17.  
 WEBS 1 Row at midpt 3-20, 2-21, 2-20

**REACTIONS** All bearings 0-5-8, except 21= Mechanical  
 (lb) - Max Horiz 21=-250 (LC 11)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 10, 21 except 19=-127 (LC 10)  
 Max Grav All reactions 250 (lb) or less at joint(s) except 10=533 (LC 25), 16=769 (LC 2), 19=746 (LC 2), 21=558 (LC 25)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-422/324, 3-4=-228/266, 4-24=-313/296, 24-25=-313/296, 5-25=-313/296, 5-6=-324/287, 6-7=-375/282, 7-26=-1330/644, 26-27=-1350/607, 8-27=-1377/596, 8-9=-1042/324, 9-10=-484/139  
 BOT CHORD 18-19=-755/130, 4-18=-346/142, 16-17=-737/39, 5-17=-668/82, 6-14=-400/0, 8-12=-498/326  
 WEBS 18-20=-95/457, 6-13=0/471, 7-13=-257/58, 7-12=-430/1065, 2-21=-386/202, 5-14=0/339, 9-12=-233/758

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-7-0 to 3-7-13, Interior (1) 3-7-13 to 8-5-9, Exterior (2) 8-5-9 to 12-9-10, Interior (1) 12-9-10 to 22-8-7, Exterior (2) 22-8-7 to 27-0-7, Interior (1) 27-0-7 to 31-0-4 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 3x5 MT20 unless otherwise indicated.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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) 21.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19, 16, and 10. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

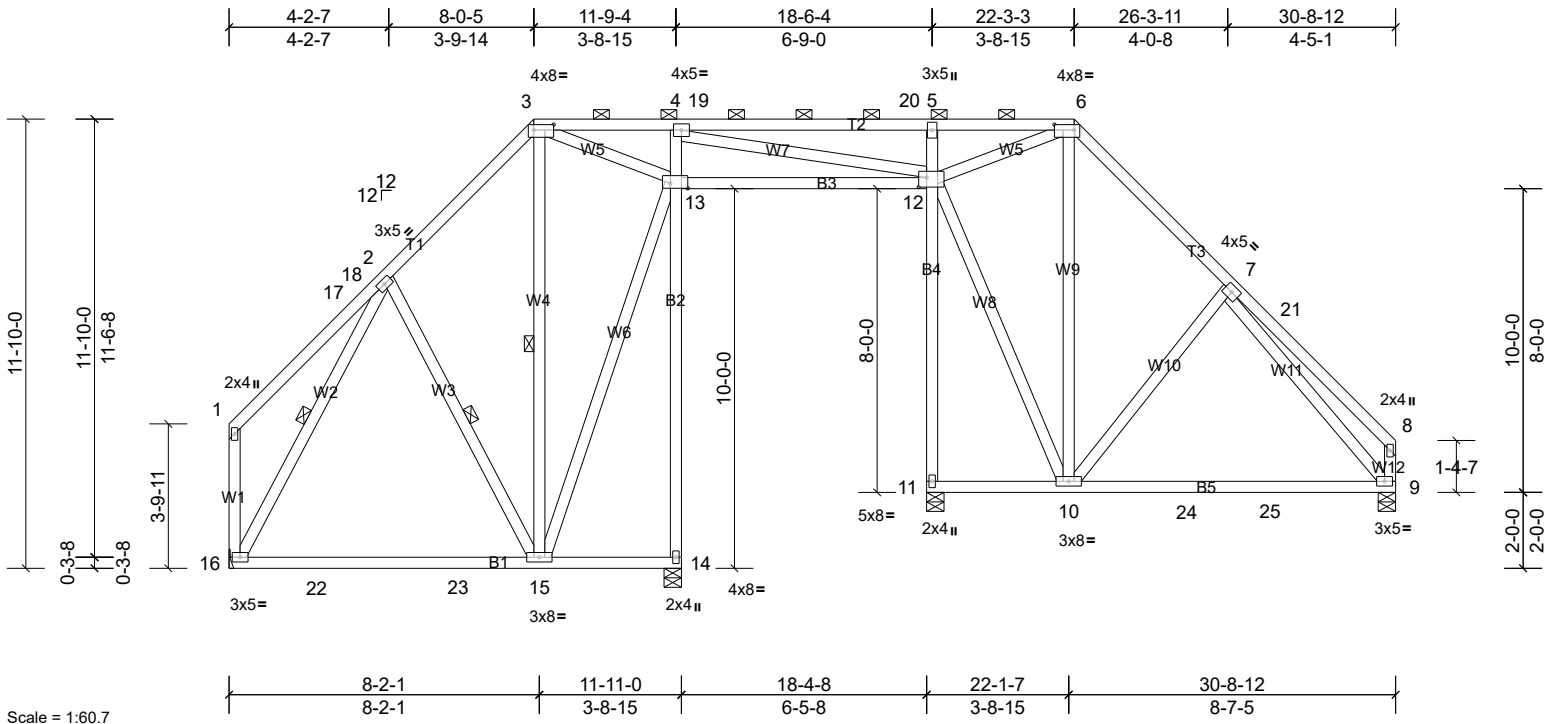
Job 22050131	Truss A05	Truss Type Piggyback Base	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:60.7

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [6:0-6-4,0-1-12], [12:0-2-8,0-3-0], [13:0-5-8,0-1-8]

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	0.47	Vert(LL)	-0.17	15-16	>830	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.28	15-16	>489	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 262 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* B2,B4:2x4 SP No.3  
 WEBS 2x4 SP No.3

**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.): 3-6.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-15, 2-16, 2-15

**REACTIONS**

All bearings 0-5-8, except 16= Mechanical  
 (lb) - Max Horiz 16=-250 (LC 11)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 9, 16 except 14=-126 (LC 10)  
 Max Grav All reactions 250 (lb) or less at joint(s) except 9=531 (LC 25), 11=776 (LC 2), 14=745 (LC 2), 16=555 (LC 25)

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

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-415/317, 6-7=-433/289, 8-21=-274/83, 8-9=-254/97  
 BOT CHORD 13-14=-757/129, 4-13=-344/121, 11-12=-770/60, 5-12=-349/135  
 WEBS 13-15=-95/456, 10-12=0/321, 2-16=-383/194, 7-10=-252/174

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-7-0 to 3-7-13, Interior (1) 3-7-13 to 8-5-9, Exterior (2) 8-5-9 to 12-9-10, Interior (1) 12-9-10 to 22-8-7, Exterior (2) 22-8-7 to 26-10-0, Interior (1) 26-10-0 to 31-0-4 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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) 16.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14, 11, and 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

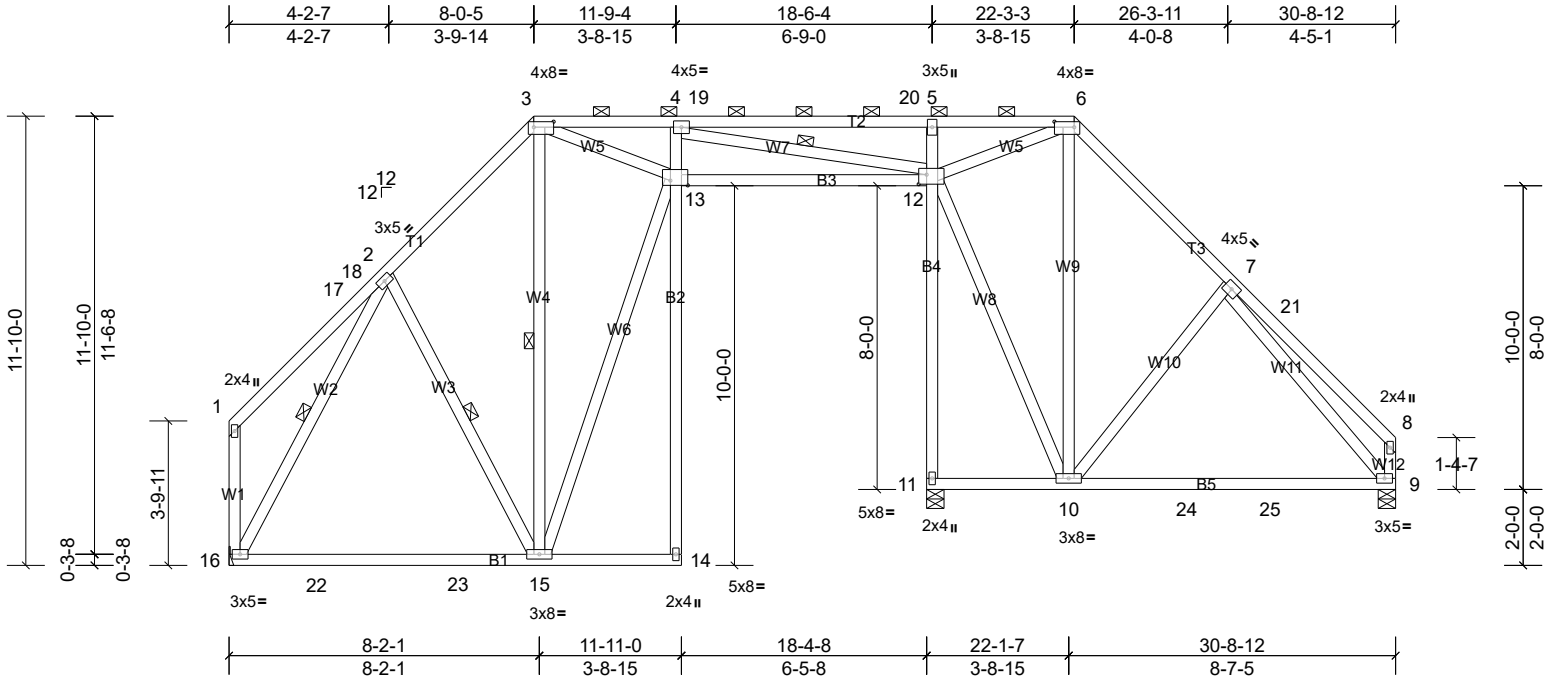
Job 22050131	Truss A06	Truss Type Piggyback Base	Qty 3	Ply 1	Job Reference (optional)
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Scale = 1:60.7

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [6:0-6-4,0-1-12], [12:0-2-8,0-3-0], [13:0-5-8,0-1-8]

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	0.77	Vert(LL)	-0.17	15-16	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.33	15-16	>674	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.25	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 262 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* B2,B4:2x4 SP No.3  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-0 max.): 3-6.  
 BOT CHORD Rigid ceiling directly applied or 4-7-5 oc bracing.  
 WEBS 1 Row at midpt 3-15, 4-12, 2-16, 2-15

**REACTIONS** (lb/size) 9=310/0-5-8, (min. 0-1-8), 11=1309/0-5-8, (min. 0-1-10), 16=584/ Mechanical, (min. 0-1-8)  
 Max Horiz 16=-250 (LC 11)  
 Max Uplift 9=-93 (LC 14), 11=-74 (LC 10), 16=-17 (LC 14)  
 Max Grav 9=471 (LC 25), 11=1402 (LC 2), 16=689 (LC 25)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-524/302, 3-4=-1611/285, 4-19=-132/656, 19-20=-132/656, 5-20=-132/656, 5-6=-133/753, 6-7=-372/297, 8-21=-271/83, 8-9=-252/97  
 BOT CHORD 16-22=-123/354, 22-23=-123/354, 15-23=-123/354, 4-13=-17/349, 12-13=-297/1667, 11-12=-1396/87, 5-12=-387/137  
 WEBS 3-15=-483/126, 13-15=-164/860, 3-13=-268/1470, 4-12=-2345/418, 6-12=-853/132, 6-10=-147/329, 2-16=-534/177, 7-10=-262/173

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-7-0 to 3-7-13, Interior (1) 3-7-13 to 8-5-9, Exterior (2) 8-5-9 to 12-9-10, Interior (1) 12-9-10 to 22-8-7, Exterior (2) 22-8-7 to 26-10-0, Interior (1) 26-10-0 to 31-0-4 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 17 lb uplift at joint 16.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



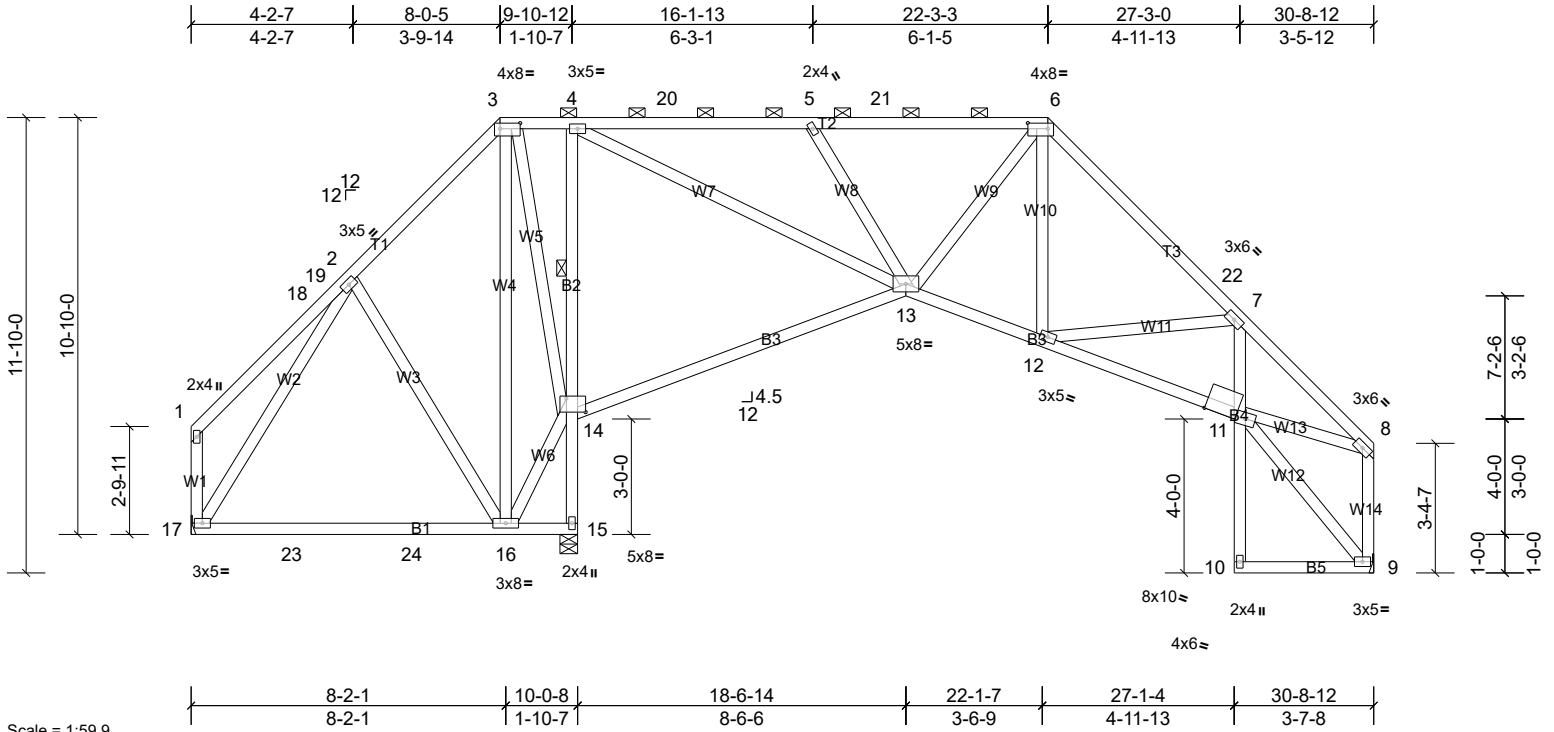
Job 22050131	Truss A07	Truss Type Piggyback Base	Qty 10	Ply 1	Job Reference (optional)
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Scale = 1:59.9

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [6:0-6-4,0-1-12], [11:1-1-3,Edge], [14:0-6-0,0-4-4]

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	0.49	Vert(LL)	-0.13	16-17	>914	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.25	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.10	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 247 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* B2,B4:2x4 SP No.3  
WEBS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-1-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-1 max.): 3-6.  
BOT CHORD Rigid ceiling directly applied or 4-0-10 oc bracing. Except: 4-14

**REACTIONS** (lb/size) 9=649/ Mechanical, (min. 0-1-8), 15=1411/0-5-8, (min. 0-1-13), 17=144/ Mechanical, (min. 0-1-8)  
Max Horiz 17=250 (LC 12)  
Max Uplift 9=-9 (LC 14), 15=-74 (LC 10), 17=-70 (LC 13)  
Max Grav 9=732 (LC 2), 15=1517 (LC 2), 17=349 (LC 25)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-261/318, 3-4=-104/255, 4-20=-914/276, 5-20=-914/276, 5-21=-682/188, 6-21=-682/188, 6-22=-849/218, 7-22=-959/180, 7-8=-1247/265, 8-9=-699/164  
BOT CHORD 14-15=-1566/137, 4-14=-870/154, 13-14=-288/153, 12-13=-4/657, 11-12=-211/942  
WEBS 3-16=-223/532, 14-16=-189/262, 3-14=-643/122, 4-13=-153/1279, 5-13=-471/177, 6-12=-48/269, 7-12=-416/202, 8-11=-159/864, 2-16=-288/202

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCdL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-2-9, Interior (1) 3-2-9 to 8-0-5, Exterior (2) 8-0-5 to 12-4-6, Interior (1) 12-4-6 to 22-3-3, Exterior (2) 22-3-3 to 26-7-3, Interior (1) 26-7-3 to 30-7-0 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 70 lb uplift at joint 17 and 9 lb uplift at joint 9.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

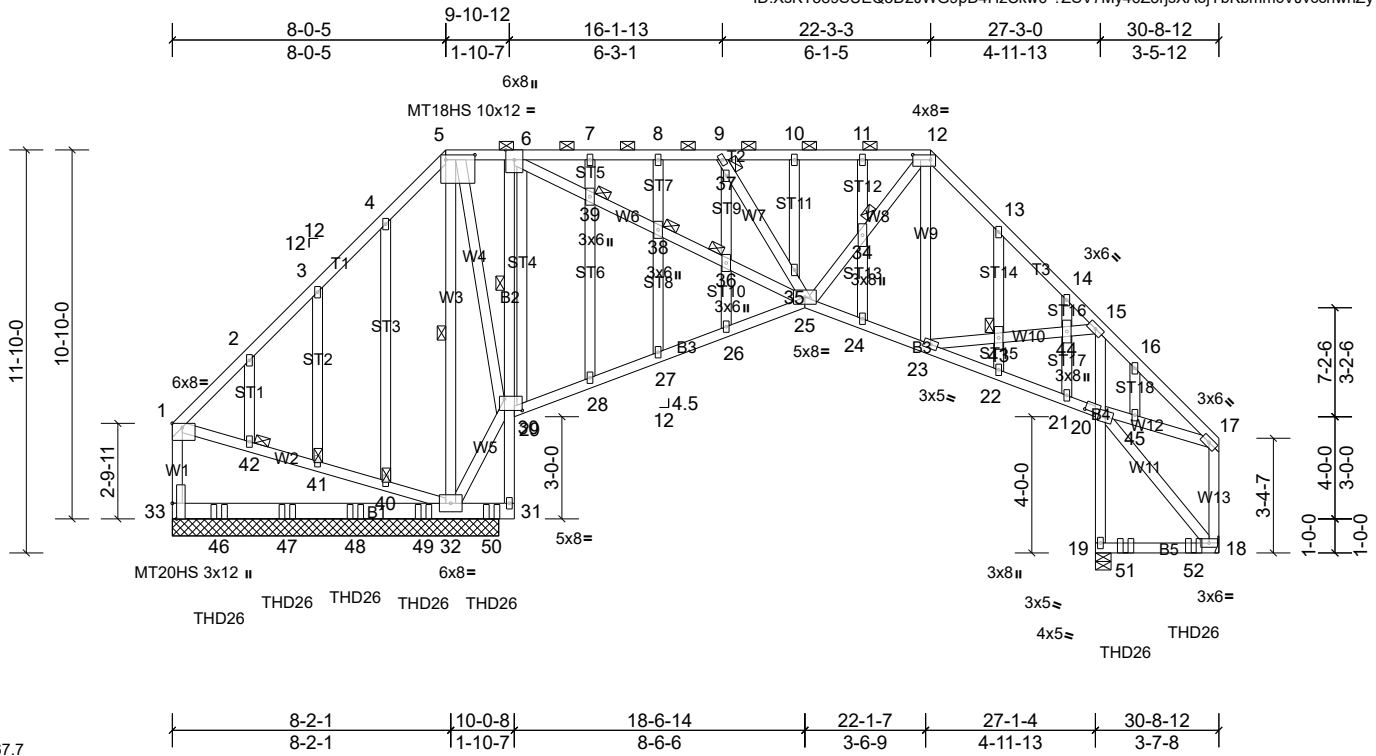
Job 22050131	Truss A08	Truss Type Piggyback Base Girder	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:67.7

Plate Offsets (X, Y): [1:Edge,0-1-7], [5:0-10-4,0-1-12], [12:0-6-4,0-1-12], [20:0-7-11,0-0-0], [30:0-6-4,0-4-0], [33:0-5-8,Edge]

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	0.56	Vert(LL)	-0.11	32-33	>895	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.23	32-33	>427	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.05	19	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 326 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* B1:2x6 SP 2400F 2.0E, B2,B4:2x4 SP No.3  
 WEBS 2x4 SP No.3 \*Except\* W1:2x4 SP 2400F 2.0E  
 OTHERS 2x4 SP No.3

**REACTIONS** All bearings 9-7-0. except 19=0-5-8, 18= Mechanical  
 (lb) - Max Horiz 33=250 (LC 8)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 19 except 18=462 (LC 28), 32=-259 (LC 6), 33=-152 (LC 5)  
 Max Grav All reactions 250 (lb) or less at joint(s) 18 except 19=720 (LC 25), 32=3131 (LC 2), 33=586 (LC 21)

**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.): 5-12.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 10-0-0 oc bracing: 32-33,24-25,23-24  
 5-11-14 oc bracing: 19-20.  
 6-30  
 WEBS 1 Row at midpt 5-32  
 JOINTS 1 Brace at Jt(s): 34, 36, 37, 38, 39, 40, 41, 42, 43

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

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-248/419, 2-3=-224/494, 3-4=-179/510, 4-5=-159/587, 5-6=-32/334, 6-7=-660/45, 7-8=-660/45, 8-9=-660/45, 9-10=-449/35, 10-11=-449/35, 11-12=-449/35, 12-13=-479/66, 13-14=-508/12, 14-15=-544/0, 1-33=-178/298  
 BOT CHORD 33-46=-247/343, 46-47=-247/343, 47-48=-247/343, 48-49=-247/343, 32-49=-247/343, 30-31=-565/5, 6-30=-639/22, 29-30=-354/118, 28-29=-357/135, 27-28=-337/132, 26-27=-328/135, 25-26=-344/134, 24-25=-13/368, 23-24=-14/334, 19-20=-784/0, 15-20=-649/0  
 WEBS 5-32=-609/334, 30-32=-595/228, 6-39=-25/1028, 38-39=-23/992, 36-38=-23/974, 25-36=-24/1001, 9-37=-296/38, 35-37=-425/18, 25-35=-529/46, 23-43=-26/373, 43-44=-24/377, 15-44=-24/376, 1-42=-544/231, 41-42=-544/231, 40-41=-575/243, 32-40=-583/247

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
22050131	A08	Piggyback Base Girder	1	1	

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- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Refer to girder(s) for truss to truss connections.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=462.
- 12) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 33, 19, and 32. This connection is for uplift only and does not consider lateral forces.
- 13) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-4-8 from the left end to 9-4-8 to connect truss(es) K04 (1 ply 2x4 SP) to back face of bottom chord.
- 16) Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 27-11-14 from the left end to 29-11-14 to connect truss(es) K02 (1 ply 2x4 SP), K01 (1 ply 2x4 SP) to back face of bottom chord.
- 17) Fill all nail holes where hanger is in contact with lumber.
- 18) WARNING: The following hangers are manually applied but fail due to geometric considerations: THD26 on back face at 27-11-14 from the left end, THD26 on back face at 29-11-14 from the left end.
- 19) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-5=-48, 5-12=-58, 12-17=-48, 31-33=-20, 25-30=-20, 20-25=-20, 18-19=-20  
Concentrated Loads (lb)  
Vert: 46=-408 (B), 47=-408 (B), 48=-408 (B), 49=-408 (B), 50=-408 (B), 51=67 (B), 52=199 (B)

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
22050131	B01	Roof Special Girder	1	2	

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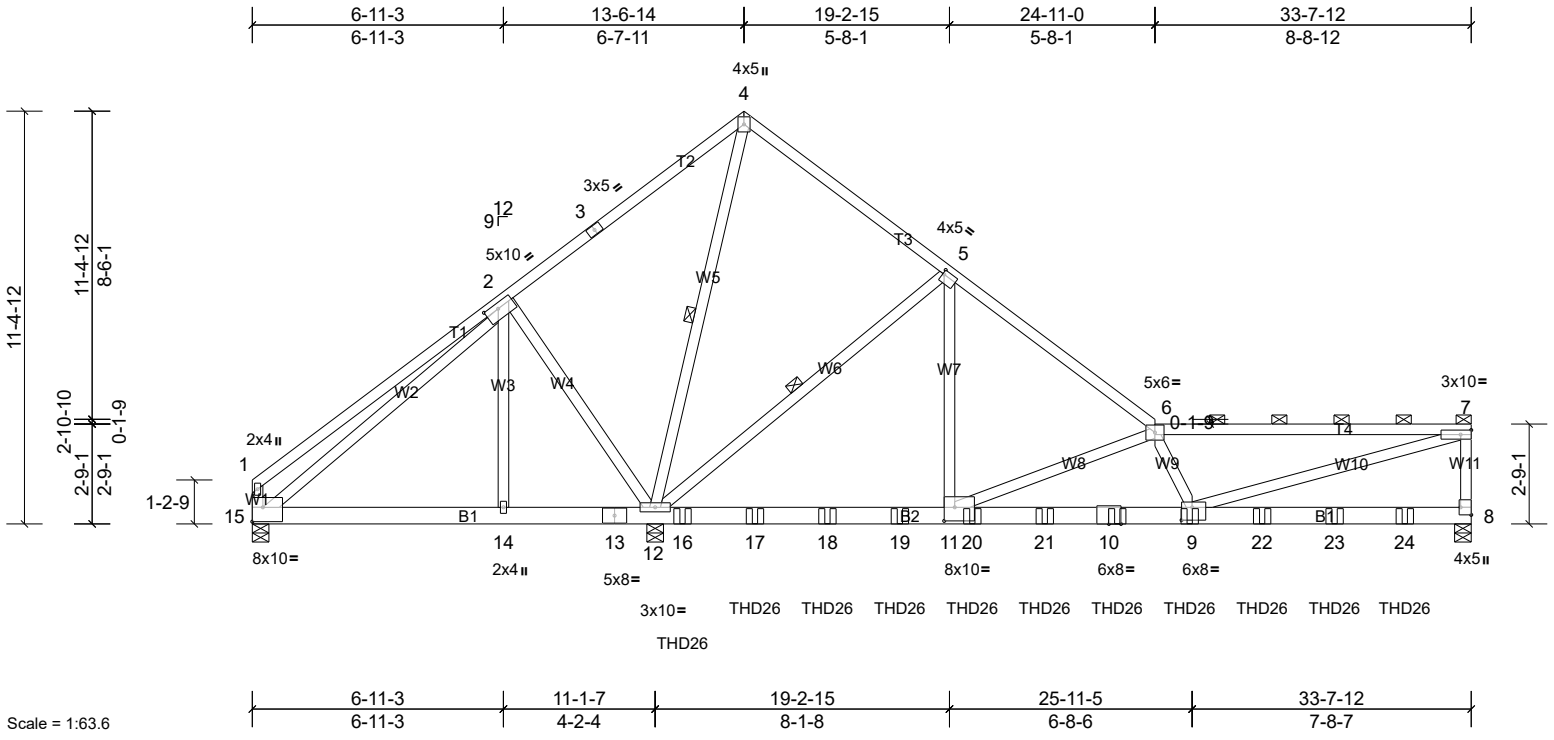


Plate Offsets (X, Y): [2:0-4-9,0-1-12], [5:0-0-8,0-1-8], [8:Edge,0-3-8], [9:0-3-8,0-4-4], [11:0-3-8,0-4-8], [15:Edge,0-4-12]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.14	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.26	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	1.00	Horz(CT)	-0.01	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 476 lb	FT = 20%

LUMBER		BRACING	
TOP CHORD	2x4 SP No.2 *Except* T4:2x4 SP 2400F 2.0E	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.): 6-7.
BOT CHORD	2x6 SP 2400F 2.0E	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3 *Except* W5,W10:2x4 SP 2400F 2.0E	WEBS	1 Row at midpt
REACTIONS (lb/size)	8=2171/0-5-8, (min. 0-1-8), 12=8381/0-5-8, (min. 0-3-15), 15=-2154/0-5-8, (min. 0-1-8)		4-12, 5-12
	Max Horiz 15=233 (LC 38)		
	Max Uplift 8=-245 (LC 10), 12=-266 (LC 10), 15=-2621 (LC 25)		
	Max Grav 8=2439 (LC 2), 12=9512 (LC 2), 15=131 (LC 10)		
FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		
TOP CHORD	1-2=-79/456, 2-3=-84/3975, 3-4=-58/4129, 4-5=-64/2877, 5-6=-1425/49, 6-7=-5806/188, 7-8=-2042/111		
BOT CHORD	14-15=-3097/268, 13-14=-3099/269, 12-13=-3099/269, 12-16=-2/1062, 16-17=-2/1062, 17-18=-2/1062, 18-19=-2/1062, 11-19=-2/1062, 11-20=-205/5502, 20-21=-205/5502, 10-21=-205/5502, 9-10=-205/5502		
WEBS	2-14=-313/75, 2-12=-456/167, 4-12=-4506/112, 5-12=-4263/215, 5-11=-75/4818, 6-11=-4824/253, 6-9=-39/938, 7-9=-162/5850, 2-15=-202/3730		

- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2621 lb uplift at joint 15.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 12. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job 22050131	Truss B01	Truss Type Roof Special Girder	Qty 1	Ply 2	Job Reference (optional)
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- 12) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 13) Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 11-10-8 from the left end to 31-9-12 to connect truss(es) A07 (1 ply 2x4 SP), A08 (1 ply 2x4 SP) to back face of bottom chord.
- 14) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

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

Uniform Loads (lb/ft)

Vert: 1-4=-46, 4-6=-46, 6-7=-56, 8-15=-19

Concentrated Loads (lb)

Vert: 9=-630 (B), 10=-630 (B), 16=-630 (B), 17=-630 (B), 18=-630 (B), 19=-630 (B), 20=-630 (B), 21=-630 (B), 22=-630 (B), 23=-630 (B), 24=170 (B)





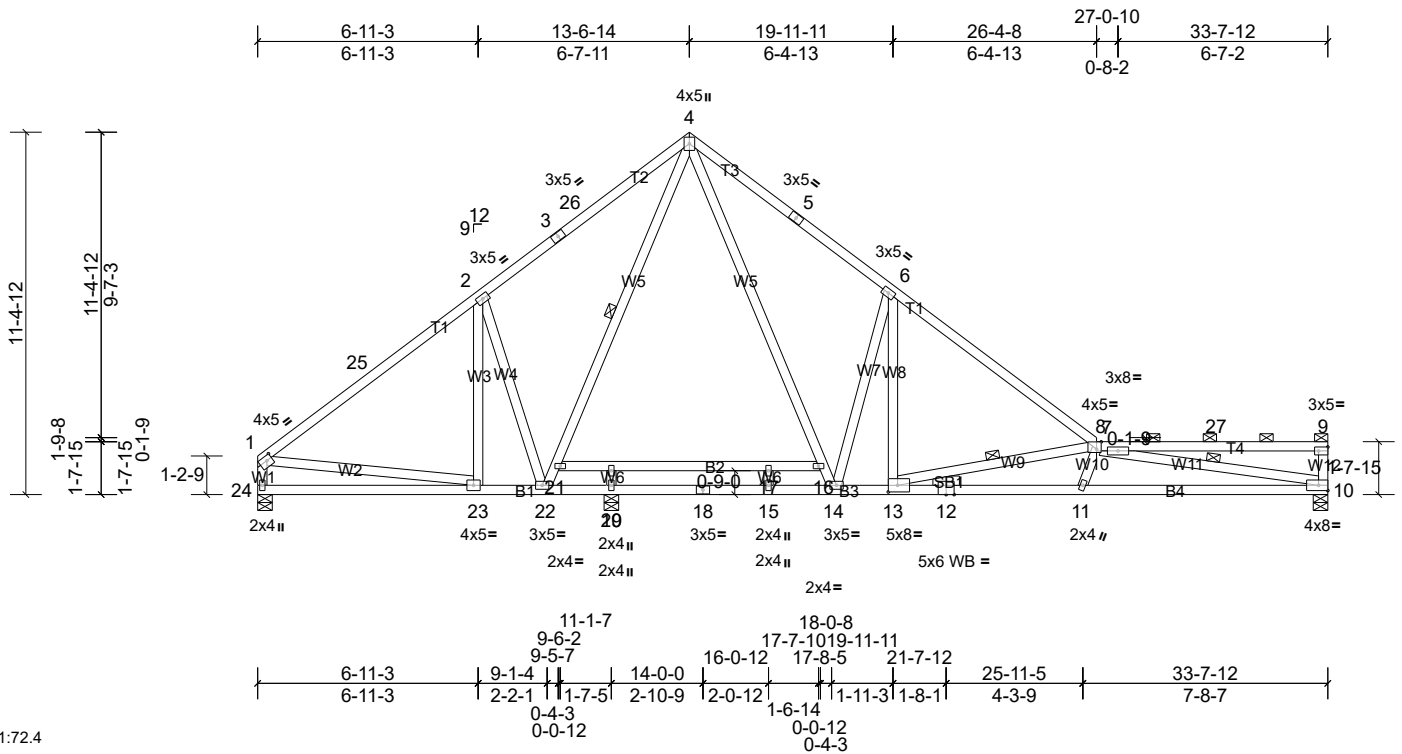
Job 22050131	Truss B04	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:72.4

Plate Offsets (X, Y): [1:0-2-0,0-1-12], [7:0-1-12,0-2-12], [9:Edge,0-1-8], [13:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	0.72	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.28 11-13	>971	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.56 11-13	>478	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.07 10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
											Weight: 231 lb FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* W11:2x4 SP 2400F 2.0E  
 OTHERS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-0-14 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-15 max.): 7-9.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-13, 8-10, 4-22

**REACTIONS** (lb/size) 10=938/0-5-8, (min. 0-1-8), 20=1225/0-5-8, (min. 0-1-8), 24=535/0-5-8, (min. 0-1-8)  
 Max Horiz 24=231 (LC 10)  
 Max Uplift 24=-31 (LC 13)  
 Max Grav 10=1040 (LC 2), 20=1556 (LC 24), 24=652 (LC 2)

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

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-25=-723/141, 2-25=-601/170, 2-3=-500/264, 3-26=-461/283, 4-26=-455/307, 4-5=-1076/242, 5-6=-1155/217, 6-7=-1525/148, 7-8=-3897/288, 1-24=-599/153  
 BOT CHORD 23-24=-226/312, 22-23=-106/529, 20-22=0/410, 18-20=0/410, 15-18=0/410, 14-15=0/410, 13-14=-53/1132, 12-13=-286/3902, 11-12=-286/3902, 10-11=-322/3871  
 WEBS 2-23=0/414, 6-13=-88/855, 7-13=-2836/242, 8-10=-3734/288, 1-23=0/357, 4-16=-43/1118, 14-16=-93/1065, 21-22=-408/3, 4-21=-677/0, 2-22=-757/192, 6-14=-1083/296, 19-20=-589/0

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-6-2, Interior (1) 3-6-2 to 13-6-14, Exterior (2) 13-6-14 to 16-11-4, Interior (1) 16-11-4 to 33-6-0 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 200.0lb AC unit load placed on the bottom chord, 13-6-14 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10, 24, and 20. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



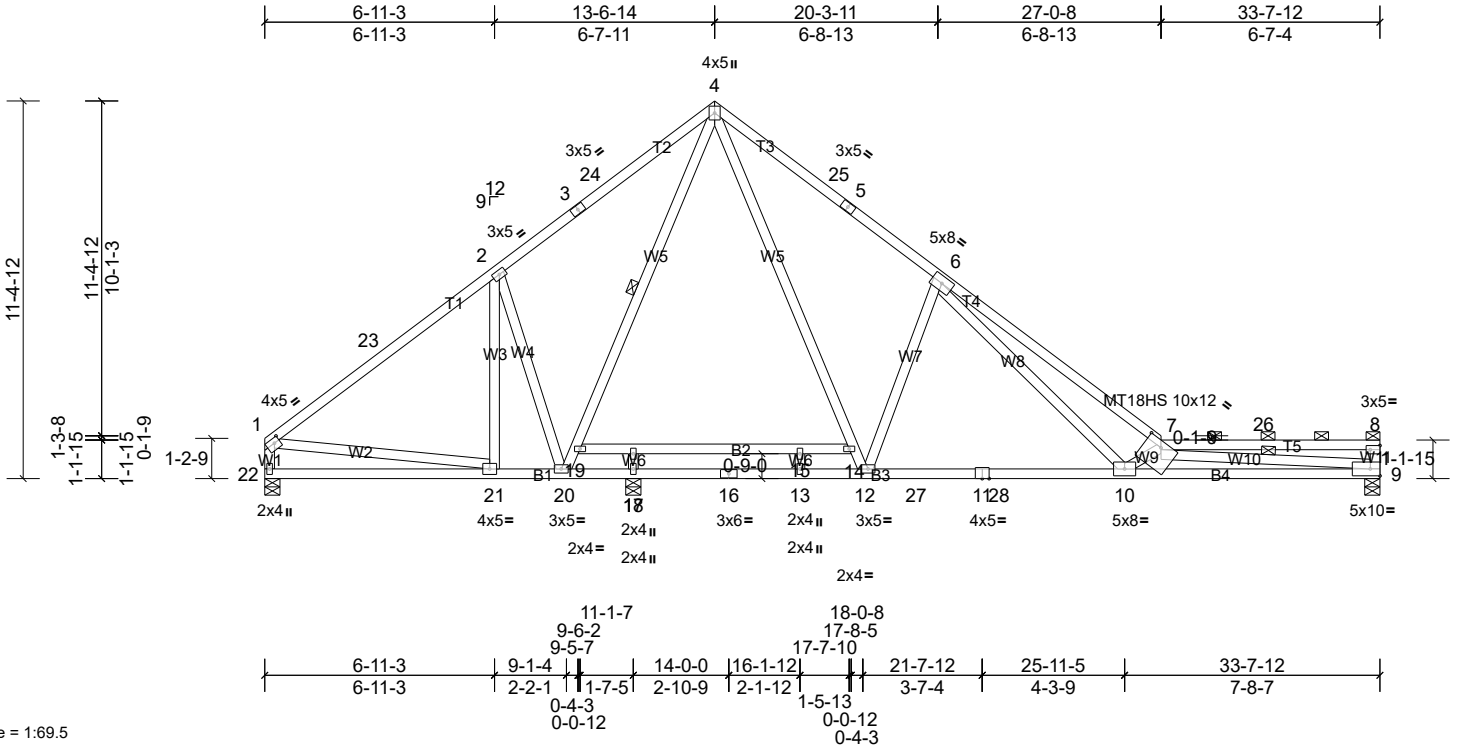
Job 22050131	Truss B05	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:69.5

Plate Offsets (X, Y): [1:0-2-0,0-1-12], [7:0-6-0,0-2-4], [8:Edge,0-1-8]

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	0.70	Vert(LL)	-0.41	10-12	>655	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.84	10-12	>319	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 221 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* T3,T4:2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* W8,W10:2x4 SP 2400F 2.0E

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-8-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-9-4 oc bracing: 20-21  
8-5-9 oc bracing: 18-20.  
WEBS 1 Row at midpt 7-9, 4-20

**REACTIONS** (lb/size) 9=884/0-5-8, (min. 0-1-8), 18=1376/0-5-8, (min. 0-1-8),  
22=432/0-5-8, (min. 0-1-8)  
Max Horiz 22=-228 (LC 9)  
Max Uplift 22=-40 (LC 13)  
Max Grav 9=983 (LC 2), 18=1762 (LC 25), 22=570 (LC 28)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-23=-606/132, 2-23=-485/160, 2-3=-354/251, 3-24=-296/270, 4-24=-290/294, 4-25=-972/229, 5-25=-976/204, 5-6=-1058/184, 6-7=-3700/299, 7-26=-346/42, 8-26=-347/42, 1-22=-515/147  
BOT CHORD 21-22=-223/308, 20-21=-125/417, 18-20=-14/325, 16-18=-14/325, 13-16=-14/325, 12-13=-14/325, 12-27=-36/1044, 11-27=-36/1044, 11-28=-36/1044, 10-28=-36/1044, 9-10=-450/5150  
WEBS 2-21=0/530, 6-12=-872/264, 6-10=-190/2711, 7-10=-2921/368, 7-9=-4850/407, 1-21=0/265, 4-14=-32/1168, 12-14=-88/1179, 19-20=-562/0, 4-19=-882/0, 2-20=-857/199, 17-18=-635/0

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-6-2, Interior (1) 3-6-2 to 13-6-14, Exterior (2) 13-6-14 to 16-11-4, Interior (1) 16-11-4 to 33-6-0 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 200.0lb AC unit load placed on the bottom chord, 13-6-14 from left end, supported at two points, 5-0-0 apart.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9, 22, and 18. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

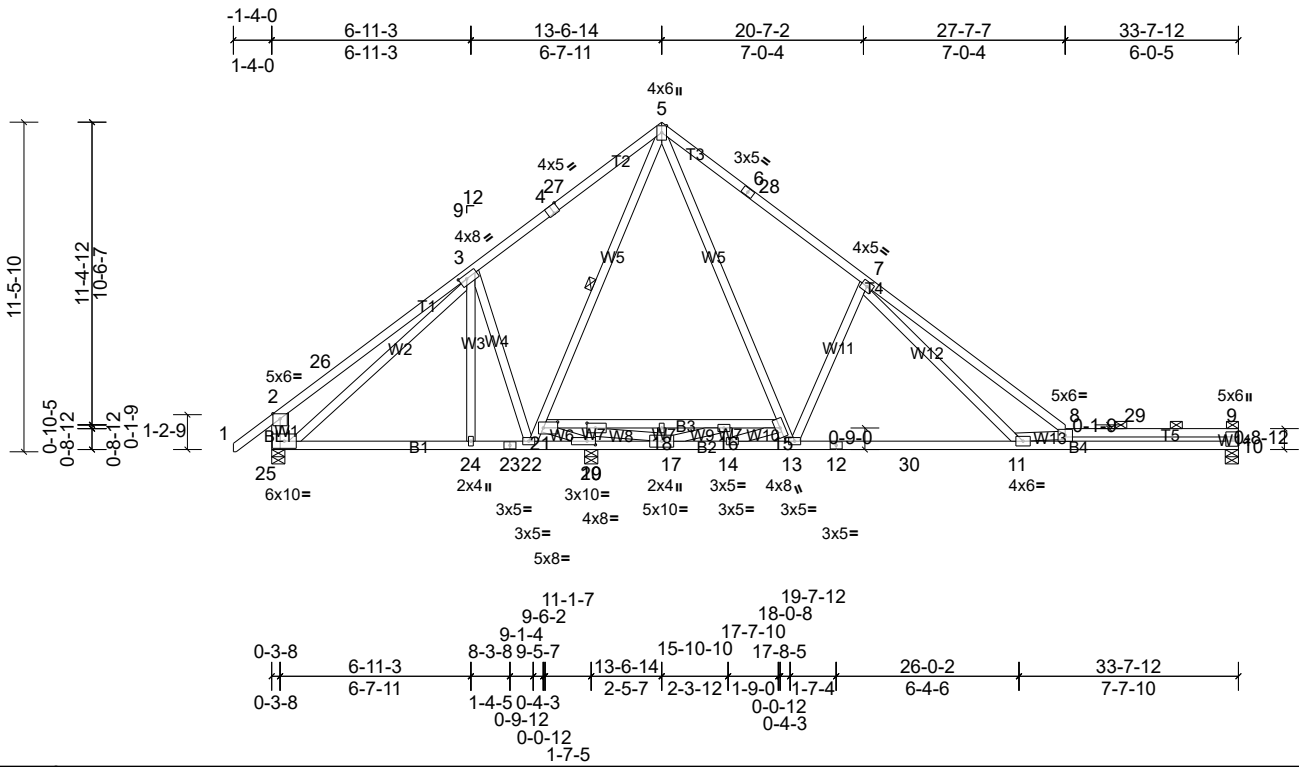
Job 22050131	Truss B06	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:80.2

Plate Offsets (X, Y): [3:0-3-1,0-1-12], [4:0-2-8,Edge], [19:0-3-8,0-1-8], [20:0-3-8,0-2-0], [21:0-6-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	0.39	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.26 11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.55 11-13	>485	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	-0.03 10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
											Weight: 230 lb FT = 20%

**LUMBER**

TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP 2400F 2.0E \*Except\* W14:2x6 SP 2400F 2.0E, W1:2x4 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, and 2-0-0 oc purlins (6-0-0 max.): 8-9.  
 BOT CHORD Rigid ceiling directly applied or 2-8-1 oc bracing.  
 WEBS 1 Row at midpt 5-22

**REACTIONS** (lb/size) 10=310/0-5-8, (min. 0-1-8), 19=3100/0-5-8, (min. 0-3-0), 25=-667/0-5-8, (min. 0-1-8)  
 Max Horiz 25=-243 (LC 11)  
 Max Uplift 25=-1013 (LC 30)  
 Max Grav 10=325 (LC 2), 19=3645 (LC 26), 25=-20 (LC 14)

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

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=0/1730, 4-27=0/1762, 5-27=0/1831, 5-6=0/841, 6-28=0/733, 7-28=0/609, 8-29=-1012/88, 9-29=-1014/88, 2-25=-346/229  
 BOT CHORD 24-25=-1267/134, 23-24=-1265/133, 22-23=-1265/133, 19-22=-1454/238, 17-19=-6155/549, 14-17=-2055/566, 13-14=-806/244, 12-13=-369/111, 12-30=-369/111, 11-30=-369/111, 10-11=-95/1012, 20-21=-374/5543, 18-20=-506/3467, 16-18=-493/3422, 15-16=-391/1443  
 WEBS 3-24=0/294, 7-13=-549/231, 7-11=0/541, 8-11=-1047/237, 3-25=-240/1677, 5-15=-7/300, 13-15=-120/754, 21-22=-160/350, 5-21=-2140/0, 19-20=-1029/0, 3-22=-847/202, 19-21=-5179/352, 17-20=0/2442, 14-16=-58/651, 16-17=-2116/109, 14-15=-1400/367

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-7 to 2-0-15, Interior (1) 2-0-15 to 13-6-14, Exterior (2) 13-6-14 to 16-11-4, Interior (1) 16-11-4 to 33-5-0 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 13-6-14 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 25 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 19. This connection is for uplift only and does not consider lateral forces.
- One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 25. This connection is for uplift only and does not consider lateral forces.

Job 22050131	Truss B06	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.

**LOAD CASE(S)** Standard

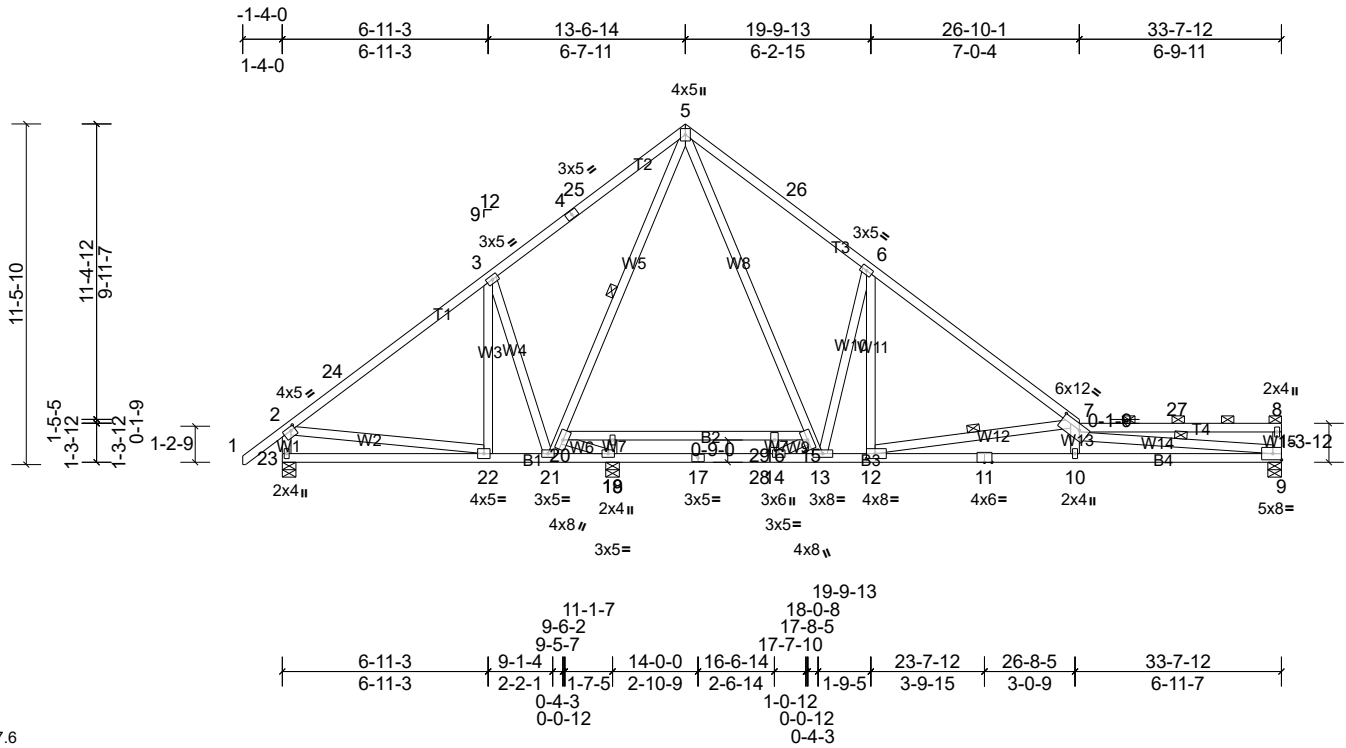
Job 22050131	Truss B07	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Fri May 27 11:08:20

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Scale = 1:77.6

Plate Offsets (X, Y): [2:0-1-12,0-1-8], [7:0-8-4,0-2-4], [12:0-3-8,0-2-0]

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	0.81	Vert(LL)	-0.27	10-12	>994	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.59	10-12	>458	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 235 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* W5,W14:2x4 SP 2400F 2.0E

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.  
 BOT CHORD Rigid ceiling directly applied or 4-6-10 oc bracing.  
 WEBS 1 Row at midpt 5-21, 7-12, 7-9

**REACTIONS** (lb/size) 9=675/0-5-8, (min. 0-1-8), 19=2012/0-5-8, (min. 0-1-14),  
 23=79/0-5-8, (min. 0-1-8)  
 Max Horiz 23=230 (LC 10)  
 Max Uplift 23=-206 (LC 30)  
 Max Grav 9=738 (LC 2), 19=2256 (LC 2), 23=372 (LC 29)

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

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-24=-200/460, 3-24=0/518, 3-4=0/650, 4-25=0/681, 5-25=0/721, 5-26=-541/159, 6-26=-585/118, 6-7=-710/23,  
 2-23=-315/257  
 BOT CHORD 22-23=-238/321, 21-22=-380/181, 19-21=-294/190, 17-19=-1897/501, 17-28=-1897/501, 14-28=-1897/501,  
 13-14=-384/209, 12-13=0/476, 11-12=-104/3151, 10-11=-104/3151, 9-10=-118/3135, 18-20=-367/1908, 18-29=-367/1908,  
 16-29=-367/1908, 15-16=-367/1908  
 WEBS 3-22=0/476, 2-22=-436/165, 6-12=0/362, 5-15=-16/806, 13-15=-205/1461, 20-21=-376/9, 5-20=-1280/0, 3-21=-792/185,  
 18-19=-582/0, 14-16=-43/454, 7-12=-2706/184, 6-13=-708/216, 7-9=-3146/108, 19-20=-1833/346, 14-15=-1854/351

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-7 to 2-0-15, Interior (1) 2-0-15 to 13-6-14, Exterior (2) 13-6-14 to 16-11-4, Interior (1) 16-11-4 to 33-6-0 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 13-6-14 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9, 23, and 19. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

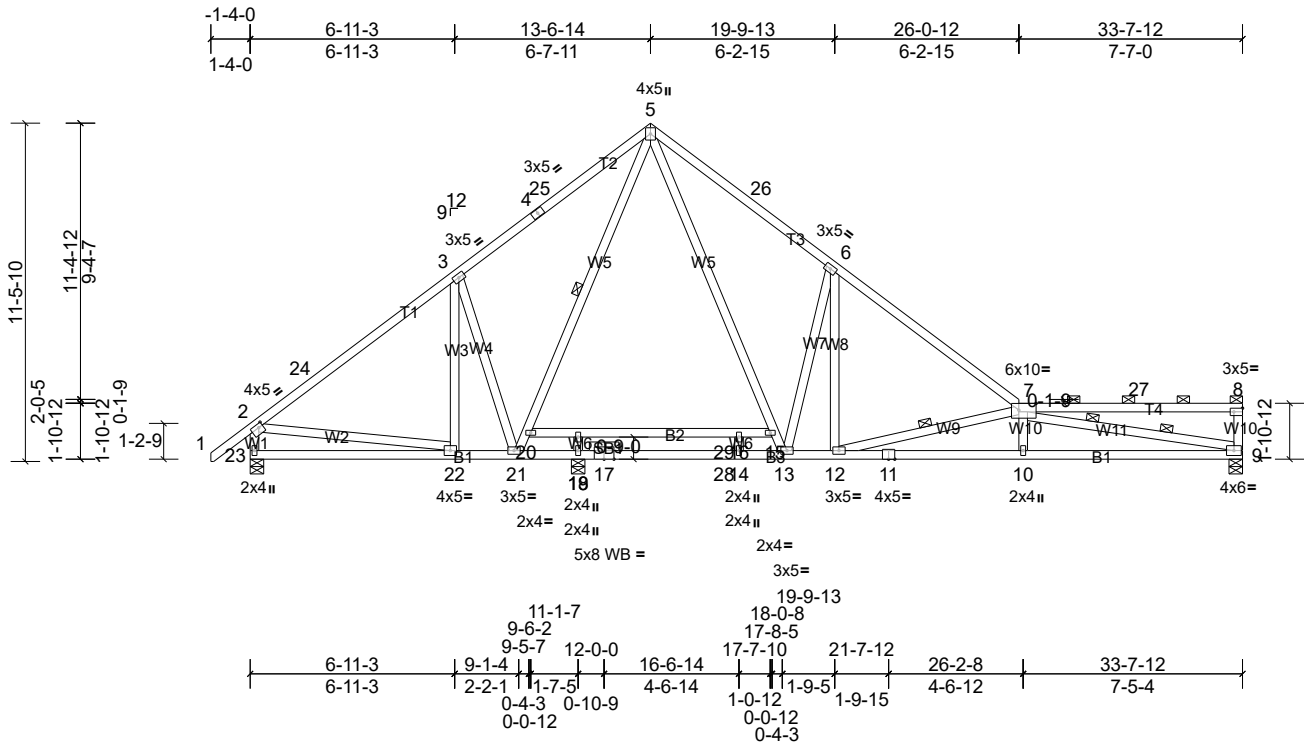
Job 22050131	Truss B08	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Fri May 27 11:08:20

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Scale = 1:78.1

Plate Offsets (X, Y): [2:0-1-12,0-1-8], [7:0-7-0,0-2-12], [8:Edge,0-1-8]

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	0.81	Vert(LL)	-0.25	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.52	10-12	>513	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 234 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP 2400F 2.0E  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-0-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 7-12, 5-21  
WEBS 2 Rows at 1/3 pts 7-9

**REACTIONS** (lb/size) 9=952/0-5-8, (min. 0-1-8), 19=1186/0-5-8, (min. 0-1-8), 23=632/0-5-8, (min. 0-1-8)  
Max Horiz 23=248 (LC 10)  
Max Uplift 23=-43 (LC 13)  
Max Grav 9=1054 (LC 2), 19=1516 (LC 25), 23=771 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-24=-760/128, 3-24=-547/172, 3-4=-536/261, 4-25=-496/279, 5-25=-491/304, 5-26=-1111/248, 6-26=-1190/223, 6-7=-1526/150, 2-23=-717/214  
BOT CHORD 22-23=-252/339, 21-22=-103/548, 19-21=0/433, 17-19=0/433, 17-28=0/433, 14-28=0/433, 13-14=0/433, 12-13=-61/1135, 11-12=-288/3479, 10-11=-288/3479, 9-10=-279/3488  
WEBS 3-22=0/399, 6-12=-91/859, 7-12=-2423/235, 7-9=-3374/238, 2-22=0/354, 5-15=-49/1138, 13-15=-101/1076, 20-21=-393/1, 5-20=-650/0, 6-13=-1089/296, 3-21=-734/188, 18-19=-568/0

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-7 to 2-0-15, Interior (1) 2-0-15 to 13-6-14, Exterior (2) 13-6-14 to 16-11-4, Interior (1) 16-11-4 to 33-6-0 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - 200.0lb AC unit load placed on the bottom chord, 13-6-14 from left end, supported at two points, 5-0-0 apart.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9, 23, and 19. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

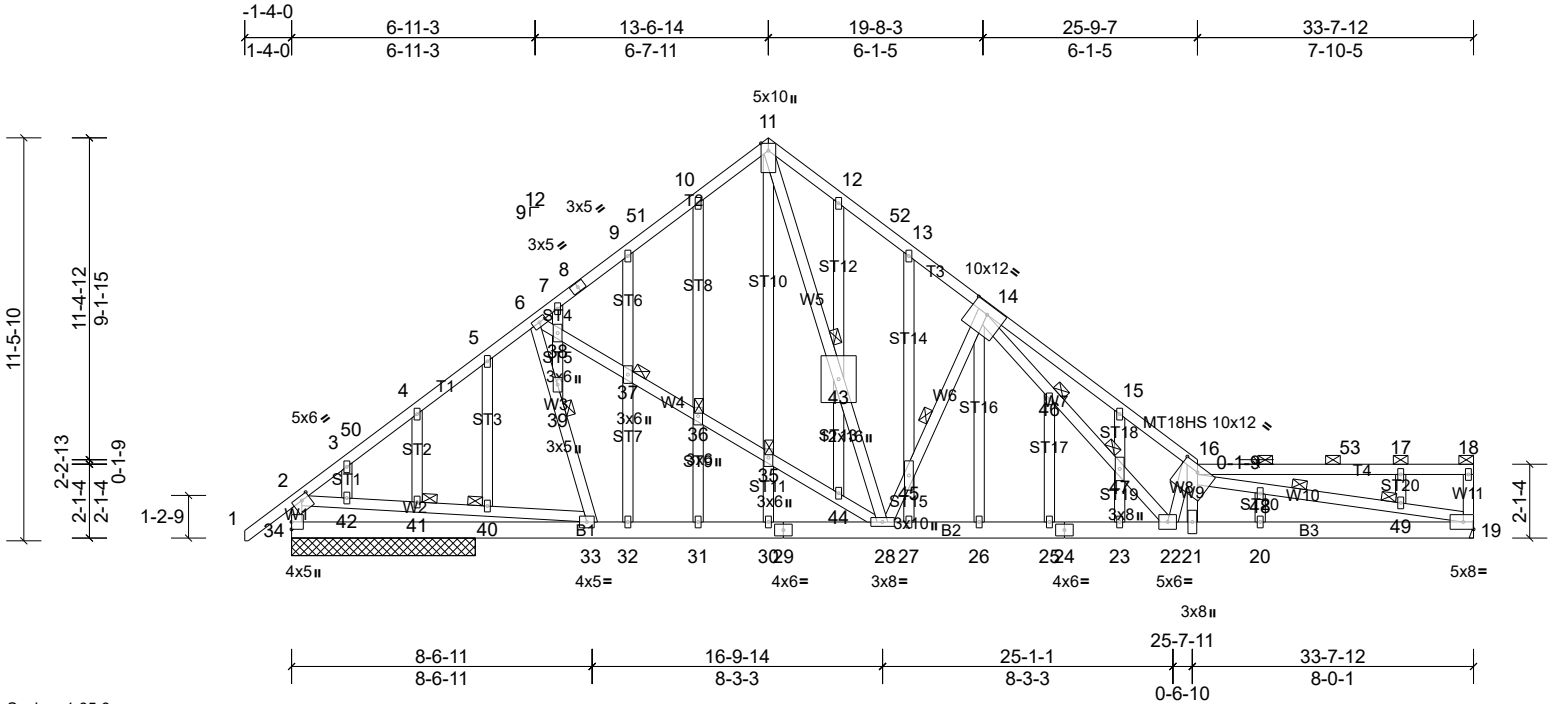
Job	Truss	Truss Type	Qty	Ply	
22050131	B09	Roof Special Structural Gable	1	1	Job Reference (optional)

Carter Components - Sanford, Sanford, NC, user

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Scale = 1:65.6

Plate Offsets (X, Y): [2:0-2-12,0-1-8], [14:0-6-0,0-3-4], [16:0-6-0,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI	0.92	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.31 22-23	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.63 22-23	>634	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.05 19	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TP12014	Matrix-MSH							
BCDL	10.0										
											Weight: 336 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* W7,W8,W10:2x4 SP 2400F 2.0E  
OTHERS 2x4 SP No.3

**REACTIONS** (lb/size) 19=1196/ Mechanical, (min. 0-1-8), 34=1208/5-2-12, (min. 0-1-8)  
Max Horiz 34=248 (LC 10)  
Max Uplift 19=5 (LC 14)  
Max Grav 19=1332 (LC 2), 34=1422 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1711/166, 3-5=-1617/152, 4-50=-1579/162, 4-5=-1627/219, 5-6=-1460/205, 6-7=-1328/210, 7-8=-1217/176, 8-9=-1170/189, 9-51=-1199/231, 10-51=-1170/239, 10-11=-1185/291, 11-12=-1624/381, 12-52=-1609/333, 13-52=-1637/325, 13-14=-1675/277, 14-15=-4229/551, 15-16=-4274/475, 2-34=-1325/242  
BOT CHORD 33-34=-214/497, 32-33=-117/1256, 31-32=-117/1256, 30-31=-117/1256, 29-30=-117/1256, 28-29=-117/1256, 27-28=-163/1755, 26-27=-163/1755, 25-26=-164/1757, 24-25=-164/1757, 23-24=-164/1757, 22-23=-164/1757, 21-22=-497/4450, 20-21=-491/4377, 19-20=-491/4377  
WEBS 6-38=-479/146, 37-38=-436/122, 36-37=-461/133, 35-36=-468/140, 35-44=-442/122, 28-44=-480/144, 11-43=-269/1228, 28-43=-254/1191, 28-45=-1173/220, 14-45=-999/185, 14-46=-347/2732, 46-47=-313/2429, 22-47=-309/2440, 16-22=-2772/327, 16-48=-4369/486, 48-49=-4297/464, 19-49=-4391/491, 2-42=0/918, 41-42=0/921, 40-41=0/913, 33-40=0/930, 11-35=-89/342, 30-35=-55/290, 25-46=-43/386, 20-48=-335/98, 17-49=-409/113, 16-21=-83/882

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-7-5 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 16-18.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 14-28, 16-49  
1 Brace at Jt(s): 18, 35, 36, 37, 39, 40, 41, 43, 46, 47, 49  
JOINTS

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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDD=6.0psf; BCDD=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-7 to 2-0-15, Interior (1) 2-0-15 to 13-6-14, Exterior (2) 13-6-14 to 16-11-4, Interior (1) 16-11-4 to 33-6-0 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=1.33
  - 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/TP1 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
22050131	B09	Roof Special Structural Gable	1	1	

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- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) Refer to girder(s) for truss to truss connections.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 19.
- 13) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 34. This connection is for uplift only and does not consider lateral forces.
- 14) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

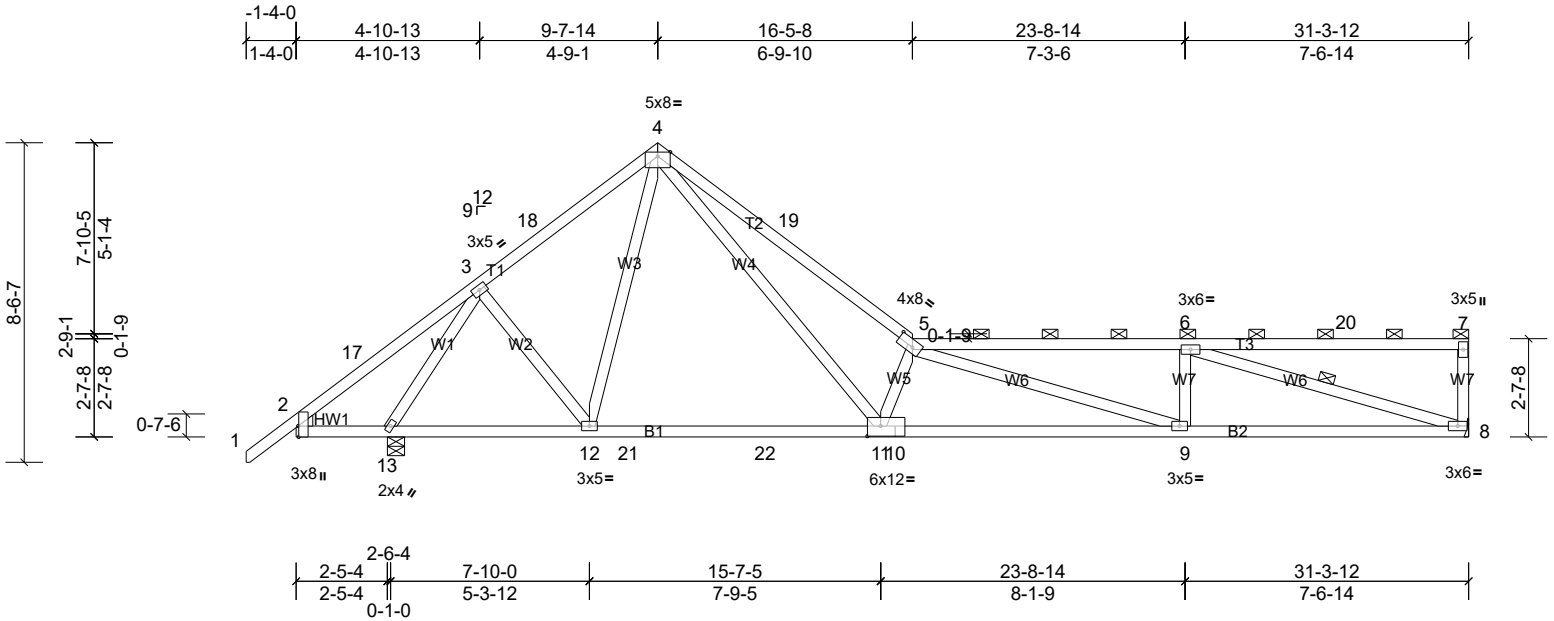
Job 22050131	Truss C01	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:61.5

Plate Offsets (X, Y): [2:0-3-8,Edge], [5:0-5-4,0-2-4], [10:0-4-4,0-3-4]

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	0.74	Vert(LL)	-0.22	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.47	9-11	>730	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.07	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 173 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP 2400F 2.0E \*Except\* T1:2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP 2400F 2.0E  
 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 (4-5-14 max.): 5-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-13.  
 WEBS 1 Row at midpt 6-8

**REACTIONS** (lb/size) 8=1069/ Mechanical, (min. 0-1-8), 13=1250/0-5-8, (min. 0-1-8)  
 Max Horiz 13=184 (LC 12)  
 Max Uplift 8=27 (LC 14)  
 Max Grav 8=1133 (LC 2), 13=1437 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-17=-189/266, 3-17=-165/361, 3-18=-1039/146, 4-18=-940/176, 4-19=-3324/437, 5-19=-3458/412, 5-6=-2829/311  
 BOT CHORD 12-13=-113/650, 12-21=-82/803, 21-22=-82/803, 11-22=-82/803, 10-11=-418/3446, 9-10=-418/3446, 8-9=-349/2828  
 WEBS 6-8=-2878/331, 4-11=-334/3004, 5-11=-2340/381, 5-9=-750/72, 6-9=0/386, 3-12=0/351, 3-13=-1500/293

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-7 to 1-10-3, Interior (1) 1-10-3 to 9-7-14, Exterior (2) 9-7-14 to 12-9-7, Interior (1) 12-9-7 to 31-2-0 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 27 lb uplift at joint 8.
  - One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



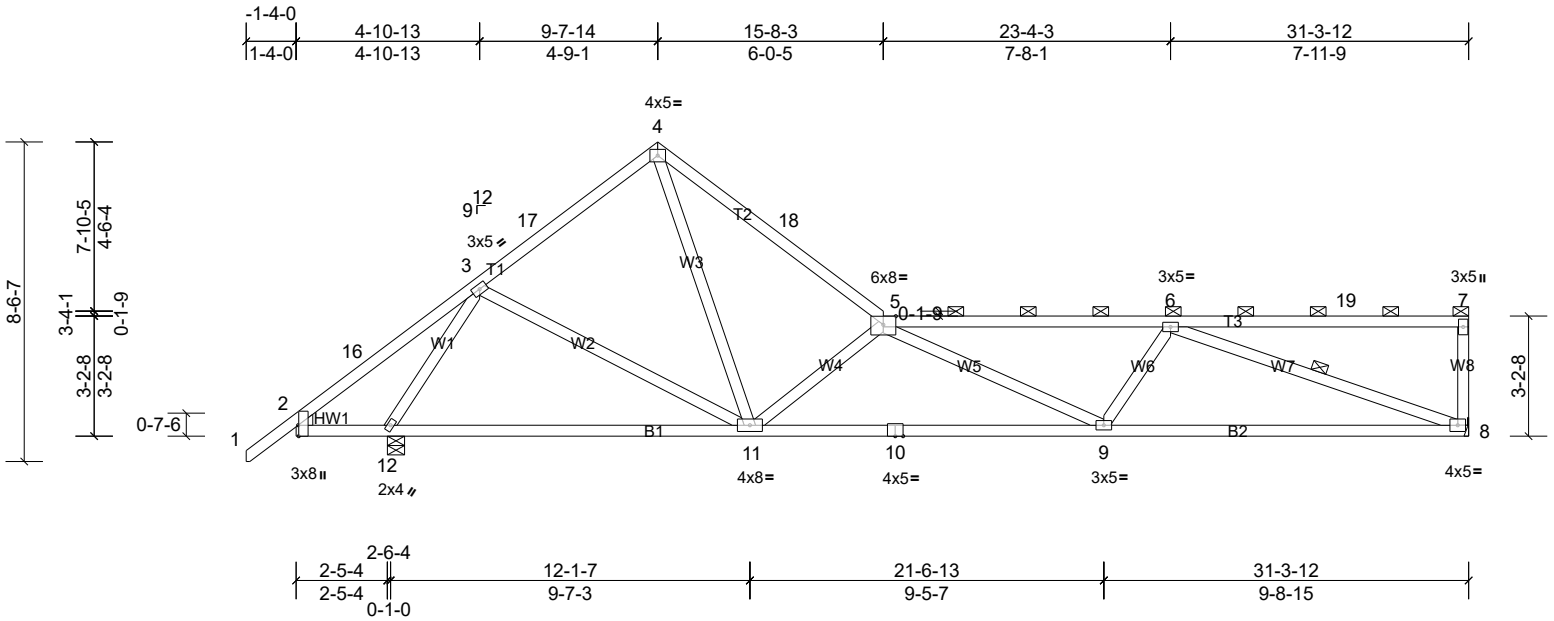
Job 22050131	Truss C02	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:61.5

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

Loading	(psf)	Spacing	2-0-0	CSI	0.73	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.17	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.39	9-11	>890	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.09	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 169 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* T3:2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
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 (4-8-10 max.): 5-7.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 6-8

**REACTIONS** (lb/size) 8=1073/ Mechanical, (min. 0-1-8), 12=1254/0-5-8, (min. 0-1-11)  
Max Horiz 12=190 (LC 12)  
Max Uplift 8=-29 (LC 14)  
Max Grav 8=1133 (LC 2), 12=1437 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-16=-231/254, 3-16=-219/300, 3-17=-1132/152, 4-17=-1045/183, 4-18=-1582/219, 5-18=-1693/196, 5-6=-2506/247  
BOT CHORD 2-12=-175/288, 11-12=-145/587, 10-11=-376/2720, 9-10=-376/2720, 8-9=-335/2319  
WEBS 4-11=-113/1335, 5-11=-1907/322, 5-9=-273/99, 6-9=0/378, 6-8=-2401/329, 3-11=-13/320, 3-12=-1394/377

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-7 to 1-10-3, Interior (1) 1-10-3 to 9-7-14, Exterior (2) 9-7-14 to 12-9-7, Interior (1) 12-9-7 to 31-2-0 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 8.
  - One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

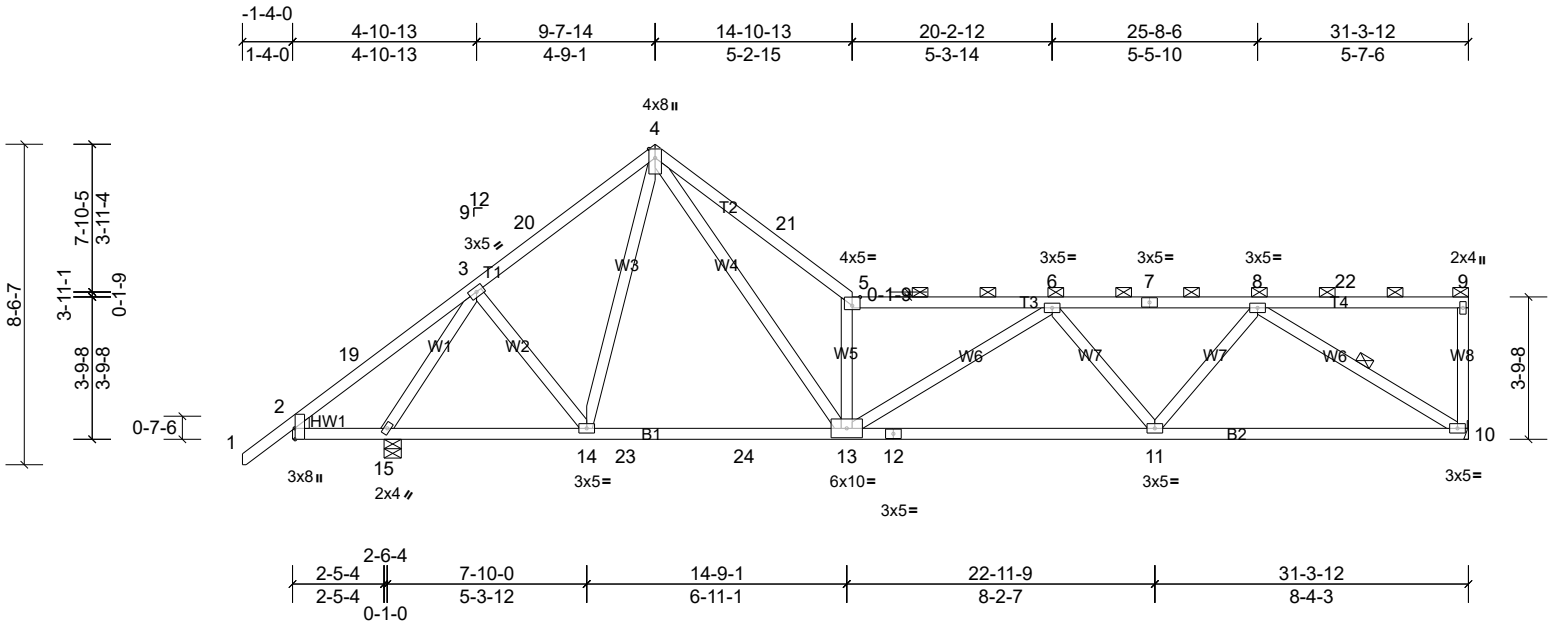
Job 22050131	Truss C03	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:61.4

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

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	0.80	Vert(LL)	-0.17	13-14	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.36	11-13	>966	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 181 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* W4:2x4 SP 2400F 2.0E  
 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 (3-6-1 max.): 5-9.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-15.  
 WEBS 1 Row at midpt 8-10

**REACTIONS** (lb/size) 10=1076/ Mechanical, (min. 0-1-8), 15=1258/0-5-8, (min. 0-1-11)  
 Max Horiz 15=197 (LC 12)  
 Max Uplift 10=31 (LC 14)  
 Max Grav 10=1133 (LC 2), 15=1437 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-19=-186/256, 3-19=-172/359, 3-20=-1036/145, 4-20=-946/176, 4-21=-2741/394, 5-21=-2834/371, 5-6=-2262/252, 6-7=-1903/211, 7-8=-1903/211  
 BOT CHORD 2-15=-220/253, 14-15=-168/642, 14-23=-131/790, 23-24=-131/790, 13-24=-131/790, 12-13=-322/2205, 11-12=-322/2205, 10-11=-239/1460  
 WEBS 4-13=-322/2483, 5-13=-1947/332, 3-14=0/329, 3-15=-1493/307, 6-11=-491/137, 8-11=0/719, 8-10=-1696/249

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-7 to 1-10-3, Interior (1) 1-10-3 to 9-7-14, Exterior (2) 9-7-14 to 12-9-7, Interior (1) 12-9-7 to 31-2-0 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 3x5 MT20 unless otherwise indicated.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 31 lb uplift at joint 10.
  - One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

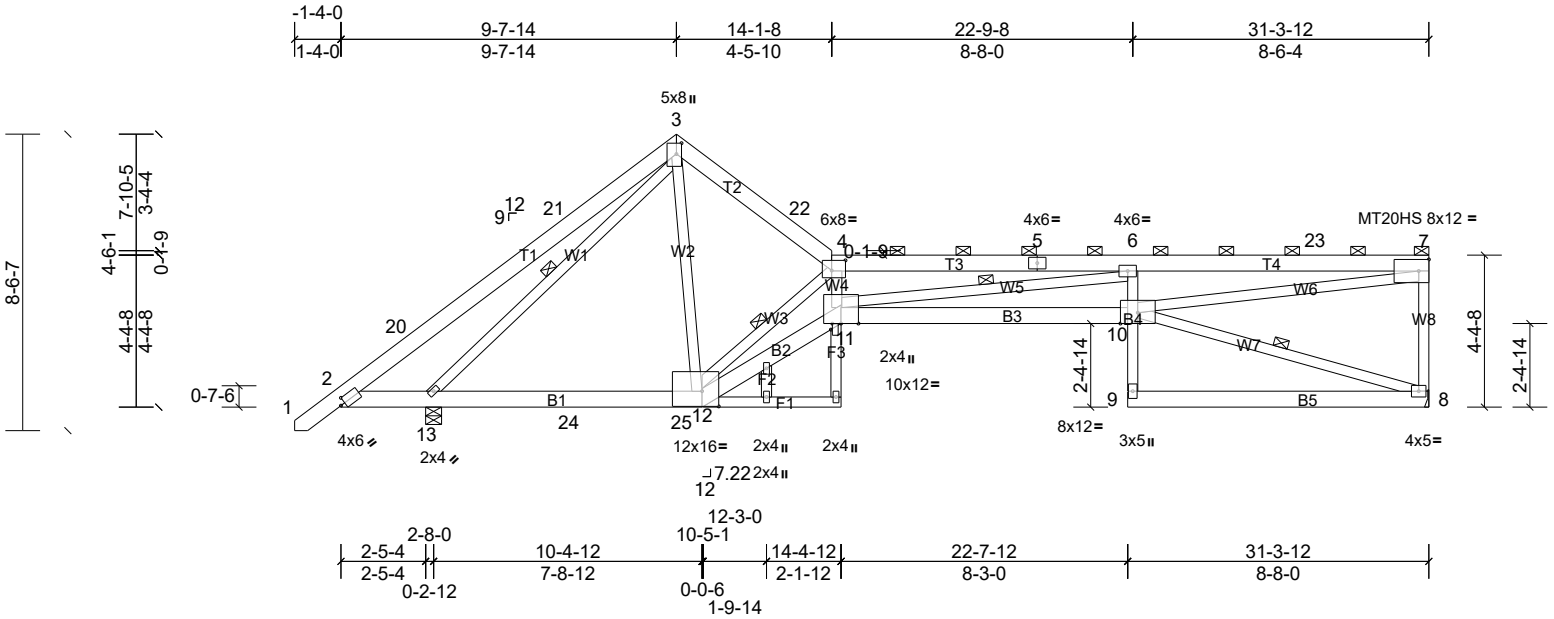
Job 22050131	Truss C04	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:66.3

Plate Offsets (X, Y): [2:0-1-10,0-2-3], [3:0-3-12,0-1-12], [4:0-4-12,0-3-8], [11:0-2-1,0-0-8], [12:0-5-12,0-5-4]

Loading	(psf)	Spacing	2-0-0	CSI	0.38	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.39 10-11	>874	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.81 10-11	>423	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.43 8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 253 lb	FT = 20%

LUMBER	(lb/size)	8=1079/ Mechanical, (min. 0-1-8), 13=1257/0-5-8, (min. 0-1-8)
TOP CHORD	2x6 SP 2400F 2.0E	
BOT CHORD	2x6 SP 2400F 2.0E *Except* B4:2x4 SP 2400F 2.0E, F1:2x4 SP No.3	
WEBS	2x4 SP 2400F 2.0E *Except* F3,F2:2x4 SP No.3	
REACTIONS		
	Max Horiz	13=198 (LC 12)
	Max Uplift	8=-33 (LC 14)
	Max Grav	8=1133 (LC 2), 13=1429 (LC 2)

BRACING	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-4 max.): 4-7.
TOP CHORD	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-13.
WEBS	1 Row at midpt 4-12, 6-11, 8-10, 3-13
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.	

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-20=-327/439, 3-21=-154/266, 3-22=-1092/198, 4-22=-1223/175, 4-5=-4987/680, 5-6=-4987/680, 6-23=-4904/750, 7-23=-4904/750, 7-8=-1013/214
BOT CHORD	13-24=-163/824, 24-25=-163/824, 12-25=-163/824, 11-12=-813/5259, 10-11=-828/5283, 6-10=-481/197
WEBS	3-12=-83/1169, 4-12=-5175/754, 4-11=-333/2756, 6-11=-652/186, 7-10=-788/4908, 3-13=-1289/235

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-1-12 to 1-11-13, Interior (1) 1-11-13 to 9-7-14, Exterior (2) 9-7-14 to 12-9-7, Interior (1) 12-9-7 to 31-2-0 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 33 lb uplift at joint 8.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

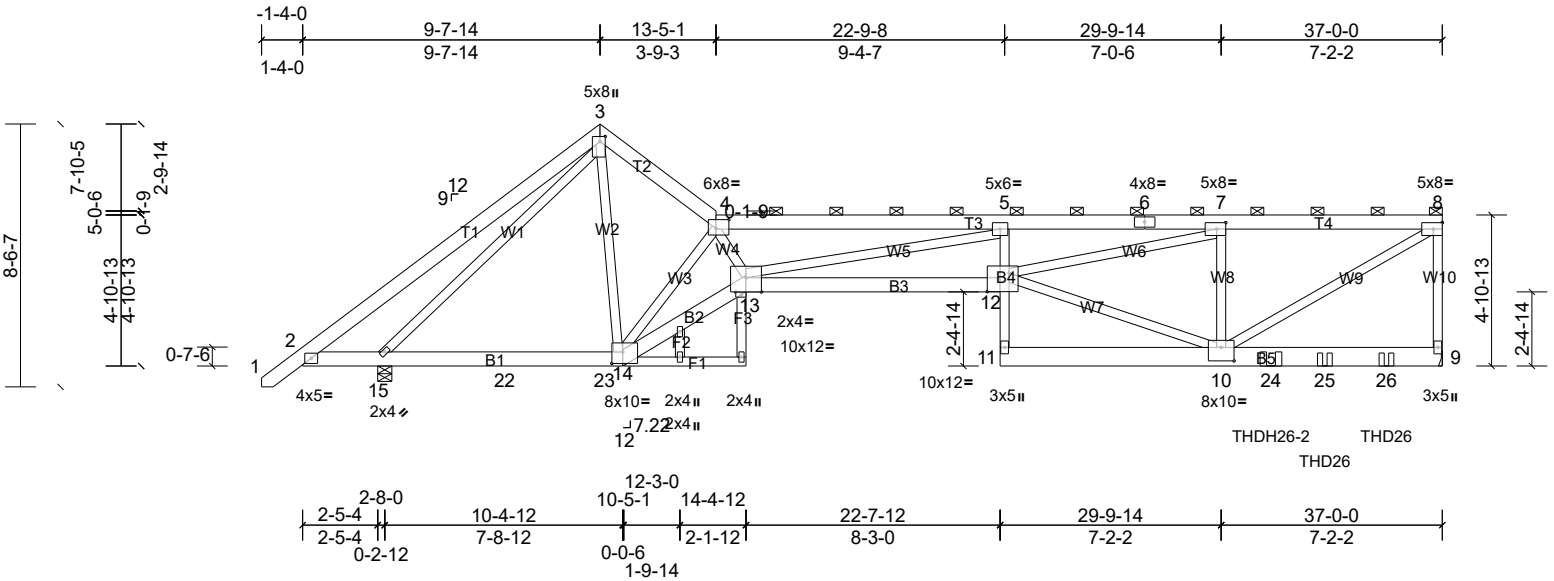
Job 22050131	Truss C05	Truss Type Roof Special Girder	Qty 1	Ply 2	Job Reference (optional)
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Scale = 1:74.8

Plate Offsets (X, Y): [3:0-2-0,0-2-0], [4:0-5-0,0-3-8], [7:0-3-8,0-2-8], [10:0-5-0,0-5-4], [12:0-8-8,0-7-4], [13:0-6-0,Edge], [13:0-2-4,0-1-0], [14:0-4-4,0-4-8]

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	0.62	Vert(LL)	-0.36	12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.71	12-13	>580	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.30	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 612 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP 2400F 2.0E  
BOT CHORD 2x6 SP 2400F 2.0E \*Except\* B4:2x4 SP 2400F 2.0E, B5:2x8 SP 2400F 2.0E, F1:2x4 SP No.3  
WEBS 2x4 SP 2400F 2.0E \*Except\* W10,W1,F3,F2:2x4 SP No.3  
**REACTIONS** (lb/size) 9=4119/ Mechanical, (min. 0-1-8), 15=1939/0-5-8, (min. 0-1-8)  
Max Horiz 15=202 (LC 8)  
Max Uplift 9=-202 (LC 10)  
Max Grav 9=4252 (LC 2), 15=2134 (LC 2)

**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.): 4-8.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-271/405, 3-4=-2277/101, 4-5=-7818/253, 5-6=-11487/487, 6-7=-11487/487, 7-8=-5181/205, 8-9=-3365/177  
BOT CHORD 15-22=-76/1507, 22-23=-76/1507, 14-23=-76/1507, 13-14=-282/6800, 12-13=-522/11745, 5-12=0/668  
WEBS 3-14=-46/2533, 4-14=-7205/306, 4-13=-118/4673, 5-13=-4128/285, 10-12=-233/5273, 7-12=-291/6501, 7-10=-2107/185, 8-10=-254/6028, 3-15=-2114/22

- NOTES**
- 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 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-4-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 202 lb uplift at joint 9.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job 22050131	Truss C05	Truss Type Roof Special Girder	Qty 1	Ply 2	Job Reference (optional)
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- 14) Use MiTek THDH26-2 (With 22-16d nails into Girder & 8-16d nails into Truss) or equivalent at 31-5-4 from the left end to connect truss(es) D07 (2 ply 2x6 SP) to back face of bottom chord.
- 15) Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 33-2-4 from the left end to 35-2-4 to connect truss(es) D06 (1 ply 2x4 SP) to back face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-48, 3-4=-48, 4-8=-58, 14-19=-20, 13-14=-20, 12-13=-20, 9-11=-20  
Concentrated Loads (lb)  
Vert: 24=-2615 (B), 25=-329 (B), 26=-329 (B)

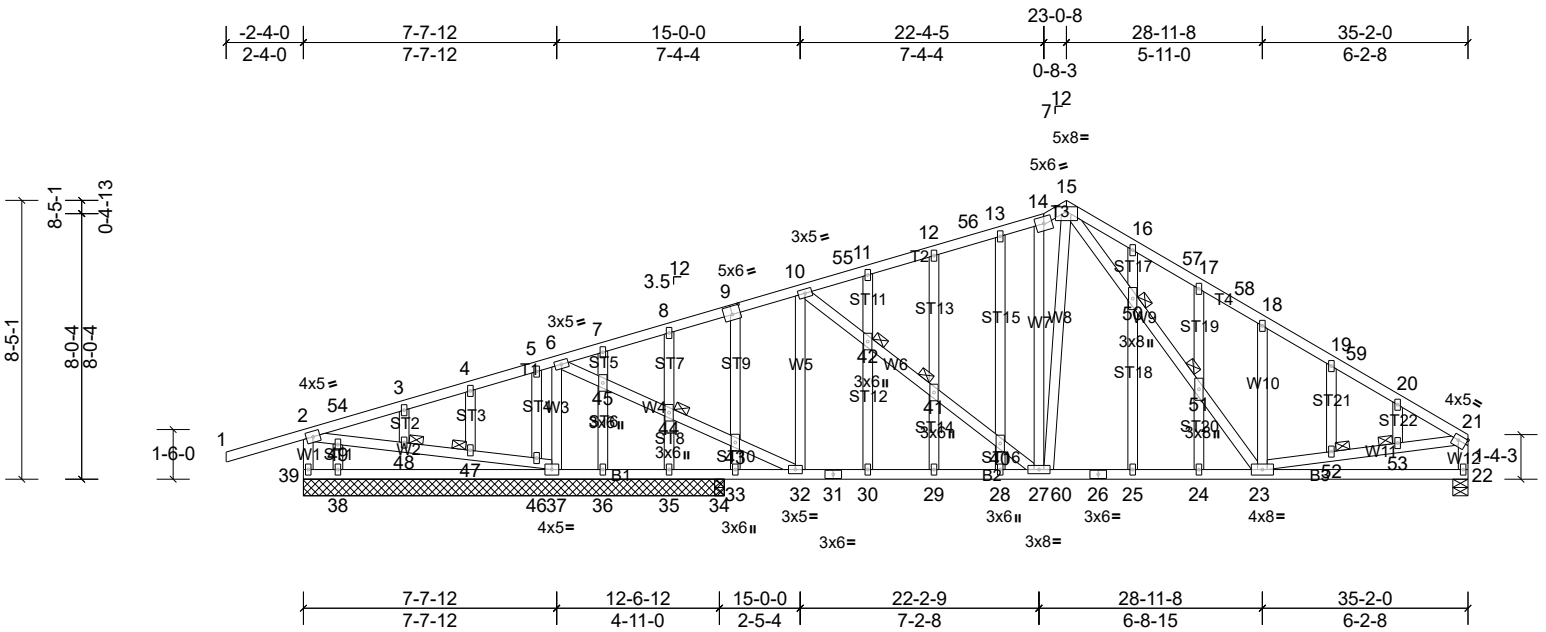
Job 22050131	Truss D01	Truss Type Roof Special Structural Gable	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:69.6

Plate Offsets (X, Y): [9:0-3-0,0-3-0], [21:Edge,0-1-12]

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	0.54	Vert(LL)	-0.10	29-30	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.20	29-30	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.01	22	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 295 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 or 4-9-6 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 41, 42, 44, 47, 48, 50, 51, 52, 53

**REACTIONS** All bearings 12-8-8, except 22=0-5-8, 34=0-3-8  
 (lb) - Max Horiz 39=185 (LC 14)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 35, 36, 37 except 39=139 (LC 42)  
 Max Grav All reactions 250 (lb) or less at joint(s) 35, 36, 39 except 22=983 (LC 2), 34=338 (LC 2), 37=1266 (LC 2), 38=438 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-54=-72/355, 3-54=-68/394, 3-4=-52/400, 4-5=-40/428, 5-6=-31/406, 6-7=-744/87, 7-8=-735/97, 8-9=-728/115, 9-10=-729/132, 10-55=-889/144, 11-55=-858/150, 11-12=-868/166, 12-56=-850/179, 13-56=-832/183, 13-14=-852/200, 14-15=-926/212, 15-16=-1167/291, 16-57=-1167/247, 17-57=-1188/239, 17-58=-1225/232, 18-58=-1250/221, 18-19=-1138/147, 19-59=-1171/129, 20-59=-1211/124, 20-21=-1255/107, 21-22=-922/128  
 BOT CHORD 36-37=-400/133, 35-36=-400/133, 34-35=-400/133, 33-34=-400/133, 32-33=-400/133, 31-32=0/686, 30-31=0/686, 29-30=0/686, 28-29=0/686, 27-28=0/686, 27-60=0/768, 26-60=0/768, 25-26=0/768, 24-25=0/768, 23-24=0/768  
 WEBS 6-37=-950/148, 6-45=-93/1180, 44-45=-94/1176, 43-44=-91/1155, 32-43=-95/1200, 10-32=-377/54, 14-27=-297/45, 15-27=-73/583, 15-50=-133/490, 50-51=-127/469, 23-51=-125/472, 18-23=-375/155, 2-49=-402/138, 48-49=-353/121, 47-48=-366/126, 46-47=-370/127, 37-46=-410/134, 23-52=-9/865, 52-53=-11/860, 21-53=-14/867, 38-49=-280/99

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-3-12 to 1-2-7, Interior (1) 1-2-7 to 23-0-8, Exterior (2) 23-0-8 to 26-6-11, Interior (1) 26-6-11 to 35-0-4 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=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
22050131	D01	Roof Special Structural Gable	1	1	

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- 10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 39, 37, 22, 35, 36, and 38. This connection is for uplift only and does not consider lateral forces.
- 11) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 34. This connection is for uplift only and does not consider lateral forces.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

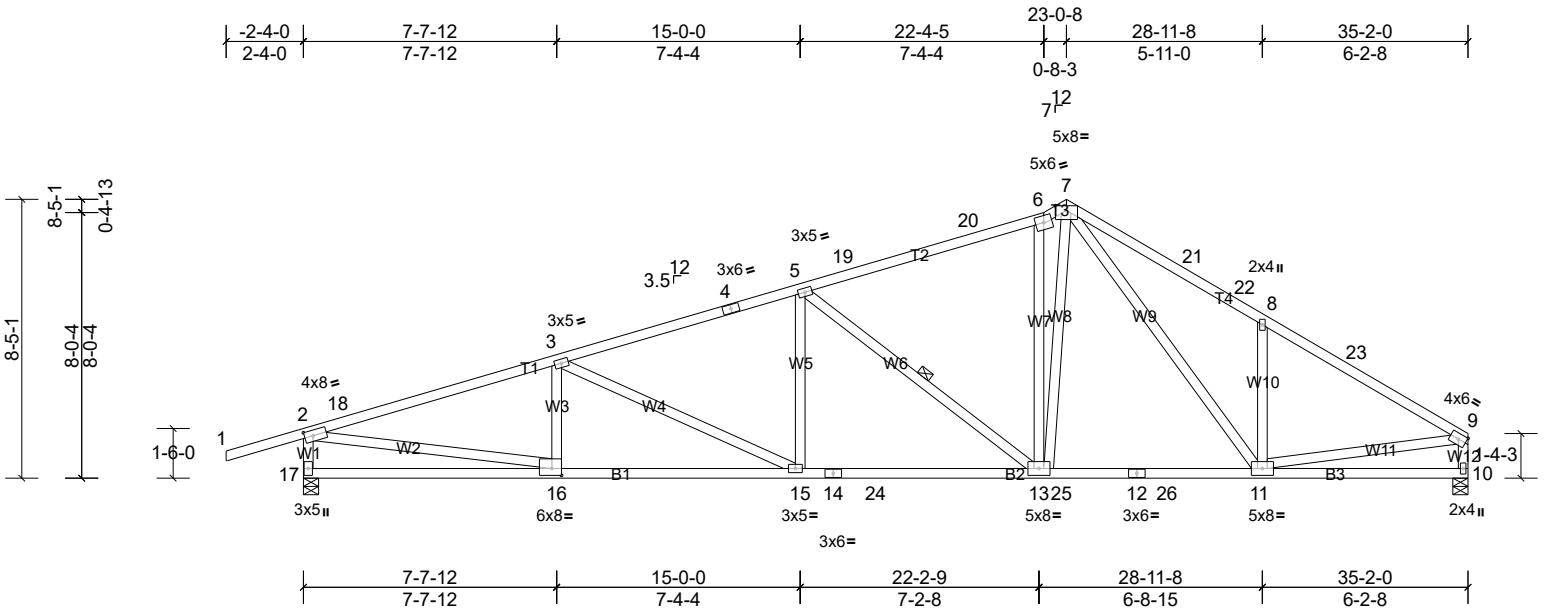
Job 22050131	Truss D02	Truss Type Roof Special	Qty 6	Ply 1	Job Reference (optional)
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Scale = 1:69.6

Plate Offsets (X, Y): [2:0-3-1,0-2-0], [16:0-3-8,0-2-8]

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	0.72	Vert(LL)	-0.15	15-16	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.33	15-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.07	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 216 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 or 2-10-13 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17.  
 WEBS 1 Row at midpt 5-13

**REACTIONS** (lb/size) 10=1177/0-5-8, (min. 0-1-10), 17=1302/0-5-8, (min. 0-1-13)  
 Max Horiz 17=185 (LC 14)  
 Max Uplift 17=93 (LC 11)  
 Max Grav 10=1390 (LC 2), 17=1548 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-18=-2608/213, 3-18=-2542/236, 3-4=-2335/247, 4-5=-2224/260, 5-19=-1614/219, 19-20=-1544/230, 6-20=-1526/241, 6-7=-1694/287, 7-21=-1789/332, 21-22=-1813/311, 8-22=-1885/300, 8-23=-1775/199, 9-23=-1881/178, 2-17=-1472/313, 9-10=-1329/164  
 BOT CHORD 15-16=-186/2440, 14-15=-138/2186, 14-24=-138/2186, 13-24=-138/2186, 13-25=-33/1364, 12-25=-33/1364, 12-26=-33/1364, 11-26=-33/1364  
 WEBS 3-15=-326/52, 5-15=0/303, 5-13=-912/119, 6-13=-579/141, 7-13=-133/1284, 7-11=-130/408, 8-11=-400/201, 2-16=-190/2306, 9-11=-72/1443

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-3-12 to 1-2-7, Interior (1) 1-2-7 to 23-0-8, Exterior (2) 23-0-8 to 26-6-11, Interior (1) 26-6-11 to 35-0-4 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17 and 10. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



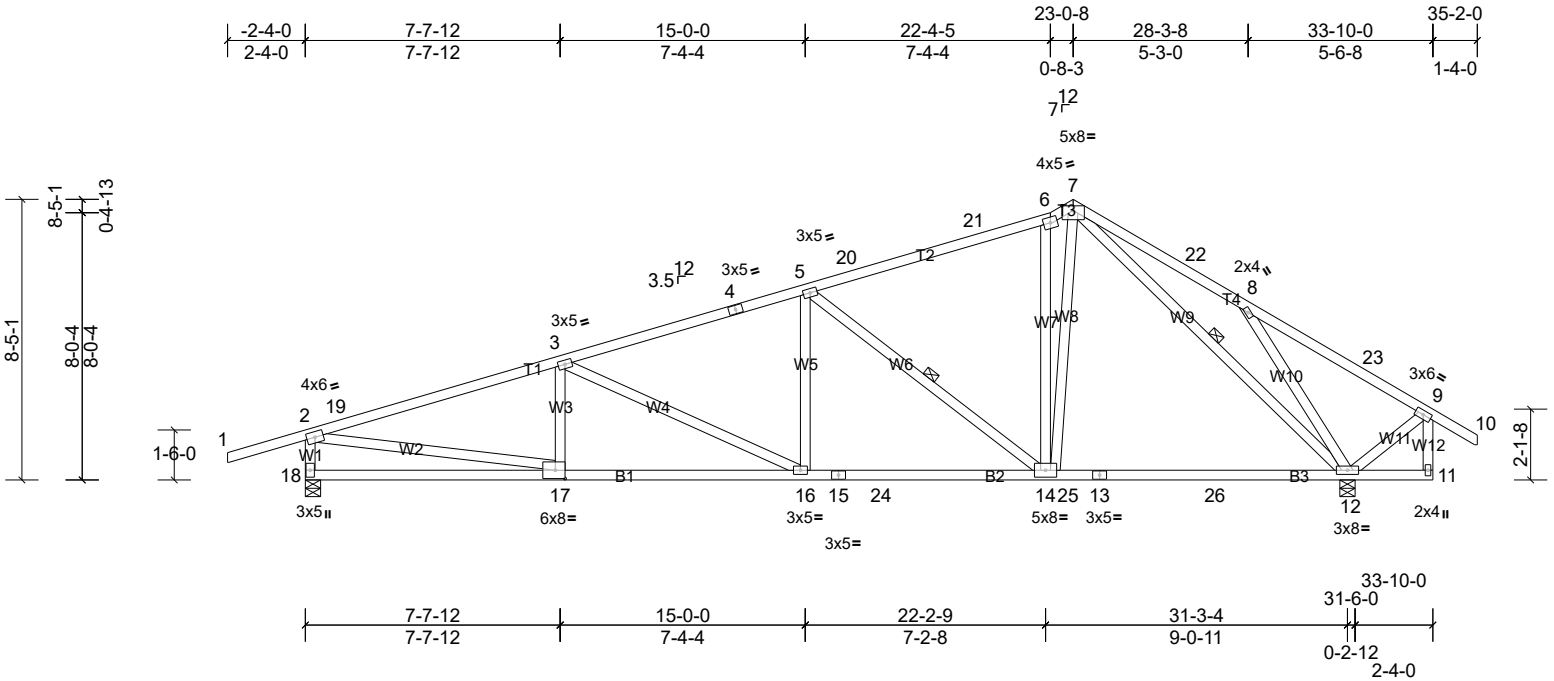
Job 22050131	Truss D03	Truss Type Roof Special	Qty 4	Ply 1	Job Reference (optional)
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Scale = 1:69.1

Plate Offsets (X, Y): [17:0-3-8,0-3-0]

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	0.70	Vert(LL)	-0.19	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.36	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.06	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 215 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 or 3-3-5 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-14, 7-12

**REACTIONS** (lb/size) 12=1291/0-5-8, (min. 0-1-13), 18=1166/0-5-8, (min. 0-1-10)  
 Max Horiz 18=199 (LC 14)  
 Max Uplift 18=97 (LC 11)  
 Max Grav 12=1531 (LC 2), 18=1387 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-19=-2244/160, 3-19=-2179/183, 3-4=-1887/200, 4-5=-1776/213, 5-20=-1137/164, 20-21=-1072/175, 6-21=-1058/186, 6-7=-1198/232, 7-22=-500/307, 8-22=-529/279, 2-18=-1313/294  
 BOT CHORD 16-17=-131/2092, 15-16=-74/1755, 15-24=-74/1755, 14-24=-74/1755, 14-25=0/910, 13-25=0/910, 13-26=0/910, 12-26=0/910  
 WEBS 3-16=-390/63, 5-16=0/314, 5-14=-934/132, 6-14=-529/131, 7-14=-109/1281, 7-12=-999/0, 8-12=-710/320, 2-17=-153/1962

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-3-12 to 1-0-14, Interior (1) 1-0-14 to 23-0-8, Exterior (2) 23-0-8 to 26-5-2, Interior (1) 26-5-2 to 35-1-8 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.
  - One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

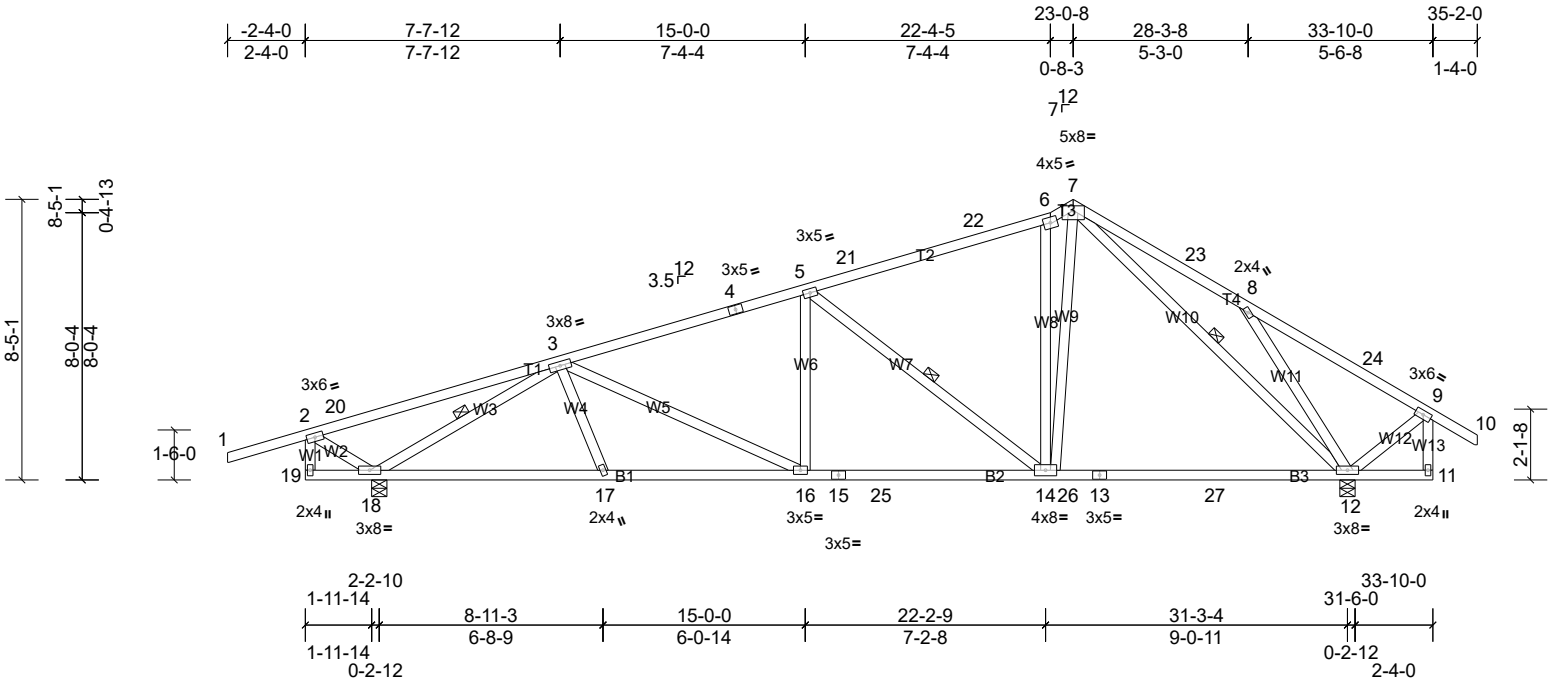
Job 22050131	Truss D04	Truss Type Roof Special	Qty 2	Ply 1	Job Reference (optional)
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Scale = 1:69.1

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	0.69	Vert(LL)	-0.19	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.34	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.06	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 217 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 or 4-0-9 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-18, 5-14, 7-12

**REACTIONS** (lb/size) 12=1219/0-5-8, (min. 0-1-11), 18=1239/0-5-8, (min. 0-1-12)  
 Max Horiz 18=199 (LC 14)  
 Max Uplift 18=138 (LC 11)  
 Max Grav 12=1445 (LC 2), 18=1473 (LC 2)

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

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-20=-270/285, 3-20=-266/363, 3-4=-1622/147, 4-5=-1510/164, 5-21=-1036/141, 21-22=-977/153, 6-22=-963/164, 6-7=-1090/208, 7-23=-499/307, 8-23=-528/279  
 BOT CHORD 17-18=-85/1469, 16-17=-51/1518, 15-16=-47/1500, 15-25=-47/1500, 14-25=-47/1500, 14-26=0/829, 13-26=0/829, 13-27=0/829, 12-27=0/829  
 WEBS 3-18=-2056/355, 5-14=-745/113, 6-14=-510/128, 7-14=-93/1160, 7-12=-897/0, 8-12=-710/320, 2-18=-439/333

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-3-12 to 1-0-14, Interior (1) 1-0-14 to 23-0-8, Exterior (2) 23-0-8 to 26-5-2, Interior (1) 26-5-2 to 35-1-8 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18 and 12. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

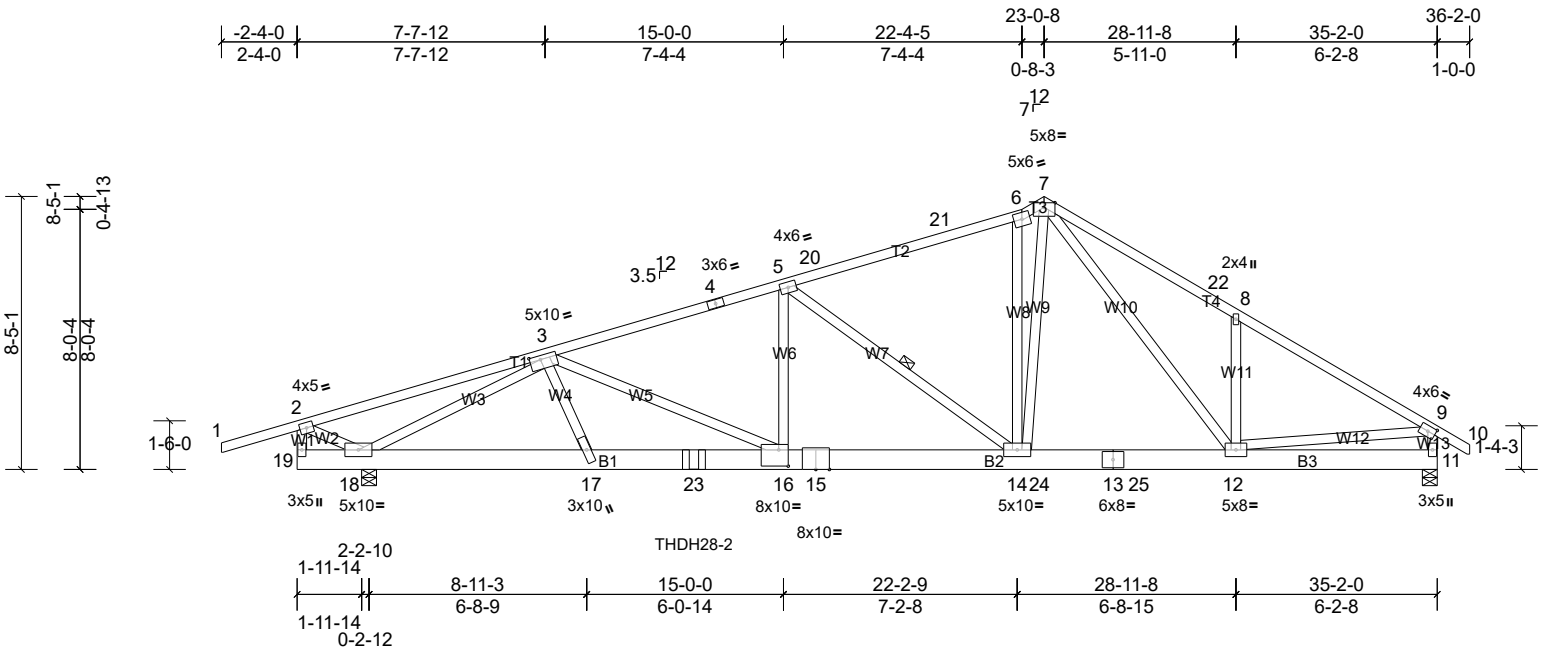
Job	Truss	Truss Type	Qty	Ply	
22050131	D05	Roof Special Girder	1	2	Job Reference (optional)

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Scale = 1:71.1

Plate Offsets (X, Y): [3:0-4-0,0-1-8], [9:0-2-14,0-2-0], [16:0-3-8,0-6-0]

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	0.81	Vert(LL)	-0.19	16-17	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.39	16-17	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.05	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 543 lb	FT = 20%

LUMBER	TOP CHORD	2x4 SP No.2	BOT CHORD	2x8 SP 2400F 2.0E	WEBS	2x4 SP No.3 *Except* W3:2x4 SP 2400F 2.0E	REACTIONS	(lb/size)	11=2478/0-5-8, (min. 0-1-8), 18=4153/0-5-8, (min. 0-1-14)	Max Horiz	18=184 (LC 10)	Max Uplift	11=-50 (LC 12), 18=-271 (LC 7)	Max Grav	11=2736 (LC 2), 18=4500 (LC 2)	FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	TOP CHORD	3-4=-7620/310, 4-5=-7509/332, 5-20=-3849/144, 20-21=-3777/156, 6-21=-3765/167, 6-7=-4071/218, 7-22=-3776/195, 8-22=-3861/163, 8-9=-3884/101, 2-19=-335/0, 9-11=-2613/77	BOT CHORD	17-18=-336/7570, 17-23=-342/8413, 16-23=-342/8413, 15-16=-264/7260, 14-15=-264/7260, 14-24=-28/3276, 13-24=-28/3276, 13-25=-28/3276, 12-25=-28/3276, 11-12=-51/435	WEBS	3-18=-8518/434, 3-17=-29/2273, 3-16=-1322/107, 5-16=-104/3332, 5-14=-4582/274, 6-14=-975/127, 7-14=-189/3563, 8-12=-352/171, 9-12=-5/2869	BRACING	TOP CHORD	Structural wood sheathing directly applied or 3-9-3 oc purlins, except end verticals.	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-19.	WEBS	1 Row at midpt	5-14
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- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-4-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18 and 11. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Use MiTek THDH28-2 (With 36-16d nails into Girder & 10-16d nails into Truss) or equivalent at 12-2-14 from the left end to connect truss(es) C05 (2 ply 2x8 SP) to front face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.

Job 22050131	Truss D05	Truss Type Roof Special Girder	Qty 1	Ply 2	Job Reference (optional)
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**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-48, 2-6=-48, 6-7=-48, 7-9=-48, 9-10=-48, 11-19=-20  
Concentrated Loads (lb)  
Vert: 23=-4099 (F)

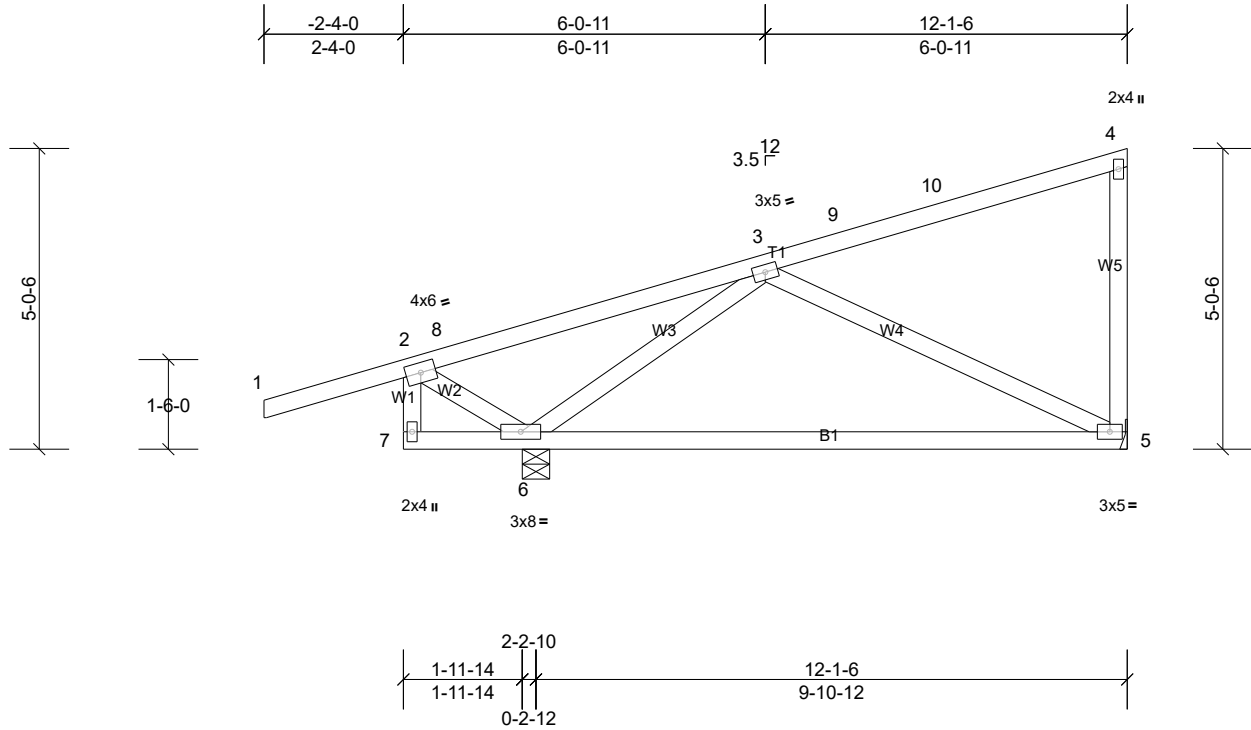
Job 22050131	Truss D06	Truss Type Monopitch	Qty 2	Ply 1	Job Reference (optional)
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Run: 8.53 S Mar 28 2022 Print: 8.530 S Mar 28 2022 MiTek Industries, Inc. Fri May 27 11:08:25

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Scale = 1:38.6

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	0.54	Vert(LL)	-0.01	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.25	5-6	>478	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 68 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6'-0"-0 oc purlins, except end verticals.  
 Rigid ceiling directly applied or 6'-0"-0 oc bracing.

**REACTIONS** (lb/size) 5=289/ Mechanical, (min. 0-1-8), 6=629/0-5-8, (min. 0-1-8)  
 Max Horiz 6=154 (LC 12)  
 Max Uplift 5=-19 (LC 15), 6=-137 (LC 11)  
 Max Grav 5=349 (LC 22), 6=755 (LC 2)

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

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

TOP CHORD 2-8=-332/235, 3-8=-330/315  
 BOT CHORD 5-6=-185/286  
 WEBS 3-6=-608/375, 2-6=-261/381

**NOTES**

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-3-12 to 0-8-4, Interior (1) 0-8-4 to 11-11-10 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 5.
- One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

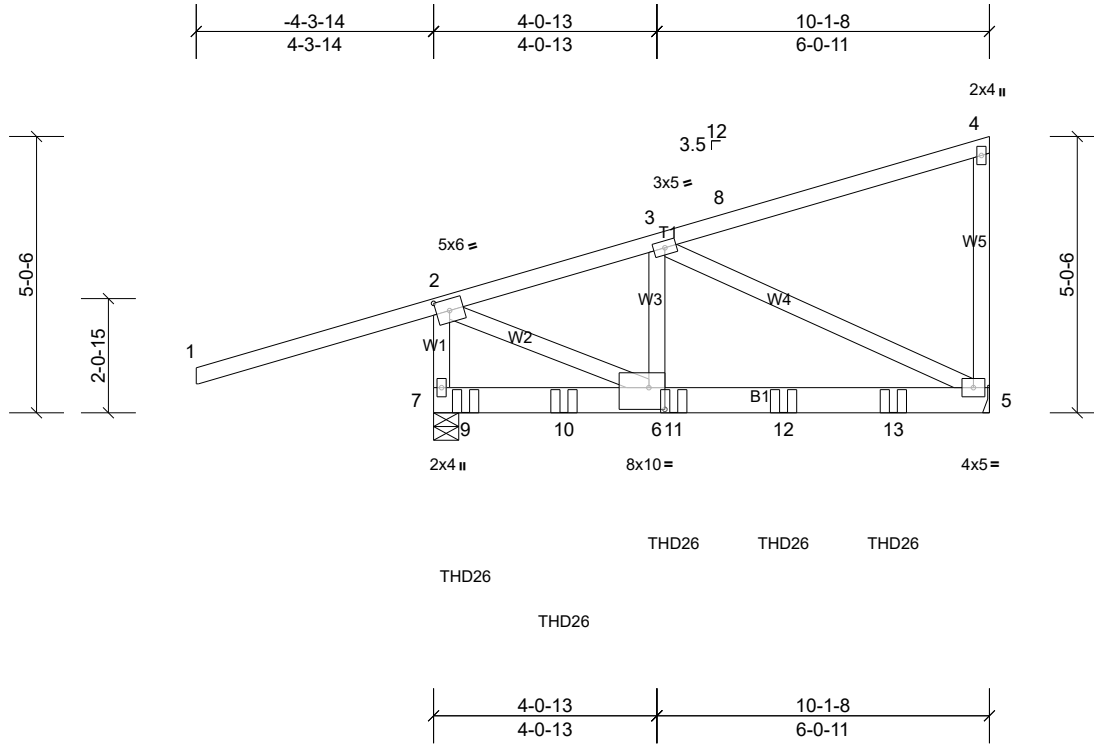
Job 22050131	Truss D07	Truss Type Monopitch Girder	Qty 1	Ply 2	Job Reference (optional)
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Scale = 1:42

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.06	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.13	5-6	>909	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 147 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E  
BOT CHORD 2x6 SP 2400F 2.0E  
WEBS 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.

**REACTIONS** (lb/size) 5=2576/ Mechanical, (min. 0-1-8), 7=3677/0-5-8, (min. 0-1-11)  
Max Horiz 7=153 (LC 8)  
Max Uplift 5=-106 (LC 11), 7=-239 (LC 7)  
Max Grav 5=2750 (LC 2), 7=4044 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3240/107, 2-7=-2735/246  
BOT CHORD 6-11=-146/3055, 11-12=-146/3055, 12-13=-146/3055, 5-13=-146/3055  
WEBS 3-6=-42/2148, 3-5=-3324/132, 2-6=-103/3399

- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 5.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2'-0'-0 oc max. starting at 2'-6'-14 from the left end to 10'-4'-6 to connect truss(es) B09 (1 ply 2x6 SP), C01 (1 ply 2x4 SP), C02 (1 ply 2x4 SP), C03 (1 ply 2x4 SP), C04 (1 ply 2x6 SP) to front face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
22050131	D07	Monopitch Girder	1	2	

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Vert: 1-2=-46, 2-4=-46, 5-7=-19

Concentrated Loads (lb)

Vert: 9=-1182 (F), 10=-1050 (F), 11=-1053 (F), 12=-1057 (F), 13=-1060 (F)

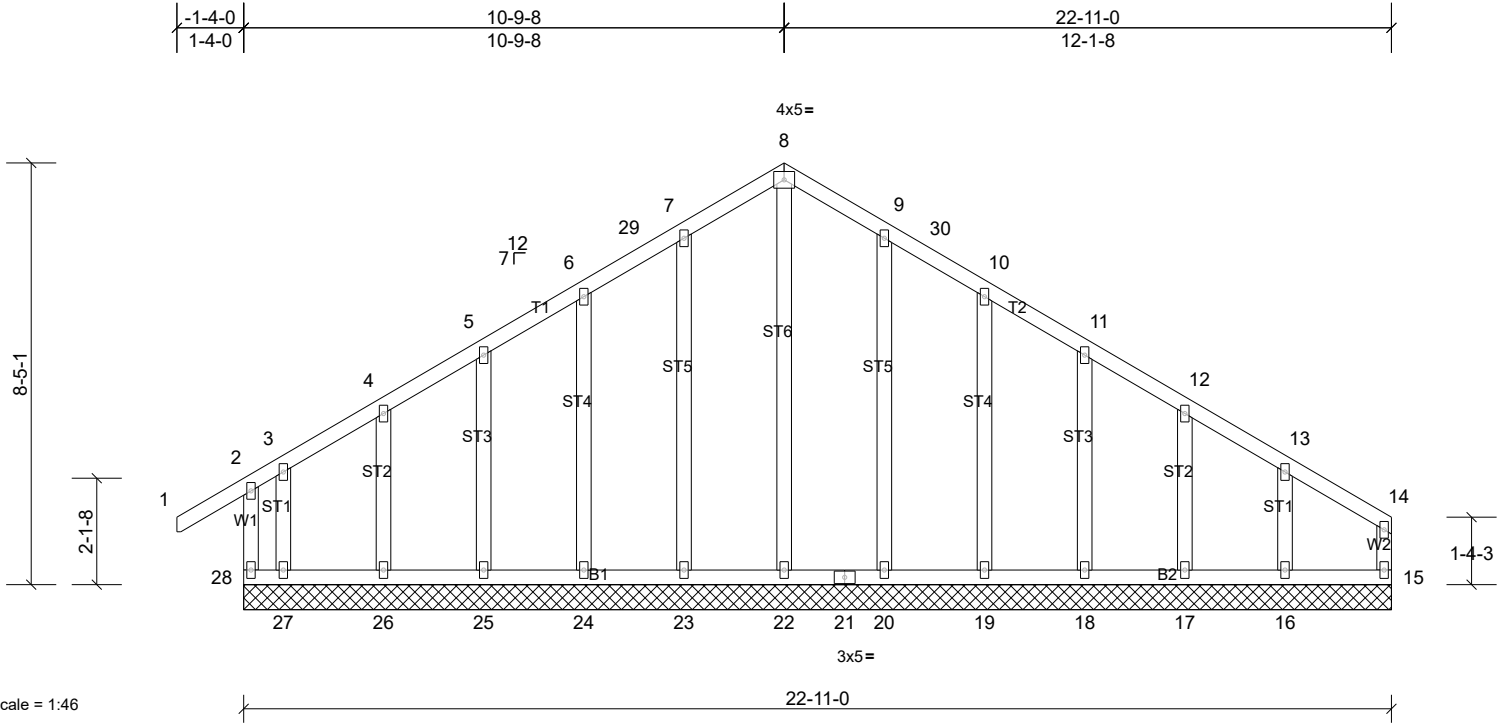
Job 22050131	Truss E01	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:46

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 157 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 or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** All bearings 22-11-0.

(lb) - Max Horiz 28=-179 (LC 13)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 15, 16, 17, 18, 19, 20, 23, 24, 25, 26 except 27=-193 (LC 12), 28=-192 (LC 11)  
 Max Grav All reactions 250 (lb) or less at joint(s) 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27 except 28=269 (LC 30)

**FORCES**

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

TOP CHORD 7-8=-224/265, 8-9=-224/265

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) -1-3-8 to 1-8-8, Exterior (2) 1-8-8 to 10-9-8, Corner (3) 10-9-8 to 13-9-8, Exterior (2) 13-9-8 to 22-9-4 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=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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) 15, 23, 24, 25, 26, 20, 19, 18, 17, 16 except (jt=lb) 28=192, 27=193.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



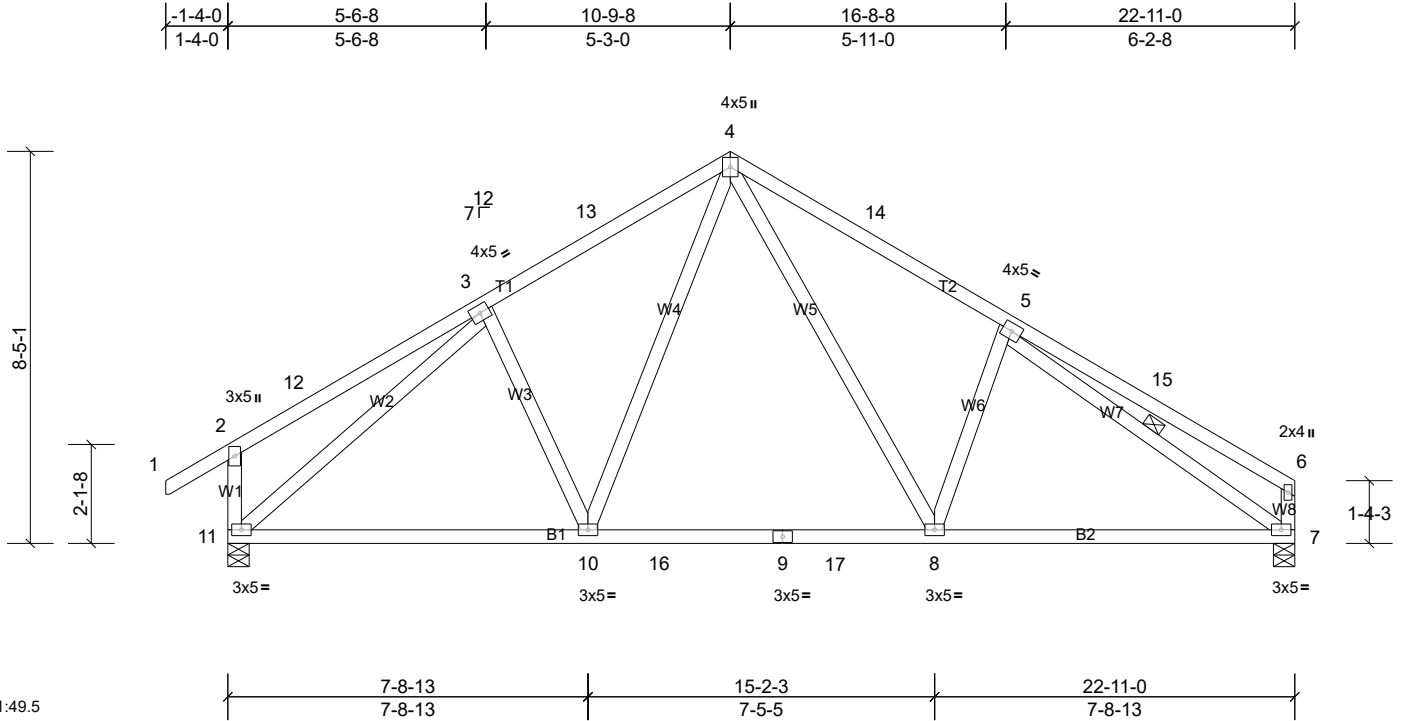
Job 22050131	Truss E02	Truss Type Common	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:49.5

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.14	8-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.19	8-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.03	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 141 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 or 5-2-11 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-7

**REACTIONS** (lb/size) 7=740/0-5-8, (min. 0-1-8), 11=811/0-5-8, (min. 0-1-8)  
 Max Horiz 11=-179 (LC 13)  
 Max Uplift 11=-2 (LC 15)  
 Max Grav 7=874 (LC 2), 11=963 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-13=-901/178, 4-13=-829/194, 4-14=-965/222, 5-14=-1048/193, 2-11=-271/151  
 BOT CHORD 10-11=-68/813, 10-16=0/656, 9-16=0/656, 9-17=0/656, 8-17=0/656, 7-8=-83/878  
 WEBS 4-10=-36/331, 4-8=-72/486, 3-11=-941/59, 5-7=-959/73

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-8 to 1-8-8, Interior (1) 1-8-8 to 10-9-8, Exterior (2) 10-9-8 to 13-9-8, Interior (1) 13-9-8 to 22-9-4 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 7. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

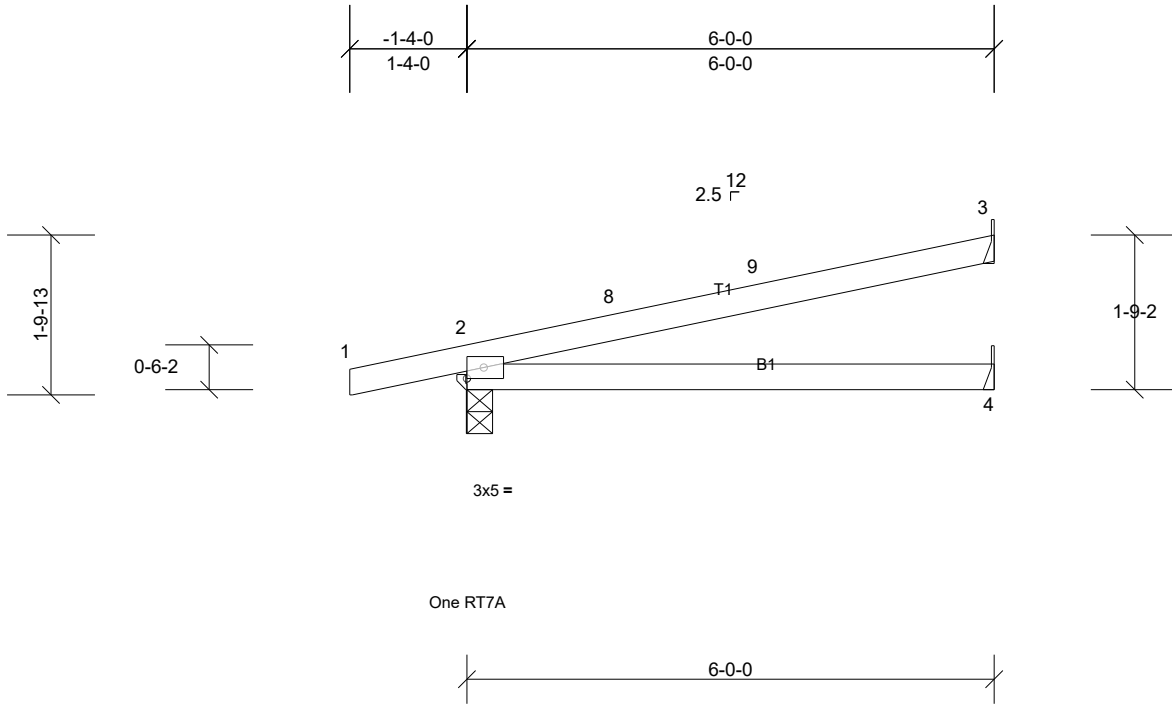
Job 22050131	Truss EJ01	Truss Type Jack-Open	Qty 10	Ply 1	Job Reference (optional)
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Scale = 1:26.2

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	0.54	Vert(LL)	0.05	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.11	4-7	>623	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 20 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

**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.

**REACTIONS** (lb/size) 2=271/0-3-8, (min. 0-1-8), 3=126/ Mechanical, (min. 0-1-8),  
4=68/ Mechanical, (min. 0-1-8)  
Max Horiz 2=44 (LC 11)  
Max Uplift 2=44 (LC 11), 3=-35 (LC 15)  
Max Grav 2=325 (LC 2), 3=156 (LC 2), 4=73 (LC 2)

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

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

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-13 to 1-8-3, Interior (1) 1-8-3 to 5-11-4 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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 3.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

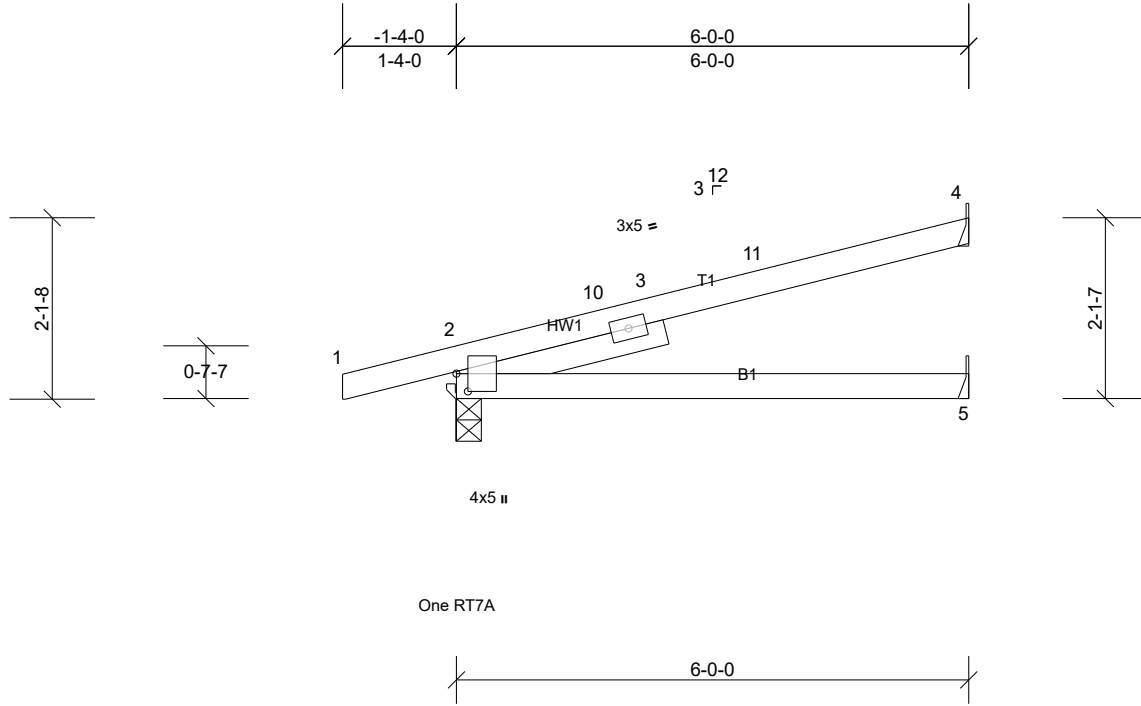
Job 22050131	Truss EJ02	Truss Type Jack-Open	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:27

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

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	0.51	Vert(LL)	0.06	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.12	5-8	>610	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -- 2-6-0

#### 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.

**REACTIONS** (lb/size) 2=271/0-3-8, (min. 0-1-8), 4=125/ Mechanical, (min. 0-1-8),  
 5=70/ Mechanical, (min. 0-1-8)  
 Max Horiz 2=53 (LC 11)  
 Max Uplift 2=-42 (LC 11), 4=-33 (LC 15)  
 Max Grav 2=325 (LC 2), 4=153 (LC 2), 5=75 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-10=-251/0

#### NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-13 to 1-8-3, Interior (1) 1-8-3 to 5-11-4 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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 4.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

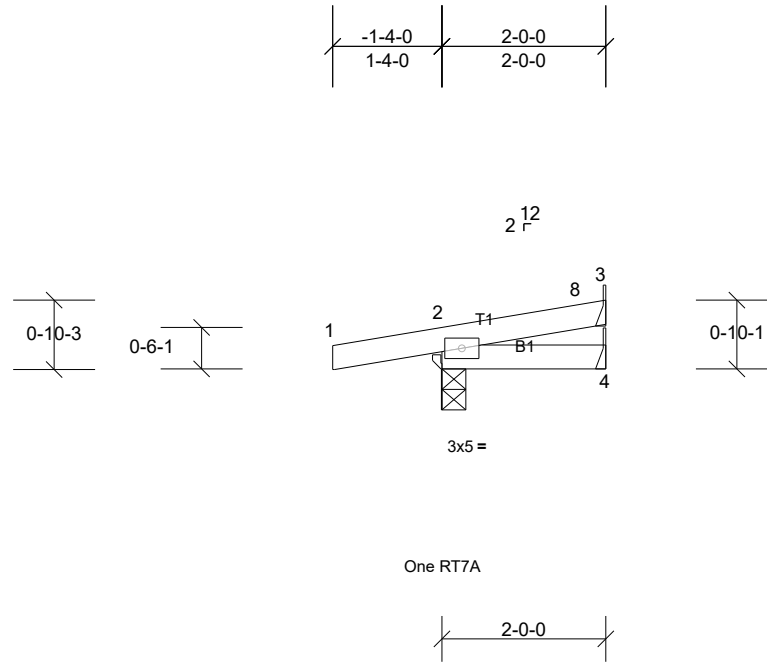
Job 22050131	Truss EJ05	Truss Type Jack-Open	Qty 4	Ply 1	Job Reference (optional)
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Scale = 1:28.1

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	0.14	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							Weight: 8 lb	FT = 20%
BCDL	10.0											

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

#### BRACING

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 2-0-0 oc purlins.  
Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=151/0-3-8, (min. 0-1-8), 3=31/ Mechanical, (min. 0-1-8),  
4=15/ Mechanical, (min. 0-1-8)

Max Horiz 2=18 (LC 11)  
Max Uplift 2=-50 (LC 11), 3=-8 (LC 15)  
Max Grav 2=185 (LC 2), 3=38 (LC 2), 4=17 (LC 20)

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

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

#### NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-14 to 1-8-2, Interior (1) 1-8-2 to 1-11-14 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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 3.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

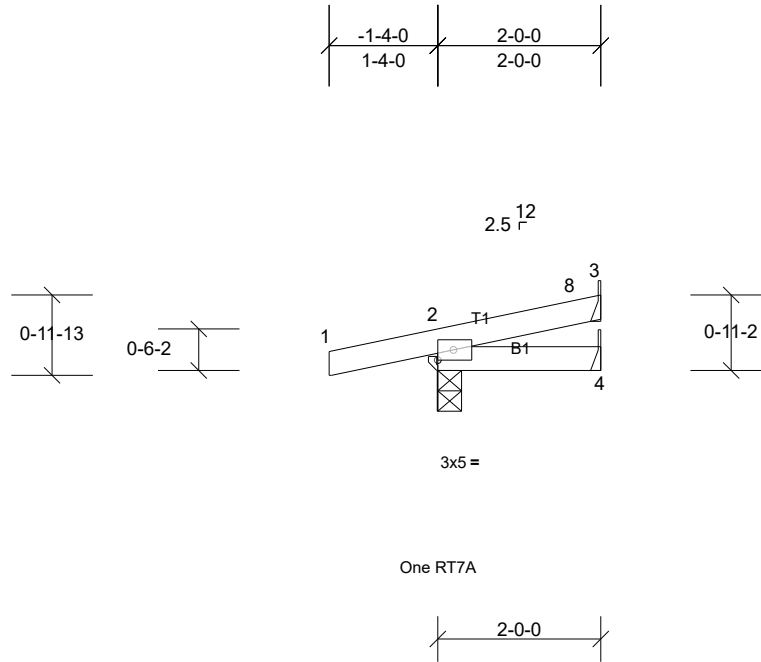
Job 22050131	Truss EJ06	Truss Type Jack-Open	Qty 4	Ply 1	Job Reference (optional)
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Scale = 1:28.3

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	0.14	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							Weight: 8 lb	FT = 20%
BCDL	10.0											

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

#### BRACING

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 2-0-0 oc purlins.  
Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=151/0-3-8, (min. 0-1-8), 3=32/ Mechanical, (min. 0-1-8),  
4=15/ Mechanical, (min. 0-1-8)

Max Horiz 2=22 (LC 11)  
Max Uplift 2=-49 (LC 11), 3=-9 (LC 15)  
Max Grav 2=185 (LC 2), 3=39 (LC 2), 4=17 (LC 20)

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

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

#### NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-13 to 1-8-3, Interior (1) 1-8-3 to 1-11-14 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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 3.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

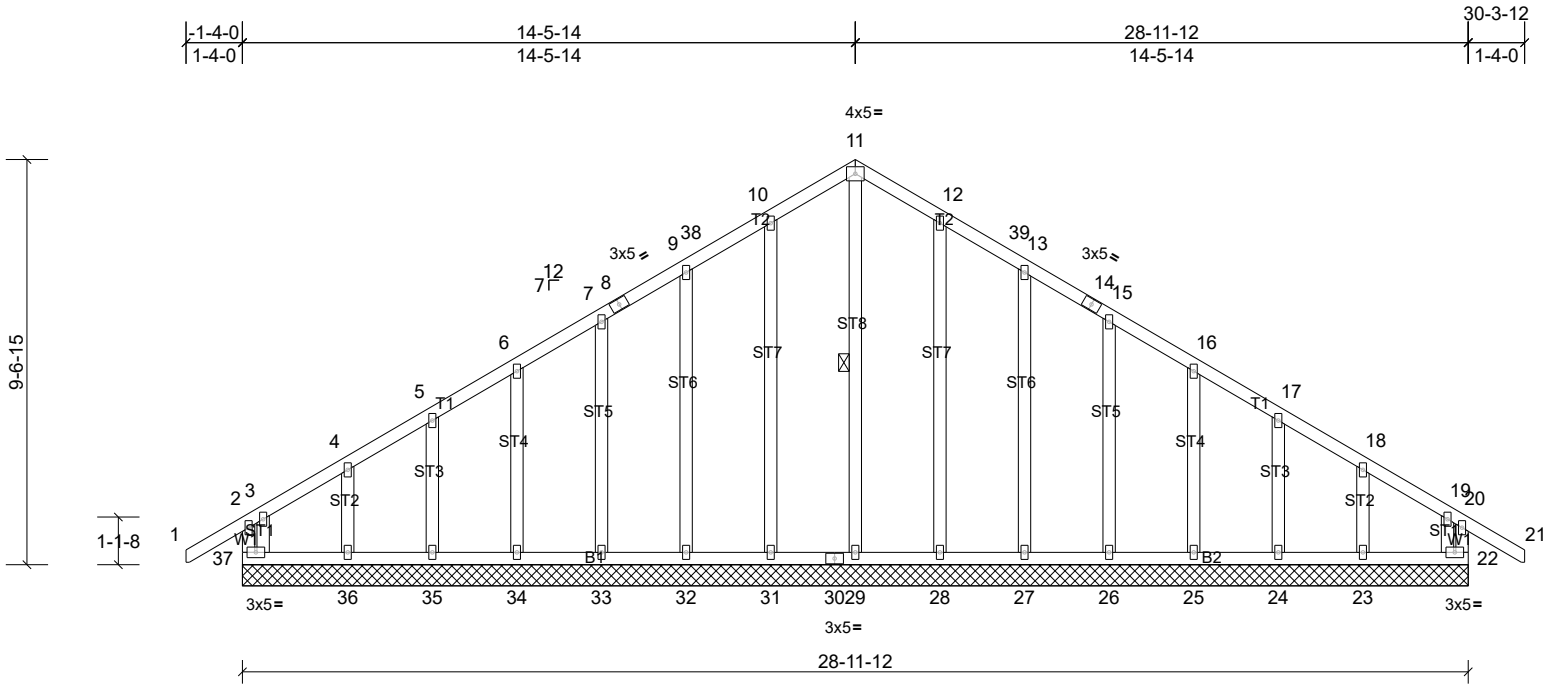
Job 22050131	Truss G01	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:54.5

Loading	(psf)	Spacing	2-0-0	CSI	0.18	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.00	22	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 204 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 or 6'-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6'-0-0 oc bracing.  
WEBS 1 Row at midpt 11-29

**REACTIONS** All bearings 28-11-12.  
(lb) - Max Horiz 37=208 (LC 14)  
Max Uplift All uplift 100 (lb) or less at joint(s) 22, 23, 24, 25, 26, 27, 28, 31, 32, 33, 34, 35, 36, 37  
Max Grav All reactions 250 (lb) or less at joint(s) 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 10-11=-260/291, 11-12=-260/291

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) -1-3-8 to 1-8-8, Exterior (2) 1-8-8 to 14-5-14, Corner (3) 14-5-14 to 17-5-14, Exterior (2) 17-5-14 to 30-3-4 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=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06-00 tall by 2'-00-00 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) 37, 22, 31, 32, 33, 34, 35, 36, 28, 27, 26, 25, 24, 23.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

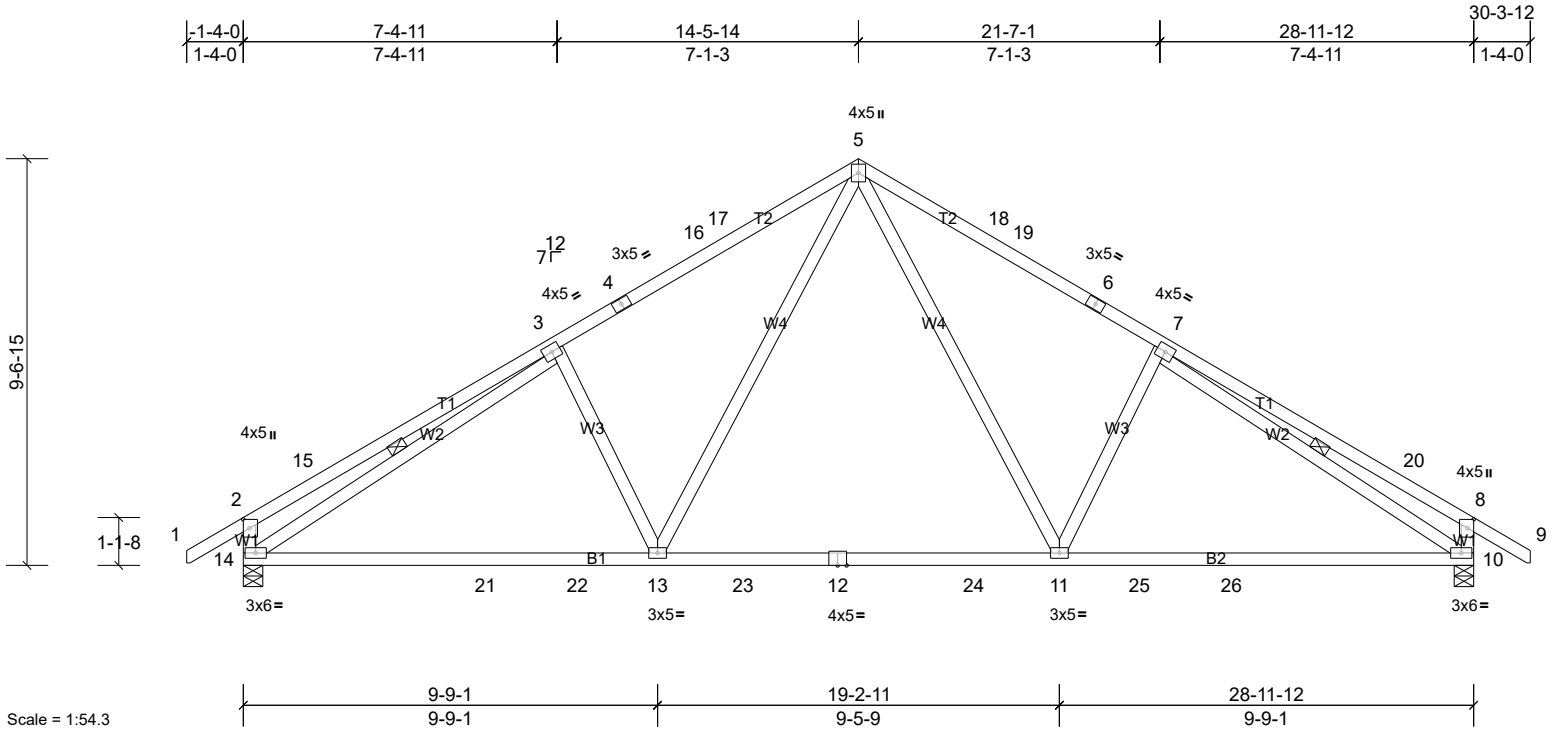
Job 22050131	Truss G02	Truss Type Common	Qty 5	Ply 1	Job Reference (optional)
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Scale = 1:54.3

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

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	0.74	Vert(LL)	-0.29	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.41	11-13	>845	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.05	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 171 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 or 3-4-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 3-14, 7-10

**REACTIONS** (lb/size) 10=1040/0-5-8, (min. 0-1-8), 14=1040/0-5-8, (min. 0-1-8)  
 Max Horiz 14=208 (LC 14)  
 Max Uplift 10=-5 (LC 16), 14=-5 (LC 15)  
 Max Grav 10=1284 (LC 30), 14=1284 (LC 29)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-15=-489/116, 3-15=-415/155, 3-4=-1542/216, 4-16=-1450/234, 16-17=-1442/236, 5-17=-1436/255, 5-18=-1436/255, 18-19=-1442/236, 6-19=-1451/234, 6-7=-1543/216, 7-20=-414/155, 8-20=-489/116, 2-14=-485/191, 8-10=-484/191  
 BOT CHORD 14-21=-63/1458, 21-22=-63/1458, 13-22=-63/1458, 13-23=0/1012, 12-23=0/1012, 12-24=0/1012, 11-24=0/1012, 11-25=-54/1324, 25-26=-54/1324, 10-26=-54/1324  
 WEBS 5-11=-62/685, 7-11=-322/196, 5-13=-62/685, 3-13=-322/196, 3-14=-1279/63, 7-10=-1279/63

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-8 to 1-8-8, Interior (1) 1-8-8 to 14-5-14, Exterior (2) 14-5-14 to 17-5-14, Interior (1) 17-5-14 to 30-3-4 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 10. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

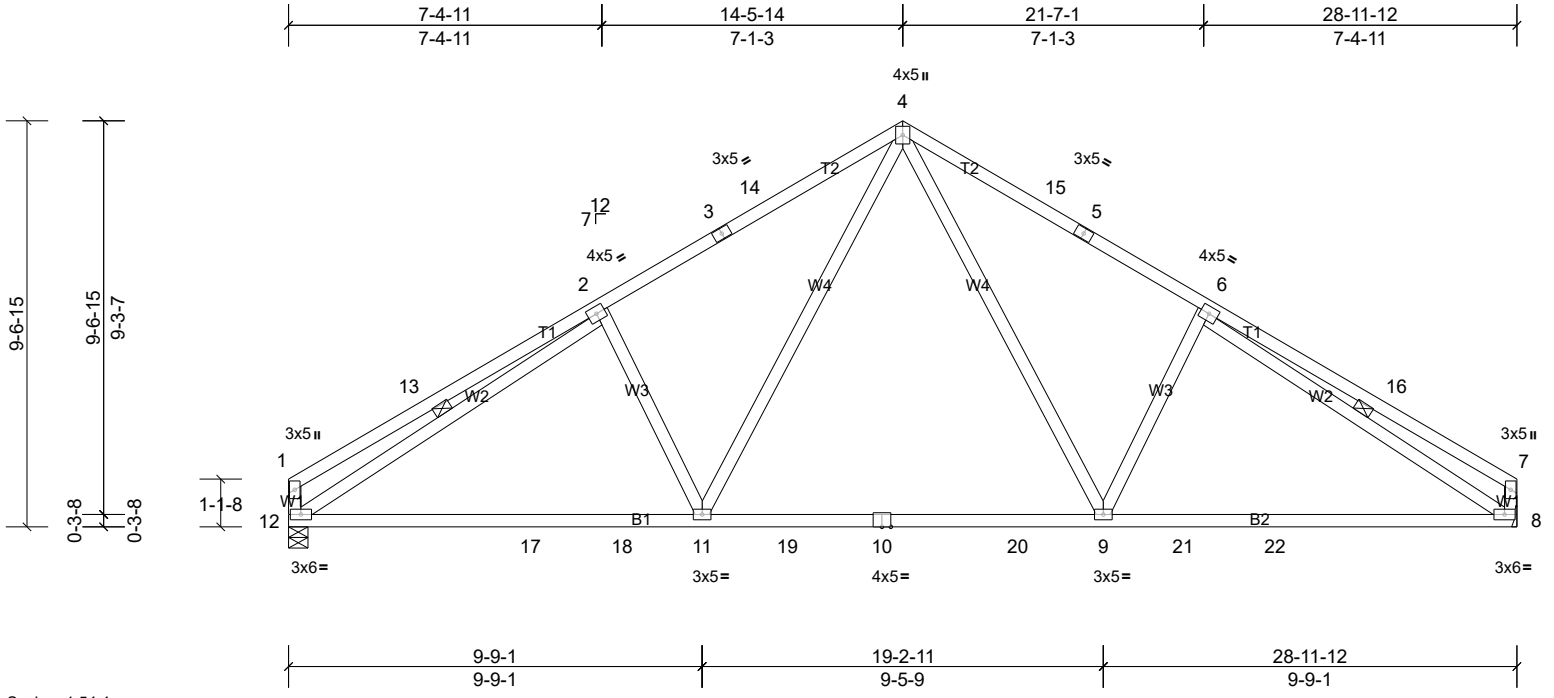
Job 22050131	Truss G03	Truss Type Common	Qty 4	Ply 1	Job Reference (optional)
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.29	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.41	9-11	>842	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.06	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 167 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 or 3-10-3 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 2-12, 6-8

**REACTIONS** (lb/size) 8=971/ Mechanical, (min. 0-1-8), 12=971/0-5-8, (min. 0-1-8)  
 Max Horiz 12=191 (LC 12)  
 Max Grav 8=1205 (LC 29), 12=1205 (LC 28)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-13=-419/87, 2-13=-364/113, 2-3=-1557/228, 3-14=-1458/247, 4-14=-1454/267, 4-15=-1454/267, 5-15=-1458/247, 5-6=-1557/228, 6-16=-364/113, 7-16=-419/87, 1-12=-357/116, 7-8=-357/116  
 BOT CHORD 12-17=-112/1466, 17-18=-112/1466, 11-18=-112/1466, 11-19=0/1008, 10-19=0/1008, 10-20=0/1008, 9-20=0/1008, 9-21=-108/1329, 21-22=-108/1329, 8-22=-108/1329  
 WEBS 4-9=-66/698, 6-9=-333/200, 4-11=-66/698, 2-11=-333/200, 2-12=-1340/98, 6-8=-1340/98

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 14-5-14, Exterior (2) 14-5-14 to 17-5-14, Interior (1) 17-5-14 to 28-10-0 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



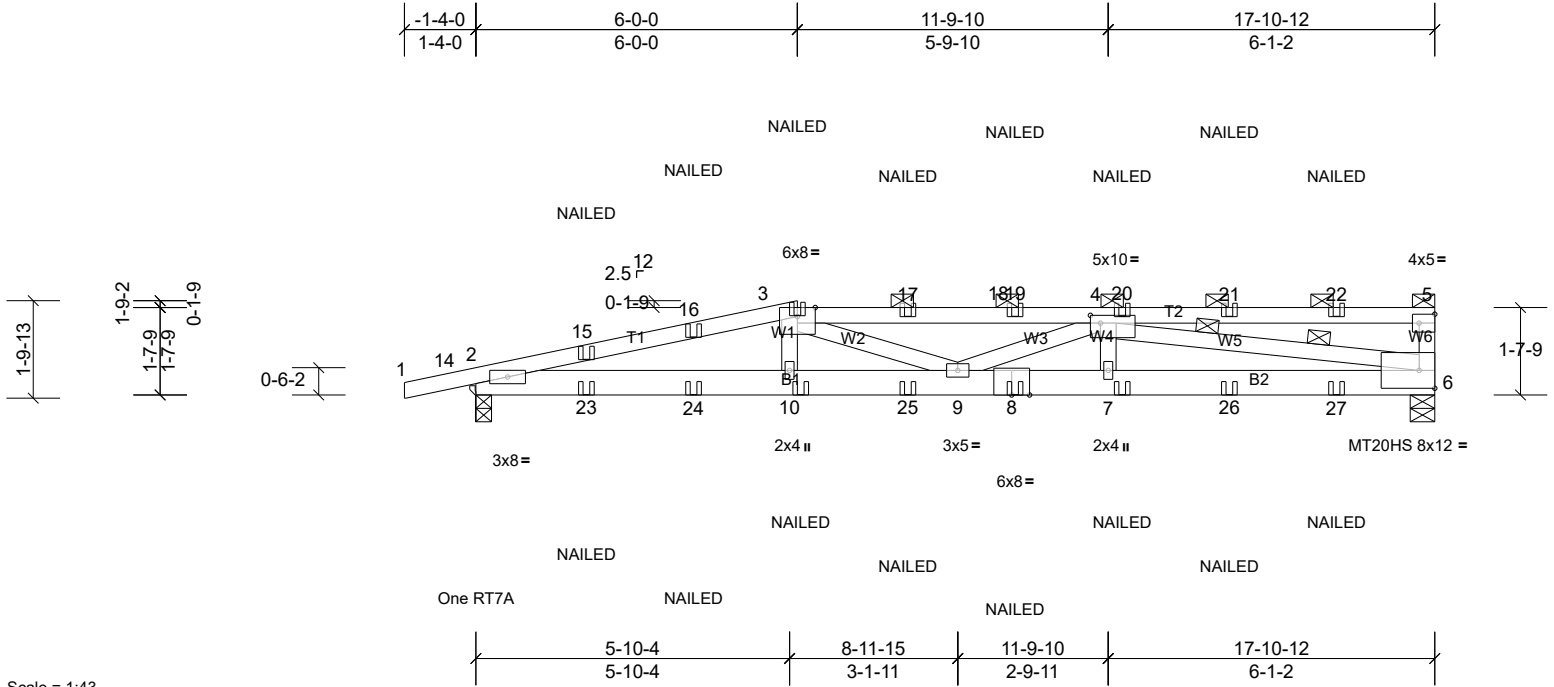
Job 22050131	Truss H01	Truss Type Half Hip Girder	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:43

Plate Offsets (X, Y): [4:0-2-4,0-1-12], [5:Edge,0-2-0]

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	0.79	Vert(LL)	-0.21	7-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.42	7-9	>508	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.94	Horz(CT)	0.05	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 92 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* T2:2x4 SP 2400F 2.0E  
 BOT CHORD 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* W6:2x4 SP 2400F 2.0E

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-3-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-9 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 2 Rows at 1/3 pts 4-6

**REACTIONS** (lb/size) 2=1358/0-3-8, (min. 0-1-8), 6=1304/0-5-8, (min. 0-1-8)  
 Max Horiz 2=40 (LC 10)  
 Max Uplift 2=-3 (LC 7), 6=-4 (LC 7)  
 Max Grav 2=1416 (LC 29), 6=1353 (LC 30)

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

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-15=-4249/0, 15-16=-4205/0, 3-16=-4198/0, 3-17=-4495/0, 17-18=-4496/0, 18-19=-4497/0, 4-19=-4499/0, 4-20=-432/22, 20-21=-432/22, 21-22=-432/22, 5-22=-432/22, 5-6=-315/61  
 BOT CHORD 2-23=0/4127, 23-24=0/4127, 10-24=0/4127, 10-25=0/4102, 9-25=0/4102, 8-9=-13/4369, 7-8=-13/4369, 7-26=0/4364, 26-27=0/4364, 6-27=0/4364  
 WEBS 3-9=-38/484, 4-6=-4012/0, 3-10=0/253

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-3=-48, 3-5=-58, 6-11=-20

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
22050131	H01	Half Hip Girder	1	1	

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Concentrated Loads (lb)

Vert: 3=-103 (F), 8=-53 (F), 7=-53 (F), 10=-53 (F), 15=-93 (F), 16=-22 (F), 17=-98 (F), 19=-98 (F), 20=-98 (F), 21=-98 (F), 22=-98 (F), 23=-103 (F), 24=-151 (F), 25=-53 (F), 26=-53 (F), 27=-53 (F)

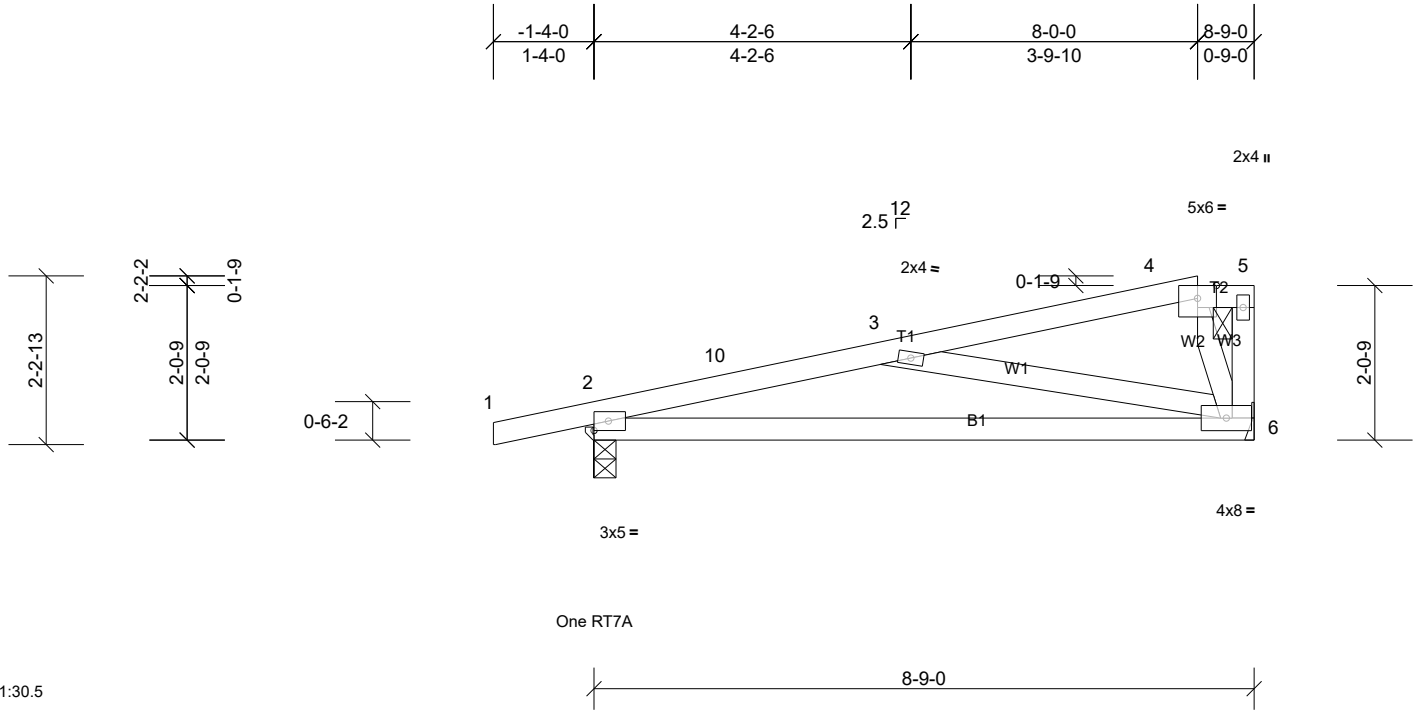
Job 22050131	Truss H02	Truss Type Half Hip	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:30.5

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	0.29	Vert(LL)	0.01	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.16	6-9	>654	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							Weight: 40 lb	FT = 20%
BCDL	10.0											

**LUMBER**

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

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.  
 Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=359/0-3-8, (min. 0-1-8), 6=292/ Mechanical, (min. 0-1-8)

Max Horiz 2=55 (LC 14)  
 Max Uplift 2=-50 (LC 11), 6=-11 (LC 11)  
 Max Grav 2=493 (LC 35), 6=361 (LC 35)

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

**FORCES**

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

TOP CHORD 2-10=-839/202, 3-10=-795/209  
 BOT CHORD 2-6=-286/802  
 WEBS 3-6=-776/239

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-13 to 1-8-3, Interior (1) 1-8-3 to 8-0-0, Exterior (2) 8-0-0 to 8-7-4 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow); Lumber DOL=1.15 Plate DOL=1.15; Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 6.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

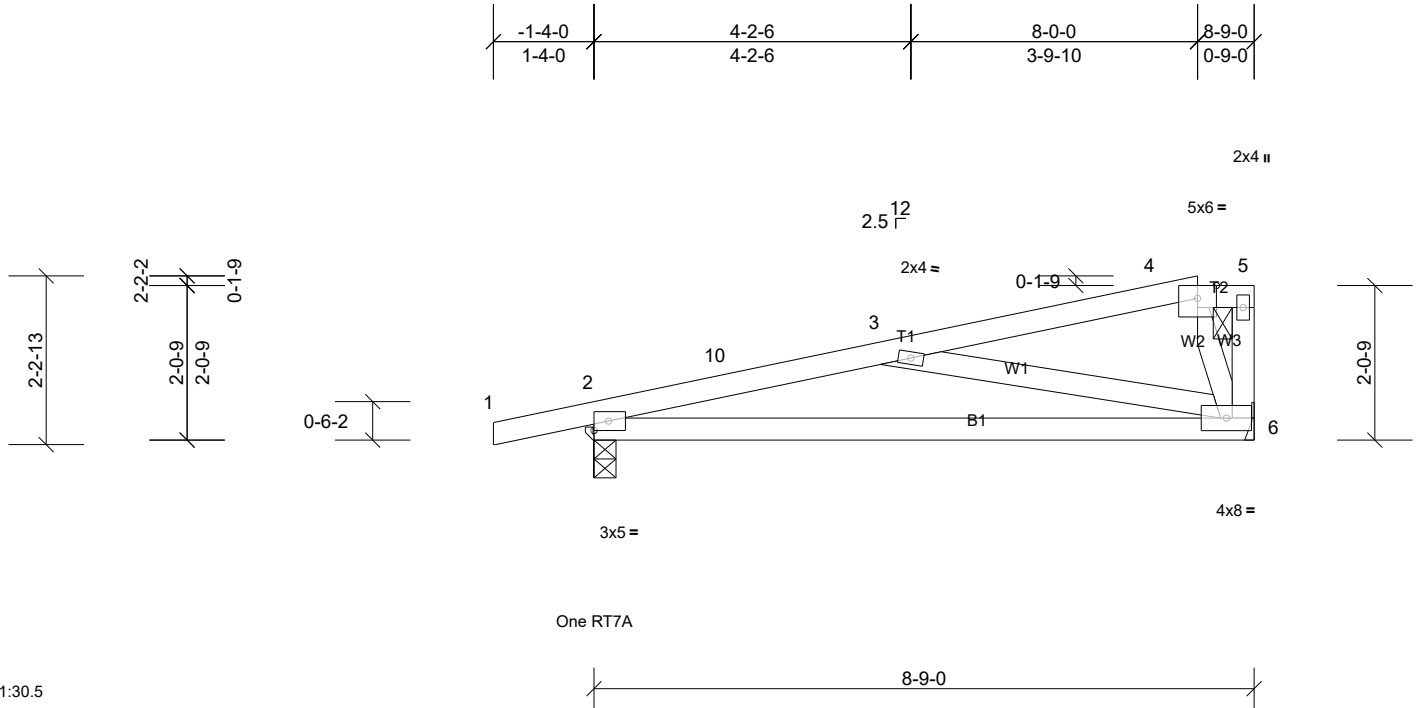
Job 22050131	Truss H03	Truss Type Monopitch	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:30.5

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	0.29	Vert(LL)	0.01	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.16	6-9	>654	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 40 lb	FT = 20%

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

**BRACING**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.  
 Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=359/0-3-8, (min. 0-1-8), 6=292/ Mechanical, (min. 0-1-8)  
 Max Horiz 2=55 (LC 14)  
 Max Uplift 2=-50 (LC 11), 6=-11 (LC 11)  
 Max Grav 2=493 (LC 35), 6=361 (LC 35)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-10=-839/133, 3-10=-795/140  
 BOT CHORD 2-6=-165/802  
 WEBS 3-6=-776/128

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-13 to 1-8-3, Interior (1) 1-8-3 to 8-7-4 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 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 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 6.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

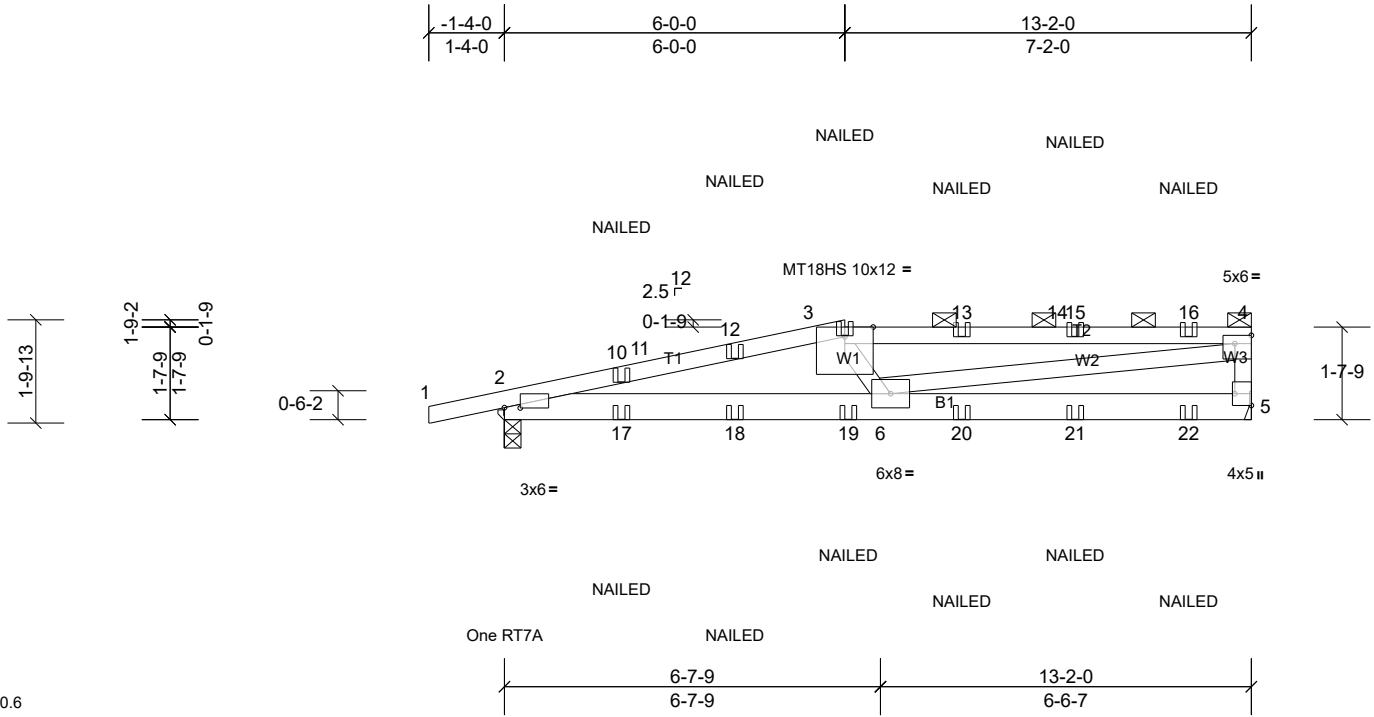
Job 22050131	Truss H04	Truss Type Half Hip Girder	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:40.6

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

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	0.94	Vert(LL)	-0.09	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.19	6-9	>839	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 65 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* T2:2x4 SP 2400F 2.0E  
 BOT CHORD 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* W3:2x4 SP 2400F 2.0E

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 3-2-8 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-6 max.): 3-4. Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=996/0-3-8, (min. 0-1-8), 5=997/ Mechanical, (min. 0-1-8)  
 Max Horiz 2=40 (LC 10)  
 Max Uplift 2=-5 (LC 7)  
 Max Grav 2=1070 (LC 31), 5=1020 (LC 30)

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

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-10=-2588/0, 10-11=-2558/0, 11-12=-2551/0, 3-12=-2538/0, 3-13=-2462/0, 13-14=-2464/0, 14-15=-2464/0, 15-16=-2465/0, 4-16=-2467/0, 4-5=-835/57  
 BOT CHORD 2-17=0/2504, 17-18=0/2504, 18-19=0/2504, 6-19=0/2504, 6-20=-39/411, 20-21=-39/411, 21-22=-39/411, 5-22=-39/411  
 WEBS 4-6=0/2106

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-3=-48, 3-4=-58, 5-7=-20  
 Concentrated Loads (lb)

Job 22050131	Truss H04	Truss Type Half Hip Girder	Qty 1	Ply 1	Job Reference (optional)
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Vert: 3=-103 (B), 10=-93 (B), 12=-22 (B), 13=-98 (B), 15=-98 (B), 16=-100 (B), 17=-103 (B), 18=-151 (B), 19=-53 (B), 20=-53 (B), 21=-53 (B), 22=-53 (B)

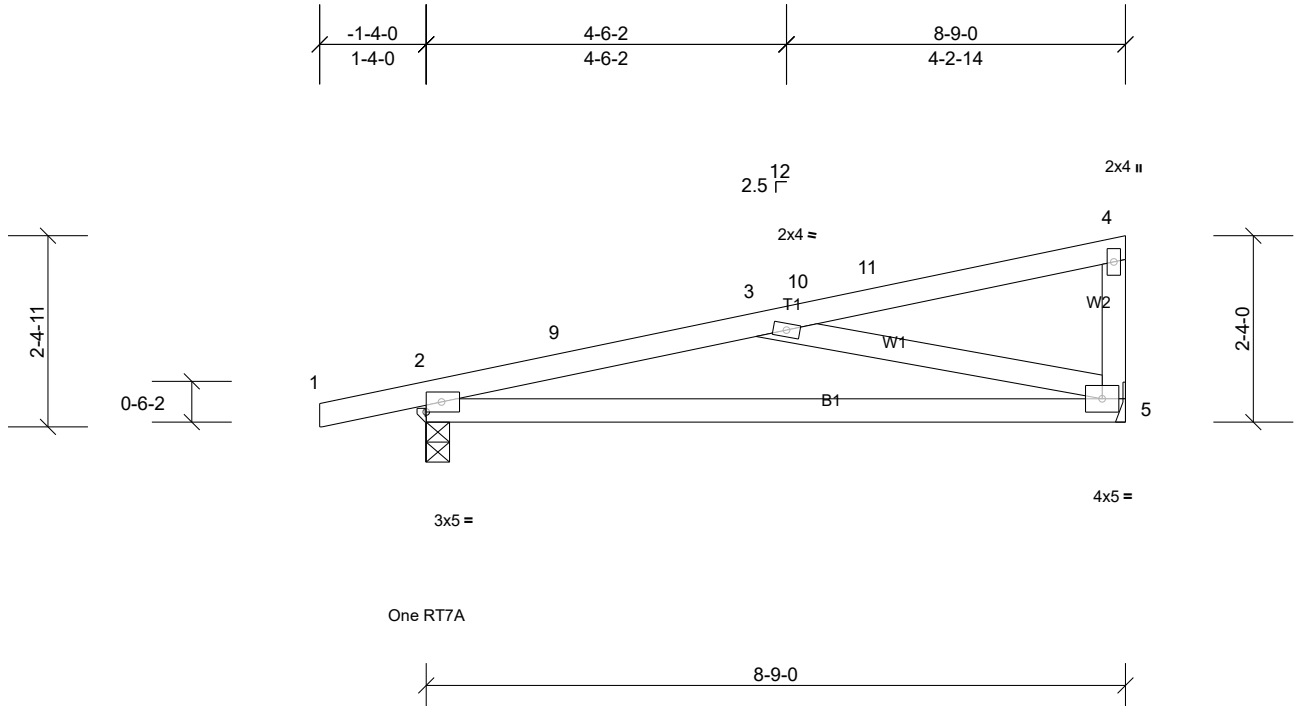
Job 22050131	Truss H05	Truss Type Monopitch	Qty 14	Ply 1	Job Reference (optional)
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Scale = 1:28.8

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	0.26	Vert(LL)	0.01	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.16	5-8	>638	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 38 lb	FT = 20%

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

**BRACING**  
 TOP CHORD  
 BOT CHORD

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

**REACTIONS** (lb/size) 2=359/0-3-8, (min. 0-1-8), 5=287/ Mechanical, (min. 0-1-8)  
 Max Horiz 2=63 (LC 14)  
 Max Uplift 2=-49 (LC 11), 5=-14 (LC 15)  
 Max Grav 2=429 (LC 2), 5=338 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-9=-702/140, 3-9=-665/148  
 BOT CHORD 2-5=-230/675  
 WEBS 3-5=-695/212

- NOTES**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-13 to 1-8-3, Interior (1) 1-8-3 to 8-7-4 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=1.33
  - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 5.
  - 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

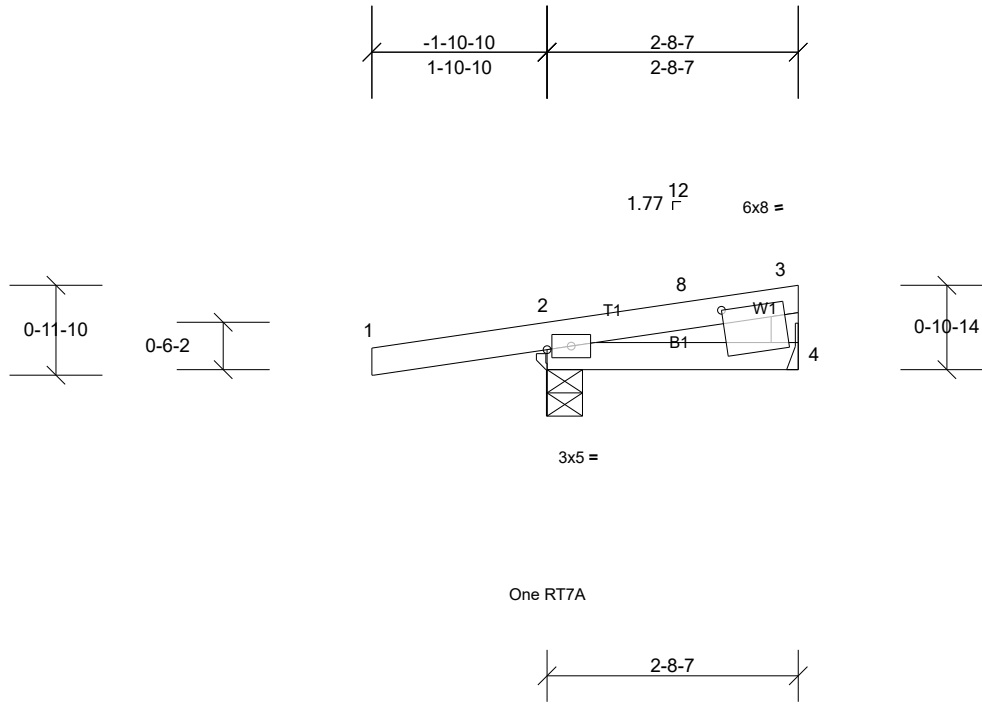
Job 22050131	Truss HJ01	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Job Reference (optional)
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Scale = 1:24.8

Plate Offsets (X, Y): [3:1-11-0,0-1-12]

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	0.34	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 11 lb	FT = 20%

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

**BRACING**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.

Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=209/0-4-9, (min. 0-1-8), 4=54/ Mechanical, (min. 0-1-8)  
Max Horiz 2=19 (LC 10)  
Max Uplift 2=-74 (LC 7), 4=-1 (LC 17)  
Max Grav 2=256 (LC 2), 4=61 (LC 2)

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

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

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 4.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



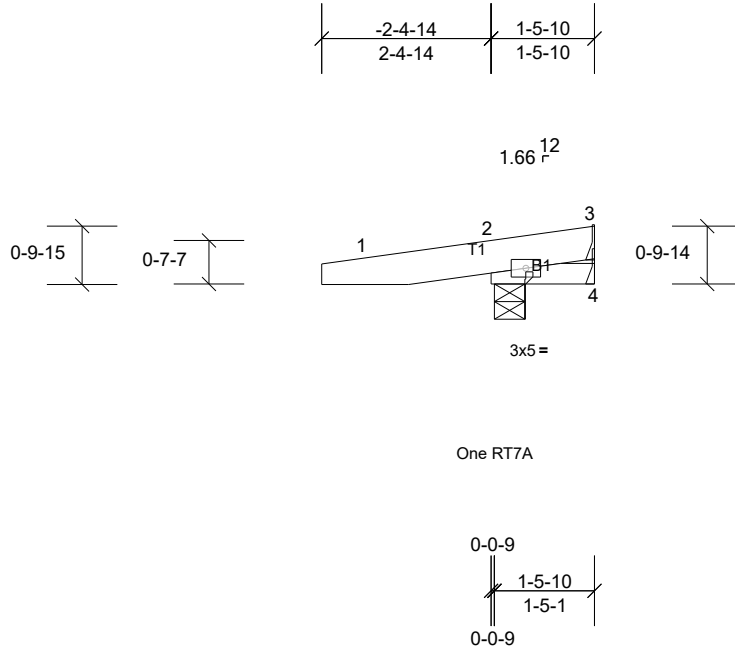
Job 22050131	Truss HJ02	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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One RT7A

Scale = 1:32.7

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	0.11	Vert(LL)	0.00	7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							Weight: 11 lb	FT = 20%
BCDL	10.0											

**LUMBER**

TOP CHORD 2x6 SP No.2  
BOT CHORD 2x4 SP No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 1-5-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=187/0-5-3, (min. 0-1-8), 3=1/ Mechanical, (min. 0-1-8), 4=-5/ Mechanical, (min. 0-1-8)  
Max Horiz 2=15 (LC 11)  
Max Uplift 2=-80 (LC 11), 3=-34 (LC 21), 4=-20 (LC 21)  
Max Grav 2=247 (LC 21), 3=15 (LC 11), 4=11 (LC 11)

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

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) 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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 4 and 34 lb uplift at joint 3.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

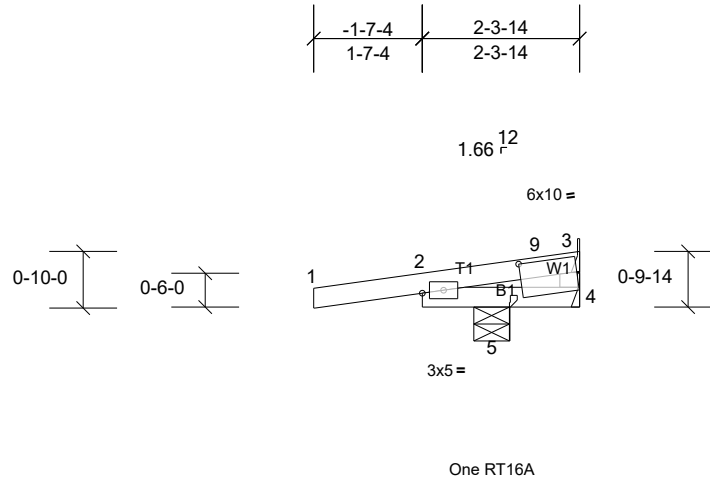
Job 22050131	Truss HJ03	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:34

Plate Offsets (X, Y): [3:1-5-10,0-2-12]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 10 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 or 2-3-14 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 3=-28/ Mechanical, (min. 0-1-8), 4=-80/ Mechanical, (min. 0-1-8), 5=324/0-6-5, (min. 0-1-8)  
 Max Horiz 5=16 (LC 14)  
 Max Uplift 3=-68 (LC 21), 4=-111 (LC 21), 5=-141 (LC 11)  
 Max Grav 3=22 (LC 11), 4=52 (LC 11), 5=398 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-9=-382/271  
 BOT CHORD 2-5=-224/320

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) 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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 3 and 111 lb uplift at joint 4.
- 8) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

**LOAD CASE(S)** Standard

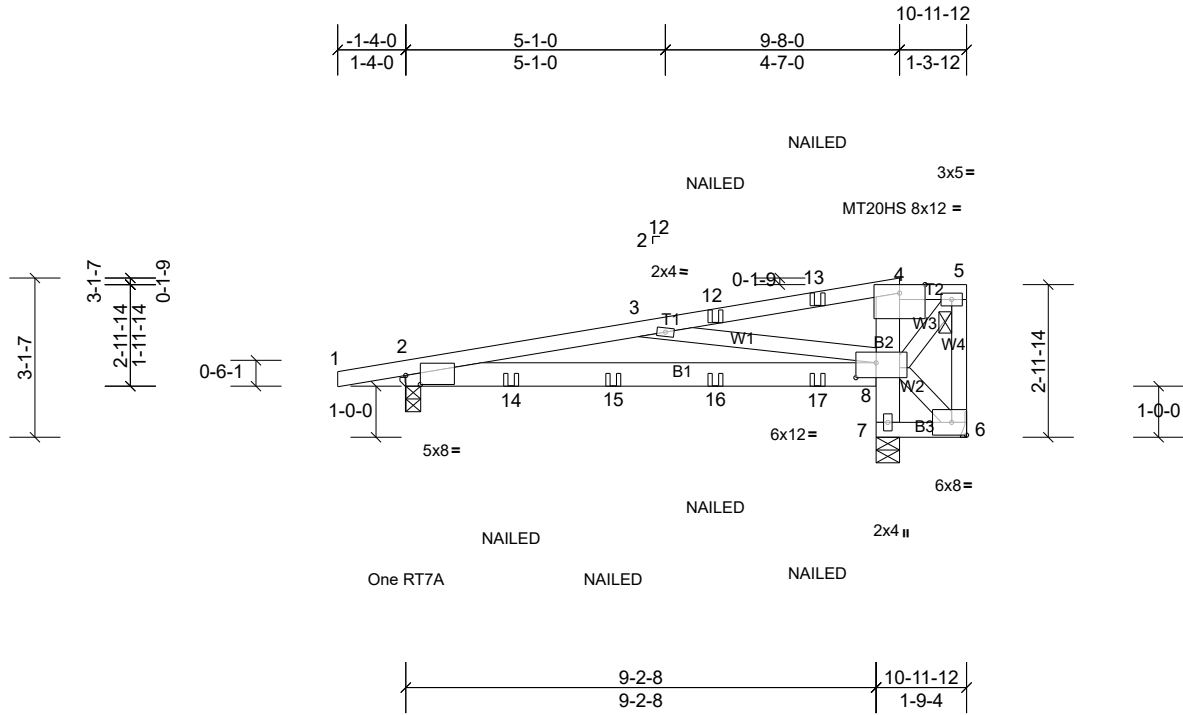
Job 22050131	Truss K01	Truss Type Half Hip Girder	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:45.1

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

Loading	(psf)	Spacing	2-0-0	CSI	0.50	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.10 8-11	>999	240	MT20HS	187/143
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.20 8-11	>568	180	MT20	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.01 7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 64 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP 2400F 2.0E \*Except\* T2:2x4 SP No.2  
 BOT CHORD 2x6 SP 2400F 2.0E \*Except\* B3:2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 4-5. Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 2=690/0-3-8, (min. 0-1-8), 6=-419/ Mechanical, (min. 0-1-8), 7=1282/0-5-8, (min. 0-1-11)  
 Max Horiz 2=74 (LC 10)  
 Max Uplift 2=-57 (LC 7), 6=-507 (LC 31)  
 Max Grav 2=802 (LC 31), 6=18 (LC 11), 7=1434 (LC 31)

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

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1353/73, 4-5=-28/258, 5-6=-49/309  
 BOT CHORD 2-14=-54/1349, 14-15=-54/1349, 15-16=-54/1349, 16-17=-54/1349, 8-17=-54/1349, 7-8=-1413/0, 6-7=-267/0  
 WEBS 5-8=-387/62, 6-8=0/334, 3-8=-1505/141

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 507 lb uplift at joint 6.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at it(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on back face at 2-0-12 from the left end, NAILED on back face at 4-0-12 from the left end.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
22050131	K01	Half Hip Girder	1	1	

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- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-48, 4-5=-58, 8-9=-20, 6-7=-20  
Concentrated Loads (lb)  
Vert: 12=-40 (B), 13=0 (B), 14=-222 (B), 15=-218 (B), 16=-110 (B), 17=-155 (B)

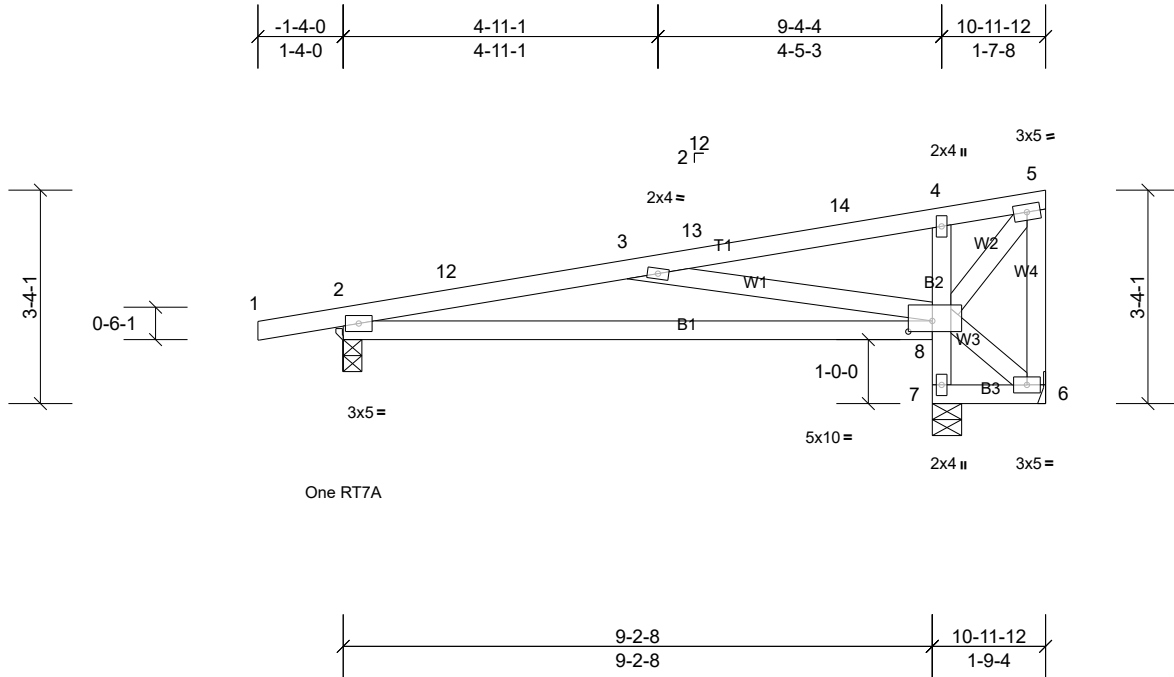
Job 22050131	Truss K02	Truss Type Monopitch	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:36

Plate Offsets (X, Y): [8:0-4-8,0-2-0]

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	0.30	Vert(LL)	0.01	8-11	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.17	8-11	>664	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 55 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* B2:2x4 SP No.3  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.

Rigid ceiling directly applied or 6'-0-0 oc bracing.

**REACTIONS** (lb/size) 2=346/0-3-8, (min. 0-1-8), 6=-193/ Mechanical, (min. 0-1-8), 7=644/0-5-8, (min. 0-1-8)  
 Max Horiz 2=84 (LC 14)  
 Max Uplift 2=-35 (LC 11), 6=-255 (LC 33), 7=-125 (LC 11)  
 Max Grav 2=409 (LC 2), 6=92 (LC 11), 7=791 (LC 2)

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

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

TOP CHORD 2-12=-676/58, 3-12=-665/65  
 BOT CHORD 2-8=-119/656, 7-8=-774/261, 4-8=-253/157  
 WEBS 5-8=-311/181, 3-8=-817/179

**NOTES**

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-14 to 1-8-2, Interior (1) 1-8-2 to 10-10-0 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 255 lb uplift at joint 6.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

Job 22050131	Truss K03	Truss Type Monopitch	Qty 9	Ply 1	Job Reference (optional)
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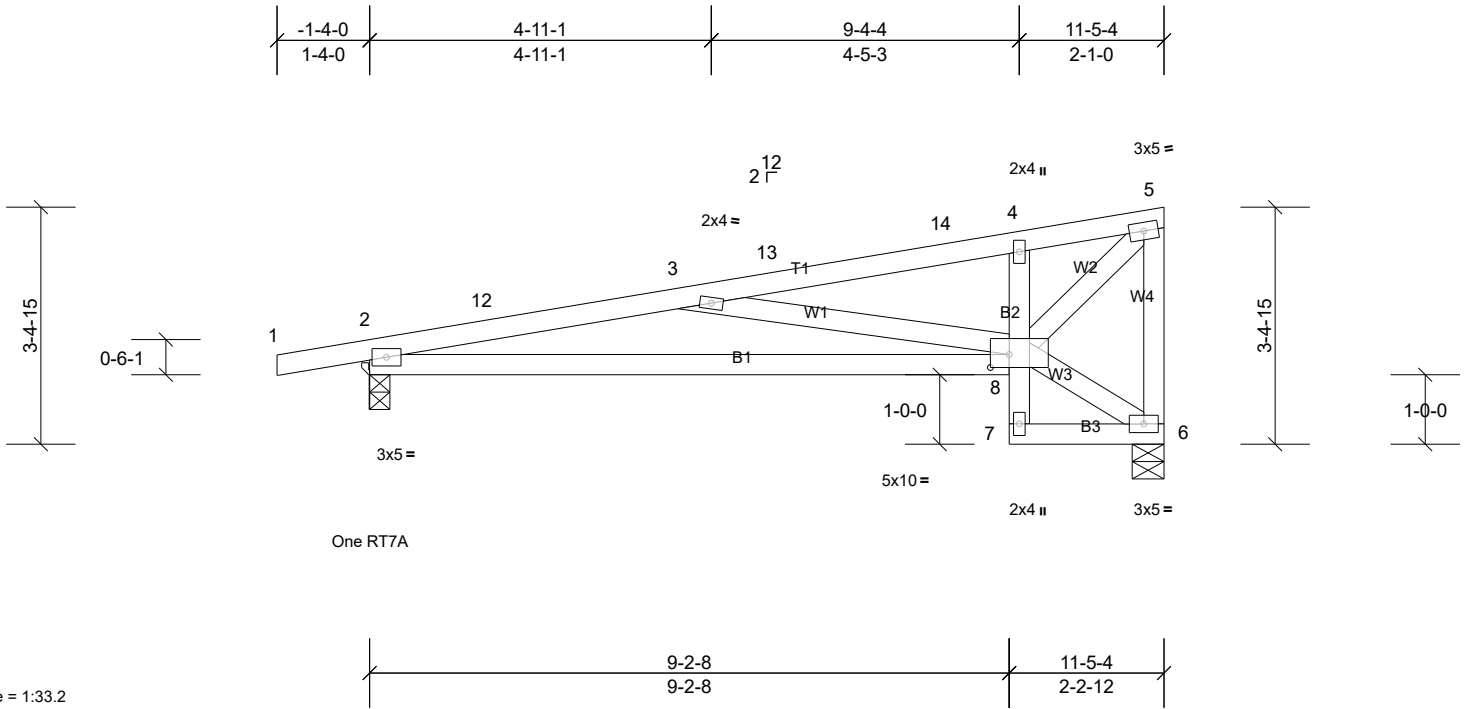


Plate Offsets (X, Y): [8:0-3-4,0-2-4]

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	0.27	Vert(LL)	-0.02	8-11	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.18	8-11	>756	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 58 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* B2:2x4 SP No.3  
 WEBS 2x4 SP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 5-2-1 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 2=449/0-3-8, (min. 0-1-8), 6=379/0-5-8, (min. 0-1-8)  
 Max Horiz 2=86 (LC 14)  
 Max Uplift 2=-52 (LC 11), 6=-19 (LC 15)  
 Max Grav 2=536 (LC 2), 6=447 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-12=-1240/166, 3-12=-1220/172, 3-13=-541/45, 13-14=-520/46, 4-14=-498/52, 4-5=-463/68, 5-6=-425/100  
 BOT CHORD 2-8=-271/1204  
 WEBS 5-8=-136/646, 3-8=-704/142

- NOTES**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-14 to 1-8-2, Interior (1) 1-8-2 to 11-3-8 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=1.33
  - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

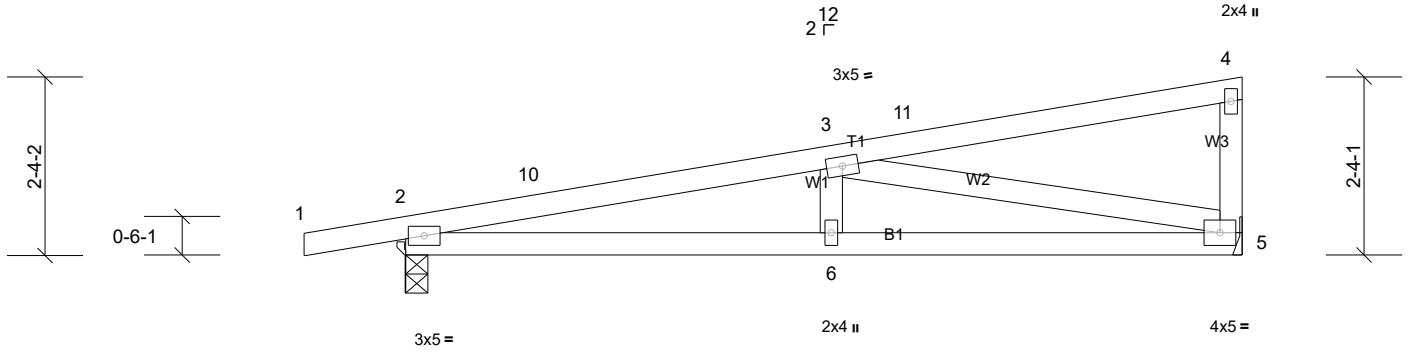
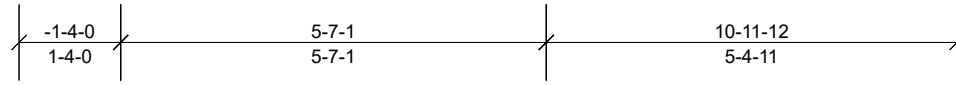
Job 22050131	Truss K04	Truss Type Monopitch	Qty 5	Ply 1	Job Reference (optional)
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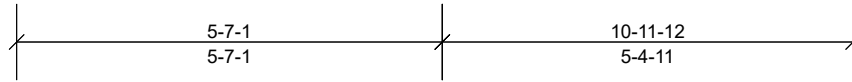
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One RT7A



Scale = 1:30.2

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)	-0.04	6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.09	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 46 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 5-3-14 oc purlins, except end verticals.  
 Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=434/0-3-8, (min. 0-1-8), 5=363/ Mechanical, (min. 0-1-8)

Max Horiz 2=61 (LC 14)  
 Max Uplift 2=-53 (LC 11), 5=-17 (LC 15)  
 Max Grav 2=517 (LC 2), 5=428 (LC 2)

**FORCES**

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

TOP CHORD 2-10=-1146/126, 3-10=-1120/135  
 BOT CHORD 2-6=-227/1105, 5-6=-227/1105  
 WEBS 3-5=-1077/192

**NOTES**

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-14 to 1-8-2, Interior (1) 1-8-2 to 10-10-0 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 5.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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

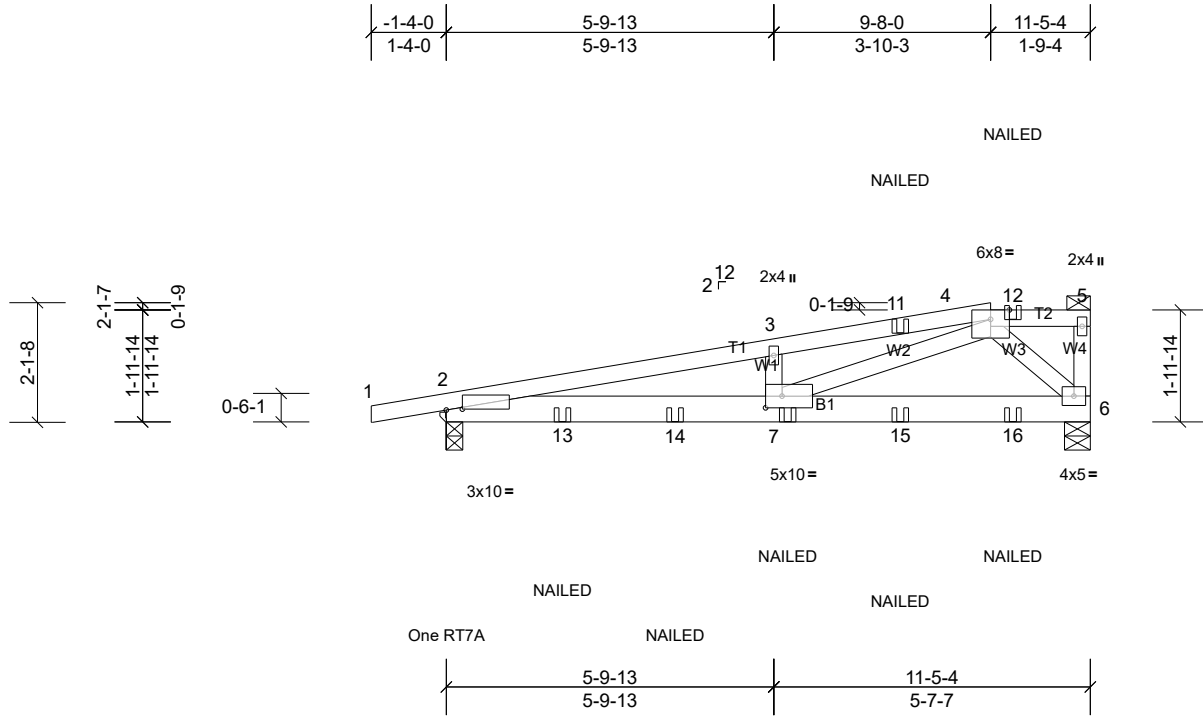
Job 22050131	Truss K05	Truss Type Half Hip Girder	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:40.9

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.10	7-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.17	7-10	>779	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 58 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-11-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=963/0-3-8, (min. 0-1-8), 6=895/0-5-8, (min. 0-1-8)  
 Max Horiz 2=48 (LC 10)  
 Max Uplift 2=-93 (LC 7), 6=-41 (LC 7)  
 Max Grav 2=1102 (LC 31), 6=946 (LC 31)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2878/148, 3-11=-2872/162, 4-11=-2849/165  
 BOT CHORD 2-13=-143/2821, 13-14=-143/2821, 7-14=-143/2821, 7-15=-50/769, 15-16=-50/769, 6-16=-50/769  
 WEBS 4-7=-101/2238, 4-6=-1011/94

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- WARNING: The following hangers are manually applied but fail due to geometric considerations: NAILED on front face at 2-0-12 from the left end, NAILED on front face at 4-0-12 from the left end.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-4=-46, 4-5=-56, 6-8=-19  
 Concentrated Loads (lb)



Job 22050131	Truss K05	Truss Type Half Hip Girder	Qty 1	Ply 1	Job Reference (optional)
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Vert: 7=-210 (F), 11=-1 (F), 12=-100 (F), 13=-249 (F), 14=-233 (F), 15=-190 (F), 16=-56 (F)

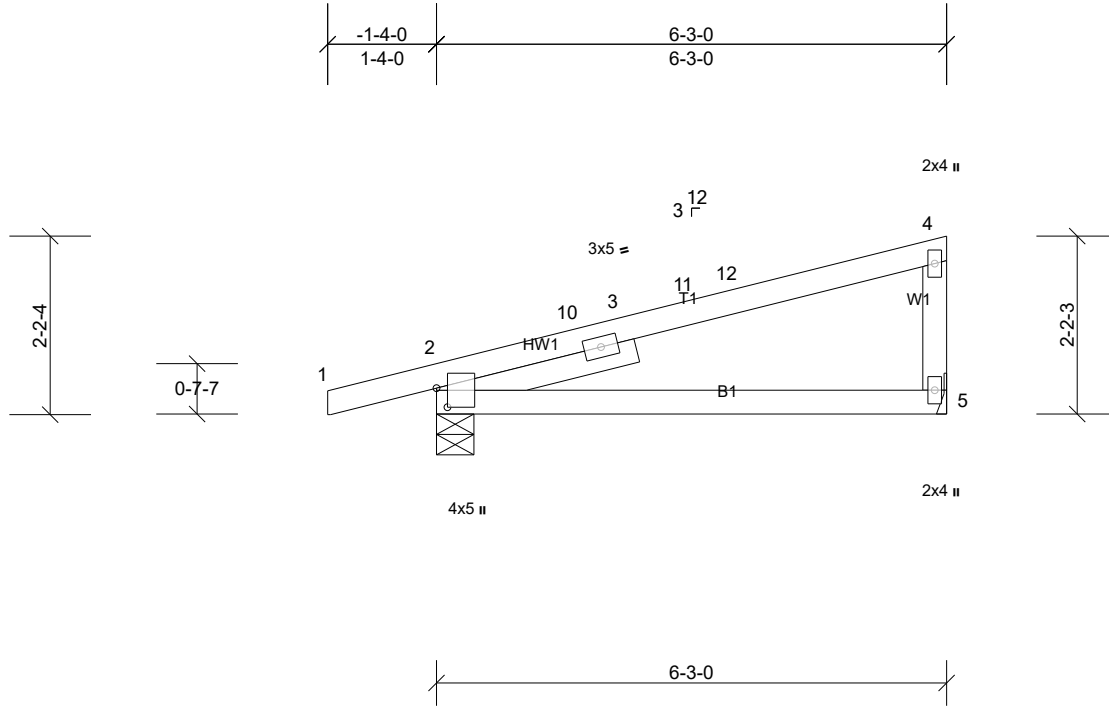
Job 22050131	Truss L01	Truss Type Monopitch	Qty 4	Ply 1	Job Reference (optional)
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Scale = 1:28.2

Plate Offsets (X, Y): [2:0-2-13,0-1-10]

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	0.54	Vert(LL)	-0.06	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.13	5-8	>557	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 27 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 2-6-0

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

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=276/0-5-8, (min. 0-1-8), 5=200/ Mechanical, (min. 0-1-8)  
 Max Horiz 2=59 (LC 14)  
 Max Uplift 2=-46 (LC 11), 5=-11 (LC 15)  
 Max Grav 2=332 (LC 2), 5=236 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-10=-265/0, 3-10=-262/0

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-13 to 1-8-3, Interior (1) 1-8-3 to 6-1-4 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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at jt(s) 2.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

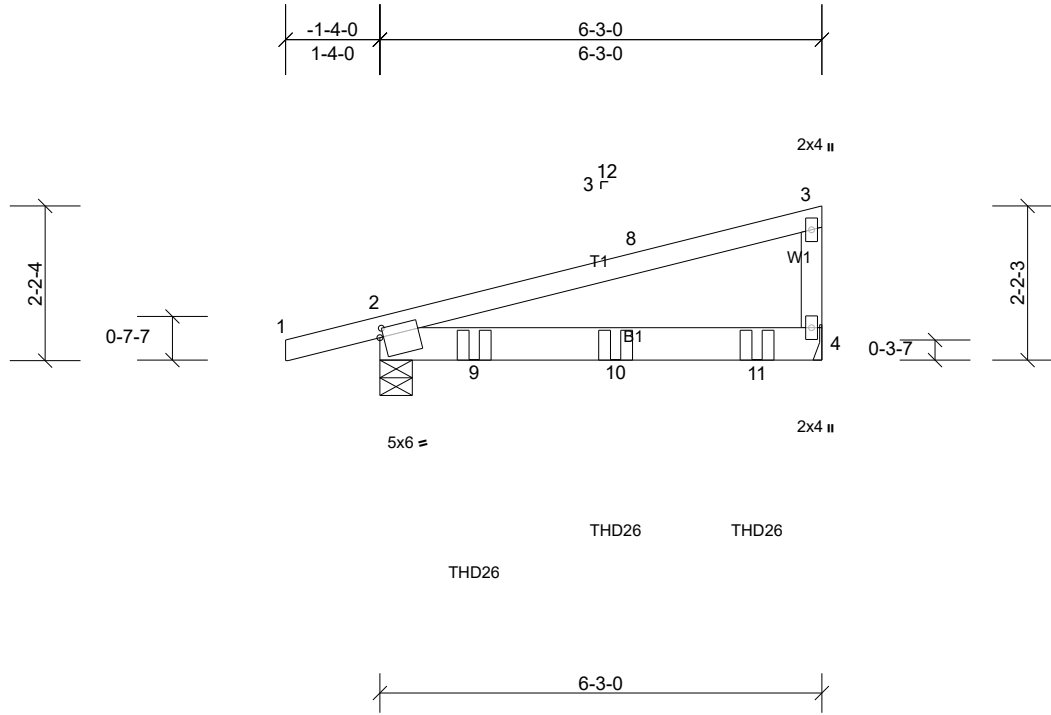
Job 22050131	Truss L02	Truss Type Monopitch Girder	Qty 1	Ply 2	Job Reference (optional)
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Scale = 1:32.6

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

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	0.36	Vert(LL)	-0.10	4-7	>714	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.20	4-7	>358	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 57 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x6 SP 2400F 2.0E  
 WEBS 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 10-0-0 oc bracing.

#### REACTIONS (lb/size) 2=1572/0-5-8, (min. 0-1-8), 4=1760/ Mechanical, (min. 0-1-8)

Max Horiz 2=57 (LC 10)  
 Max Grav 2=1867 (LC 2), 4=2085 (LC 2)

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

TOP CHORD 2-8=-625/7  
 BOT CHORD 2-9=-20/379

#### NOTES

- 2-ply truss to be connected together as follows:  
 Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected with 10d (0.131"x3") nails as follows: 2x6 - 2 rows staggered at 0-8-0 oc.
- 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.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10; Min. flat roof snow load governs.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-4-0 from the left end to 5-4-0 to connect truss(es) G03 (1 ply 2x4 SP) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-3=-48, 4-5=-20  
 Concentrated Loads (lb)  
 Vert: 9=-951 (F), 10=-951 (F), 11=-954 (F)

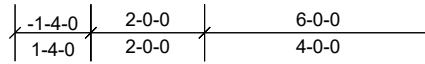
Job 22050131	Truss MH01	Truss Type Jack-Open Girder	Qty 2	Ply 1	Job Reference (optional)
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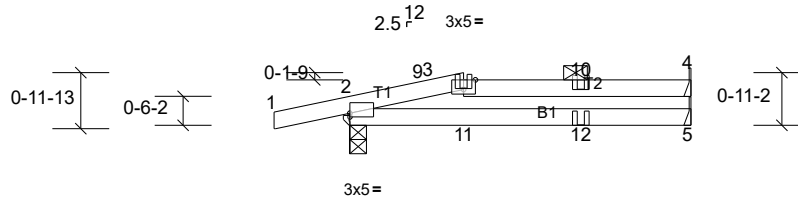
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NAILED

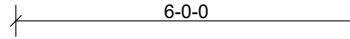
NAILED



Special

One RT7A

NAILED



Scale = 1:40.5

Plate Offsets (X, Y): [2:Edge,0-0-12], [3:0-2-8,Edge]

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	0.64	Vert(LL)	-0.09	5-8	>790	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.18	5-8	>388	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.08	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 20 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP 2400F 2.0E

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except  
2-0-0 oc purlins: 3-4.

**REACTIONS** (lb/size) 2=305/0-3-8, (min. 0-1-8), 4=114/ Mechanical, (min. 0-1-8), 5=118/ Mechanical, (min. 0-1-8)  
Max Horiz 2=19 (LC 7)  
Max Uplift 2=-45 (LC 7), 4=-29 (LC 7)  
Max Grav 2=347 (LC 29), 4=141 (LC 30), 5=123 (LC 30)

**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.

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-9=-90/253

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 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 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 4.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 37 lb down and 3 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-48, 3-4=-58, 5-6=-20  
Concentrated Loads (lb)  
Vert: 11=-33 (F), 12=0 (F)

Job 22050131	Truss MH01	Truss Type Jack-Open Girder	Qty 2	Ply 1	Job Reference (optional)
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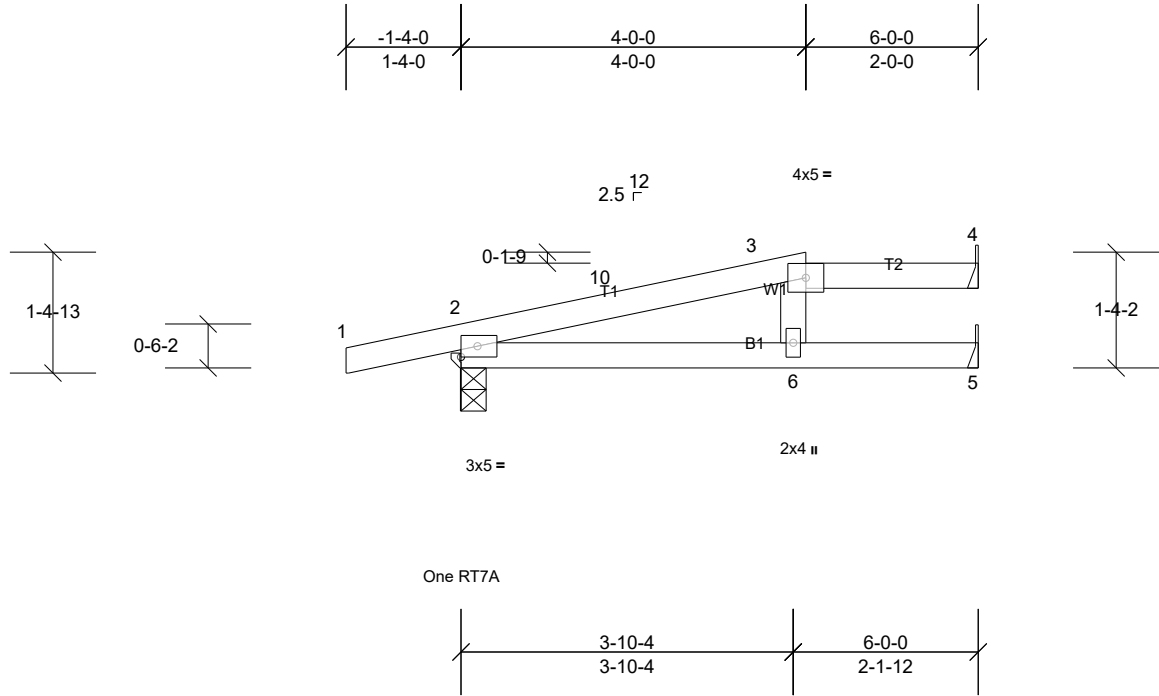
Job 22050131	Truss MH02	Truss Type Jack-Open	Qty 2	Ply 1	Job Reference (optional)
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Scale = 1:26.7

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	0.35	Vert(LL)	-0.10	6-9	>722	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.21	6-9	>339	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.07	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 21 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 or 6-0-0 oc purlins, except 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 2=274/0-3-8, (min. 0-1-8), 4=56/ Mechanical, (min. 0-1-8), 5=154/ Mechanical, (min. 0-1-8)  
 Max Horiz 2=30 (LC 11)  
 Max Uplift 2=-47 (LC 11), 4=-14 (LC 11)  
 Max Grav 2=362 (LC 35), 4=69 (LC 34), 5=171 (LC 2)

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

**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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-13 to 1-8-3, Interior (1) 1-8-3 to 5-11-4 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 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 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at jt(s) 2.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

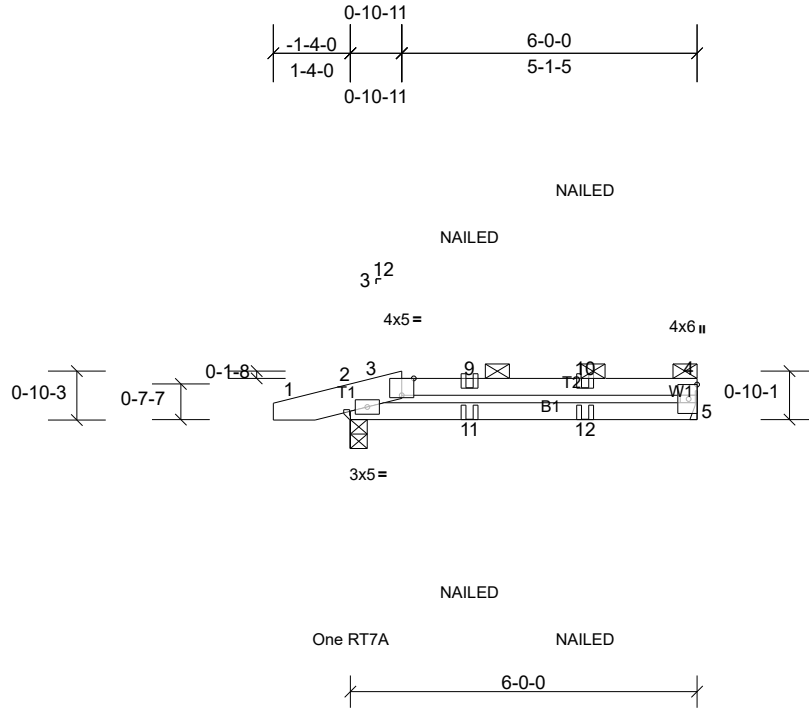
Job 22050131	Truss MH03	Truss Type Jack-Open Girder	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:39.9

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

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	0.68	Vert(LL)	-0.01	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.03	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 22 lb	FT = 20%

**LUMBER**

TOP CHORD 2x6 SP No.2 \*Except\* T2:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=269/0-3-8, (min. 0-1-8), 5=223/ Mechanical, (min. 0-1-8)

Max Horiz 2=14 (LC 10)  
 Max Uplift 2=-37 (LC 7), 5=-8 (LC 8)  
 Max Grav 2=297 (LC 29), 5=269 (LC 30)

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

TOP CHORD 2-3=-581/22, 3-9=-564/17, 9-10=-564/17, 4-10=-564/17  
 BOT CHORD 2-11=-27/564, 11-12=-22/564, 5-12=-22/564

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 5.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-3=-48, 3-4=-58, 5-6=-20  
 Concentrated Loads (lb)  
 Vert: 11=0 (B), 12=0 (B)

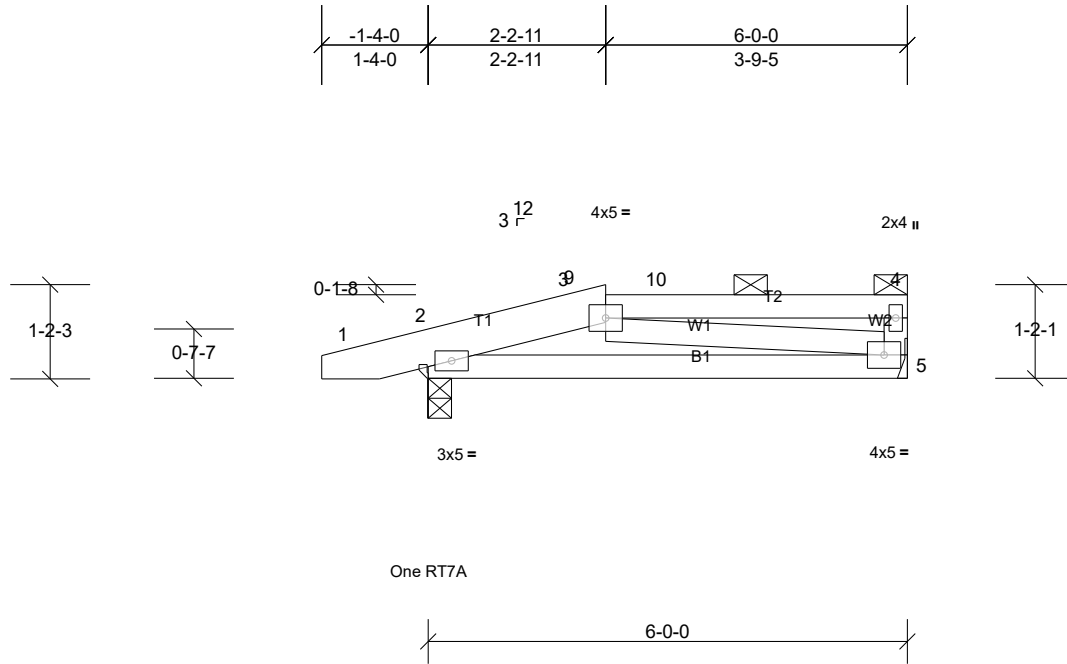
Job 22050131	Truss MH04	Truss Type Jack-Open	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:28.8

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)	0.00	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.03	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 lb	FT = 20%

**LUMBER**

TOP CHORD 2x6 SP No.2 \*Except\* T2:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=260/0-3-8, (min. 0-1-8), 5=219/ Mechanical, (min. 0-1-8)

Max Horiz 2=25 (LC 14)  
 Max Uplift 2=-37 (LC 11), 5=-7 (LC 11)  
 Max Grav 2=301 (LC 35), 5=253 (LC 34)

**FORCES**

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

TOP CHORD 2-9=-390/123, 3-9=-376/126  
 BOT CHORD 2-5=-138/373  
 WEBS 3-5=-381/131

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -0-11-11 to 2-2-11, Interior (1) 2-2-11 to 5-10-4 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 5.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



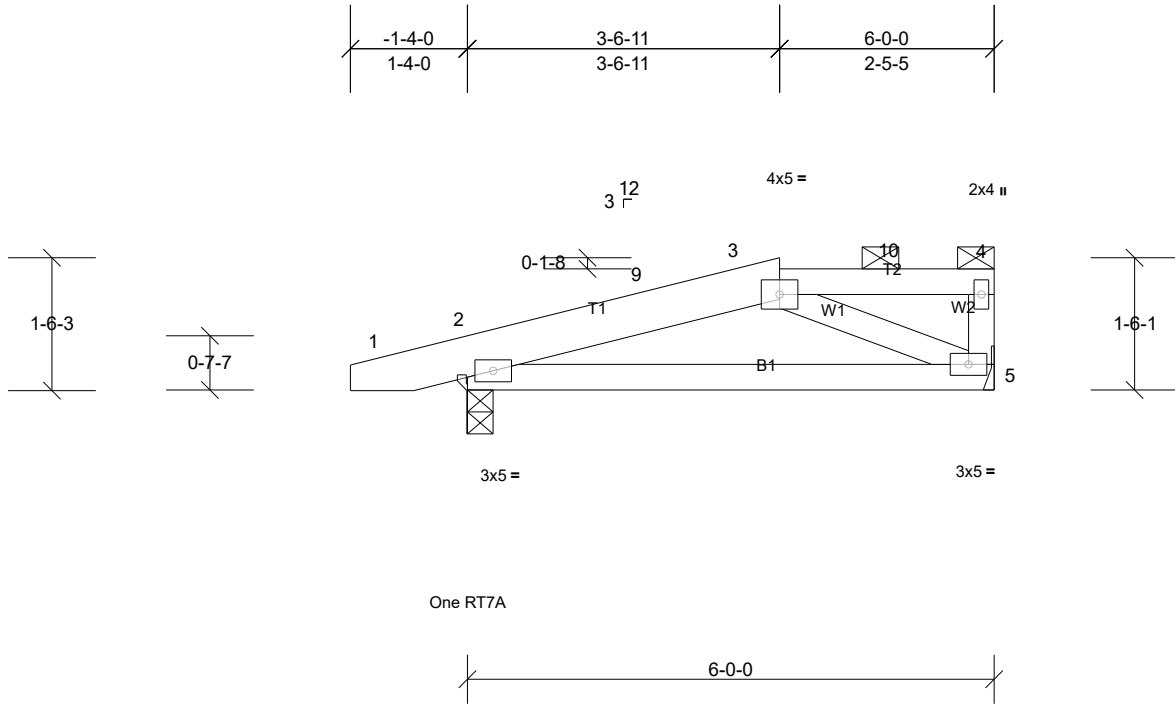
Job 22050131	Truss MH05	Truss Type Jack-Open	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:26.2

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	0.12	Vert(LL)	0.00	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.03	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 lb	FT = 20%

**LUMBER**

TOP CHORD 2x6 SP No.2 \*Except\* T2:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=253/0-3-8, (min. 0-1-8), 5=213/ Mechanical, (min. 0-1-8)

Max Horiz 2=35 (LC 14)  
 Max Uplift 2=-37 (LC 11), 5=-7 (LC 11)  
 Max Grav 2=331 (LC 35), 5=229 (LC 2)

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-9=-266/83, 3-9=-250/90  
 WEBS 3-5=-273/117

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -0-11-11 to 2-0-5, Interior (1) 2-0-5 to 5-10-4 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at jt(s) 2.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

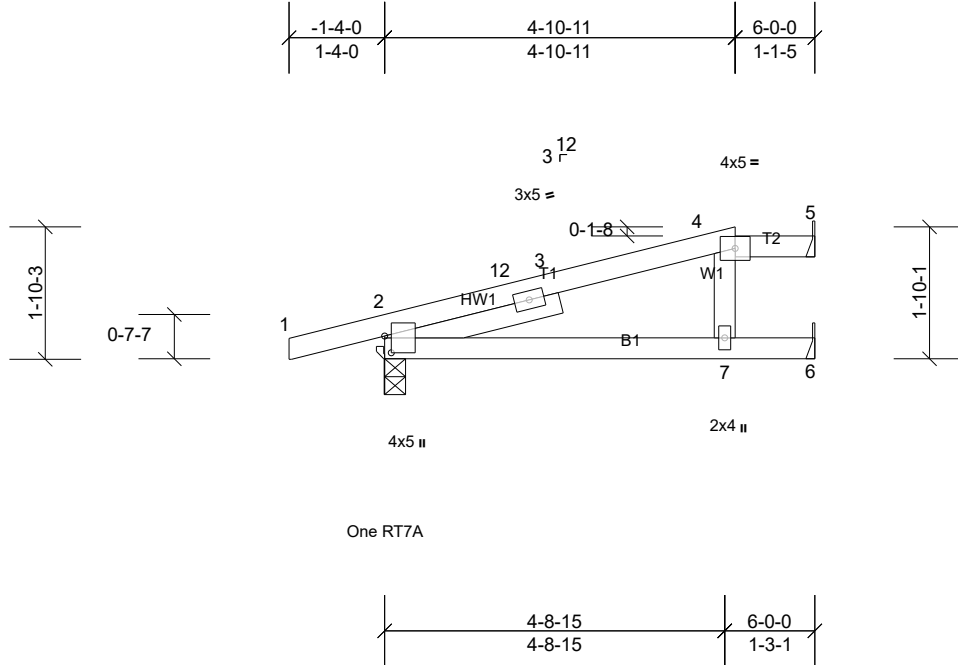
Job 22050131	Truss MH06	Truss Type Jack-Open	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:32.1

Plate Offsets (X, Y): [2:0-2-13,0-1-2]

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	0.51	Vert(LL)	-0.09	7-10	>802	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.17	7-10	>414	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.06	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 26 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 2-6-0

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins: 4-5.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 2=272/0-3-8, (min. 0-1-8), 5=30/ Mechanical, (min. 0-1-8), 6=173/ Mechanical, (min. 0-1-8)

Max Horiz 2=43 (LC 11)  
 Max Uplift 2=-44 (LC 11), 5=-8 (LC 11), 6=-1 (LC 11)  
 Max Grav 2=381 (LC 35), 5=39 (LC 34), 6=209 (LC 35)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-12=-436/18, 3-12=-422/19

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-13 to 1-8-3, Interior (1) 1-8-3 to 5-11-4 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 5 and 1 lb uplift at joint 6.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

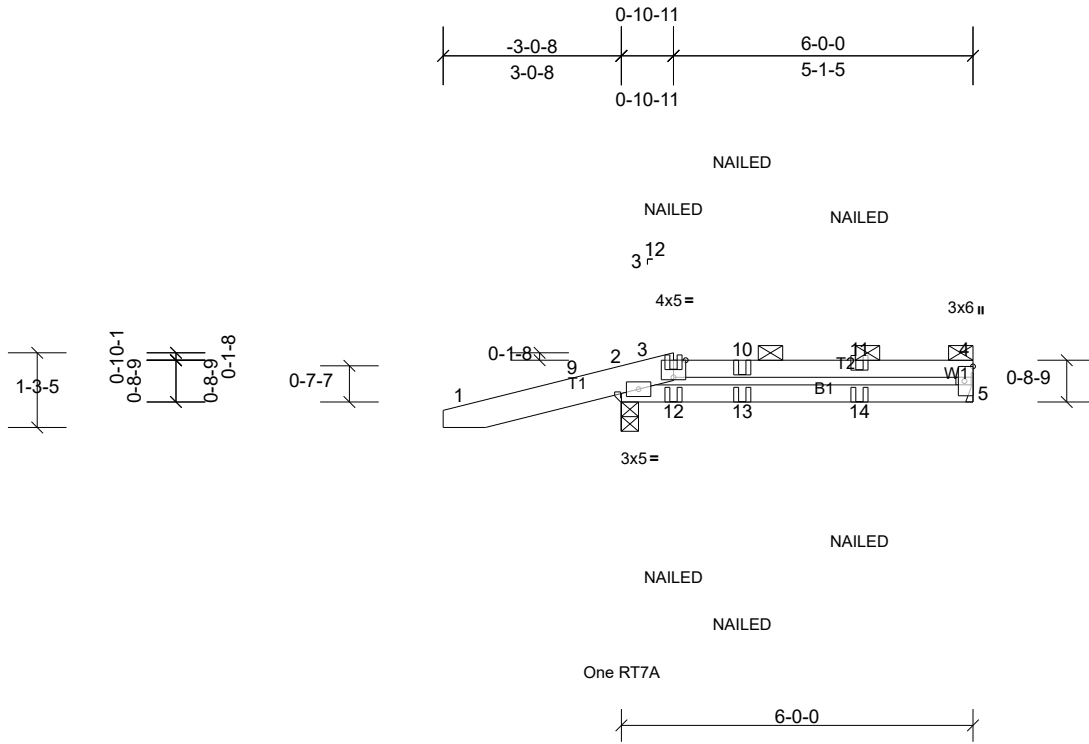
Job 22050131	Truss MH07	Truss Type Half Hip Girder	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:39.3

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

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	0.56	Vert(LL)	0.02	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.02	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 26 lb	FT = 20%

**LUMBER**

TOP CHORD 2x6 SP No.2 \*Except\* T2:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
 Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 2=310/0-3-8, (min. 0-1-8), 5=186/ Mechanical, (min. 0-1-8)  
 Max Horiz 2=24 (LC 68)  
 Max Uplift 2=-113 (LC 7), 5=-11 (LC 8)  
 Max Grav 2=369 (LC 31), 5=242 (LC 30)

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

**FORCES**

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

TOP CHORD 2-3=-465/369, 3-10=-452/122, 10-11=-452/122, 4-11=-452/122  
 BOT CHORD 2-12=-281/453, 12-13=-122/453, 13-14=-122/453, 5-14=-122/453

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 5.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-3=-48, 3-4=-58, 5-6=-20  
 Concentrated Loads (lb)  
 Vert: 3=36 (F), 12=42 (F), 13=0 (F), 14=0 (F)

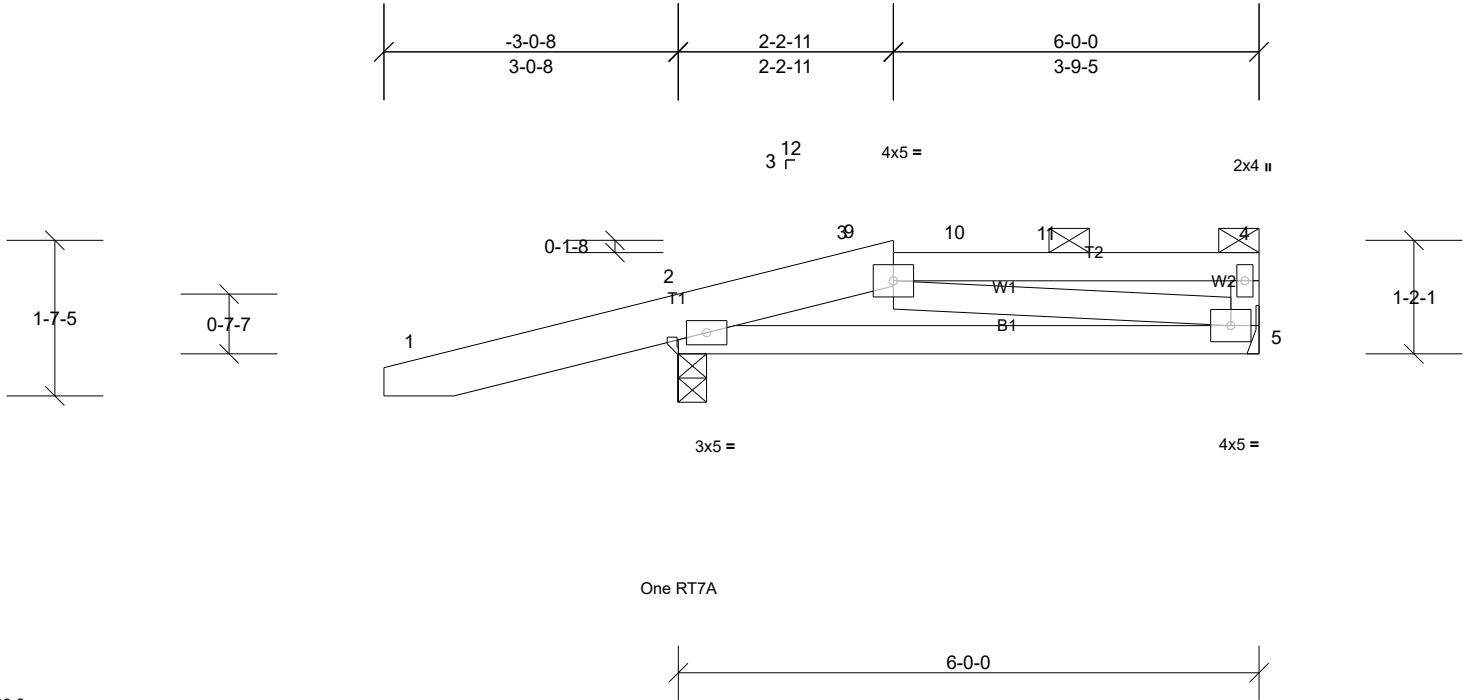
Job 22050131	Truss MH08	Truss Type Jack-Open	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:23.8

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)	0.01	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.02	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 33 lb	FT = 20%

**LUMBER**

TOP CHORD 2x6 SP No.2 \*Except\* T2:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
 Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 2=367/0-3-8, (min. 0-1-8), 5=194/ Mechanical, (min. 0-1-8)

Max Horiz 2=30 (LC 14)  
 Max Uplift 2=-100 (LC 11), 5=-6 (LC 12)  
 Max Grav 2=466 (LC 35), 5=238 (LC 34)

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

**FORCES**

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

TOP CHORD 2-9=-319/304, 3-9=-311/90  
 BOT CHORD 2-5=-234/300  
 WEBS 3-5=-306/92

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-8-3 to 0-7-1, Interior (1) 0-7-1 to 5-10-4 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 5.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

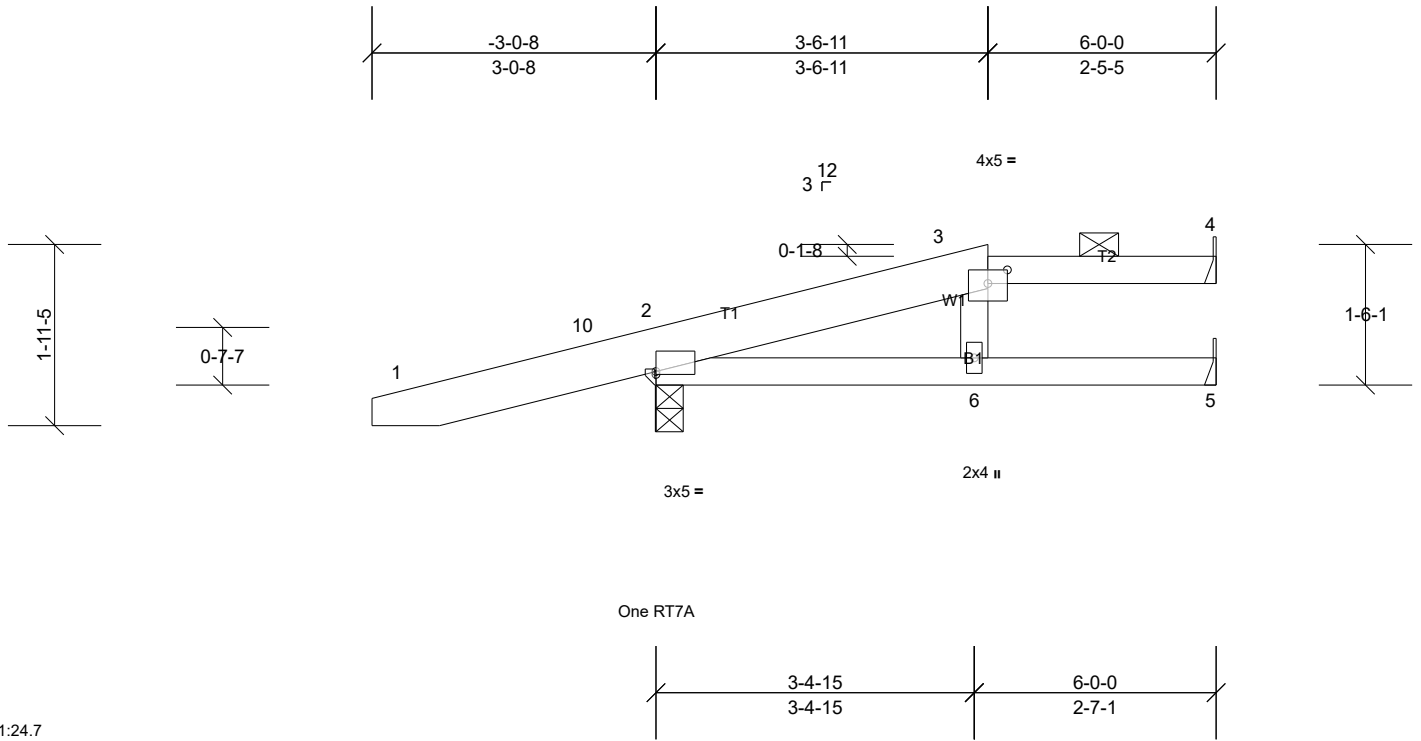
Job 22050131	Truss MH09	Truss Type Jack-Open	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:24.7

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

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	0.26	Vert(LL)	0.09	6-9	>786	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.15	6-9	>465	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.05	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 30 lb	FT = 20%

#### LUMBER

TOP CHORD 2x6 SP No.2 \*Except\* T2:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**REACTIONS** (lb/size) 2=363/0-3-8, (min. 0-1-8), 4=69/ Mechanical, (min. 0-1-8),  
 5=122/ Mechanical, (min. 0-1-8)  
 Max Horiz 2=50 (LC 11)  
 Max Uplift 2=-98 (LC 11), 4=-18 (LC 11)  
 Max Grav 2=498 (LC 35), 4=88 (LC 34), 5=130 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-252/301

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-8-3 to 0-7-1, Interior (1) 0-7-1 to 3-6-11, Exterior (2) 3-6-11 to 5-11-4 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 4.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

#### BRACING

TOP CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except  
 2-0-0 oc purlins: 3-4.

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.



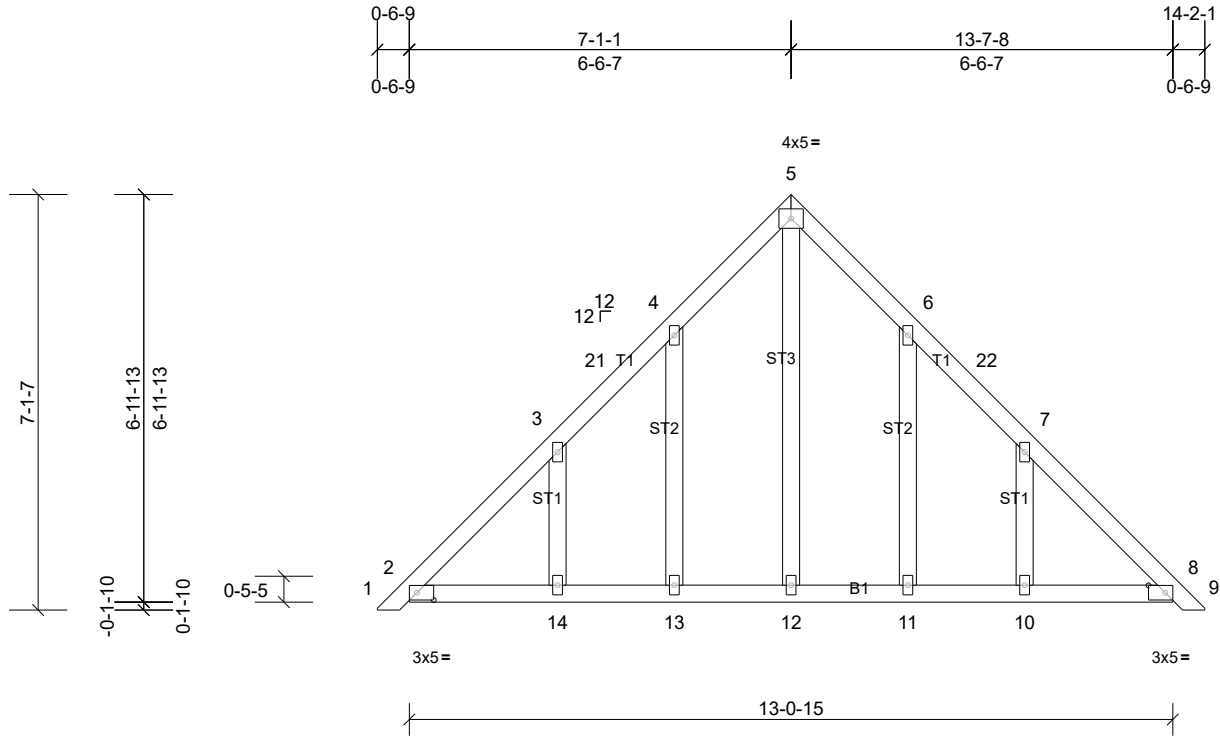
Job 22050131	Truss PB01	Truss Type Piggyback	Qty 2	Ply 1	Job Reference (optional)
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Scale = 1:39.5

Plate Offsets (X, Y): [2:0-3-7,0-1-8], [8:0-3-7,0-1-8]

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 79 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 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 13-0-15.  
 (lb) - Max Horiz 2--136 (LC 11), 15--136 (LC 11)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 2, 10, 11, 13, 14, 15  
 Max Grav All reactions 250 (lb) or less at joint(s) 2, 8, 10, 11, 12, 13, 14, 15, 18

**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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-2-11 to 3-1-7, Interior (1) 3-1-7 to 7-1-7, Exterior (2) 7-1-7 to 10-1-7, Interior (1) 10-1-7 to 14-0-3 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=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 8, 12, 13, 14, 11, and 10. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

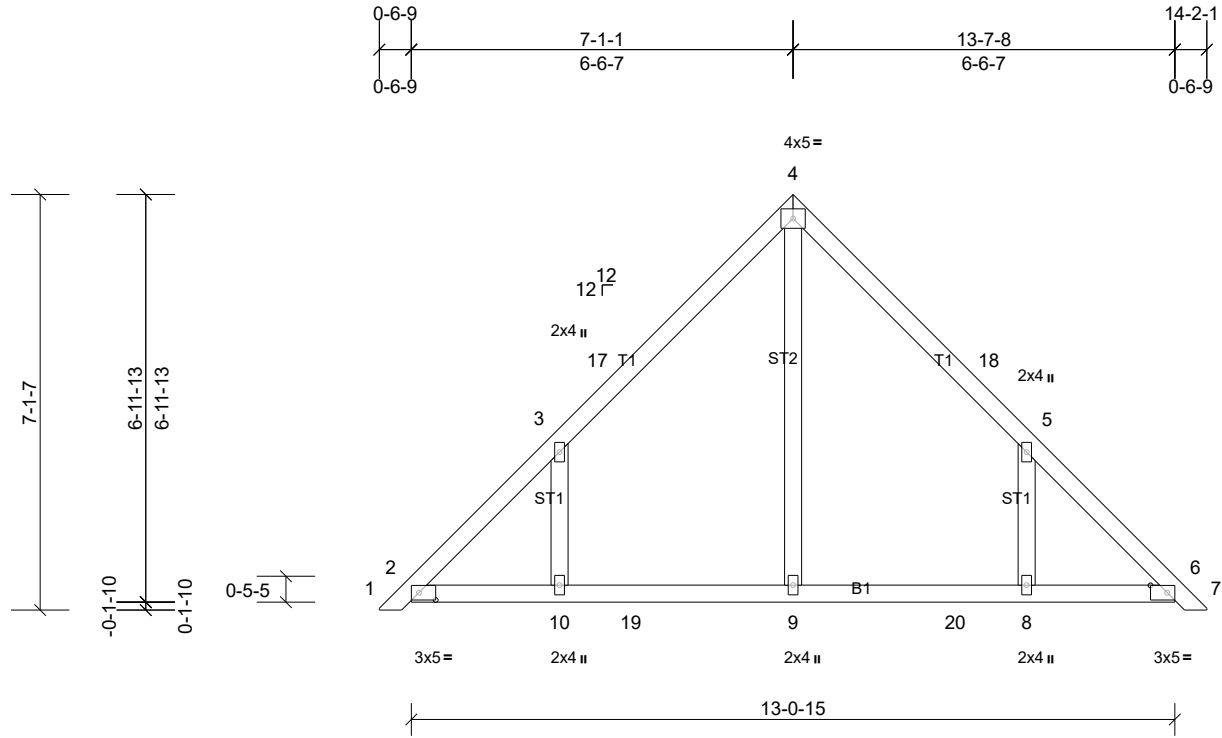
Job 22050131	Truss PB02	Truss Type Piggyback	Qty 20	Ply 1	Job Reference (optional)
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Scale = 1:39.5

Plate Offsets (X, Y): [2:0-3-7,0-1-8], [6:0-3-7,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	0.18	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 66 lb	FT = 20%
BCDL	10.0											

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

**BRACING**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6'-0" oc purlins.  
 Rigid ceiling directly applied or 10'-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 13-0-15.  
 (lb) - Max Horiz 2=-136 (LC 11), 11=-136 (LC 11)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 2, 6, 11, 14 except 8=-127 (LC 14), 10=-128 (LC 13)  
 Max Grav All reactions 250 (lb) or less at joint(s) 2, 6, 11, 14 except 8=369 (LC 26), 9=338 (LC 25), 10=370 (LC 25)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-10=-316/218, 5-8=-316/218

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-2-11 to 3-1-7, Interior (1) 3-1-7 to 7-1-7, Exterior (2) 7-1-7 to 10-1-7, Interior (1) 10-1-7 to 14-0-3 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=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4'-0" oc.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 6, 9, 10, and 8. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



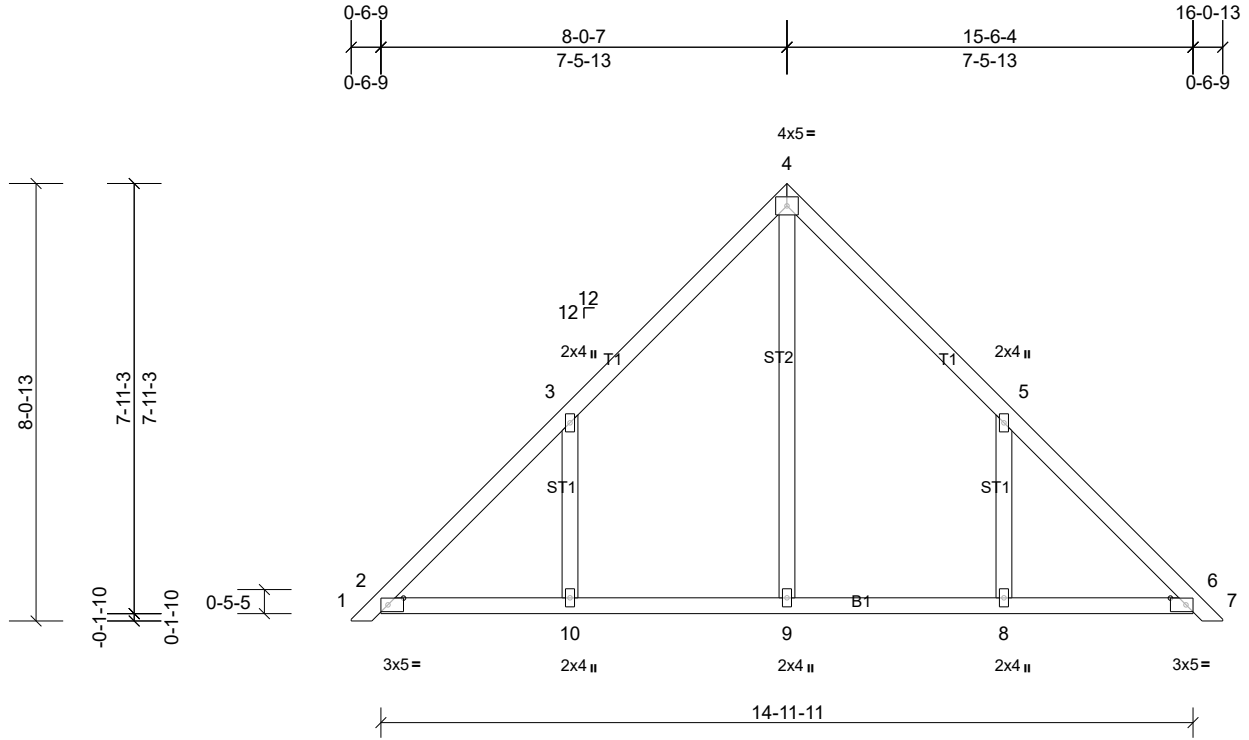
Job 22050131	Truss PB03	Truss Type Piggyback	Qty 4	Ply 1	Job Reference (optional)
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Scale = 1:42.5

Plate Offsets (X, Y): [2:0-3-7,0-1-8], [6:0-3-7,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	0.19	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 77 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
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 14-11-11.  
(lb) - Max Horiz 2=155 (LC 12), 11=155 (LC 12)  
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 11 except 8=-141 (LC 14), 10=-142 (LC 13)  
Max Grav All reactions 250 (lb) or less at joint(s) 2, 6, 11, 14 except 8=445 (LC 26), 9=339 (LC 28), 10=446 (LC 25)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-10=-342/257, 5-8=-342/257

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) 0-2-11 to 3-2-11, Exterior (2) 3-2-11 to 8-0-13, Corner (3) 8-0-13 to 11-0-13, Exterior (2) 11-0-13 to 15-10-15 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=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 6, 9, 10, and 8. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

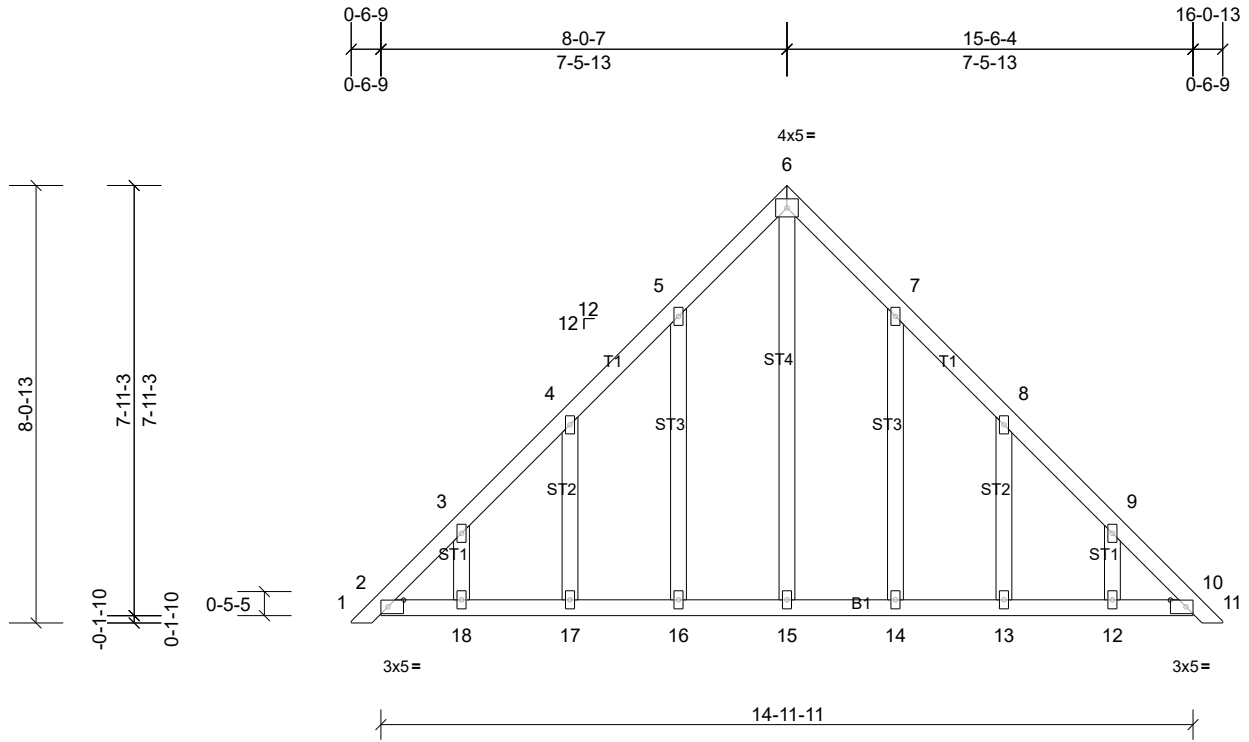
Job 22050131	Truss PB04	Truss Type Piggyback	Qty 2	Ply 1	Job Reference (optional)
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Scale = 1:42.5

Plate Offsets (X, Y): [2:0-3-7,0-1-8], [10:0-3-7,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	0.06	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 97 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
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 14-11-11.  
(lb) - Max Horiz 2=-155 (LC 11), 19=-155 (LC 11)  
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 10, 12, 13, 14, 16, 17, 18, 19, 22  
Max Grav All reactions 250 (lb) or less at joint(s) 2, 10, 12, 13, 14, 15, 16, 17, 18, 19, 22

**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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) 0-2-11 to 3-2-11, Exterior (2) 3-2-11 to 8-0-13, Corner (3) 8-0-13 to 11-0-13, Exterior (2) 11-0-13 to 15-10-15 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=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 10, 15, 16, 17, 18, 14, 13, and 12. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

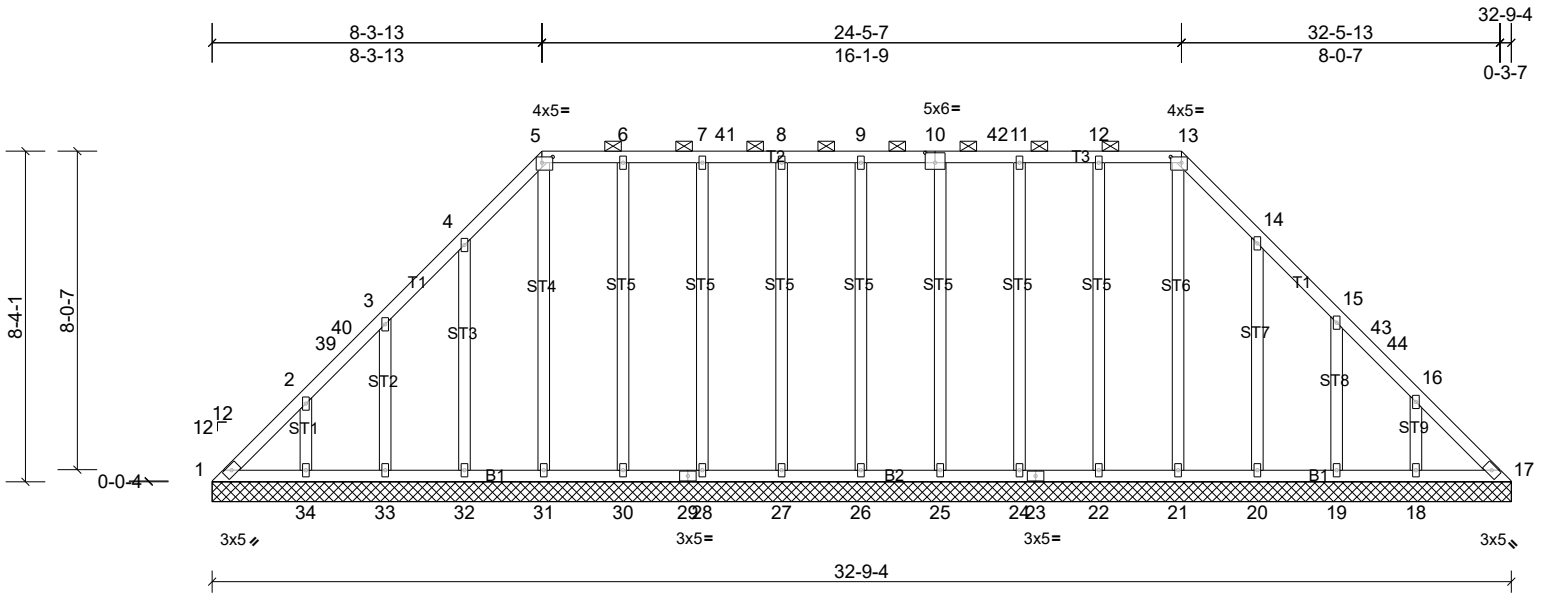
Job 22050131	Truss VL01	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:58.1

Plate Offsets (X, Y): [5:0-3-4,0-1-12], [10:0-3-0,0-3-0], [13:0-3-4,0-1-12]

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.01	17	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 245 lb	FT = 20%

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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except  
 2-0-0 oc purlins (6-0-0 max.): 5-13.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:  
 10-0-0 oc bracing: 1-34,33-34,32-33,31-32.

**REACTIONS** All bearings 32-9-4.  
 (lb) - Max Horiz 1=162 (LC 10)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 1, 18, 19, 20, 22, 24, 25, 26, 27, 28, 30, 32, 33, 34  
 Max Grav All reactions 250 (lb) or less at joint(s) 1, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34

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

**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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 3-3-9, Interior (1) 3-3-9 to 8-4-1, Exterior (2) 8-4-1 to 12-11-11, Interior (1) 12-11-11 to 24-5-11, Exterior (2) 24-5-11 to 29-1-4, Interior (1) 29-1-4 to 32-9-8 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=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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, 26, 27, 28, 30, 32, 33, 34, 25, 24, 22, 20, 19, 18.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

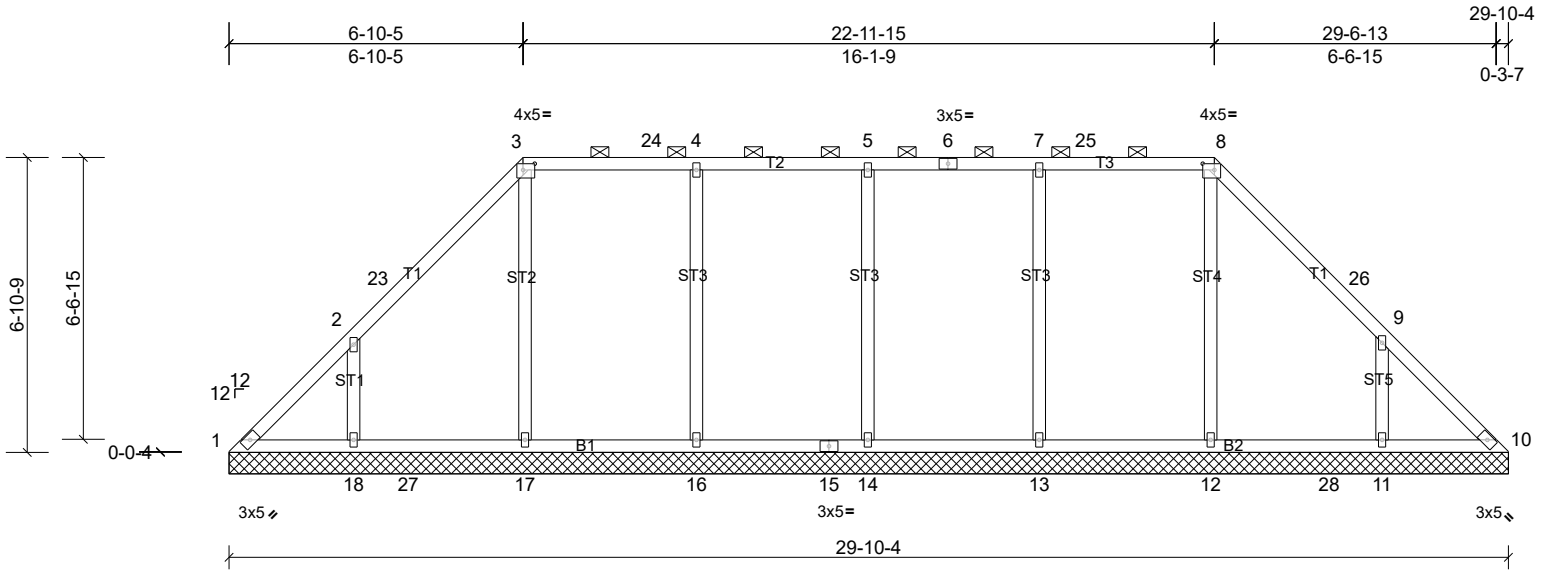
Job 22050131	Truss VL02	Truss Type Valley	Qty 2	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:53.8

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

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 150 lb	FT = 20%

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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except  
 2-0-0 oc purlins (6-0-0 max.): 3-8.  
 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** All bearings 29-10-4.  
 (lb) - Max Horiz 1=133 (LC 9)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 1, 13, 14, 16, 17 except 11=115 (LC 14), 18=117 (LC 13)  
 Max Grav All reactions 250 (lb) or less at joint(s) 1, 10 except 11=379 (LC 25), 12=369 (LC 31), 13=420 (LC 30), 14=393 (LC 3), 16=419 (LC 31), 17=394 (LC 24), 18=380 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 4-16=-264/94, 2-18=-317/206, 7-13=-265/95, 9-11=-315/205

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 2-11-2, Interior (1) 2-11-2 to 6-10-9, Exterior (2) 6-10-9 to 9-10-9, Interior (1) 9-10-9 to 23-0-3, Exterior (2) 23-0-3 to 26-0-3, Interior (1) 26-0-3 to 29-10-8 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 14, 16, 17, 13 except (jt=lb) 18=116, 11=115.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

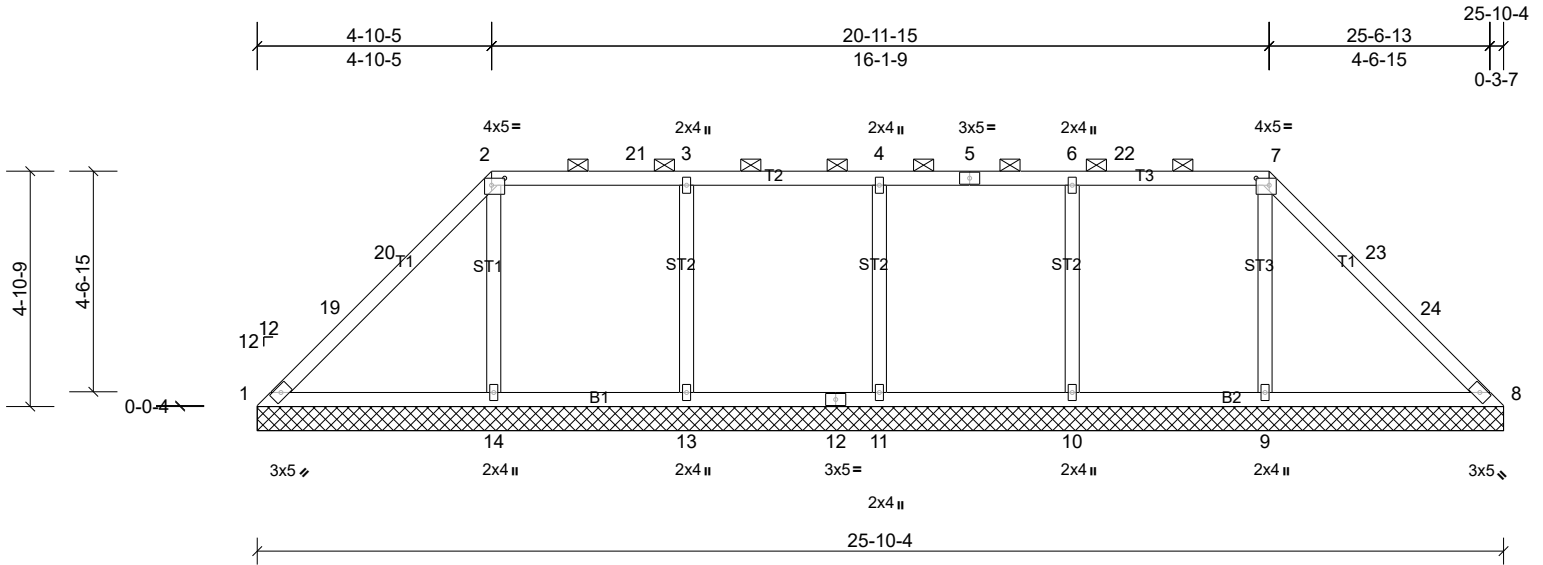
Job 22050131	Truss VL03	Truss Type Valley	Qty 2	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:47.8

Plate Offsets (X, Y): [2:0-3-4,0-1-12], [7:0-3-4,0-1-12]

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	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 114 lb	FT = 20%

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

**REACTIONS** All bearings 25-10-4.  
(lb) - Max Horiz 1=93 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 9, 10, 11, 13, 14  
Max Grav All reactions 250 (lb) or less at joint(s) 1, 8 except 9=517 (LC 25), 10=420 (LC 30), 11=399 (LC 3), 13=419 (LC 31), 14=543 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-20=-75/273, 7-23=-73/267  
WEBS 3-13=-262/91, 2-14=-373/149, 6-10=-263/91, 7-9=-371/148

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 4-10-9, Exterior (2) 4-10-9 to 7-10-9, Interior (1) 7-10-9 to 21-0-3, Exterior (2) 21-0-3 to 24-0-3, Interior (1) 24-0-3 to 25-10-8 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 13, 14, 10, 9.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except  
2-0-0 oc purlins (10-0-0 max.): 2-7.  
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.

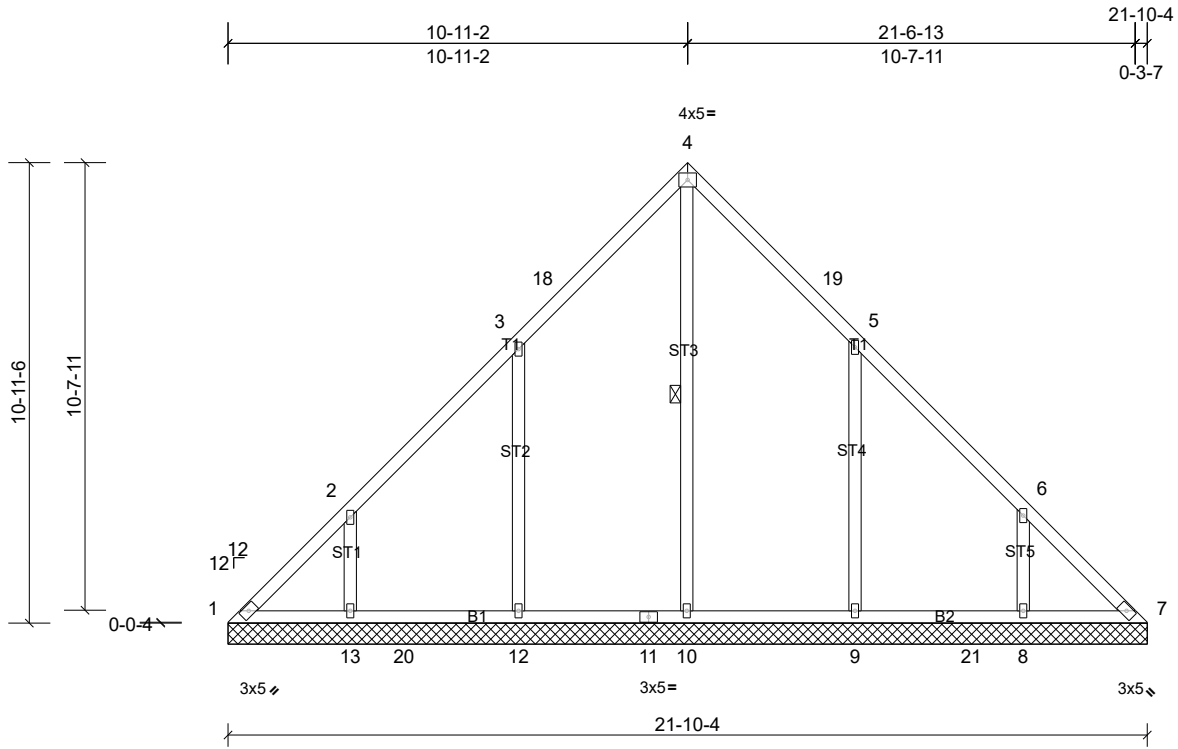
Job 22050131	Truss VL04	Truss Type Valley	Qty 2	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:54.8

Loading	(psf)	Spacing	2-0-0	CSI	0.20	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horiz(TL)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 119 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 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.  
 WEBS 1 Row at midpt 4-10

**REACTIONS** All bearings 21-10-4.  
 (lb) - Max Horiz 1=213 (LC 9)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 1, 7, 8, 13 except 9=136 (LC 14), 12=137 (LC 13)  
 Max Grav All reactions 250 (lb) or less at joint(s) 1, 7 except 8=352 (LC 25), 9=499 (LC 25), 10=385 (LC 27), 12=501 (LC 24), 13=355 (LC 24)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-12=-350/230, 2-13=-277/175, 5-9=-347/228, 6-8=-279/177

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 2-11-2, Interior (1) 2-11-2 to 10-11-6, Exterior (2) 10-11-6 to 13-11-6, Interior (1) 13-11-6 to 21-10-8 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 13, 8 except (jt=lb) 12=136, 9=136.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

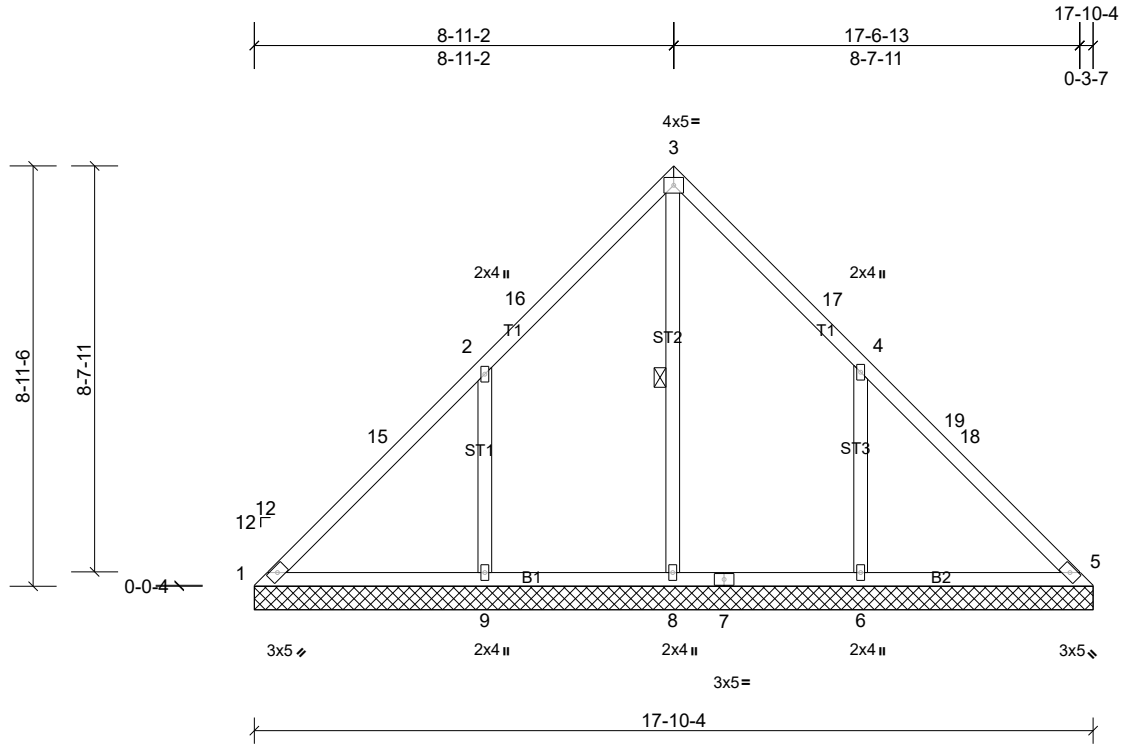
Job 22050131	Truss VL05	Truss Type Valley	Qty 2	Ply 1	Job Reference (optional)
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Scale = 1:49

Loading	(psf)	Spacing	2-0-0	CSI	0.33	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 88 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD  
 BOT CHORD  
 WEBS

Structural wood sheathing directly applied or 10-0-0 oc purlins.  
 Rigid ceiling directly applied or 6-0-0 oc bracing.  
 1 Row at midpt 3-8

**REACTIONS** All bearings 17-10-4.

(lb) - Max Horiz 1=173 (LC 10)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5, 14 except 6=152 (LC 14), 9=158 (LC 13)  
 Max Grav All reactions 250 (lb) or less at joint(s) 1, 5, 14 except 6=516 (LC 25), 8=670 (LC 24), 9=518 (LC 24)

**FORCES**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-15=-136/300, 2-15=-96/388, 3-16=-30/304, 3-17=-31/285, 4-19=-8/313  
 WEBS 3-8=-488/0, 2-9=-389/241, 4-6=-386/239

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 8-11-6, Exterior (2) 8-11-6 to 11-11-6, Interior (1) 11-11-6 to 17-6-8 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Gable requires continuous bottom chord bearing.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=158, 6=152.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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

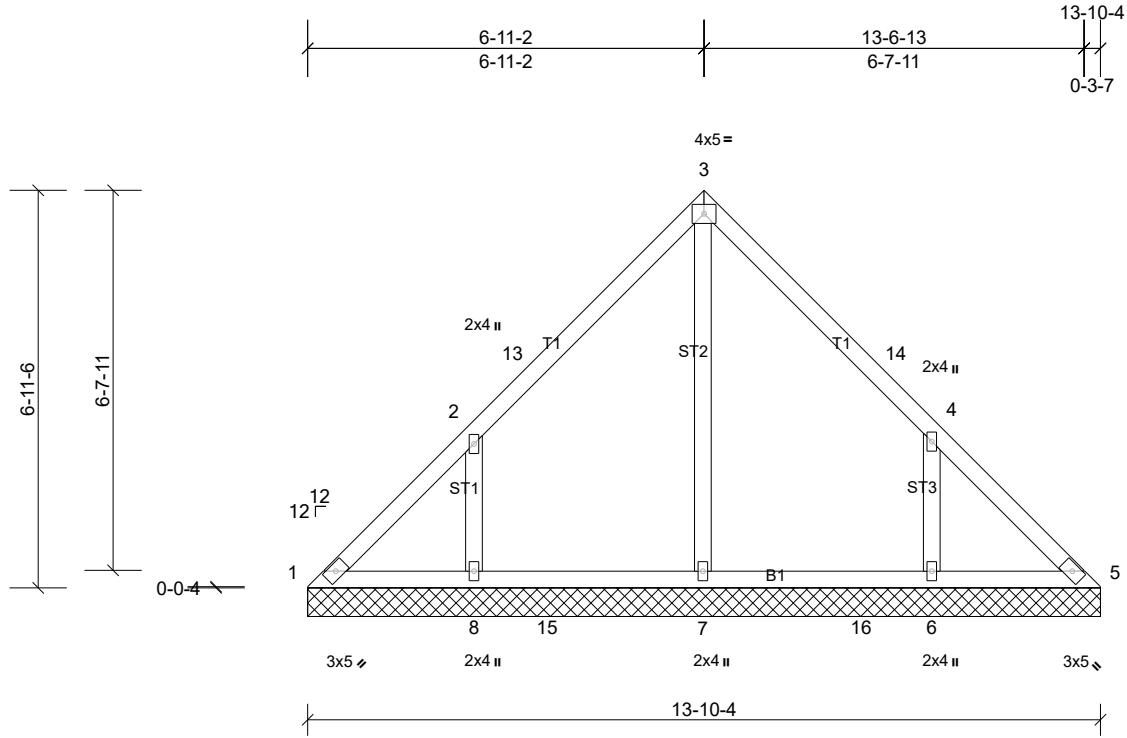
Job 22050131	Truss VL06	Truss Type Valley	Qty 2	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:40.3

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 65 lb	FT = 20%	

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
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 13-10-4.  
(lb) - Max Horiz 1=133 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 6=113 (LC 14),  
8=117 (LC 13)  
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=382 (LC 25),  
7=367 (LC 24), 8=386 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-317/212, 4-6=-314/210

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 2-11-2, Interior (1) 2-11-2 to 6-11-6, Exterior (2) 6-11-6 to 9-11-6, Interior (1) 9-11-6 to 13-10-8 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - Gable requires continuous bottom chord bearing.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (t=lb) 8=116, 6=113.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



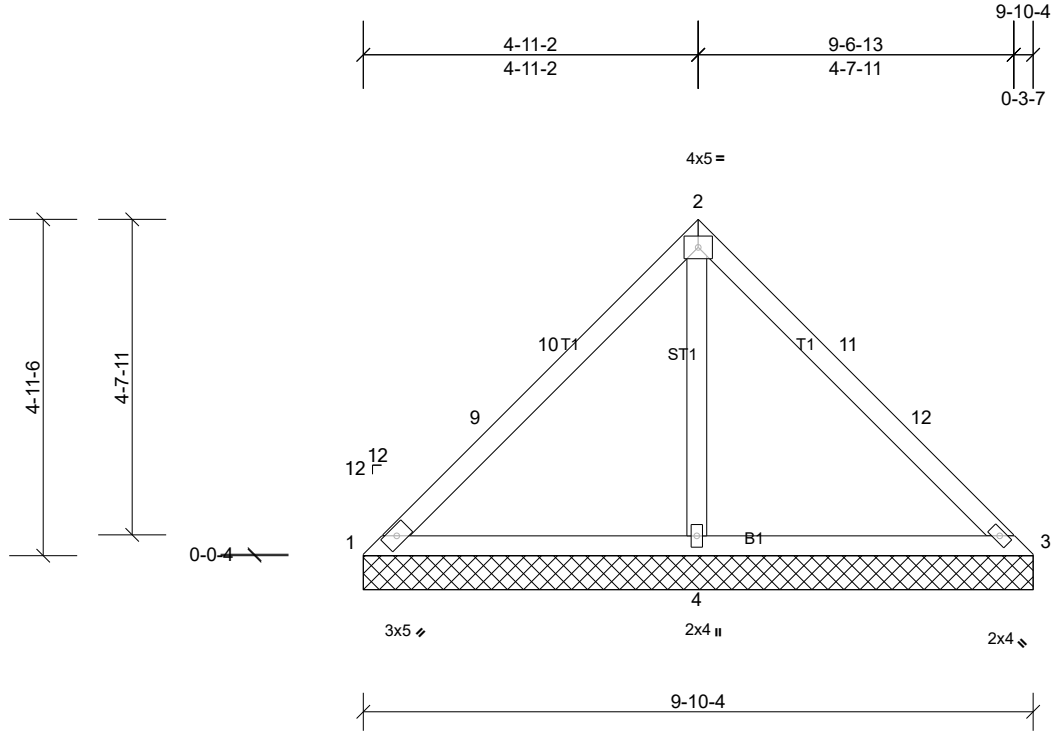
Job 22050131	Truss VL07	Truss Type Valley	Qty 2	Ply 1	Job Reference (optional)
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 40 lb	FT = 20%

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

**BRACING**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 9-10-4 oc purlins.  
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** (lb/size) 1=26/9-10-4, (min. 0-1-8), 3=28/9-10-4, (min. 0-1-8),  
4=613/9-10-4, (min. 0-1-8)  
Max Horiz 1=94 (LC 10)  
Max Uplift 1=-27 (LC 29), 3=-25 (LC 28), 4=-60 (LC 13)  
Max Grav 1=71 (LC 28), 3=74 (LC 29), 4=722 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-10=-98/293, 2-11=-96/290  
WEBS 2-4=-561/237

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 4-11-6, Exterior (2) 4-11-6 to 7-11-6, Interior (1) 7-11-6 to 9-10-8 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - Gable requires continuous bottom chord bearing.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 25 lb uplift at joint 3 and 60 lb uplift at joint 4.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

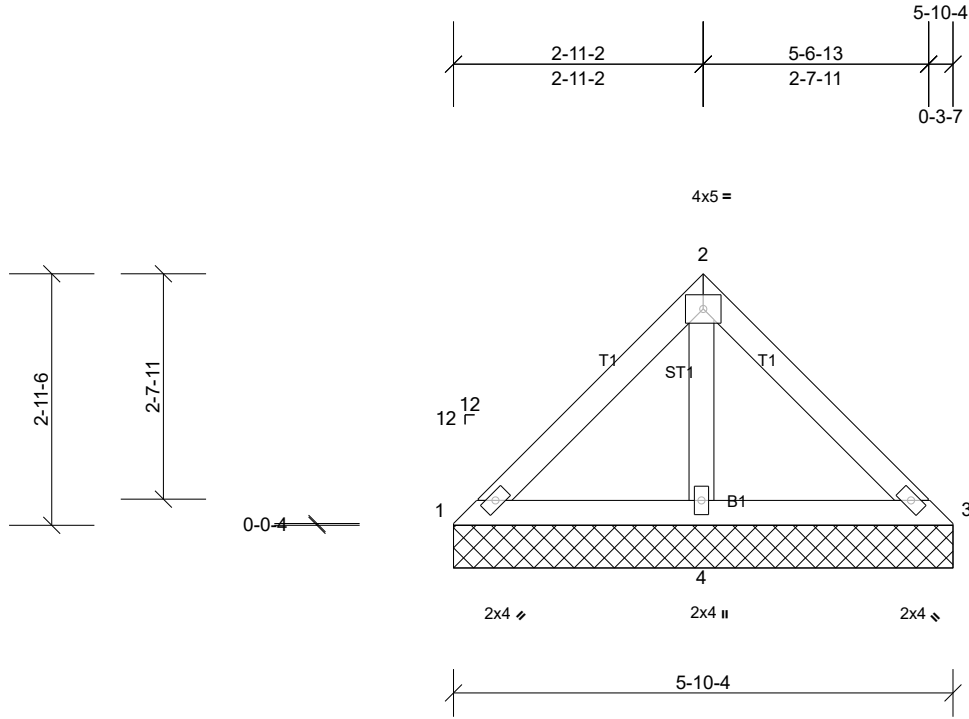
Job 22050131	Truss VL08	Truss Type Valley	Qty 2	Ply 1	Job Reference (optional)
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Scale = 1:27

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 23 lb	FT = 20%	

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

**BRACING**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 5-10-4 oc purlins.  
 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** (lb/size) 1=42/5-10-4, (min. 0-1-8), 3=44/5-10-4, (min. 0-1-8),  
 4=311/5-10-4, (min. 0-1-8)  
 Max Horiz 1=54 (LC 10)  
 Max Uplift 4=-21 (LC 13)  
 Max Grav 1=66 (LC 28), 3=68 (LC 29), 4=366 (LC 2)

**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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Gable requires continuous bottom chord bearing.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

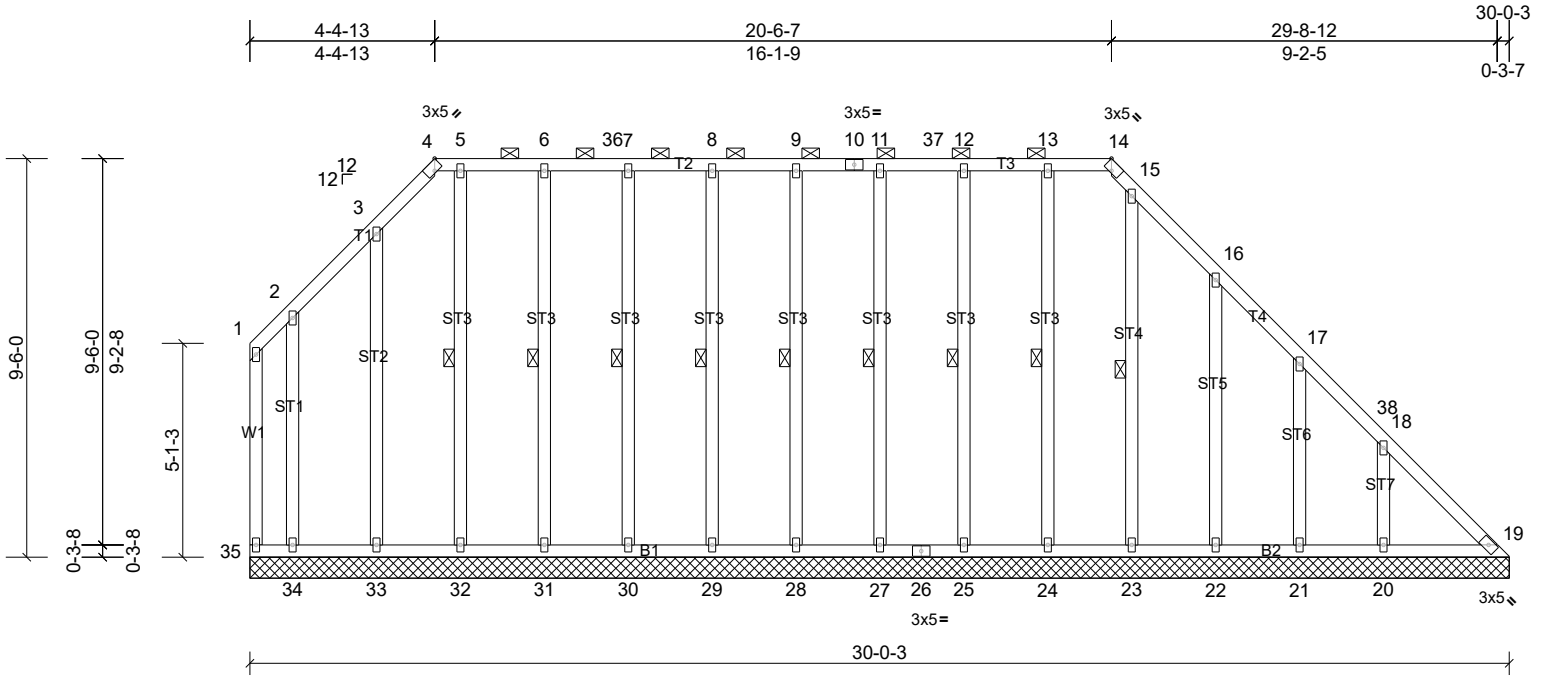
Job 22050131	Truss VL09	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:54.9

Plate Offsets (X, Y): [4:0-2-8,Edge], [14:0-2-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	0.24	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.01	19	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 263 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 or 6'-0" oc purlins, except end verticals, and 2'-0" oc purlins (6'-0" max.): 4-14.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.  
WEBS 1 Row at midpt 11-27, 9-28, 8-29, 7-30, 6-31, 5-32, 12-25, 13-24, 15-23

**REACTIONS** All bearings 30-0-3.  
(lb) - Max Horiz 35=-235 (LC 9)  
Max Uplift All uplift 100 (lb) or less at joint(s) 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35  
Max Grav All reactions 250 (lb) or less at joint(s) 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-242/269, 15-16=-244/284, 18-19=-263/243

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-0-3, Interior (1) 3-0-3 to 4-4-13, Exterior (2) 4-4-13 to 8-7-12, Interior (1) 8-7-12 to 20-6-7, Exterior (2) 20-6-7 to 25-0-3, Interior (1) 25-0-3 to 29-8-3 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 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) 35, 19, 27, 28, 29, 30, 31, 32, 33, 34, 25, 24, 23, 22, 21, 20.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

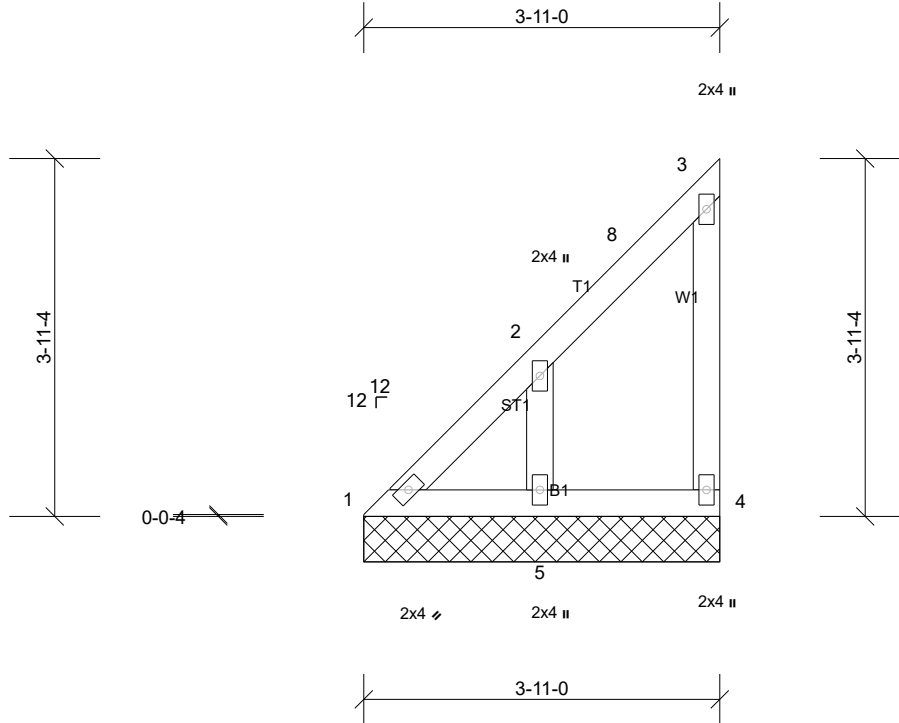
Job 22050131	Truss VL10	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:25.3

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 20 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 or 3-11-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 1=49/3-11-0, (min. 0-1-8), 4=45/3-11-0, (min. 0-1-8),  
 5=153/3-11-0, (min. 0-1-8)  
 Max Horiz 1=105 (LC 10)  
 Max Uplift 1=-12 (LC 9), 4=-30 (LC 10), 5=-54 (LC 13)  
 Max Grav 1=89 (LC 25), 4=66 (LC 24), 5=195 (LC 24)

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

**NOTES**

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 3-9-8 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Gable requires continuous bottom chord bearing.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 4, 12 lb uplift at joint 1 and 54 lb uplift at joint 5.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

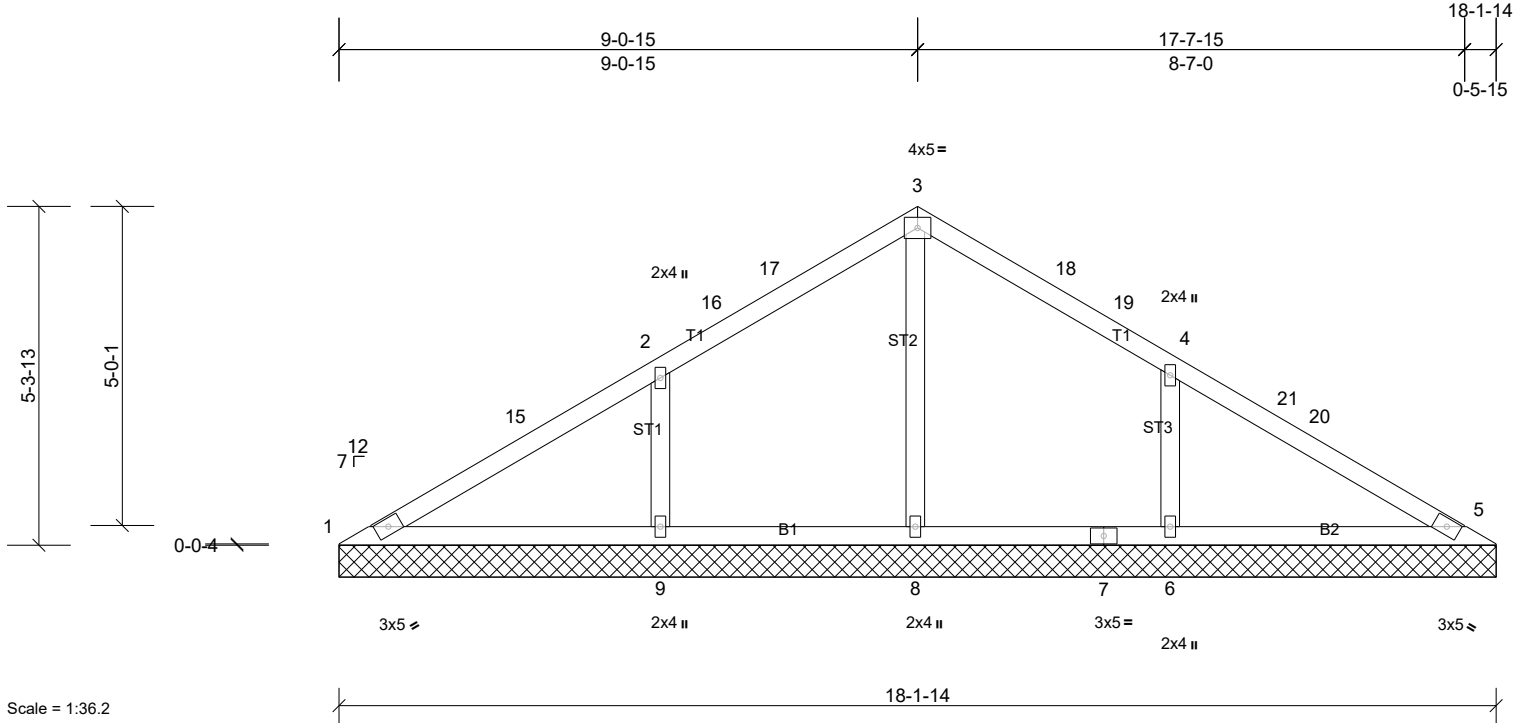
Job 22050131	Truss VL11	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional)
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Loading	(psf)	Spacing	2-0-0	CSI	0.35	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	-0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 71 lb	FT = 20%

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

**BRACING**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 10-0-0 oc purlins.  
 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 18-1-14.  
 (lb) - Max Horiz 1=102 (LC 12)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5, 6, 9, 14  
 Max Grav All reactions 250 (lb) or less at joint(s) 1, 5, 14 except 6=434 (LC 29), 8=536 (LC 2), 9=436 (LC 28)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-15=-111/300, 2-15=-33/367, 2-16=0/268, 16-17=0/284, 3-17=0/340, 3-18=0/334, 18-19=0/271, 4-21=-22/363, 20-21=-33/299, 5-20=-45/286  
 BOT CHORD 1-9=-257/92, 8-9=-257/78, 7-8=-254/78, 6-7=-254/78, 5-6=-254/78  
 WEBS 3-8=-484/16, 2-9=-309/141, 4-6=-308/141

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 9-1-6, Exterior (2) 9-1-6 to 12-1-6, Interior (1) 12-1-6 to 17-8-4 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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, 9, 6.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

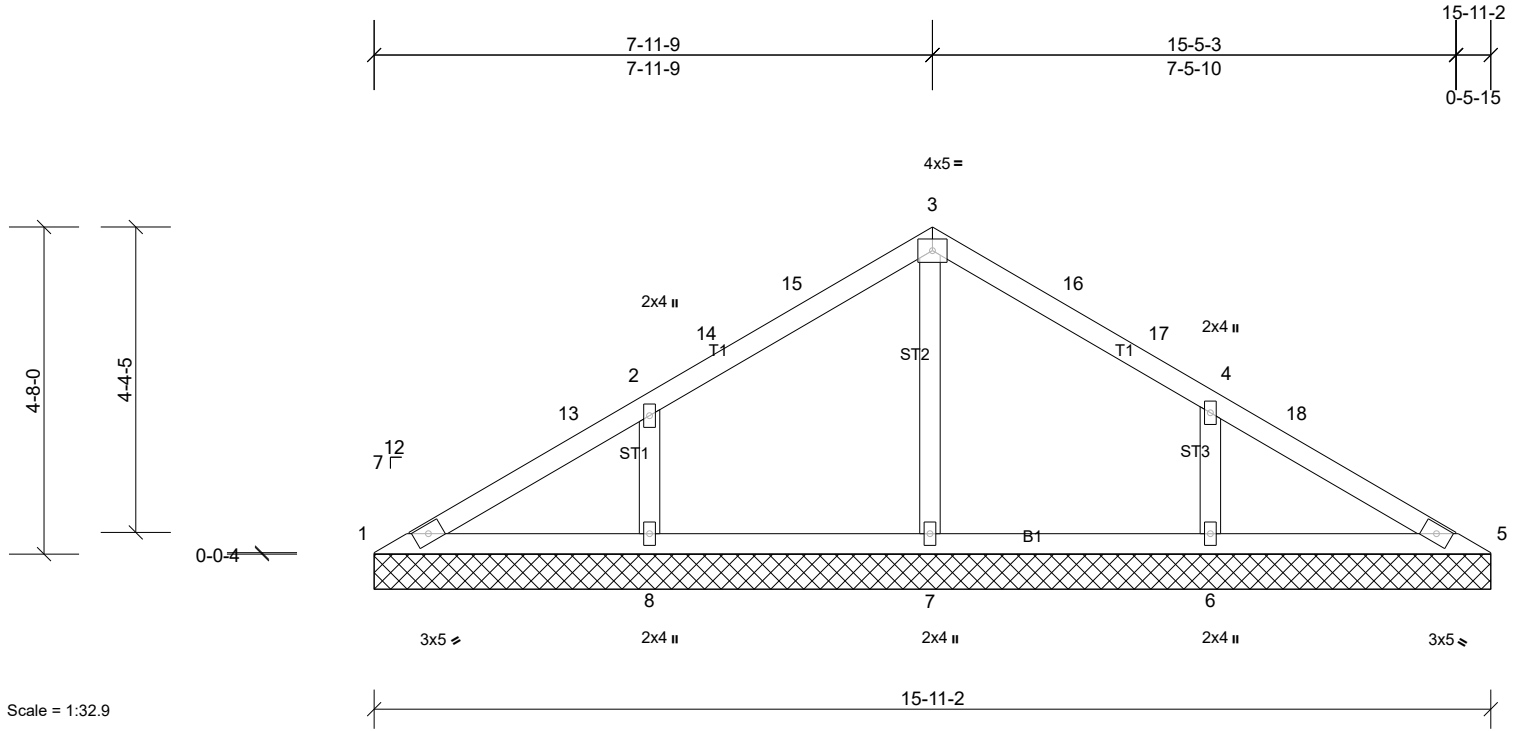
Job 22050131	Truss VL12	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:32.9

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	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 61 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 10-0-0 oc purlins.  
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 15-11-2.  
(lb) - Max Horiz 1=89 (LC 11)  
Max Uplift All uplift 100 (lb) or less at joint(s) 6, 8  
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=380 (LC 29), 7=351 (LC 2), 8=380 (LC 28)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-7=-283/18, 2-8=-274/130, 4-6=-273/129

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 8-0-0, Exterior (2) 8-0-0 to 11-0-0, Interior (1) 11-0-0 to 15-11-9 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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) 8, 6.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

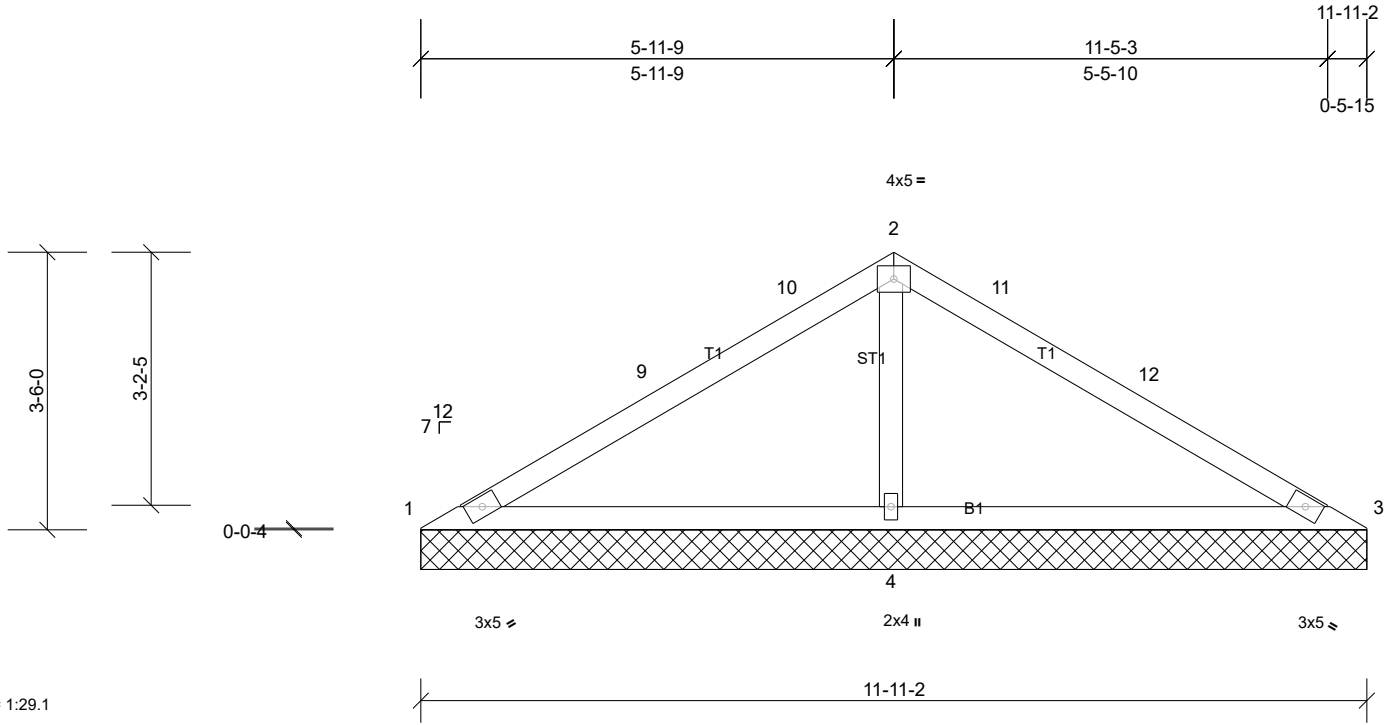
Job 22050131	Truss VL13	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

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Scale = 1:29.1

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	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.37	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 41 lb	FT = 20%	

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

**BRACING**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 10-0-0 oc purlins.  
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** (lb/size) 1=6/11-11-2, (min. 0-1-8), 3=11/11-11-2, (min. 0-1-8),  
4=791/11-11-2, (min. 0-1-8)  
Max Horiz 1=66 (LC 14)  
Max Uplift 1=-54 (LC 33), 3=-50 (LC 32), 4=-8 (LC 15)  
Max Grav 1=65 (LC 32), 3=70 (LC 33), 4=935 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-9=-106/406, 9-10=-90/414, 2-10=-83/495, 2-11=-80/486, 11-12=-88/405, 3-12=-103/395  
BOT CHORD 1-4=-395/144, 3-4=-388/141  
WEBS 2-4=-735/202

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 6-0-0, Exterior (2) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 11-11-9 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 1, 50 lb uplift at joint 3 and 8 lb uplift at joint 4.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

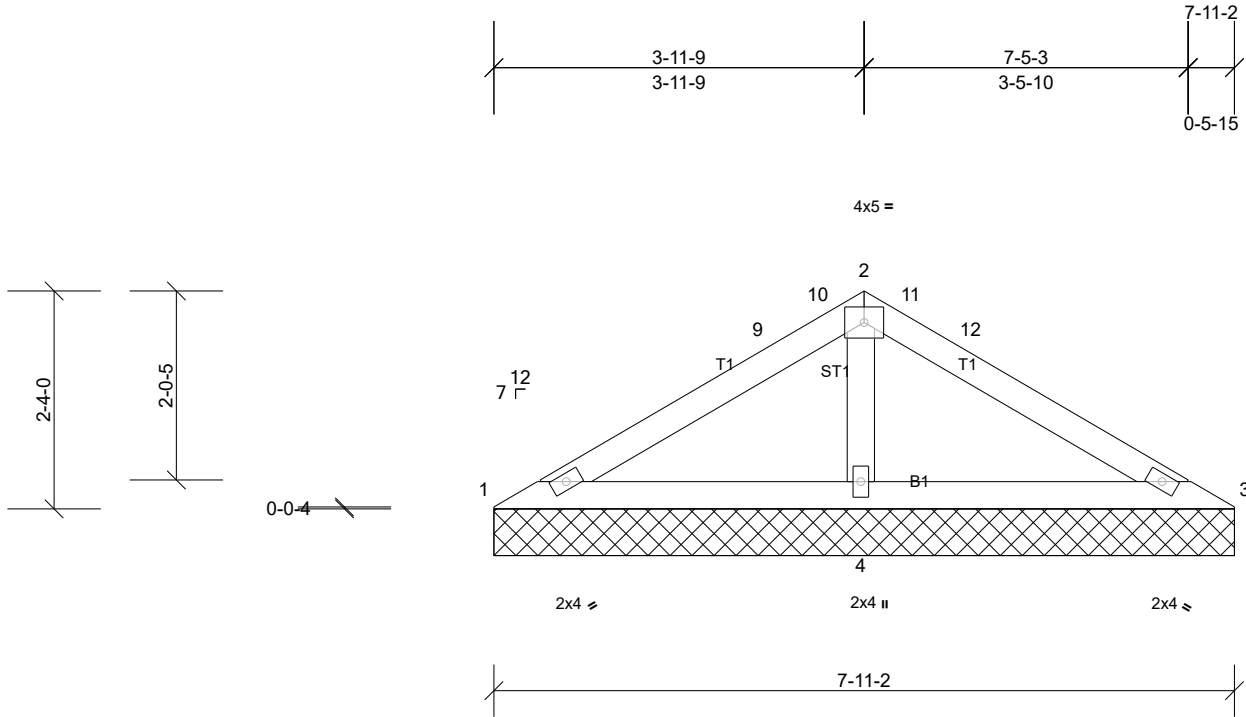
Job 22050131	Truss VL14	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional)
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ID:9GDoCBDO2DI3AnS54tTHmzCjrc-T1YlvWAMt5NHudvesVsp2OWwombNqwiZqMjyWBzCUGw



Scale = 1:24.7

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	0.19	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	3	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 26 lb	FT = 20%

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

**BRACING**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 7-11-2 oc purlins.  
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** (lb/size) 1=36/7-11-2, (min. 0-1-8), 3=40/7-11-2, (min. 0-1-8),  
4=461/7-11-2, (min. 0-1-8)  
Max Horiz 1=-43 (LC 11)  
Max Uplift 1=-8 (LC 33), 3=-8 (LC 11), 4=-1 (LC 15)  
Max Grav 1=71 (LC 32), 3=75 (LC 33), 4=545 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-10=-48/254  
WEBS 2-4=-387/120

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 4-0-0, Exterior (2) 4-0-0 to 6-11-1, Interior (1) 6-11-1 to 7-11-9 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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1, 8 lb uplift at joint 3 and 1 lb uplift at joint 4.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



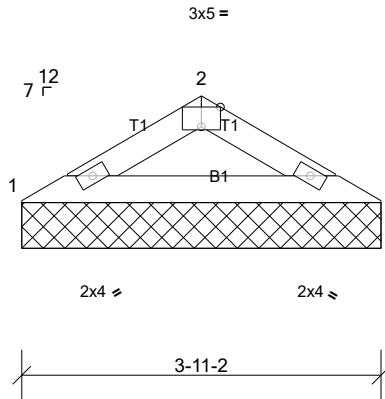
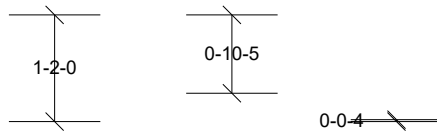
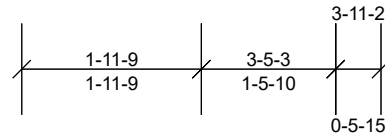
Job 22050131	Truss VL15	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional)
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Scale = 1:25.2

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

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 11 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

**BRACING**

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 3-11-2 oc purlins.  
Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 1=133/3-11-2, (min. 0-1-8), 3=133/3-11-2, (min. 0-1-8)  
Max Horiz 1=-20 (LC 11)  
Max Grav 1=157 (LC 2), 3=157 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-250/58

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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