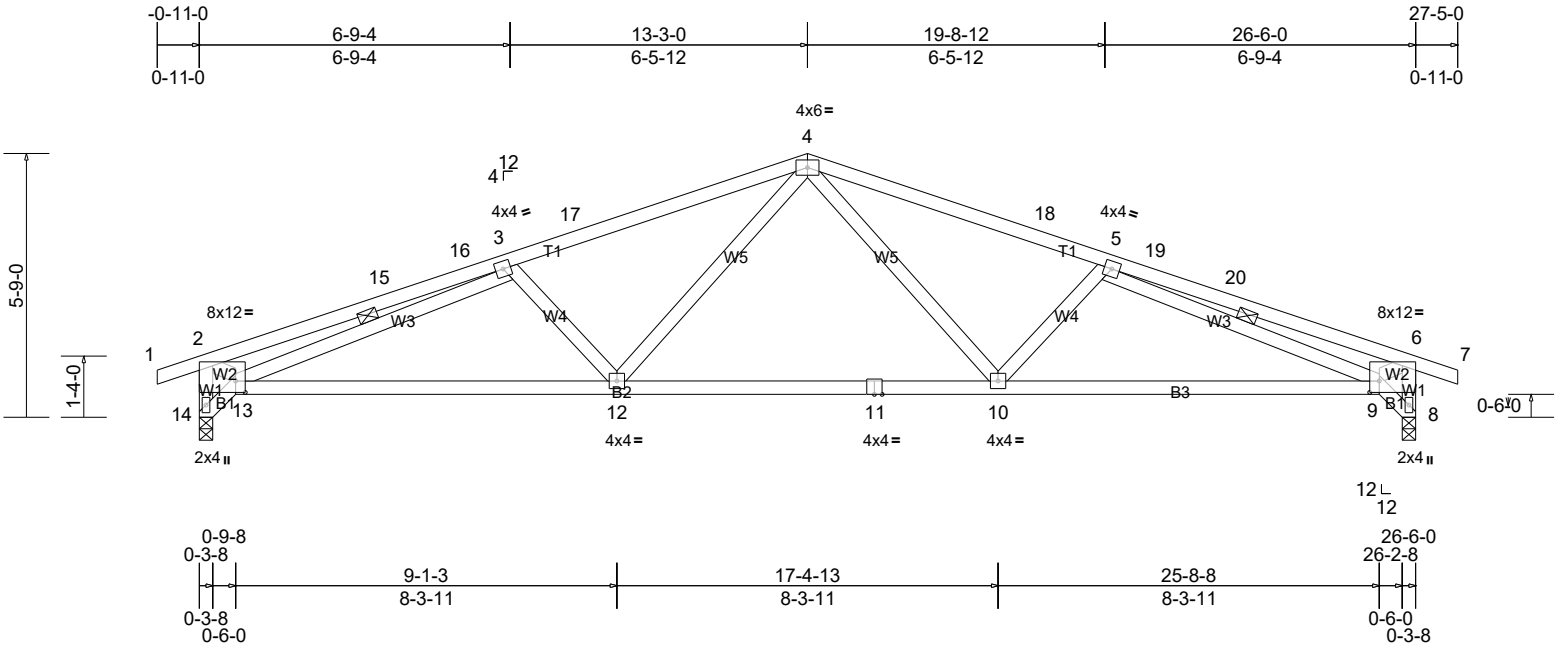
Job	Truss	Truss Type	Qty	Ply	202 Racetrack Street
2306222-2306222A	T01	Roof Special	18	1	Job Reference (optional)



Scale = 1:50.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	30.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.14	10-12	>999	360	MT20	197/144
Snow (Pf/Pg)	27.7/40.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.29	9-10	>999	240		
TCDL	10.0	Rep Stress Incr	Yes	WB	0.34	Horz(CT)	0.13	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.06	10-12	>999	240		
BCDL	10.0										Weight: 138 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 or 2x4 SPF No.2

BRACING
TOP CHORD Sheathed, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-9, 3-13

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

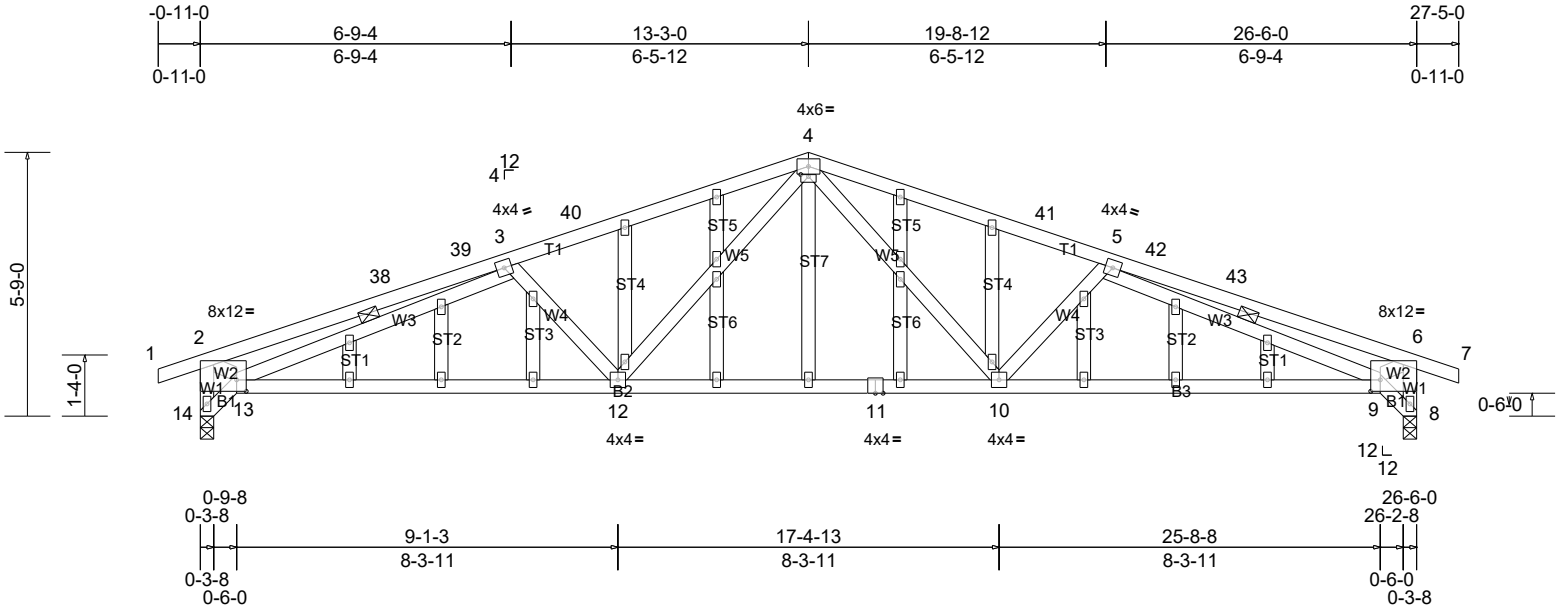
REACTIONS (lb/size) 8=1331/0-3-8, (min. 0-2-3), 14=1331/0-3-8, (min. 0-2-3)
Max Horiz 14=32 (LC 20)
Max Uplift 8=-76 (LC 13), 14=-76 (LC 12)
Max Grav 8=1395 (LC 2), 14=1395 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-14=-1575/98, 2-15=-1279/104, 15-16=-1179/115, 3-16=-1130/118, 3-17=-2350/184, 4-17=-2260/206, 4-18=-2260/200, 5-18=-2350/178, 5-19=-1130/96, 19-20=-1179/86, 6-20=-1279/83, 6-8=-1575/125
BOT CHORD 13-14=-70/264, 12-13=-192/2429, 11-12=-86/1745, 10-11=-86/1745, 9-10=-167/2429, 8-9=-36/264
WEBS 4-10=-17/762, 5-10=-546/156, 5-9=-1467/149, 6-9=0/1294, 4-12=-19/762, 3-12=-546/158, 3-13=-1467/159, 2-13=-7/1294

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 13-3-0, Exterior(2R) 13-3-0 to 18-3-0, Interior (1) 18-3-0 to 27-5-0 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=1.60
3) TCLL: ASCE 7-16; Pr=30.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=40.0 psf; Pf=27.7 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 27.7 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 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.
8) Bearing at joint(s) 14, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 14 and 76 lb uplift at joint 8.
10) This truss is designed in accordance with the 2018 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	202 Racetrack Street
2306222-2306222A	T01G	Roof Special	2	1	Job Reference (optional)



Scale = 1:50.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	30.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.14	10-12	>999	360	MT20	197/144
Snow (Pf/Pg)	27.7/40.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.29	9-10	>999	240		
TCDL	10.0	Rep Stress Incr	Yes	WB	0.34	Horz(CT)	0.13	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.06	10-12	>999	240		
BCDL	10.0										Weight: 179 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 or 2x4 SPF No.2
OTHERS	2x4 SP No.2 or 2x4 SPF No.2

BRACING

TOP CHORD	Sheathed, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 5-9, 3-13

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

REACTIONS (lb/size) 8=1331/0-3-8, (min. 0-2-3), 14=1331/0-3-8, (min. 0-2-3)
Max Horiz 14=32 (LC 20)
Max Uplift 8=-76 (LC 13), 14=-76 (LC 12)
Max Grav 8=1395 (LC 2), 14=1395 (LC 2)

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

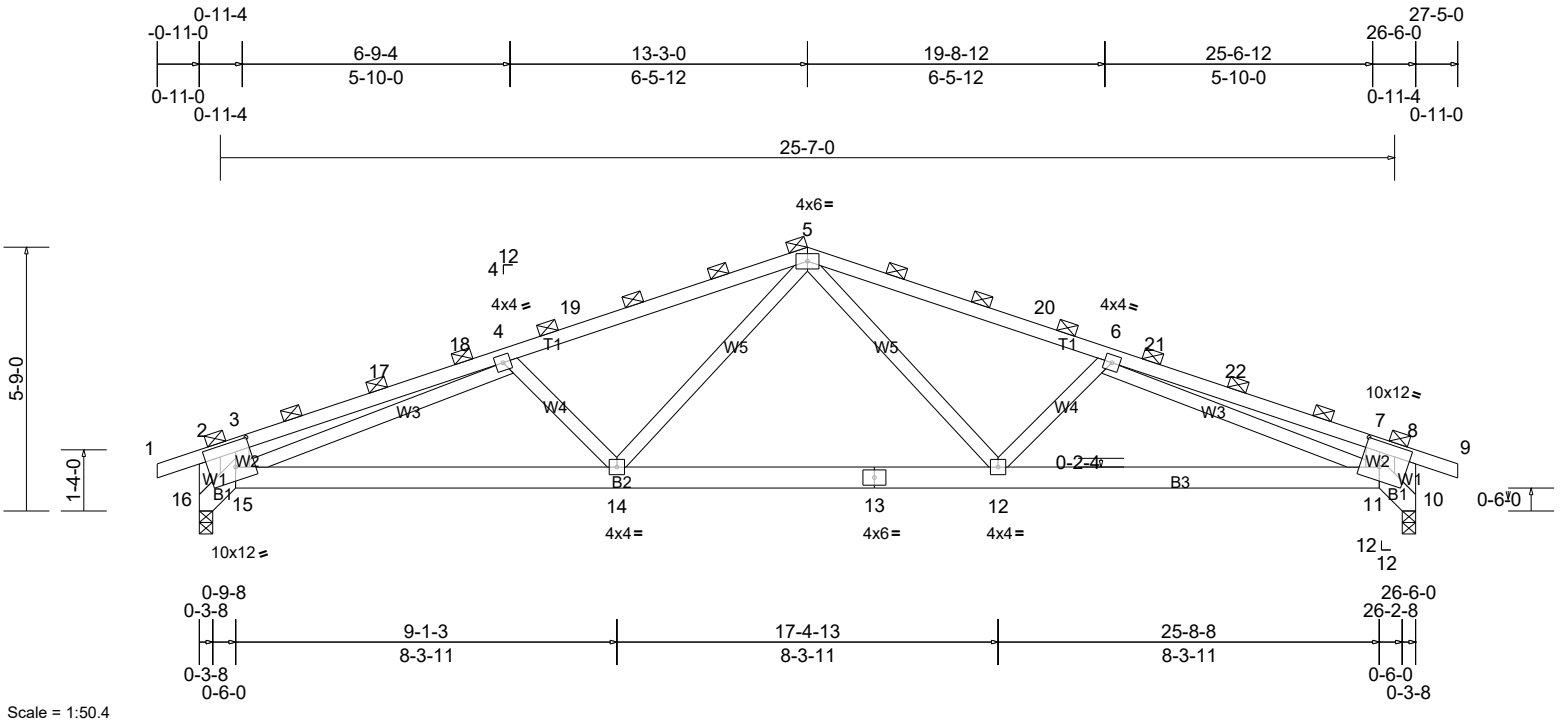
TOP CHORD	2-14=-1575/98, 2-38=-1279/104, 38-39=-1179/115, 3-39=-1130/118, 3-40=-2350/184, 4-40=-2260/206, 4-41=-2260/200, 5-41=-2350/178, 5-42=-1130/96, 42-43=-1179/86, 6-43=-1279/83, 6-8=-1575/125
BOT CHORD	13-14=-70/264, 12-13=-192/2429, 11-12=-86/1745, 10-11=-86/1745, 9-10=-167/2429, 8-9=-36/264
WEBS	4-10=-17/762, 5-10=-546/156, 5-9=-1467/149, 6-9=0/1294, 4-12=-19/762, 3-12=-546/158, 3-13=-1467/159, 2-13=-7/1294

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 13-3-0, Exterior(2R) 13-3-0 to 18-3-0, Interior (1) 18-3-0 to 27-5-0 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=30.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=40.0 psf; Pf=27.7 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 27.7 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 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) Bearing at joint(s) 14, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 14 and 76 lb uplift at joint 8.
13) This truss is designed in accordance with the 2018 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	202 Racetrack Street
2306222-2306222A	T02	Roof Special Girder	4	2	Job Reference (optional)



Scale = 1:50.4

Plate Offsets (X, Y): [8:0-5-0,0-6-8], [15:0-5-0,0-6-8]

Loading	(psf)	Spacing	4-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	30.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.12	12-14	>999	360	MT20	197/144
Snow (Pf/Pg)	27.7/40.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.20	12-14	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.11	10	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.05	12-14	>999	240		
BCDL	10.0										Weight: 322 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 1.7E
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except* W1:2x6 SP No.2

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 10=2658/0-3-8, (min. 0-2-3), 16=2658/0-3-8, (min. 0-2-3)
Max Horiz 16=73 (LC 20)
Max Uplift 10=-156 (LC 13), 16=-156 (LC 12)
Max Grav 10=2788 (LC 2), 16=2788 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-16=-1698/46, 2-3=-2320/125, 3-17=-2129/217, 17-18=-1970/237, 4-18=-1867/243, 4-19=-4728/358, 5-19=-4549/403, 5-20=-4549/391, 6-20=-4728/346, 6-21=-1867/227, 21-22=-1970/208, 7-22=-2129/203, 7-8=-2320/74, 8-10=-1698/68
BOT CHORD 15-16=-11/803, 14-15=-367/4888, 13-14=-161/3501, 12-13=-161/3501, 11-12=-316/4888, 10-11=0/803
WEBS 5-12=-27/1538, 6-12=-1071/307, 6-11=-3391/248, 5-14=-32/1538, 4-14=-1071/310, 4-15=-3391/237, 3-15=0/613, 7-11=0/613

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 13-3-0, Exterior(2R) 13-3-0 to 18-3-0, Interior (1) 18-3-0 to 27-5-0 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=1.60
5) TCLL: ASCE 7-16; Pr=30.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=40.0 psf; Pf=27.7 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 27.7 psf on overhangs non-concurrent with other live loads.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) Bearing at joint(s) 16, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 16 and 156 lb uplift at joint 10.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) 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