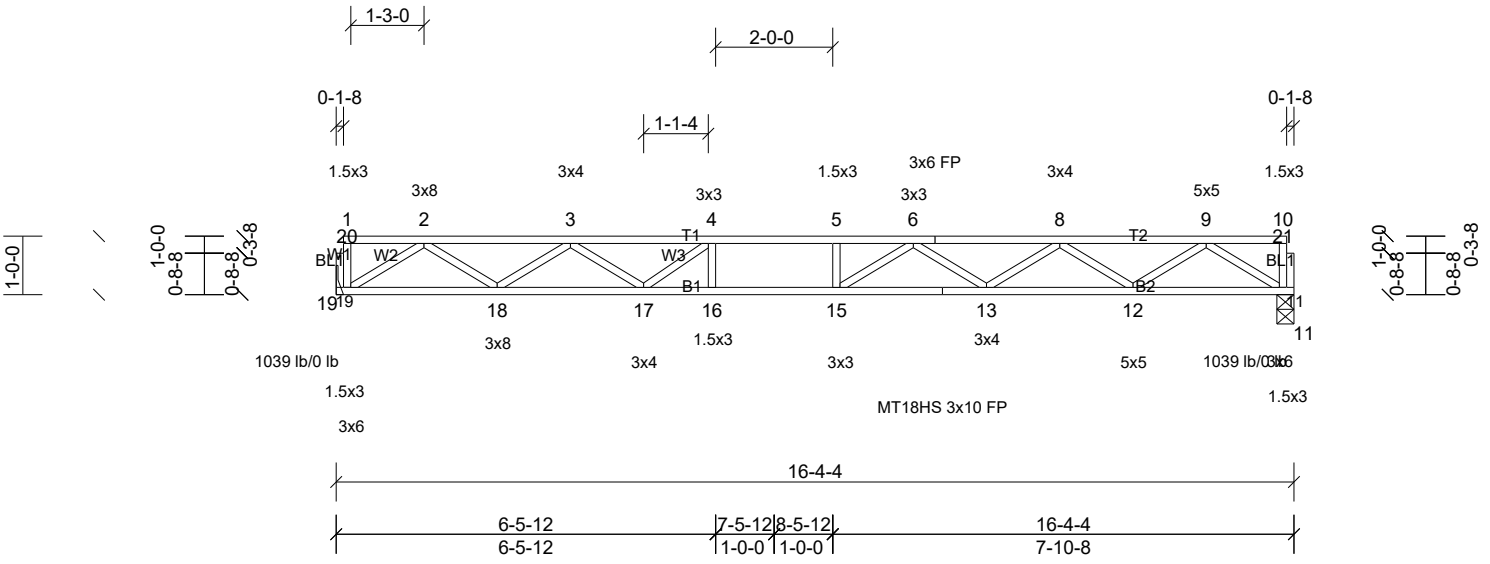
Job	Truss	Truss Type	Qty	Ply	
23081661F2	F201	Truss	2	1	Job Reference (optional)



Scale = 1:39.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.87	Vert(LL)	-0.29	13-15	>669	480	MT18HS	244/190
TCDL	20.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.47	13-15	>410	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.07	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 78 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP SS(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

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

REACTIONS (lb/size) 11=1039/0-3-8, (min. 0-1-8), 19=1039/ Mechanical, (min. 0-1-8)

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

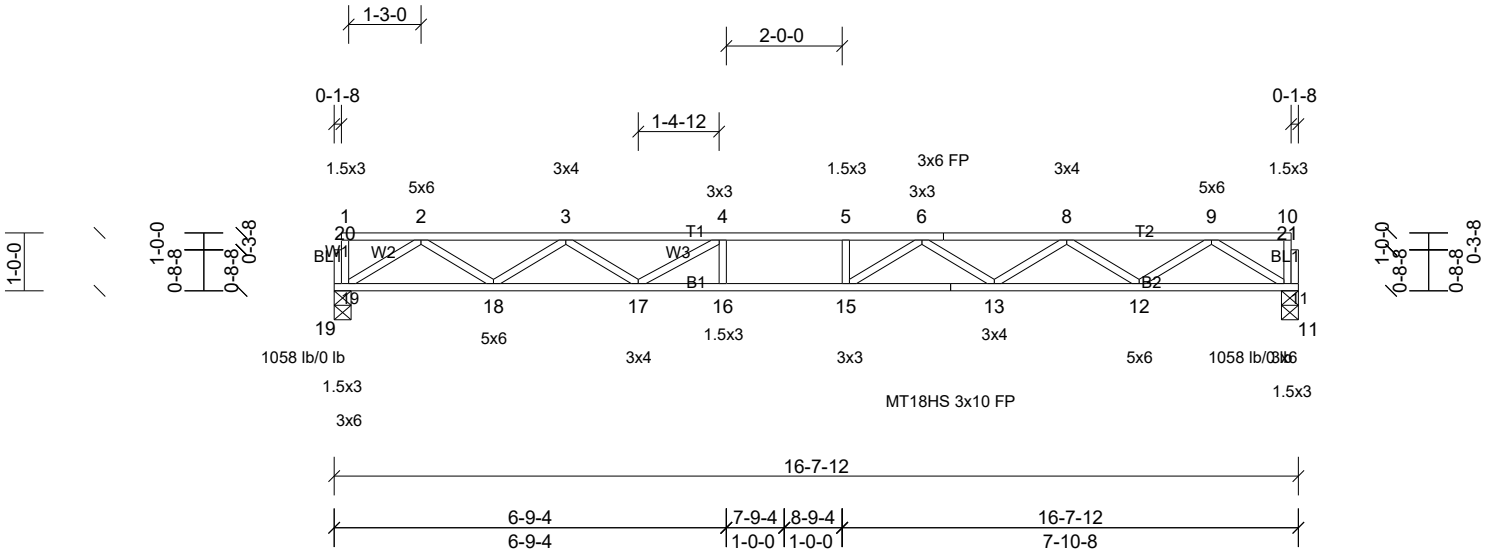
TOP CHORD	2-3=-2572/0, 3-4=-4127/0, 4-5=-4714/0, 5-6=-4714/0, 6-7=-4128/0, 7-8=-4128/0, 8-9=-2572/0
BOT CHORD	18-19=0/1546, 17-18=0/3551, 16-17=0/4714, 15-16=0/4714, 14-15=0/4613, 13-14=0/4613, 12-13=0/3575, 11-12=0/1538
WEBS	2-19=-1829/0, 2-18=0/1252, 3-18=-1195/0, 3-17=0/762, 4-17=-912/0, 9-11=-1819/0, 9-12=0/1261, 8-12=-1225/0, 8-13=0/675, 6-13=-591/0, 6-15=-189/525

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
23081661F2	F202	Truss	7	1	Job Reference (optional)



Scale = 1:39.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.88	Vert(LL)	-0.30	13-15	>658	480	MT18HS	244/190
TCDL	20.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.49	15	>404	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.07	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 79 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP SS(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

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

REACTIONS (lb/size) 11=1058/0-3-8, (min. 0-1-8), 19=1058/0-3-8, (min. 0-1-8)

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

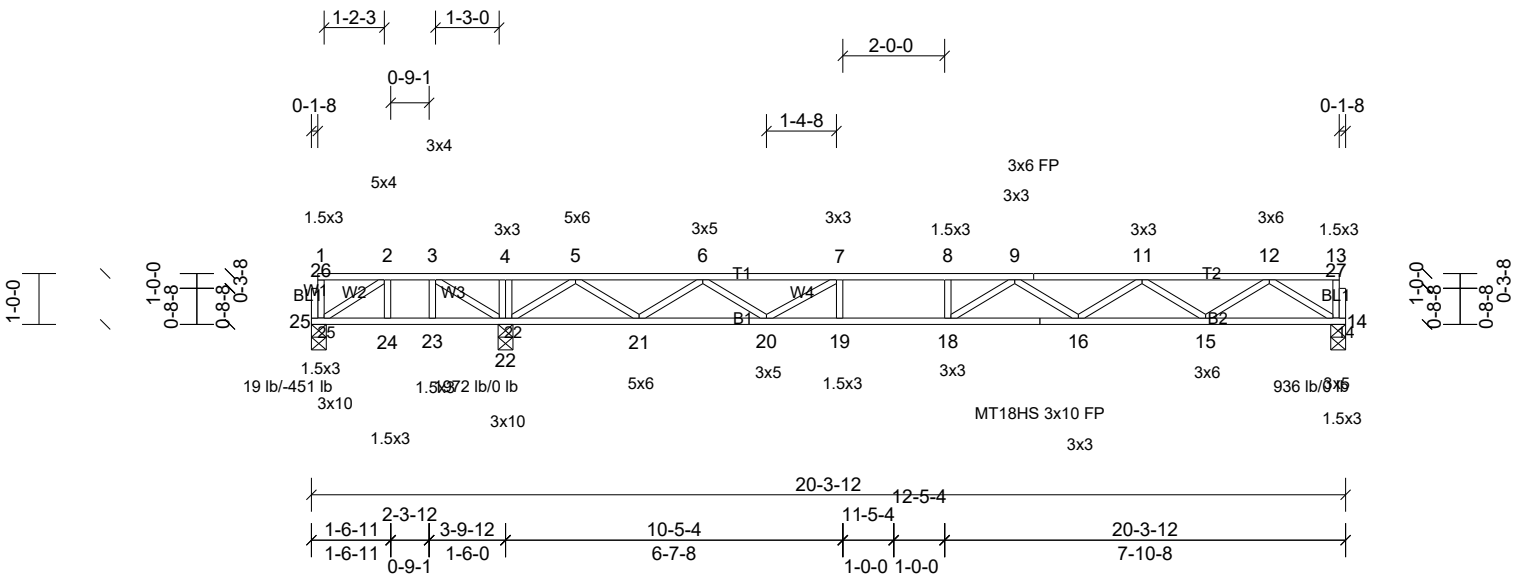
TOP CHORD	2-3=-2632/0, 3-4=-4221/0, 4-5=-4904/0, 5-6=-4904/0, 6-7=-4234/0, 7-8=-4234/0, 8-9=-2629/0
BOT CHORD	18-19=0/1571, 17-18=0/3649, 16-17=0/4904, 15-16=0/4904, 14-15=0/4753, 13-14=0/4753, 12-13=0/3658, 11-12=0/1568
WEBS	2-19=-1858/0, 2-18=0/1296, 3-18=-1241/0, 3-17=0/742, 4-17=-977/0, 9-11=-1855/0, 9-12=0/1295, 8-12=-1256/0, 8-13=0/704, 6-13=-633/0, 6-15=-159/582

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) 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.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
23081661F2	F203	Truss	1	1	Job Reference (optional)



Scale = 1:45.4

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [14:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.94	Vert(LL)	-0.28	16-18	>715	480	MT18HS	244/190
TCDL	20.0	Lumber DOL	1.00	BC	0.79	Vert(CT)	-0.45	16-18	>438	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.04	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 99 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP SS(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

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

REACTIONS (lb/size) 14=934/0-3-8, (min. 0-1-8), 22=1972/0-3-8, (min. 0-1-8), 25=-313/0-3-8, (min. 0-1-8)
Max Uplift 25=-451 (LC 4)
Max Grav 14=936 (LC 7), 22=1972 (LC 1), 25=19 (LC 3)

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

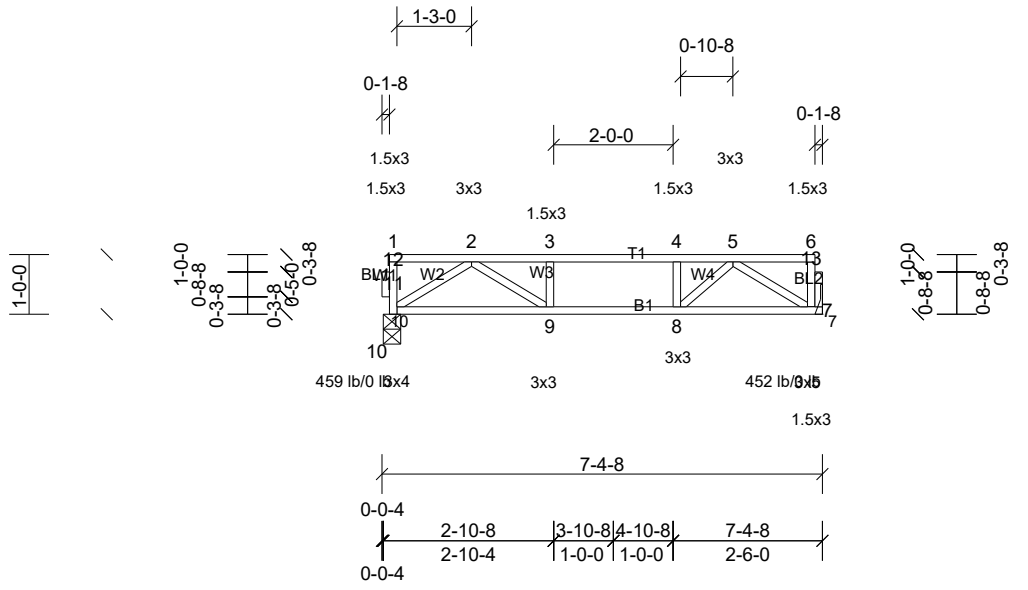
TOP CHORD	2-3=0/1015, 3-4=0/2314, 4-5=0/2314, 5-6=-749/0, 6-7=-2678/0, 7-8=-3692/0, 8-9=-3692/0, 9-10=-3549/0, 10-11=-3549/0, 11-12=-2260/0
BOT CHORD	24-25=-1015/0, 23-24=-1015/0, 22-23=-1015/0, 21-22=-541/0, 20-21=0/1910, 19-20=0/3692, 18-19=0/3692, 17-18=0/3860, 16-17=0/3860, 15-16=0/3125, 14-15=0/1377
WEBS	7-19=0/276, 3-22=-1661/0, 2-25=0/1214, 2-24=-376/0, 3-23=0/398, 5-22=-2114/0, 5-21=0/1501, 6-21=-1426/0, 6-20=0/945, 7-20=-1229/0, 12-14=-1628/0, 12-15=0/1078, 11-15=-1055/0, 11-16=0/517, 9-16=-380/0, 9-18=-407/243

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 451 lb uplift at joint 25.
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.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
23081661F2	F204	Truss	10	1	Job Reference (optional)



Scale = 1:38.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.38	Vert(LL)	-0.03	9-10	>999	480	MT20	244/190
TCDL	20.0	Lumber DOL	1.00	BC	0.34	Vert(CT)	-0.05	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 36 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (lb/size) 7=452/ Mechanical, (min. 0-1-8), 10=459/0-3-8, (min. 0-1-8)

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

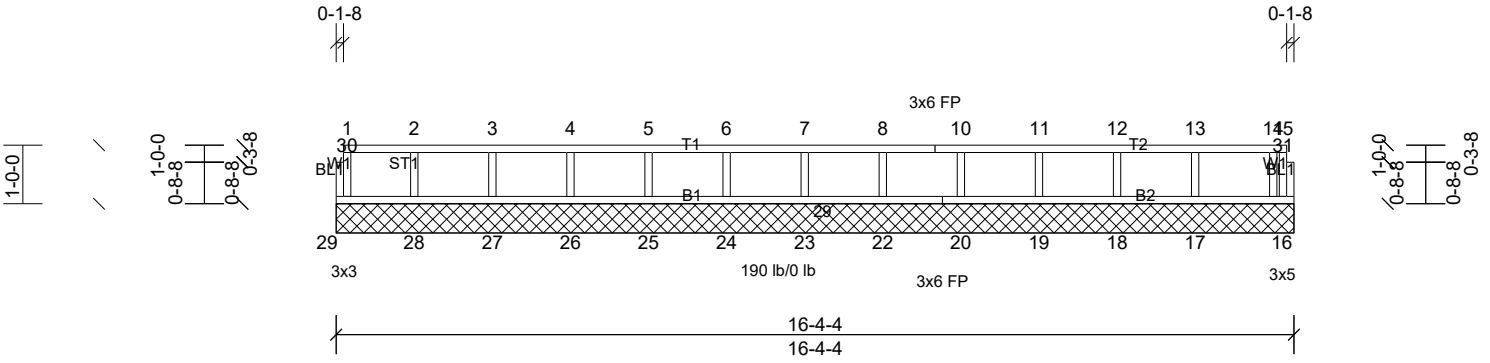
TOP CHORD	2-3=-881/0, 3-4=-881/0, 4-5=-881/0
BOT CHORD	9-10=0/567, 8-9=0/881, 7-8=0/588
WEBS	4-8=-261/0, 2-10=-682/0, 2-9=0/425, 5-7=-691/0, 5-8=0/457

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
23081661F2	KW1	Truss	1	1	Job Reference (optional)



Scale = 1:39.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	20.0	Lumber DOL	1.00	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 66 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS All bearings 16-4-4.

(lb) - Max Grav All reactions 250 (lb) or less at joint(s) 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29

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

NOTES

1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) 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.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard