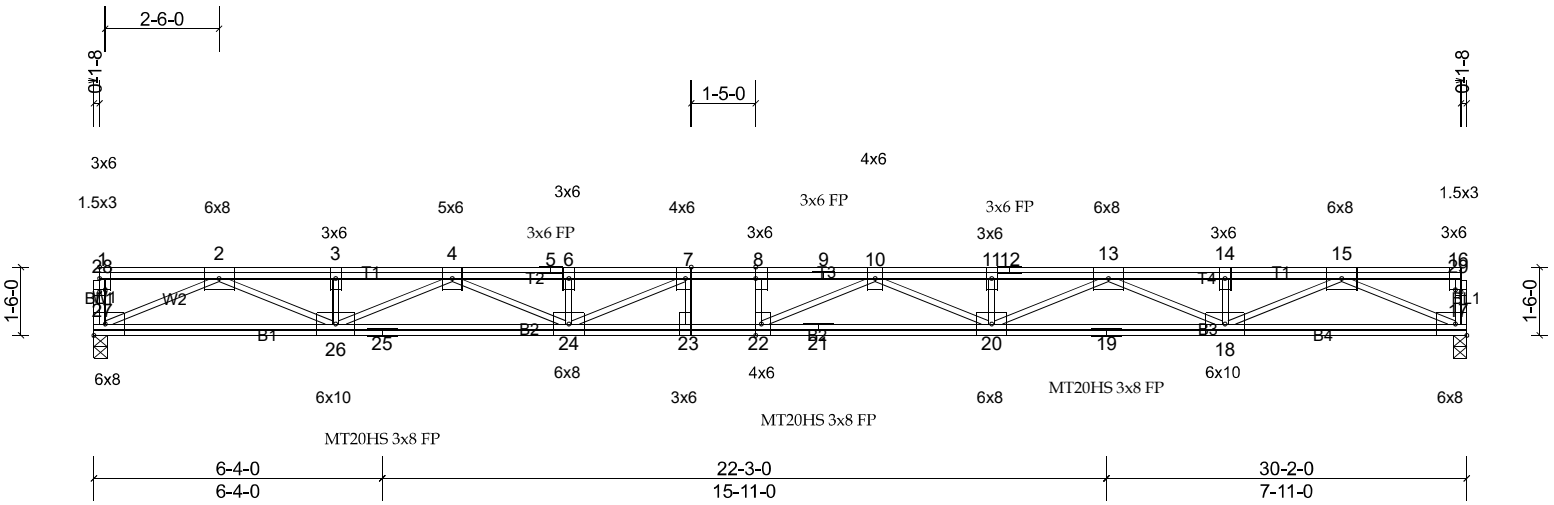
Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F1	Floor	4	1	Job Reference (optional)



Scale = 1:50.6

Plate Offsets (X, Y): [7:0-3-0,Edge], [8:0-3-0,Edge], [22:0-3-0,Edge], [28:0-1-8,0-0-8], [29:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.16	Vert(LL)	-0.47	20-22	>764	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.35	Vert(CT)	-0.65	20-22	>553	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.06	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 237 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E(flat)
BOT CHORD	2x4 SP 2400F 2.0E(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) 17=1092/0-3-8, (min. 0-1-8), 27=1092/0-3-8, (min. 0-1-8)

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

TOP CHORD	2-3=-3714/0, 3-4=-3714/0, 4-5=-5849/0, 5-6=-5849/0, 6-7=-5849/0, 7-8=-6415/0, 8-9=-6415/0, 9-10=-6415/0, 10-11=-5863/0, 11-12=-5863/0, 12-13=-5863/0, 13-14=-3711/0, 14-15=-3711/0
BOT CHORD	26-27=0/2158, 25-26=0/4962, 24-25=0/4962, 23-24=0/6415, 22-23=0/6415, 21-22=0/6351, 20-21=0/6351, 19-20=0/4967, 18-19=0/4967, 17-18=0/2156
WEBS	15-17=-2354/0, 2-27=-2356/0, 15-18=0/1731, 2-26=0/1732, 13-18=-1397/0, 4-26=-1389/0, 13-20=0/997, 4-24=0/986, 10-20=-560/0, 7-24=-954/48, 10-22=-363/550

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 3x6 MT20 unless otherwise indicated.
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) Required 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	Harper
20040140	F1A	Floor	1	1	Job Reference (optional)

Carter Components - Sanford, Sanford, NC, user — Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:27:31 — Page: 1

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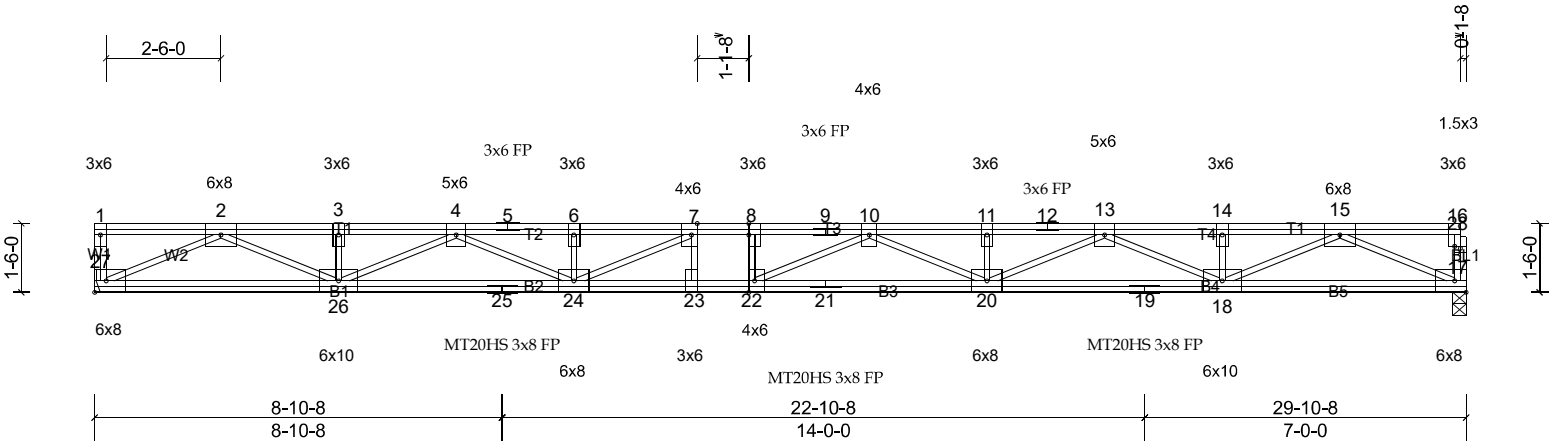


Scale = 1:50.2

Plate Offsets (X, Y): [7:0-3-0,Edge], [8:0-3-0,Edge], [22:0-3-0,Edge], [28:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.15	Vert(LL)	-0.45	20-22	>783	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.34	Vert(CT)	-0.63	20-22	>567	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.07	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 236 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E(flat)
BOT CHORD	2x4 SP 2400F 2.0E(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) 17=1084/0-3-8, (min. 0-1-8), 27=1084/ Mechanical, (min. 0-1-8)

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

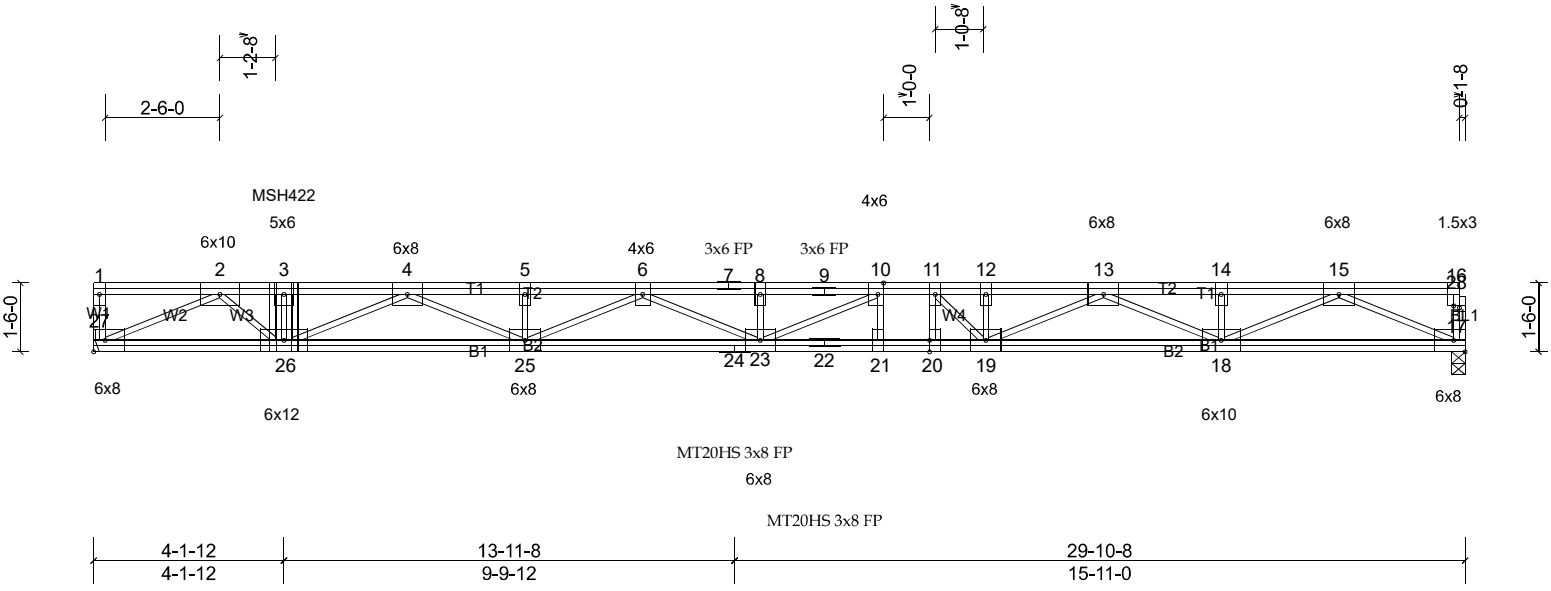
TOP CHORD	2-3=-3712/0, 3-4=-3712/0, 4-5=-5799/0, 5-6=-5799/0, 6-7=-5799/0, 7-8=-6324/0, 8-9=-6324/0, 9-10=-6324/0, 10-11=-5794/0, 11-12=-5794/0, 12-13=-5794/0, 13-14=-3677/0, 14-15=-3677/0
BOT CHORD	26-27=0/2080, 25-26=0/4937, 24-25=0/4937, 23-24=0/6324, 22-23=0/6324, 21-22=0/6266, 20-21=0/6266, 19-20=0/4915, 18-19=0/4915, 17-18=0/2139
WEBS	15-17=-2335/0, 2-27=-2303/0, 15-18=0/1713, 2-26=0/1817, 13-18=-1377/0, 4-26=-1363/0, 13-20=0/977, 4-24=0/959, 10-20=-544/0, 7-24=-891/66, 10-22=-360/521

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 3x6 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
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) Required 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	Harper
20040140	F1AGR	Floor Girder	1	1	Job Reference (optional)



Scale = 1:50.2

Plate Offsets (X, Y): [10:0-3-0,Edge], [20:0-3-0,Edge], [28:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.23	Vert(LL)	-0.51	21-23	>701	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.44	Vert(CT)	-0.70	21-23	>509	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.08	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 241 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E(flat)
BOT CHORD	2x4 SP 2400F 2.0E(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) 17=1143/0-3-8, (min. 0-1-8), 27=1459/ Mechanical, (min. 0-1-8)

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

TOP CHORD	2-3=-4248/0, 3-4=-4232/0, 4-5=-6458/0, 5-6=-6458/0, 6-7=-7115/0, 7-8=-7115/0, 8-9=-7115/0, 9-10=-7115/0, 10-11=-6719/0, 11-12=-6236/0, 12-13=-6236/0, 13-14=-3920/0, 14-15=-3920/0
BOT CHORD	26-27=0/2837, 25-26=0/5551, 24-25=0/6954, 23-24=0/6954, 22-23=0/6719, 21-22=0/6719, 20-21=0/6719, 19-20=0/6719, 18-19=0/5274, 17-18=0/2267
WEBS	3-26=-612/0, 2-27=-3142/0, 2-26=0/1874, 4-26=-1458/0, 15-17=-2475/0, 4-25=0/1009, 15-18=0/1840, 6-25=-552/0, 13-18=-1507/0, 6-23=-89/267, 13-19=0/1070, 10-23=-123/777, 11-19=-958/0, 11-20=0/319

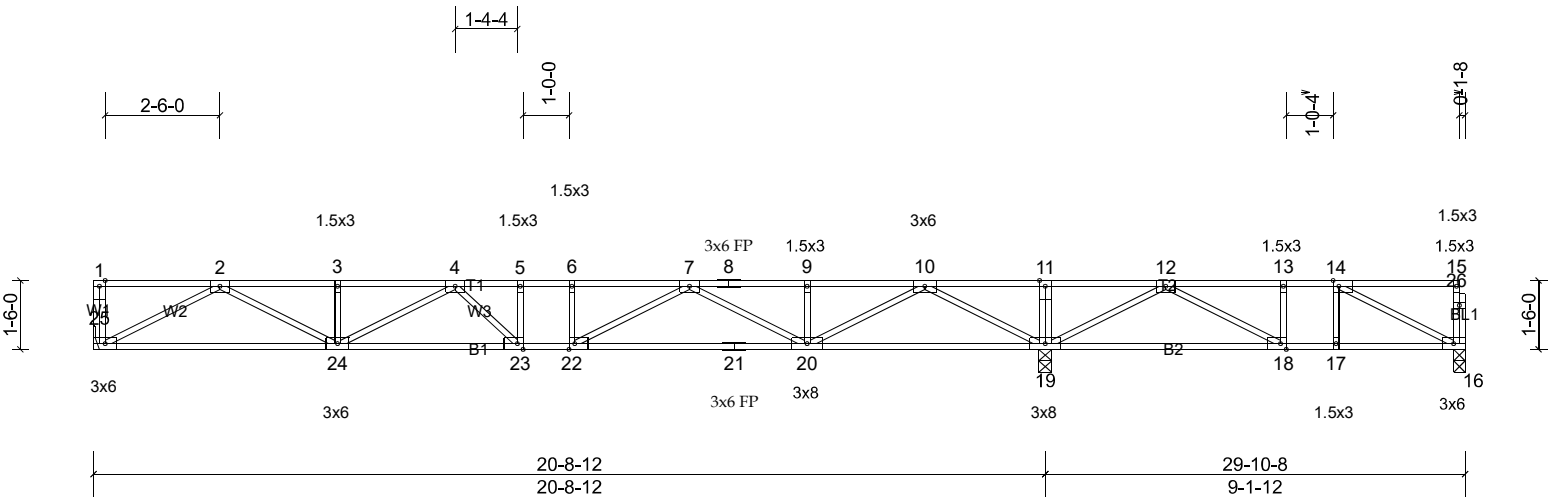
NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x6 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
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) Required 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.
8) Use USP MSH422 (With 10d nails into Girder & 6-10d nails into Truss) or equivalent at 4-1-12 from the left end to connect truss(es) F4GR (1 ply 2x4 SP) to front face of top chord.
9) Fill all nail holes where hanger is in contact with lumber.
10) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 17-27=-7, 1-16=-67
   Concentrated Loads (lb)
   Vert: 3=-434 (F)

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F1B	Floor	8	1	Job Reference (optional)



Scale = 1:50.2

Plate Offsets (X, Y): [14:0-1-8,Edge], [18:0-1-8,Edge], [22:0-1-8,Edge], [23:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.67	Vert(LL)	-0.19	23	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.64	Vert(CT)	-0.26	23-24	>966	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.04	19	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 155 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 6-0-0 oc bracing.

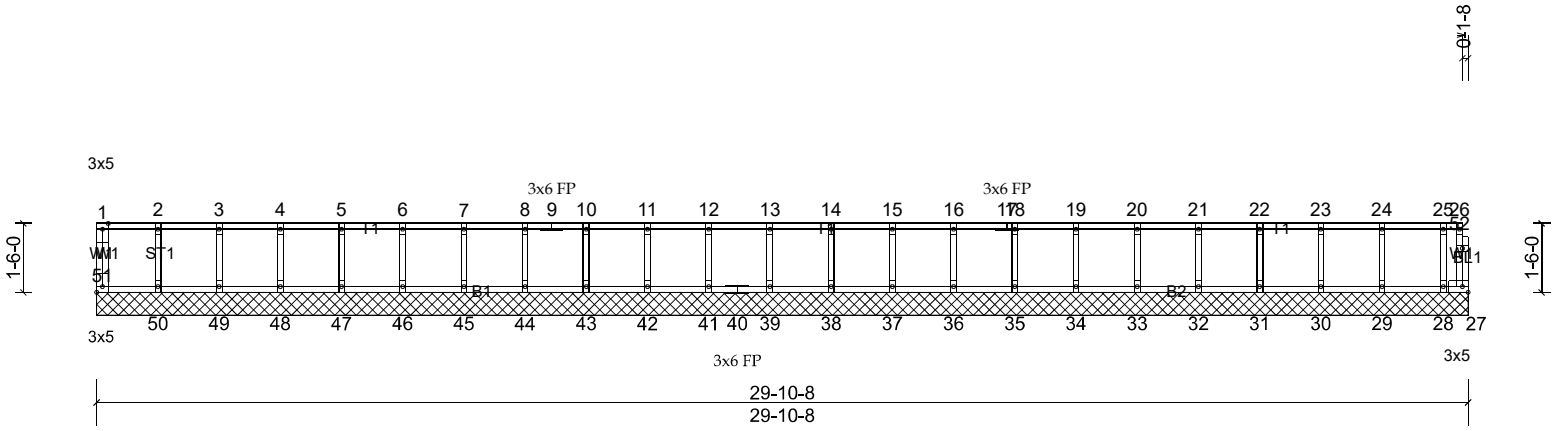
REACTIONS (lb/size) 16=86/0-3-0, (min. 0-1-8), 19=1433/0-3-8, (min. 0-1-8), 25=650/ Mechanical, (min. 0-1-8)
Max Uplift 16=-127 (LC 3)
Max Grav 16=234 (LC 4), 19=1433 (LC 1), 25=663 (LC 10)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1818/0, 3-4=-1818/0, 4-5=-2168/0, 5-6=-2168/0, 6-7=-2168/0, 7-8=-1134/0, 8-9=-1134/0, 9-10=-1134/0, 10-11=0/1599, 11-12=0/1599, 12-13=-298/372, 13-14=-298/372
BOT CHORD 24-25=0/1104, 23-24=0/2149, 22-23=0/2168, 21-22=0/1812, 20-21=0/1812, 18-19=-889/45, 17-18=-372/298, 16-17=-372/298
WEBS 10-19=-1624/0, 2-25=-1246/0, 10-20=0/1241, 2-24=0/810, 7-20=-808/0, 4-24=-376/0, 7-22=0/557, 12-19=-997/0, 14-16=-331/420, 12-18=0/679

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
4) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16. This connection is for uplift only and does not consider lateral forces.
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	Harper
20040140	F1BGE	Floor Supported Gable	1	1	Job Reference (optional)



Scale = 1:50.2

Plate Offsets (X, Y): [51: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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	27	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 137 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.

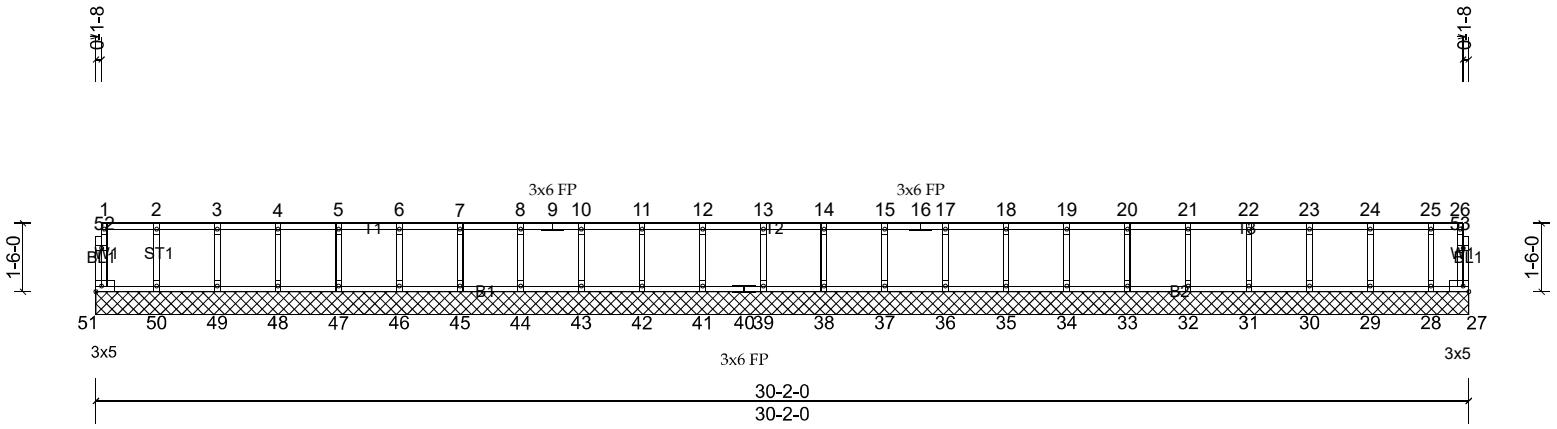
REACTIONS All bearings 29-10-8.
(lb) - Max Grav All reactions 250 (lb) or less at joint(s) 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51

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.
7) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F1GE	Floor Supported Gable	1	1	Job Reference (optional)



Scale = 1:50.6

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	27	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 137 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 30-2-0.
(lb) - Max Grav All reactions 250 (lb) or less at joint(s) 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51

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

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F1GR	Floor Girder	1	**2**	Job Reference (optional)

Carter Components - Sanford, Sanford, NC, user — Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:27:33 — Page: 1

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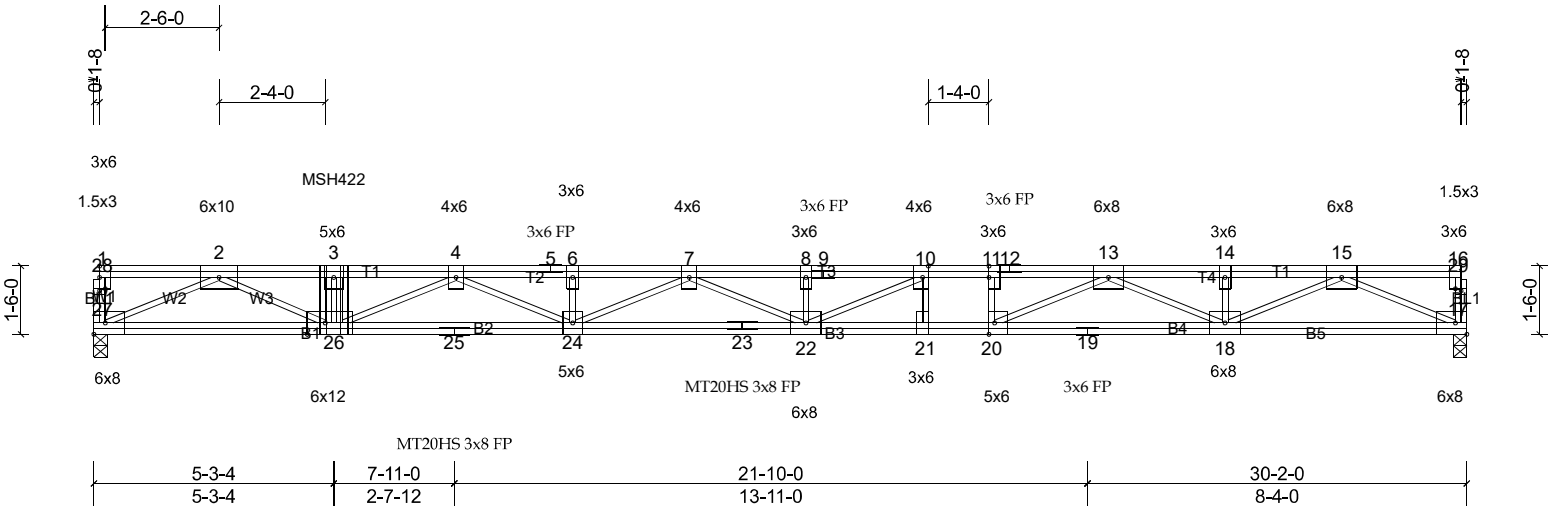


Scale = 1:50.6

Plate Offsets (X, Y): [10:0-3-0,Edge], [11:0-3-0,Edge], [20:0-3-0,Edge], [26:0-4-12,Edge], [28:0-1-8,0-0-8], [29:0-1-8,0-0-8]

Loading	(psf)	**Spacing**	1-4-0	**CSI**		**DEFL**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	40.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	-0.52	22-24	>687	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.72	22-24	>498	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.07	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 480 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) *Except* W3:2x4 SP No.2(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) 17=1378/0-3-8, (min. 0-1-8), 27=2481/0-3-8, (min. 0-1-8)

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

TOP CHORD	2-3=-9258/0, 3-4=-9251/0, 4-5=-10296/0, 5-6=-10296/0, 6-7=-10296/0, 7-8=-9802/0, 8-9=-9802/0, 9-10=-9802/0, 10-11=-8481/0, 11-12=-8481/0, 12-13=-8481/0, 13-14=-4861/0, 14-15=-4861/0
BOT CHORD	26-27=0/5124, 25-26=0/9994, 24-25=0/9994, 23-24=0/10191, 22-23=0/10191, 21-22=0/8481, 20-21=0/8481, 19-20=0/6708, 18-19=0/6708, 17-18=0/2753
WEBS	3-26=-1837/0, 4-26=-820/0, 15-17=-3005/0, 4-24=-103/335, 15-18=0/2347, 7-24=0/342, 13-18=-2054/0, 7-22=-645/0, 13-20=0/2125, 8-22=-337/0, 11-20=-569/0, 10-22=0/1783, 10-21=-401/0, 2-27=-5594/0, 2-26=0/4614

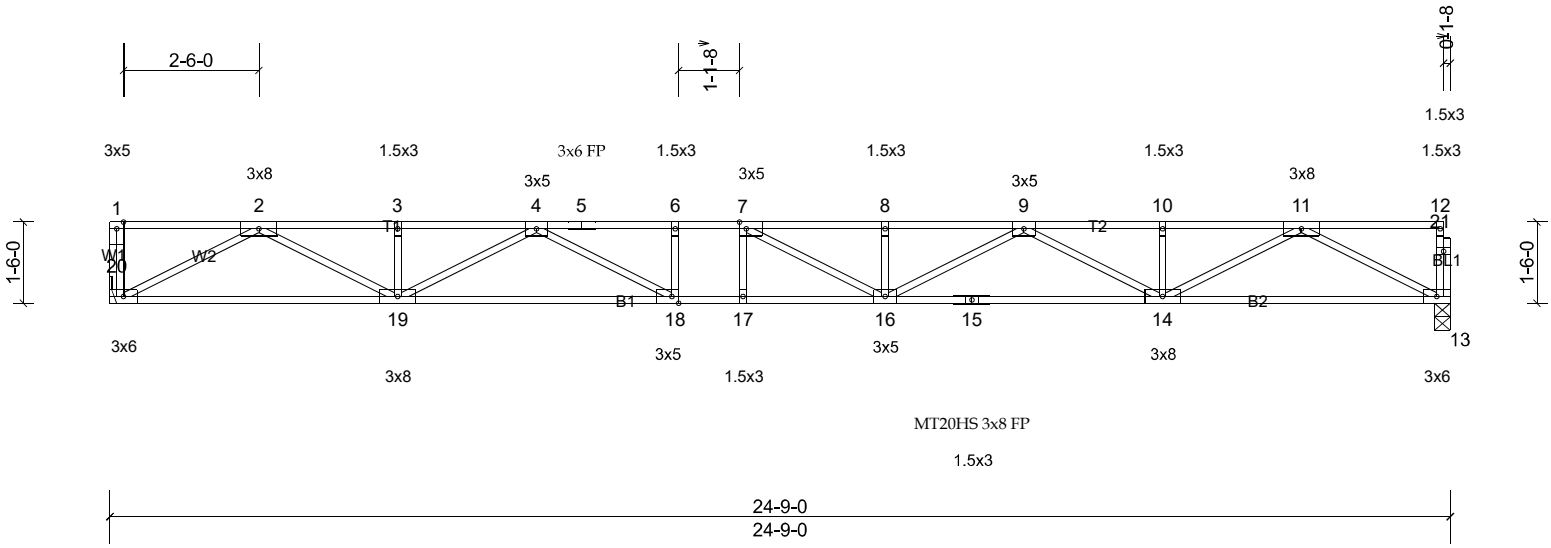
NOTES

1) Fasten trusses together to act as a single unit as per standard industry detail, or loads are to be evenly applied to all plies.
2) Unbalanced floor live loads have been considered for this design.
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 3x6 MT20 unless otherwise indicated.
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) Required 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.
8) Use USP MSH422 (With 10d nails into Girder & 6-10d nails into Truss) or equivalent at 5-3-4 from the left end to connect truss(es) F2GR (1 ply 2x4 SP) to back face of top chord.
9) Fill all nail holes where hanger is in contact with lumber.
10) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 17-27=-7, 1-16=-67
   Concentrated Loads (lb)
   Vert: 3=-1674 (B)

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F2	Floor	3	1	Job Reference (optional)



Scale = 1:42.5

Plate Offsets (X, Y): [7:0-1-8,Edge], [18:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.48	16-17	>609	360	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.99	Vert(CT)	-0.66	16-17	>445	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.10	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 127 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat) *Except* B2:2x4 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 4-8-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 14-16.

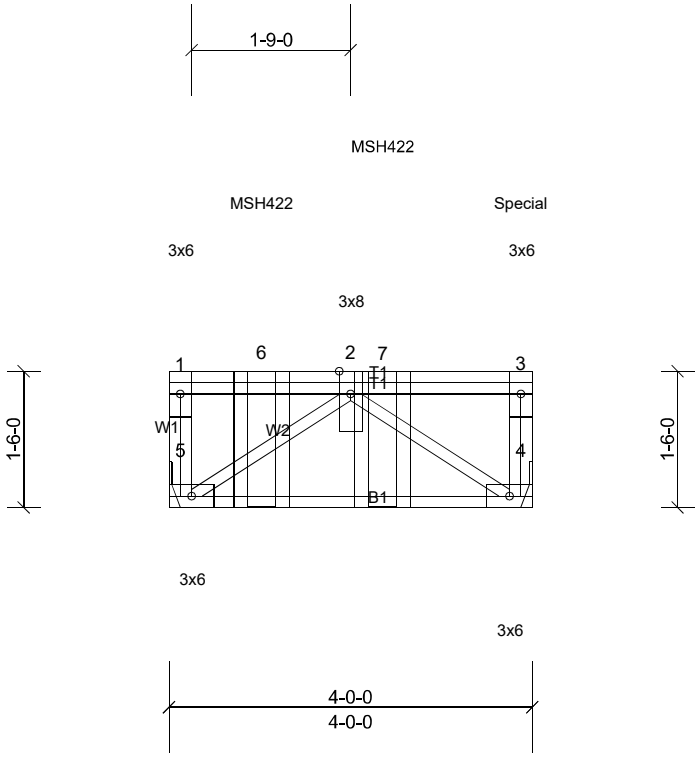
REACTIONS (lb/size) 13=894/0-3-8, (min. 0-1-8), 20=898/ Mechanical, (min. 0-1-8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2698/0, 3-4=-2698/0, 4-5=-3951/0, 5-6=-3951/0, 6-7=-3951/0, 7-8=-3935/0, 8-9=-3935/0, 9-10=-2701/0, 10-11=-2701/0
BOT CHORD 19-20=0/1550, 18-19=0/3476, 17-18=0/3951, 16-17=0/3951, 15-16=0/3473, 14-15=0/3473, 13-14=0/1550
WEBS 11-13=-1746/0, 2-20=-1750/0, 11-14=0/1306, 2-19=0/1302, 9-14=-875/0, 4-19=-884/0, 9-16=0/525, 4-18=0/713, 7-16=-404/318

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) The Fabrication Tolerance at joint 15 = 11%
5) Refer to girder(s) for truss to truss connections.
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.
7) 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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F2GR	Floor Girder	1	1	Job Reference (optional)



Scale = 1:25.4

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.39	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.32	Horz(CT)	0.01	4	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 31 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)

BRACING

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

REACTIONS (lb/size) 4=1719/ Mechanical, (min. 0-1-8), 5=1134/ Mechanical, (min. 0-1-8)

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

TOP CHORD	1-5=-377/0, 3-4=-963/0
BOT CHORD	4-5=0/1062
WEBS	2-5=-1297/0, 2-4=-1297/0

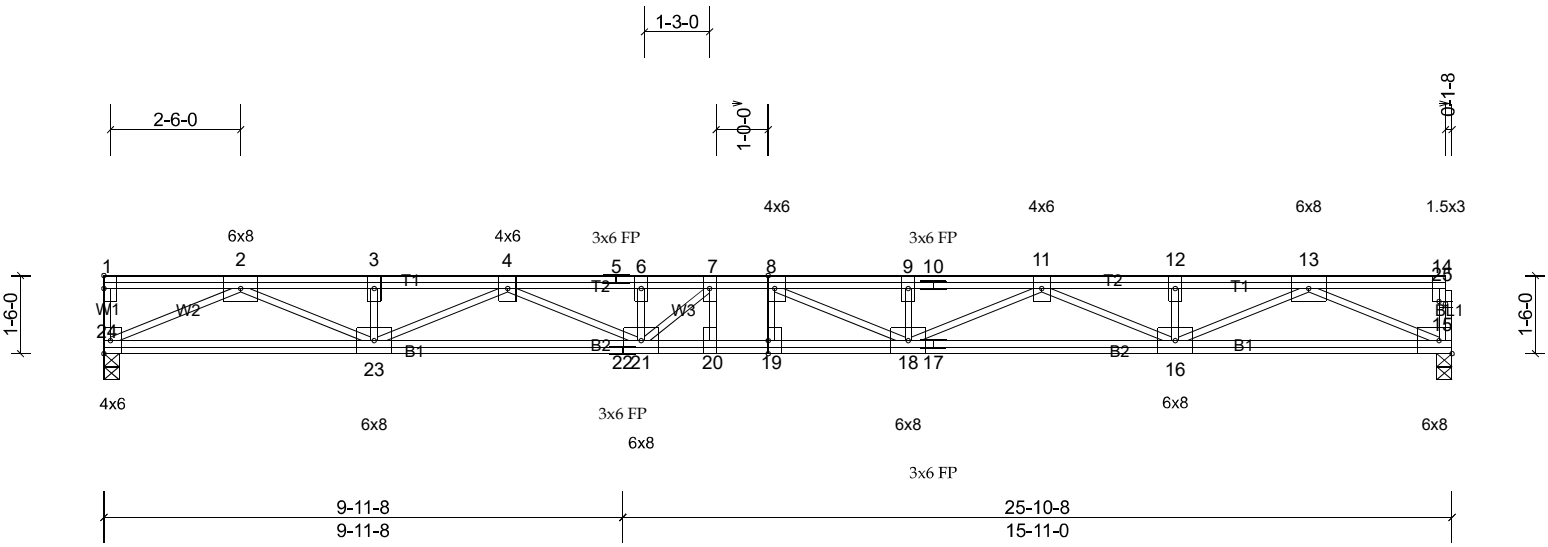
NOTES

1) Refer to girder(s) for truss to truss connections.
2) 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.
3) 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.
4) Use USP MSH422 (With 10d nails into Girder & 6-10d nails into Truss) or equivalent spaced at 1-4-0 oc max. starting at 1-0-4 from the left end to 2-4-4 to connect truss(es) F2 (1 ply 2x4 SP) to back face of top chord.
5) Fill all nail holes where hanger is in contact with lumber.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 870 lb down at 3-10-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 4-5=-7, 1-3=-67
   Concentrated Loads (lb)
   Vert: 3=-870 (B), 6=-854 (B), 7=-854 (B)

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F3	Floor	6	1	Job Reference (optional)



Scale = 1:44.2

Plate Offsets (X, Y): [8:0-3-0,Edge], [19:0-3-0,Edge], [25:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.21	Vert(LL)	-0.36	18-19	>851	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.50	18-19	>619	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.06	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 205 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) 15=940/0-3-8, (min. 0-1-8), 24=940/0-3-8, (min. 0-1-8)

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

TOP CHORD 2-3=-3092/0, 3-4=-3092/0, 4-5=-4602/0, 5-6=-4602/0, 6-7=-4602/0, 7-8=-4771/0, 8-9=-4624/0, 9-10=-4624/0, 10-11=-4624/0, 11-12=-3094/0, 12-13=-3094/0

BOT CHORD 23-24=0/1744, 22-23=0/4035, 21-22=0/4035, 20-21=0/4771, 19-20=0/4771, 18-19=0/4771, 17-18=0/4032, 16-17=0/4032, 15-16=0/1833

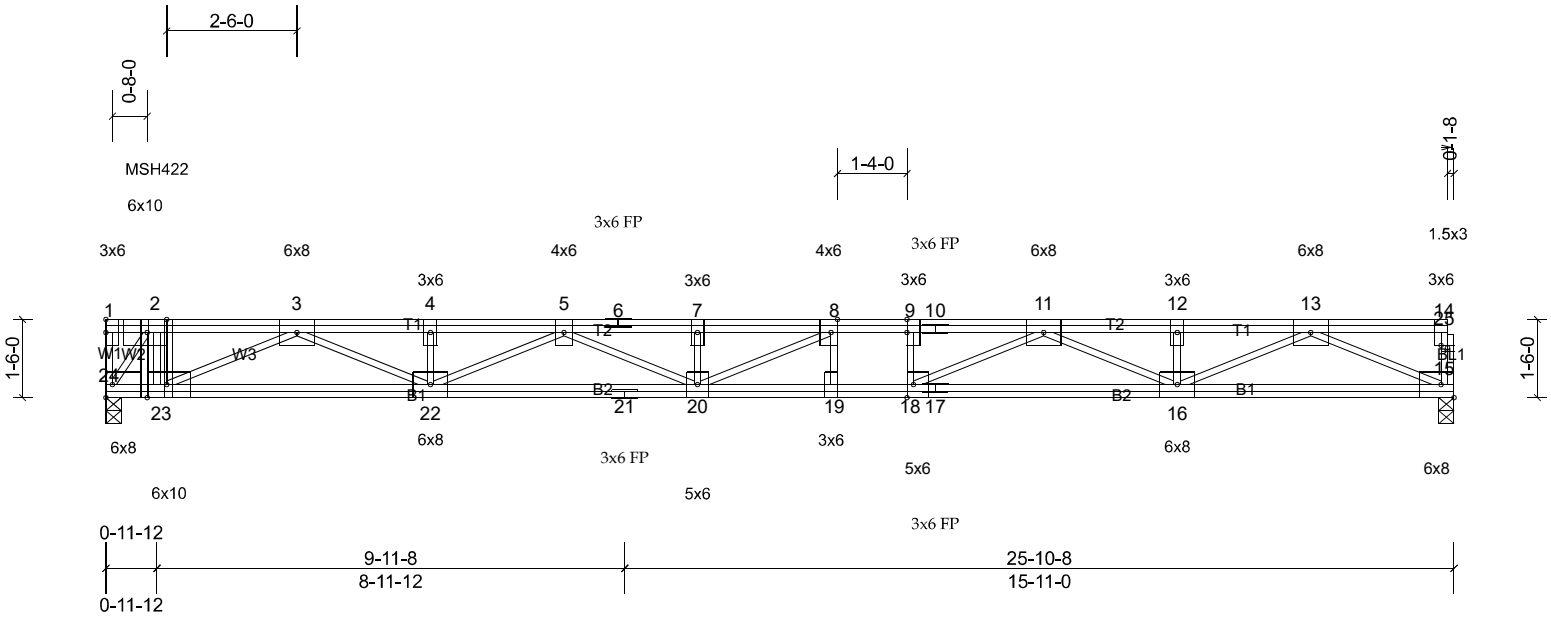
WEBS 13-15=-2001/0, 2-24=-1940/0, 13-16=0/1404, 2-23=0/1501, 11-16=-1044/0, 4-23=-1049/0, 11-18=0/659, 4-21=0/631, 8-18=-499/231, 7-21=-515/180

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 MT20 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.
5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F3GR	Floor Girder	1	1	Job Reference (optional)



Scale = 1:44.2

Plate Offsets (X, Y): [2:0-4-8,Edge], [8:0-3-0,Edge], [9:0-3-0,Edge], [18:0-3-0,Edge], [23:0-4-8,Edge], [25:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.40	19-20	>761	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.92	Vert(CT)	-0.56	19-20	>554	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.71	Horz(CT)	0.07	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 208 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) 15=977/0-3-8, (min. 0-1-8), 24=1991/0-3-8, (min. 0-1-8)

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

TOP CHORD 2-3=-1472/0, 3-4=-4101/0, 4-5=-4101/0, 5-6=-5190/0, 6-7=-5190/0, 7-8=-5190/0, 8-9=-5001/0, 9-10=-5001/0, 10-11=-5001/0, 11-12=-3240/0, 12-13=-3240/0

BOT CHORD 23-24=0/1399, 22-23=0/2985, 21-22=0/4811, 20-21=0/4811, 19-20=0/5001, 18-19=0/5001, 17-18=0/4262, 16-17=0/4262, 15-16=0/1908

WEBS 2-23=0/757, 2-24=-2432/0, 3-23=-1678/0, 13-15=-2083/0, 3-22=0/1243, 13-16=0/1484, 5-22=-790/0, 11-16=-1137/0, 5-20=0/422, 11-18=0/1004, 9-18=-269/0, 8-20=-277/562

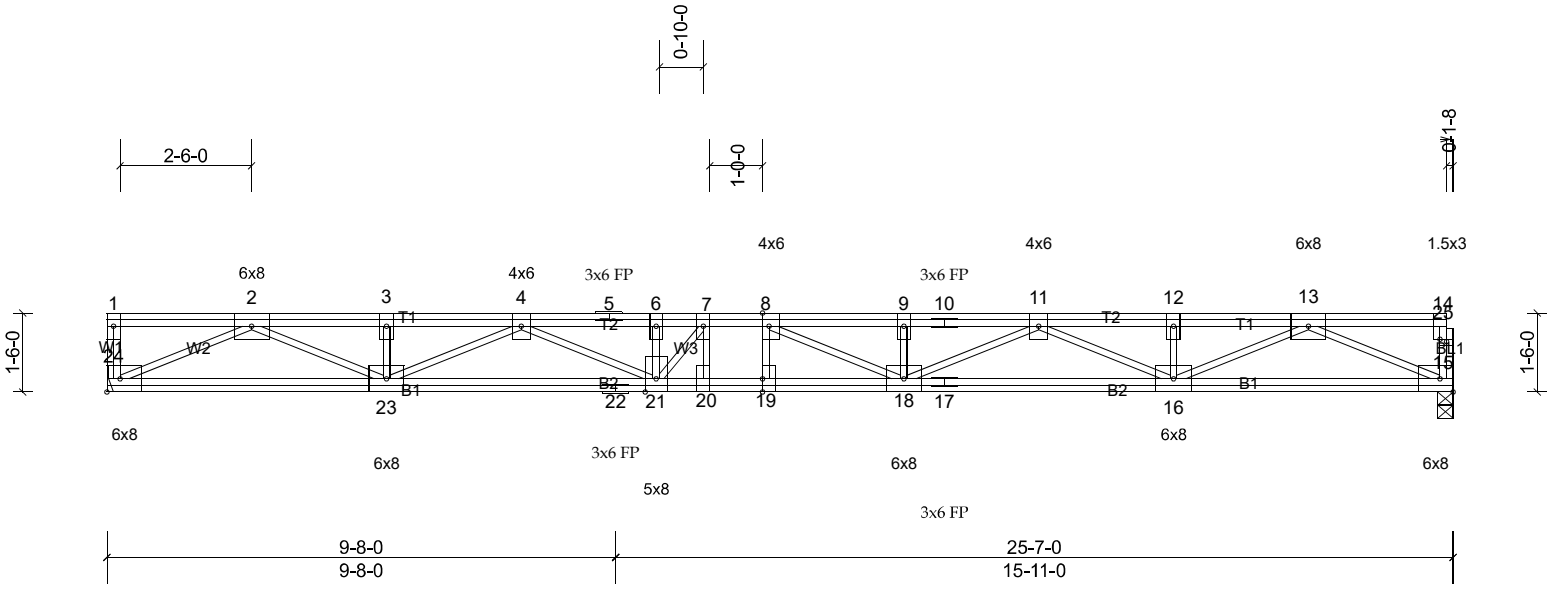
NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 MT20 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.
5) CAUTION, Do not erect truss backwards.
6) Use USP MSH422 (With 10d nails into Girder & 6-10d nails into Truss) or equivalent at 0-11-12 from the left end to connect truss(es) F2GR (1 ply 2x4 SP) to front face of top chord.
7) Fill all nail holes where hanger is in contact with lumber.
8) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 15-24=-7, 1-14=-67
   Concentrated Loads (lb)
   Vert: 2=-1089 (F)

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F4	Floor	1	1	Job Reference (optional)



Scale = 1:43.8

Plate Offsets (X, Y): [8:0-3-0,Edge], [19:0-3-0,Edge], [25:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	-0.34	18-19	>882	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.69	Vert(CT)	-0.47	18-19	>641	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.06	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-SH							Weight: 205 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) 15=927/0-3-8, (min. 0-1-8), 24=927/ Mechanical, (min. 0-1-8)

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

TOP CHORD 2-3=-3066/0, 3-4=-3066/0, 4-5=-4504/0, 5-6=-4504/0, 6-7=-4504/0, 7-8=-4635/0, 8-9=-4519/0, 9-10=-4519/0, 10-11=-4519/0, 11-12=-3041/0, 12-13=-3041/0

BOT CHORD 23-24=0/1754, 22-23=0/3974, 21-22=0/3974, 20-21=0/4635, 19-20=0/4635, 18-19=0/4635, 17-18=0/3953, 16-17=0/3953, 15-16=0/1805

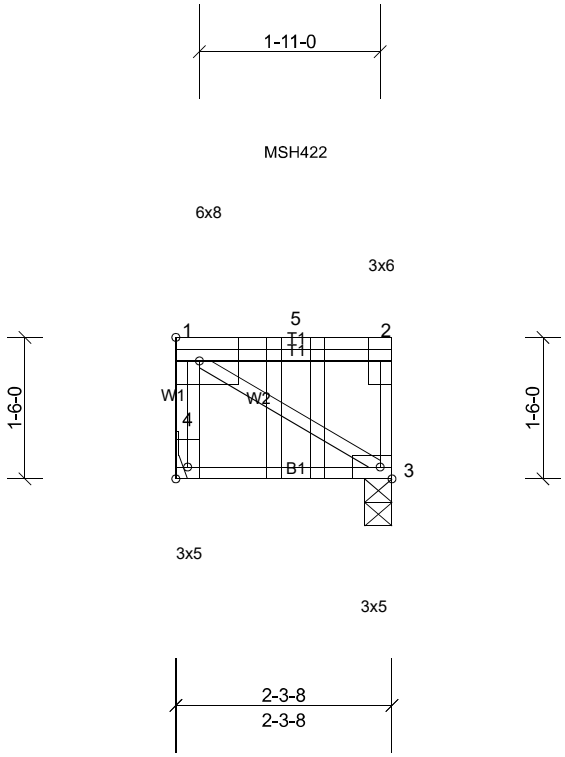
WEBS 13-15=-1970/0, 2-24=-1943/0, 13-16=0/1376, 2-23=0/1460, 11-16=-1015/0, 4-23=-1010/0, 11-18=0/631, 4-21=0/625, 8-18=-465/241, 7-21=-507/197

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 MT20 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.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	F4GR	Floor Girder	1	1	Job Reference (optional)



Scale = 1:24.4

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

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(CT)	0.00	3-4	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%F, 11%E

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=558/0-3-8, (min. 0-1-8), 4=479/ Mechanical, (min. 0-1-8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-4=-472/0, 2-3=-551/0

NOTES
1) Refer to girder(s) for truss to truss connections.
2) 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.
3) 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.
4) Use USP MSH422 (With 10d nails into Girder & 6-10d nails into Truss) or equivalent at 1-3-4 from the left end to connect truss(es) F4 (1 ply 2x4 SP) to back face of top chord.
5) Fill all nail holes where hanger is in contact with lumber.
6) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 3-4=-7, 1-2=-67
Concentrated Loads (lb)
Vert: 5=-882 (B)