

Job 19071032F	Truss FG1	Truss Type Floor Girder	Qty 2	Ply 1	<b>BROOKS CRAFTSMAN FLOORS</b>
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UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, Rob Ferber

Job Reference (optional)

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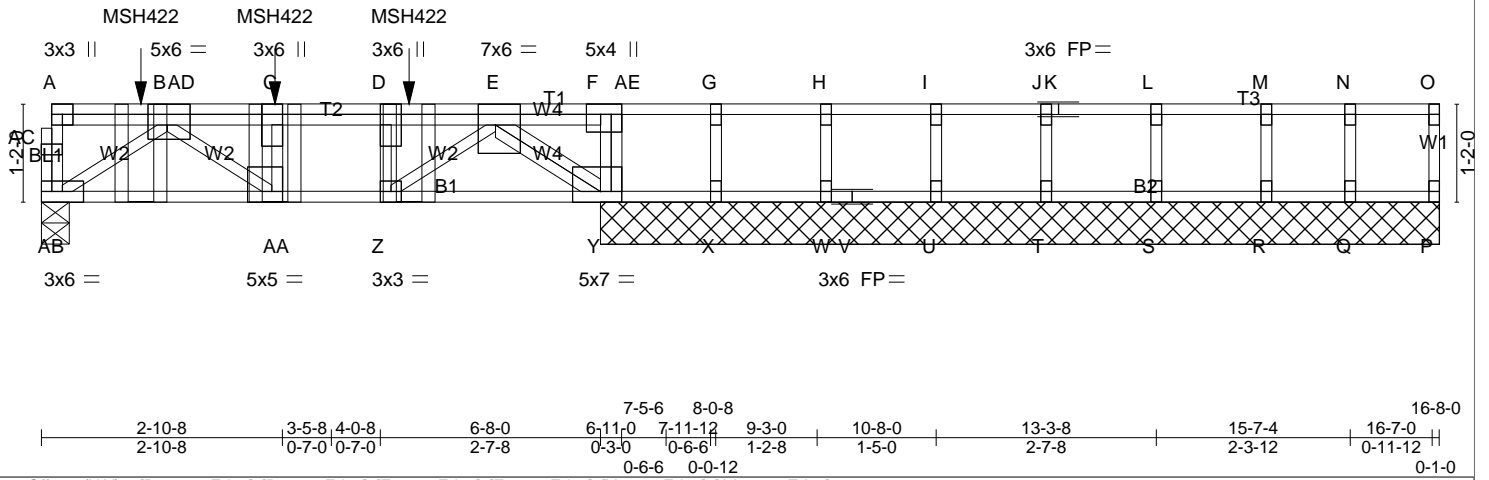
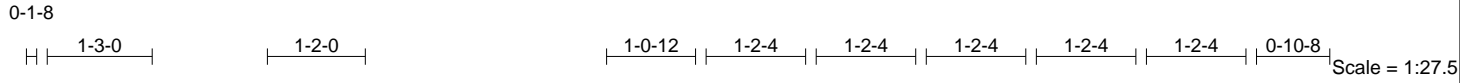


Plate Offsets (X,Y)-- [B:0-2-12,Edge], [D:0-3-0,Edge], [E:0-2-8,Edge], [F:0-1-8,Edge], [Y:0-3-0,Edge], [AA:0-1-8,Edge]

LOADING (psf)	SPACING-	CSL	DEFL	PLATES	GRIP
TCLL 40.0	1-7-3	TC 0.61	in (loc) l/defl L/d	MT20	244/190
TCDL 20.0	Plate Grip DOL 1.00	BC 0.97	Vert(LL) -0.04 Y-Z >999 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.68	Vert(CT) -0.06 Y-Z >999 360		
BCDL 5.0	Rep Stress Incr NO	Matrix-SH	Horz(CT) 0.02 P n/a n/a		
	Code IRC2015/TPI2014			Weight: 88 lb	FT = 20%F, 12%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 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) AB=967/0-4-0, P=42/10-0-0, Y=2659/10-0-0, W=160/10-0-0, T=137/10-0-0, R=119/10-0-0, X=51/10-0-0, U=130/10-0-0, S=140/10-0-0, Q=112/10-0-0  
Max GravAB=967(LC 1), P=42(LC 4), Y=2659(LC 1), W=160(LC 4), T=137(LC 4), R=119(LC 4), X=113(LC 3), U=135(LC 3), S=140(LC 3), Q=112(LC 3)

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD AB-AC=-123/0, A-AC=-123/0, O-P=-39/0, A-AD=-6/0, B-AD=-13/0, B-C=-2327/0, C-D=-2327/0, D-E=-2327/0, E-F=-7/0, F-AE=-17/0, G-AE=-3/3, G-H=0/0, H-I=0/0, I-J=0/0, J-K=0/0, K-L=0/0, L-M=0/0, M-N=0/0, N-O=0/0  
BOT CHORD AA-AB=0/1194, Z-AA=0/2327, Y-Z=0/2084, X-Y=0/0, W-X=0/0, V-W=0/0, U-V=0/0, T-U=0/0, S-T=0/0, R-S=0/0, Q-R=0/0, P-Q=0/0  
WEBS B-AB=-1456/0, B-AA=0/1431, D-Z=-307/0, E-Z=0/500, E-Y=-2680/0, F-Y=-884/0, H-W=-138/0, J-T=-126/0, M-R=-110/0, G-X=-121/0, I-U=-126/0, L-S=-129/0, N-Q=-103/0, C-AA=-765/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 1.5x3 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 10-0-0 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 spaced at 1-7-3 oc max. starting at 1-2-4 from the left end to 4-4-10 to connect truss(es) ft13 (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).

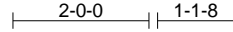
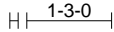
**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: P-AB=-8, A-D=-96, D-AE=-936, O-AE=-96  
Concentrated Loads (lb)  
Vert: D=-126(F) C=-126(F) AD=-126(F)

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0-1-8



0-1-8  
Scale = 1:33.9

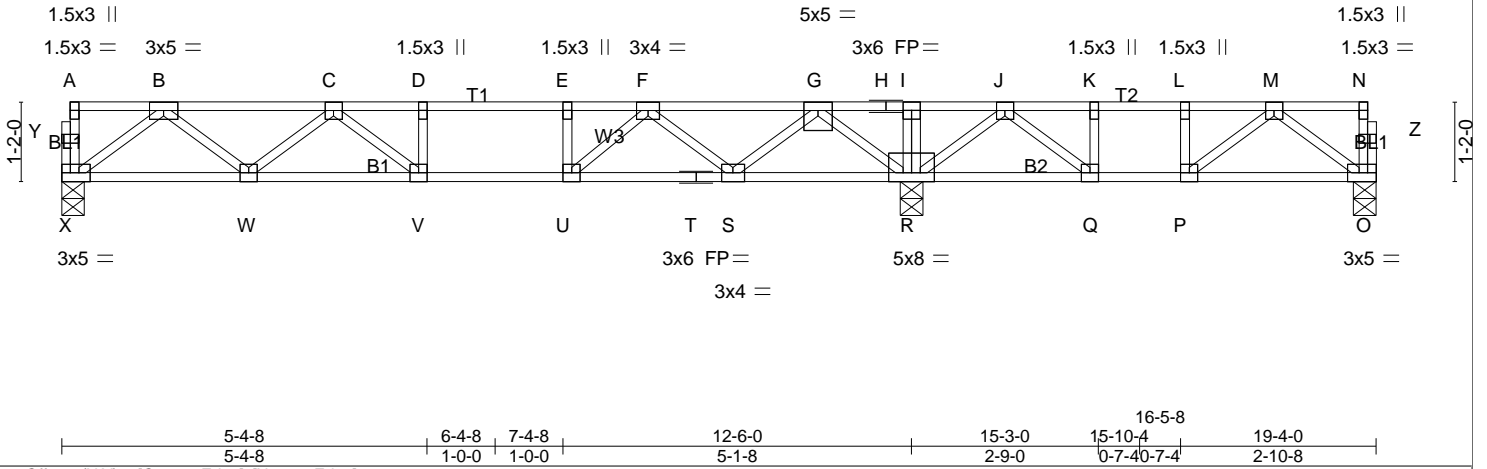


Plate Offsets (X,Y)-- [O:0-2-0,Edge], [X:0-2-0,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.67	Vert(LL) -0.11 V-W >999 480	MT20	244/190
TCDL 20.0	Lumber DOL 1.00	BC 0.80	Vert(CT) -0.17 V-W >885 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.40	Horz(CT) 0.03 O n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-SH			
				Weight: 98 lb	FT = 20%F, 12%E

<p><b>LUMBER-</b></p> <p>TOP CHORD 2x4 SP No.2(flat)</p> <p>BOT CHORD 2x4 SP No.2(flat)</p> <p>WEBS 2x4 SP No.3(flat)</p>	<p><b>BRACING-</b></p> <p>TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.</p> <p>BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: Q-R,P-Q.</p>
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**REACTIONS.** (lb/size) X=725/0-4-0, R=1446/0-4-0, O=295/0-4-0  
Max Grav X=734(LC 10), R=1446(LC 1), O=366(LC 4)

**FORCES.** (lb) - Maximum Compression/Maximum Tension

TOP CHORD X-Y=-43/0, A-Y=-43/0, O-Z=-59/0, N-Z=-59/0, A-B=-3/0, B-C=-1405/0, C-D=-1963/0, D-E=-1963/0, E-F=-1963/0, F-G=-953/0, G-H=0/902, H-I=0/902, I-J=0/902, J-K=-489/123, K-L=-489/123, L-M=-489/123, M-N=-4/0

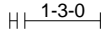
BOT CHORD W-X=0/904, V-W=0/1850, U-V=0/1963, T-U=0/1578, S-T=0/1578, R-S=0/317, Q-R=-445/150, P-Q=-123/489, O-P=0/386

WEBS D-V=-169/0, E-U=-325/0, I-R=-163/0, B-X=-1130/0, B-W=0/652, C-W=580/0, C-V=-18/308, G-R=-1328/0, G-S=0/843, F-S=-840/0, F-U=0/648, J-R=-797/0, J-Q=0/633, K-Q=-309/0, M-O=-480/0, M-P=-174/132, L-P=-87/77

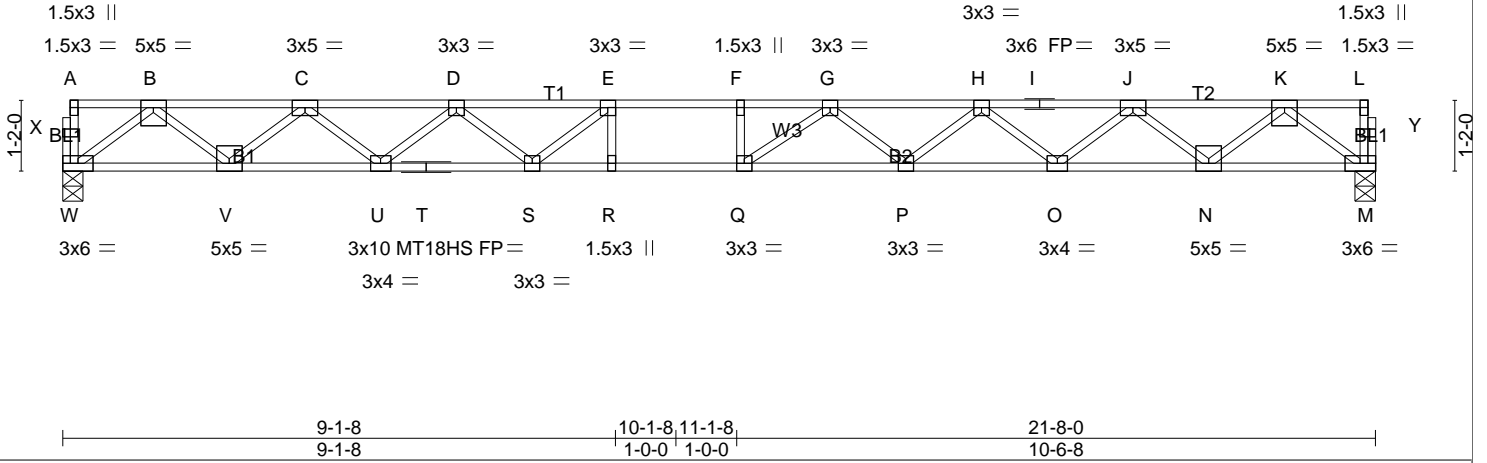
- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x3 MT20 unless otherwise indicated.
  - 3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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

0-1-8



0-1-8  
Scale = 1:38.0



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	1-4-0	TC 0.53	in (loc) l/defl L/d	MT20	244/190
TCDL 20.0	Plate Grip DOL 1.00	BC 0.66	Vert(LL) -0.38 P-Q >685 480	MT18HS	244/190
BCLL 0.0	Lumber DOL 1.00	WB 0.53	Vert(CT) -0.61 P-Q >420 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.09 M n/a n/a		
	Code IRC2015/TPI2014			Weight: 107 lb	FT = 20%F, 12%E

**LUMBER-**  
TOP CHORD 2x4 SP SS(flat)  
BOT CHORD 2x4 SP SS(flat)  
WEBS 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) W=923/0-4-0, M=923/0-4-0

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD W-X=-31/0, A-X=-31/0, M-Y=-31/0, L-Y=-31/0, A-B=-2/0, B-C=-2022/0, C-D=-3440/0, D-E=-4336/0, E-F=-4709/0, F-G=-4709/0, G-H=-4341/0, H-I=-3438/0, I-J=-3438/0, J-K=-2022/0, K-L=-2/0  
BOT CHORD V-W=0/1166, U-V=0/2856, T-U=0/4000, S-T=0/4000, R-S=0/4709, Q-R=0/4709, P-Q=0/4633, O-P=0/4010, N-O=0/2853, M-N=0/1167  
WEBS E-R=-78/175, F-Q=-176/16, B-W=-1461/0, B-V=0/1113, C-V=-1086/0, C-U=0/760, D-U=-729/0, D-S=0/526, E-S=-671/0, K-M=-1462/0, K-N=0/1112, J-N=-1082/0, J-O=0/762, H-O=-745/0, H-P=0/430, G-P=-399/0, G-Q=-200/439

- 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) Required 2x6 strongbacks, on edge, spaced at 10-0-0 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

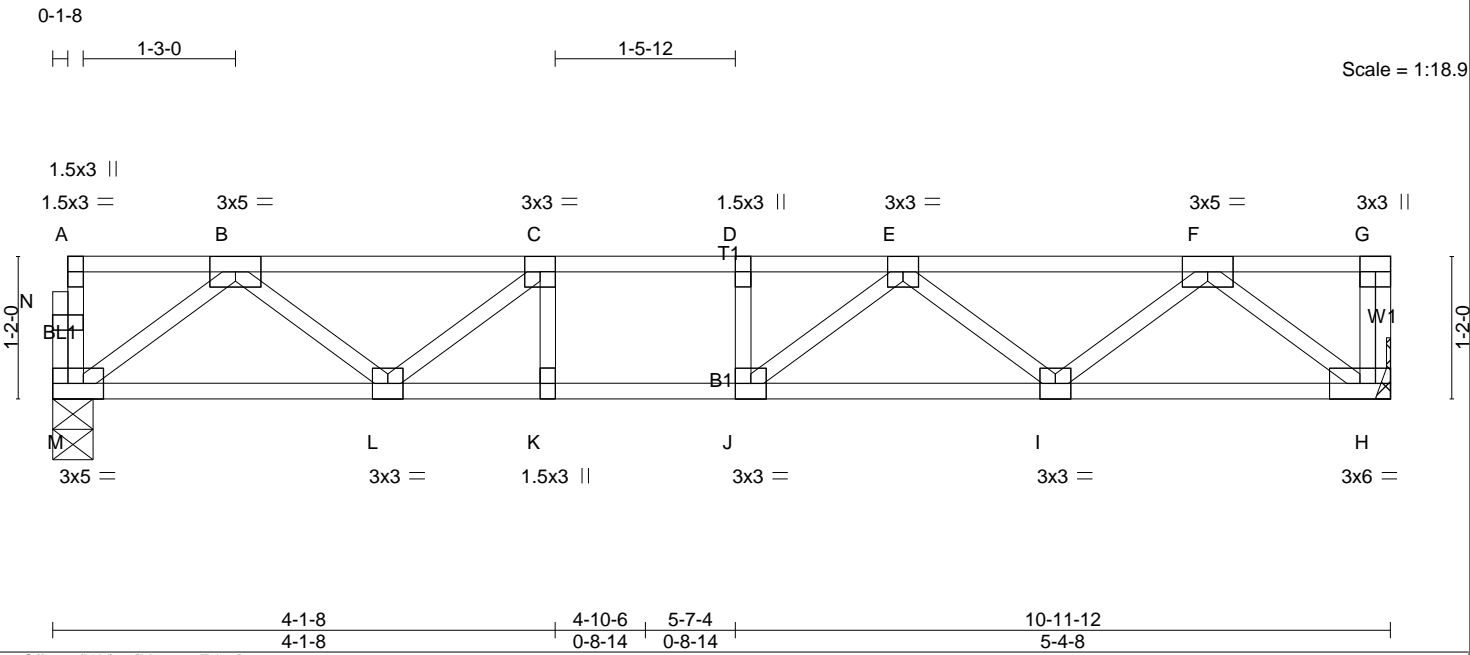


Plate Offsets (X,Y)-- [M:0-2-0,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.40	Vert(LL) -0.08 I-J >999 480	MT20 244/190
TCDL 20.0	Lumber DOL 1.00	BC 0.71	Vert(CT) -0.12 I-J >999 360	
BCLL 0.0	Rep Stress Incr YES	WB 0.28	Horz(CT) 0.02 H n/a n/a	
BCDL 5.0	Code IRC2015/TPI2014	Matrix-SH		Weight: 57 lb FT = 20%F, 12%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 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) M=690/0-4-0, H=697/Mechanical

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD M-N=-44/0, A-N=-44/0, G-H=-48/0, A-B=-3/0, B-C=-1287/0, C-D=-1754/0, D-E=-1754/0, E-F=-1293/0, F-G=0/0  
 BOT CHORD L-M=0/837, K-L=0/1754, J-K=0/1754, I-J=0/1693, H-I=0/845  
 WEBS F-H=-1060/0, B-M=-1047/0, F-I=0/583, B-L=0/586, E-I=522/0, C-L=-605/0, E-J=-79/288, C-K=-37/124, D-J=-125/0

**NOTES-**  
 1) Unbalanced floor live loads have been considered for this design.  
 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 10-0-0 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) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

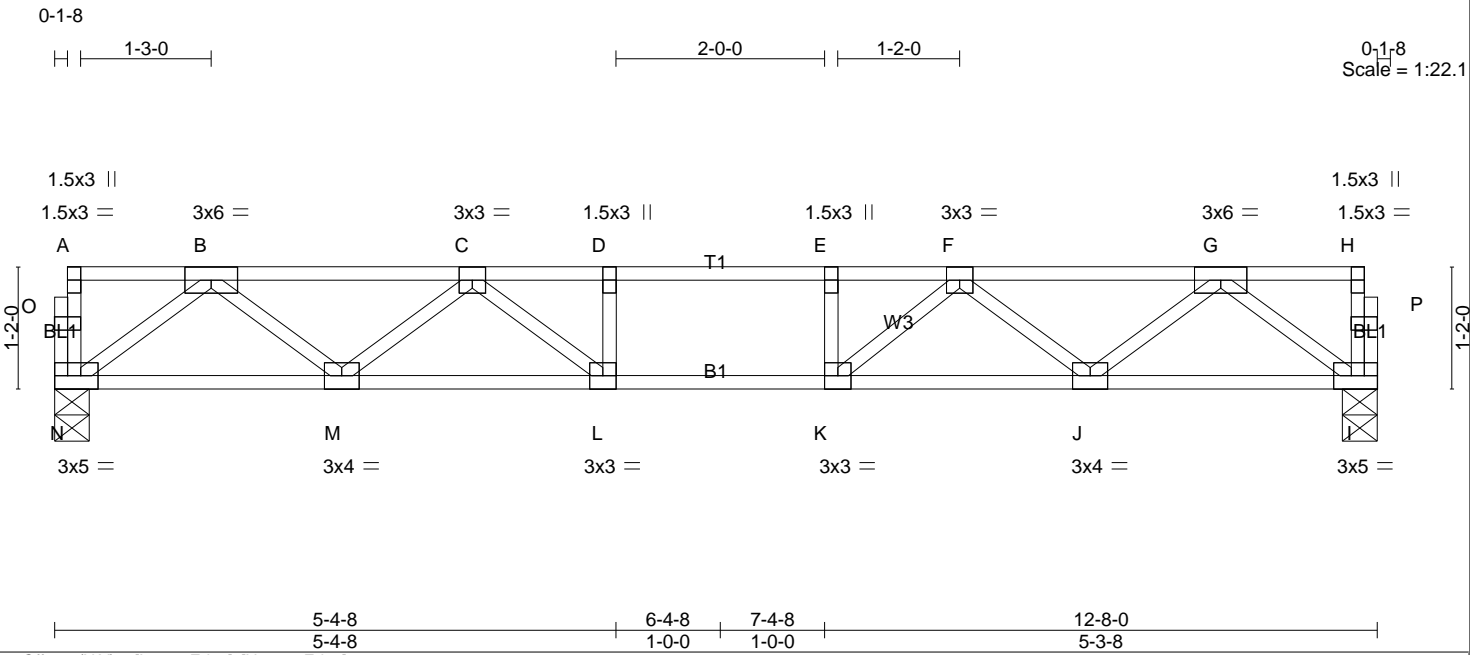


Plate Offsets (X,Y)-- [L:0-2-0,Edge], [N:0-2-0,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.54	Vert(LL) -0.11 L-M >999 480	MT20 244/190
TCDL 20.0	Lumber DOL 1.00	BC 0.74	Vert(CT) -0.16 L-M >951 360	
BCLL 0.0	Rep Stress Incr YES	WB 0.35	Horz(CT) 0.03 I n/a n/a	
BCDL 5.0	Code IRC2015/TPI2014	Matrix-SH		Weight: 63 lb FT = 20%F, 12%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 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) N=800/0-4-0, I=800/0-4-0

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD N-O=-42/0, A-O=-42/0, I-P=-42/0, H-P=-42/0, A-B=-3/0, B-C=-1561/0, C-D=-2357/0, D-E=-2357/0, E-F=-2357/0, F-G=-1559/0, G-H=-3/0  
 BOT CHORD M-N=0/989, L-M=0/2097, K-L=0/2357, J-K=0/2097, I-J=0/989  
 WEBS D-L=-262/0, E-K=-276/0, B-N=-1238/0, B-M=0/744, C-M=697/0, C-L=0/536, G-I=-1238/0, G-J=0/742, F-J=-700/0, F-K=0/544

**NOTES-**  
 1) Unbalanced floor live loads have been considered for this design.  
 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 10-0-0 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

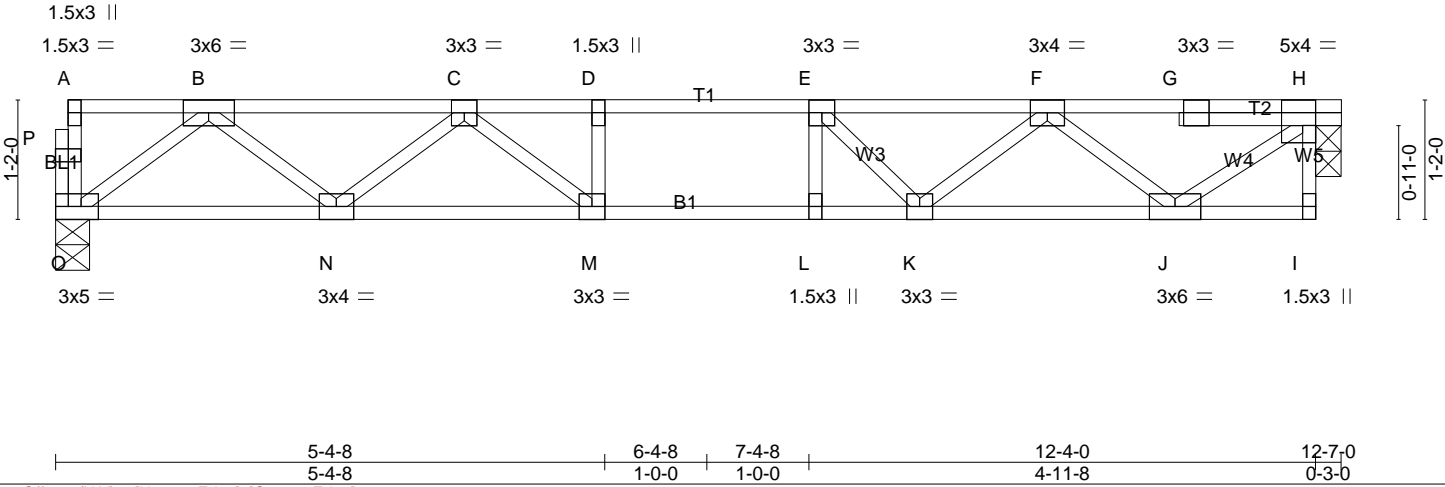
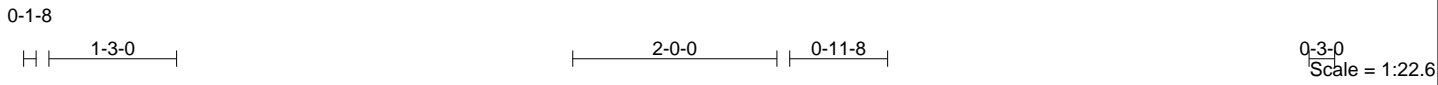


Plate Offsets (X,Y)-- [H:0-1-8,Edge], [O:0-2-0,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.44	Vert(LL) -0.11 M-N >999 480	MT20	244/190
TCDL 20.0	Lumber DOL 1.00	BC 0.84	Vert(CT) -0.16 M-N >927 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.50	Horz(CT) 0.01 H n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-SH			
				Weight: 64 lb	FT = 20%F, 12%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 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) O=782/0-4-0, H=789/0-3-0

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD O-P=-42/0, A-P=-42/0, H-I=0/6, A-B=-3/0, B-C=-1518/0, C-D=-2257/0, D-E=-2257/0, E-F=-1956/0, F-G=-847/0, G-H=-852/0  
 BOT CHORD N-O=0/966, M-N=0/2032, L-M=0/2257, K-L=0/2257, J-K=0/1576, I-J=0/0  
 WEBS D-M=-228/0, E-L=-78/130, B-O=-1209/0, B-N=0/719, C-N=-669/0, C-M=0/493, H-J=0/1056, F-J=-949/0, F-K=0/523, E-K=-545/0

**NOTES-**  
 1) Unbalanced floor live loads have been considered for this design.  
 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 10-0-0 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.  
 5) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

Job <b>19071032F</b>	Truss <b>FT8</b>	Truss Type <b>Floor</b>	Qty <b>8</b>	Ply <b>1</b>	<b>BROOKS CRAFTSMAN FLOORS</b>
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UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, Rob Ferber

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0-1-8



Scale = 1:21.0

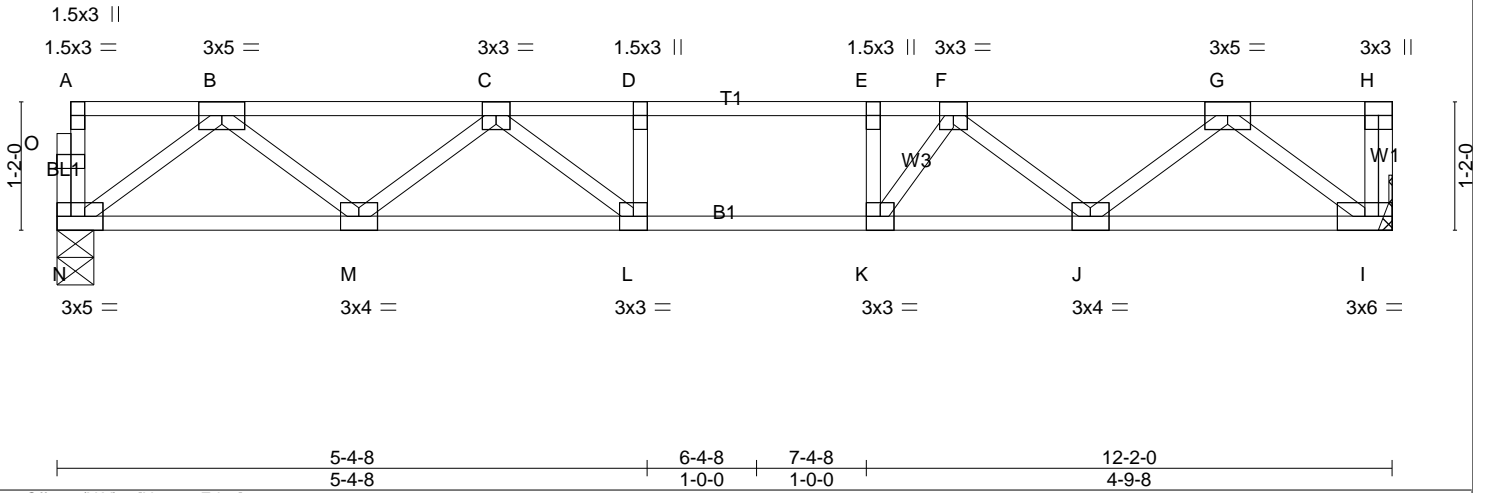


Plate Offsets (X,Y)-- [N:0-2-0,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.60	Vert(LL) -0.10 L-M >999 480	MT20	244/190
TCDL 20.0	Lumber DOL 1.00	BC 0.74	Vert(CT) -0.15 L-M >934 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.33	Horz(CT) 0.03 I n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-SH		Weight: 62 lb	FT = 20%F, 12%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 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) N=767/0-4-0, I=775/Mechanical

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD N-O=-43/0, A-O=-43/0, H-I=-46/0, A-B=-3/0, B-C=-1484/0, C-D=-2165/0, D-E=-2165/0, E-F=-2165/0, F-G=-1475/0, G-H=0/0  
 BOT CHORD M-N=0/947, L-M=0/1976, K-L=0/2165, J-K=0/1987, I-J=0/945  
 WEBS D-L=-227/0, E-K=-352/0, B-N=-1185/0, B-M=0/699, C-M=640/0, C-L=0/452, G-I=-1186/0, G-J=0/689, F-J=-666/0, F-K=0/537

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 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 10-0-0 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) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

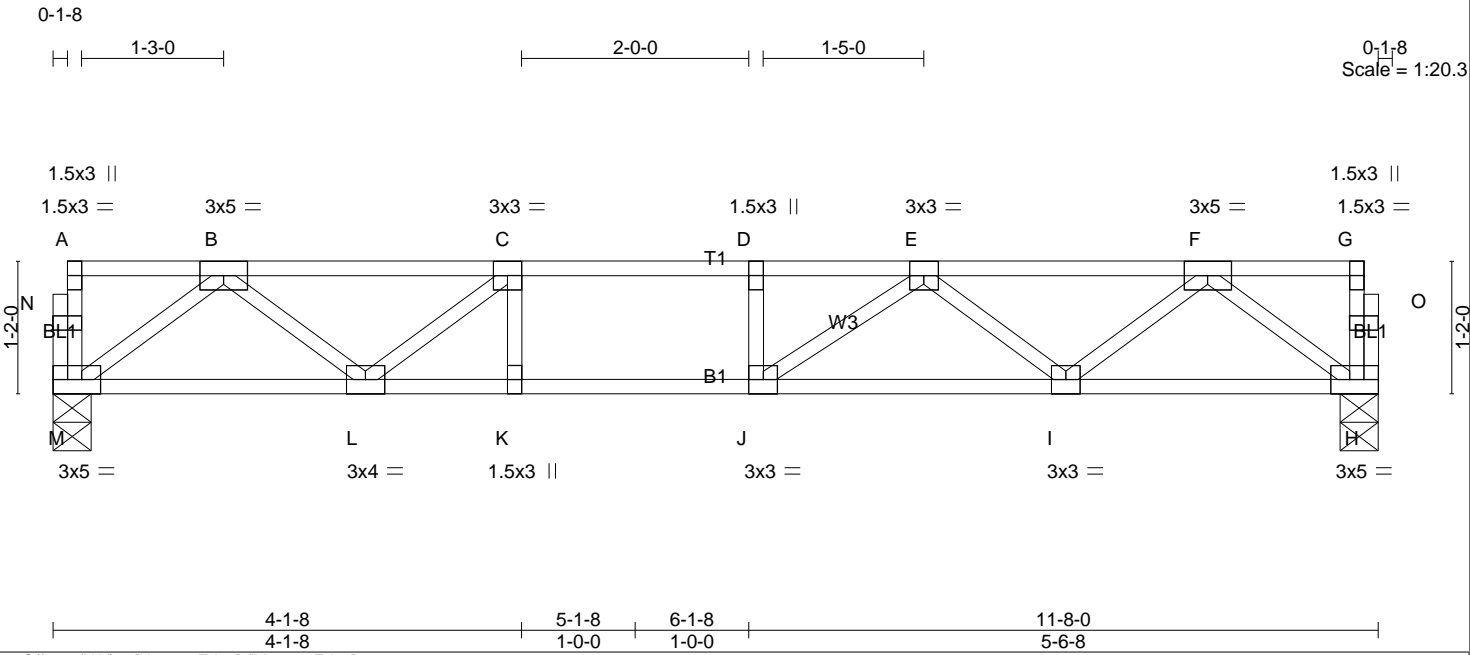


Plate Offsets (X,Y)-- [H:0-2-0,Edge], [M:0-2-0,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.57	Vert(LL) -0.13 I-J >999 480	MT20 244/190
TCDL 20.0	Lumber DOL 1.00	BC 0.96	Vert(CT) -0.19 I-J >723 360	
BCLL 0.0	Rep Stress Incr YES	WB 0.32	Horz(CT) 0.03 H n/a n/a	
BCDL 5.0	Code IRC2015/TPI2014	Matrix-SH		Weight: 58 lb FT = 20%F, 12%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 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

**REACTIONS.** (lb/size) M=735/0-4-0, H=735/0-4-0

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD M-N=-51/0, A-N=-51/0, H-O=-44/0, G-O=-44/0, A-B=-3/0, B-C=-1404/0, C-D=-1968/0, D-E=-1968/0, E-F=-1410/0, F-G=-3/0  
 BOT CHORD L-M=0/886, K-L=0/1968, J-K=0/1968, I-J=0/1856, H-I=0/905  
 WEBS C-K=-17/158, D-J=-167/0, B-M=-1108/0, B-L=0/674, C-L=-738/0, F-H=-1132/0, F-I=0/657, E-I=-582/0, E-J=-30/366

**NOTES-**  
 1) Unbalanced floor live loads have been considered for this design.  
 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 10-0-0 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 <b>19071032F</b>	Truss <b>FT10</b>	Truss Type <b>Floor</b>	Qty <b>8</b>	Ply <b>1</b>	<b>BROOKS CRAFTSMAN FLOORS</b>
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UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, Rob Ferber

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ID:CVK1gr7QSWTTIHCrKHDQBBuy5p?F-aJC94VkkCul5fzlzjiekQ\_JiYxv68?mNQYibQ7yvVxO

0-1-8

0-8-10



Scale = 1:49.0

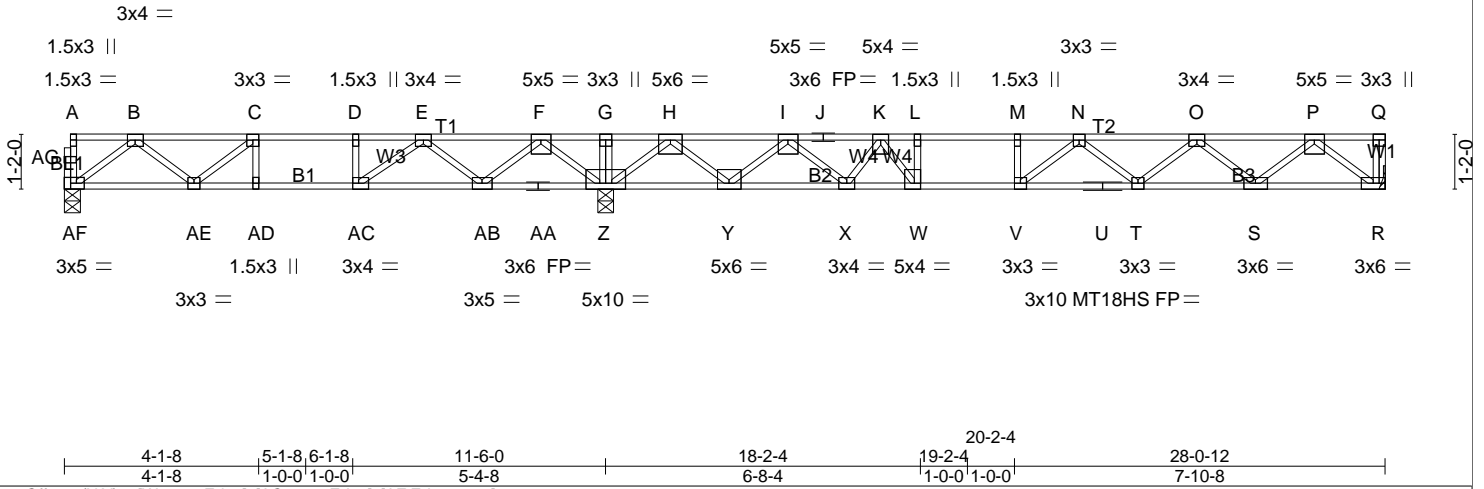


Plate Offsets (X,Y)-- [W:0-1-8,Edge], [AC:0-1-8,Edge], [AF:Edge,0-1-8]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.67	Vert(LL) -0.20 T-V >973 480	MT20	244/190
TCDL 20.0	Lumber DOL 1.00	BC 0.66	Vert(CT) -0.33 T-V >600 360	MT18HS	244/190
BCLL 0.0	Rep Stress Incr YES	WB 0.66	Horz(CT) 0.04 R n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-SH			Weight: 139 lb FT = 20%F, 12%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP SS(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP SS(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (lb/size) AF=530/0-4-0, Z=2149/0-4-0, R=929/Mechanical  
Max GravAF=614(LC 3), Z=2149(LC 1), R=956(LC 4)

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD AF-AG=-36/2, A-AG=-36/2, Q-R=50/0, A-B=-2/0, B-C=-1094/0, C-D=-1390/26, D-E=-1390/26, E-F=-397/838, F-G=0/2270, G-H=0/2270, H-I=-739/216, I-J=-2345/0, J-K=-2345/0, K-L=-3217/0, L-M=-3217/0, M-N=-3217/0, N-O=-3044/0, O-P=-1936/0, P-Q=0/0  
BOT CHORD AE-AF=0/752, AD-AE=-26/1390, AC-AD=-26/1390, AB-AC=-450/1006, AA-AB=-1210/0, Z-AA=-1210/0, Y-Z=-778/0, X-Y=0/1726, W-X=0/2741, V-W=0/3217, U-V=0/3329, T-U=0/3329, S-T=0/2675, R-S=0/1177  
WEBS C-AD=-184/0, D-AC=-326/0, L-W=-612/0, M-V=-108/109, G-Z=-126/0, B-AF=-940/0, B-AE=-34/446, C-AE=-378/194, F-Z=-1418/0, F-AB=0/923, E-AB=-947/0, E-AC=0/834, H-Z=-1872/0, H-Y=0/1386, I-Y=-1337/0, I-X=0/854, K-X=-751/0, P-R=-1477/0, P-S=0/988, O-S=-962/0, O-T=0/480, N-T=-371/0, N-V=-415/159, K-W=0/1064

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) Bearing at joint(s) AF 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 10-0-0 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

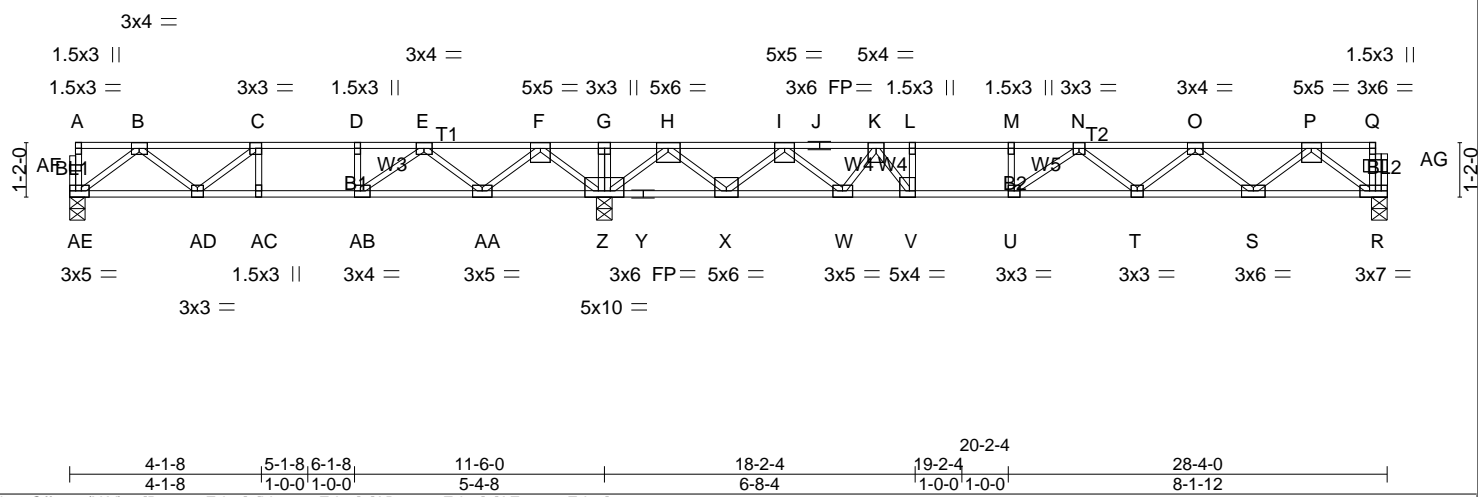


Plate Offsets (X,Y)-- [R:0-2-8,Edge], [V:0-1-8,Edge], [AB:0-1-8,Edge], [AE:0-2-0,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.71	Vert(LL) -0.22 T-U >916 480	MT20	244/190
TCDL 20.0	Lumber DOL 1.00	BC 0.69	Vert(CT) -0.35 T-U >564 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.67	Horz(CT) 0.04 R n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-SH			Weight: 141 lb FT = 20%F, 12%E

**LUMBER-**  
 TOP CHORD 2x4 SP SS(flat)  
 BOT CHORD 2x4 SP SS(flat)  
 WEBS 2x4 SP No.3(flat)

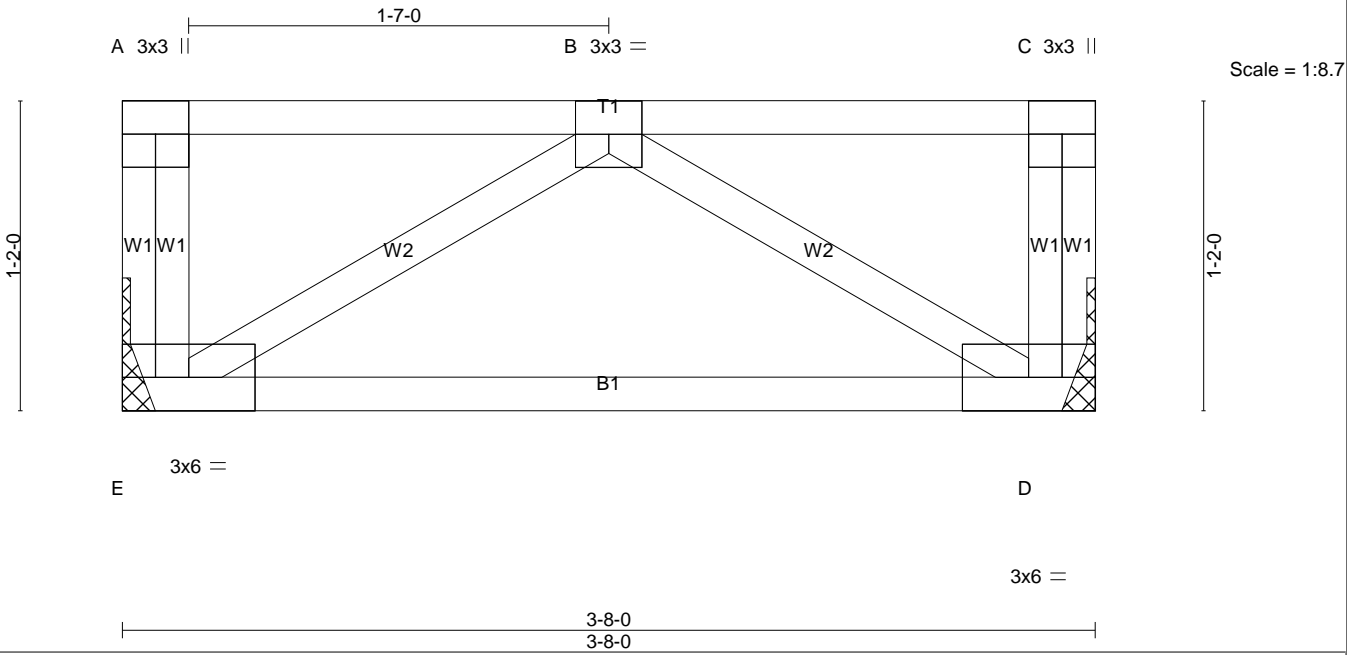
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) AE=527/0-4-0, Z=2166/0-4-0, R=927/0-4-0  
 Max GravAE=613(LC 3), Z=2166(LC 1), R=954(LC 4)

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD AE-AF=-36/3, A-AF=-36/3, R-AG=-46/0, Q-AG=-41/0, A-B=-2/0, B-C=-1092/0, C-D=-1386/39, D-E=-1386/39, E-F=-390/862, F-G=0/2298, G-H=0/2298, H-I=-744/212, I-J=-2381/0, J-K=-2381/0, K-L=-3293/0, L-M=-3293/0, M-N=-3293/0, N-O=-3128/0, O-P=-2004/0, P-Q=-5/0  
 BOT CHORD AD-AE=0/751, AC-AD=-39/1386, AB-AC=-39/1386, AA-AB=-470/1001, Z-AA=-1236/0, Y-Z=-788/0, X-Y=-788/0, W-X=0/1747, V-W=0/2790, U-V=0/3293, T-U=0/3420, S-T=0/2750, R-S=0/1239  
 WEBS C-AC=-187/0, D-AB=-329/0, L-V=-633/0, M-U=-104/97, G-Z=-126/0, B-AE=-939/0, B-AD=-39/445, C-AD=-375/202, F-Z=-1422/0, F-AA=0/927, E-AA=-951/0, H-Z=-1894/0, H-X=0/1408, I-X=-1357/0, I-W=0/872, P-R=-1523/0, P-S=0/996, O-S=-972/0, O-T=0/492, N-T=-379/0, E-AB=0/842, K-W=-774/0, K-V=0/1106, N-U=-429/159

**NOTES-**  
 1) Unbalanced floor live loads have been considered for this design.  
 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 10-0-0 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) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.21	Vert(LL) 0.00 E **** 480	MT20 244/190
TCDL 20.0	Lumber DOL 1.00	BC 0.16	Vert(CT) -0.02 D-E >999 360	
BCLL 0.0	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00 D n/a n/a	
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P		Weight: 22 lb FT = 20%F, 12%E

<b>LUMBER-</b> TOP CHORD 2x4 SP No.2(flat) BOT CHORD 2x4 SP No.2(flat) WEBS 2x4 SP No.3(flat)	<b>BRACING-</b> TOP CHORD Structural wood sheathing directly applied or 3-8-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
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**REACTIONS.** (lb/size) E=222/Mechanical, D=222/Mechanical

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD A-E=-78/0, C-D=-78/0, A-B=0/0, B-C=0/0  
 BOT CHORD D-E=0/208  
 WEBS B-E=-244/0, B-D=-244/0

**NOTES-**  
 1) 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.  
 2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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 19071032F	Truss KW1	Truss Type Floor Supported Gable	Qty 1	Ply 1	BROOKS CRAFTSMAN FLOORS
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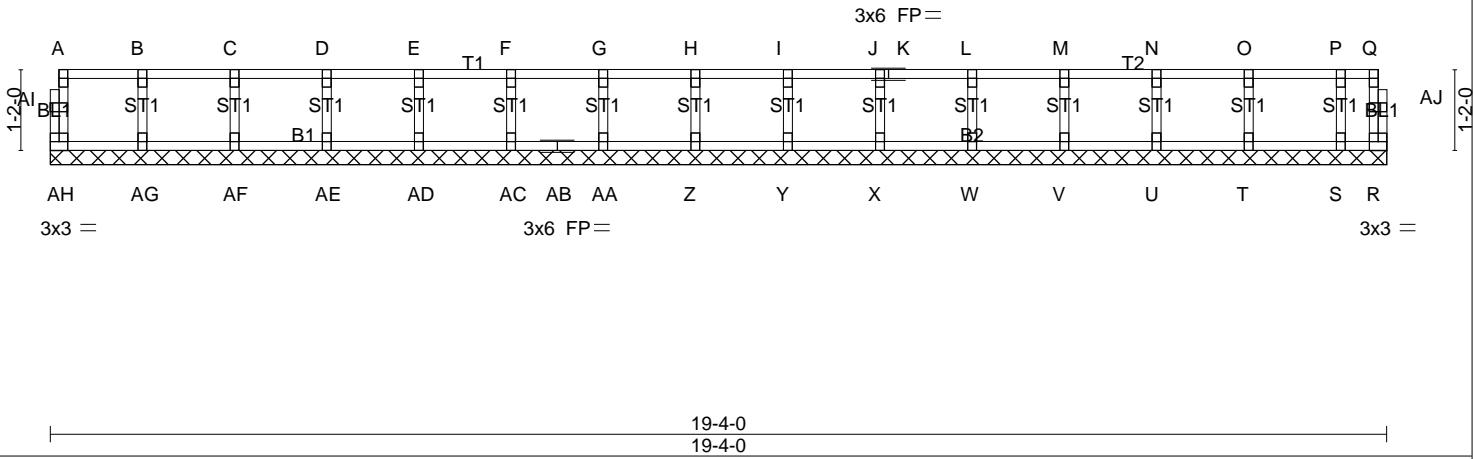
8.310 s May 22 2019 MiTek Industries, Inc. Mon Jul 22 13:47:24 2019 Page 1

ID:CVK1gr7QSWTTIHCrKHDQBBuy5p?F-if7pYup7Y2e5?1K3tgHNDS62nmSIHKEO18vTADyvVxH

0-1-8

0-1-8

Scale = 1:33.3



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	2-0-0	TC 0.10	in (loc) l/defl L/d	MT20	244/180
TCDL 20.0	Plate Grip DOL 1.00	BC 0.02	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.00	WB 0.04	Vert(CT) n/a - n/a 999		
BCDL 5.0	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 R n/a n/a		
	Code IRC2015/TPI2014			Weight: 81 lb	FT = 20%F, 12%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** (lb/size) AH=61/19-4-0, R=18/19-4-0, AG=175/19-4-0, AF=173/19-4-0, AE=173/19-4-0, AD=173/19-4-0, AC=173/19-4-0, AA=173/19-4-0, Z=173/19-4-0, Y=173/19-4-0, X=173/19-4-0, W=173/19-4-0, V=174/19-4-0, U=171/19-4-0, T=181/19-4-0, S=125/19-4-0

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD AH-AI=-58/0, A-AI=-58/0, R-AJ=-10/0, Q-AJ=-9/0, A-B=-7/0, B-C=-7/0, C-D=-7/0, D-E=-7/0, E-F=-7/0, F-G=-7/0, G-H=-7/0, H-I=-7/0, I-J=-7/0, J-K=-7/0, K-L=-7/0, L-M=-7/0, M-N=-7/0, N-O=-7/0, O-P=-7/0, P-Q=-7/0  
 BOT CHORD AG-AH=0/7, AF-AG=0/7, AE-AF=0/7, AD-AE=0/7, AC-AD=0/7, AB-AC=0/7, AA-AB=0/7, Z-AA=0/7, Y-Z=0/7, X-Y=0/7, W-X=0/7, V-W=0/7, U-V=0/7, T-U=0/7, S-T=0/7, R-S=0/7  
 WEBS B-AG=-159/0, C-AF=-161/0, D-AE=-160/0, E-AD=-160/0, F-AC=-160/0, G-AA=-160/0, H-Z=-160/0, I-Y=-160/0, J-X=-160/0, L-W=-160/0, M-V=-160/0, N-U=-158/0, O-T=-166/0, P-S=-123/0

- 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 10-0-0 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 19071032F	Truss KW3	Truss Type Floor Supported Gable	Qty 1	Ply 1	BROOKS CRAFTSMAN FLOORS
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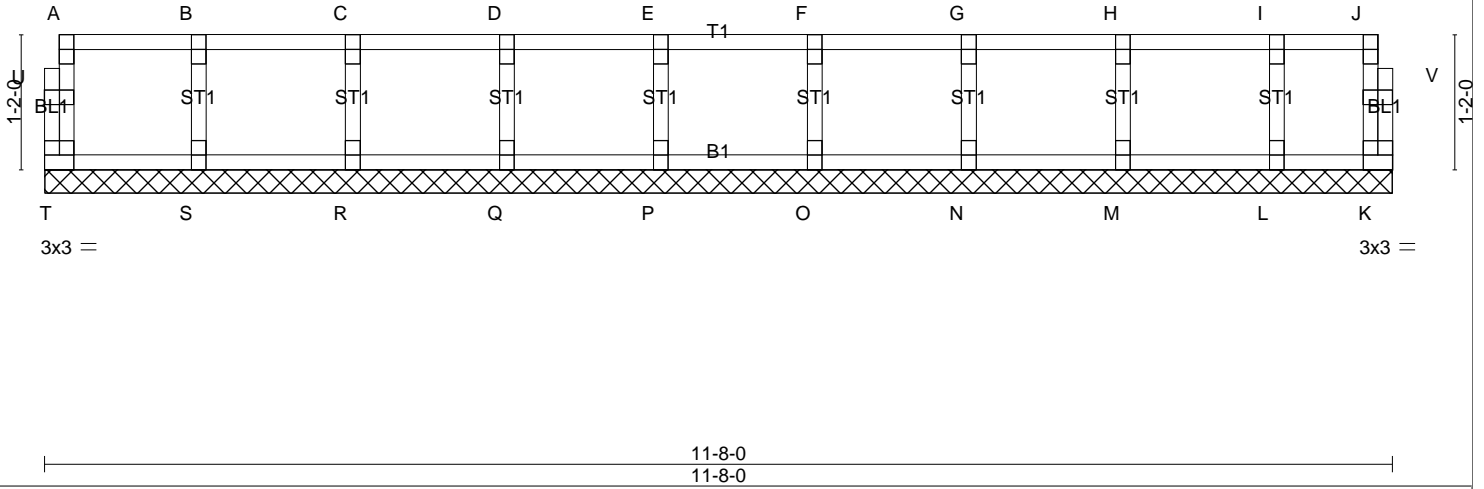
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0<sub>1</sub>1<sub>r</sub>8

0<sub>1</sub>1<sub>r</sub>8

Scale = 1:19.9



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	2-0-0	TC 0.10	in (loc) l/def L/d	MT20	244/190
TCDL 20.0	Plate Grip DOL 1.00	BC 0.02	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.00	WB 0.04	Vert(CT) n/a - n/a 999		
BCDL 5.0	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 K n/a n/a		
	Code IRC2015/TPI2014			Weight: 50 lb	FT = 20%F, 12%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** (lb/size) T=63/11-8-0, K=44/11-8-0, S=173/11-8-0, R=174/11-8-0, Q=173/11-8-0, P=173/11-8-0, O=174/11-8-0, N=172/11-8-0, M=180/11-8-0, L=144/11-8-0

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD T-U=-59/0, A-U=-59/0, K-V=-38/0, J-V=-37/0, A-B=-9/0, B-C=-9/0, C-D=-9/0, D-E=-9/0, E-F=-9/0, F-G=-9/0, G-H=-9/0, H-I=-9/0, I-J=-9/0  
BOT CHORD S-T=0/9, R-S=0/9, Q-R=0/9, P-Q=0/9, O-P=0/9, N-O=0/9, M-N=0/9, L-M=0/9, K-L=0/9  
WEBS B-S=-158/0, C-R=-161/0, D-Q=-160/0, E-P=-160/0, F-O=-160/0, G-N=-159/0, H-M=-165/0, I-L=-136/0

- 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 10-0-0 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 19071032F	Truss KW4	Truss Type Floor Supported Gable	Qty 1	Ply 1	BROOKS CRAFTSMAN FLOORS
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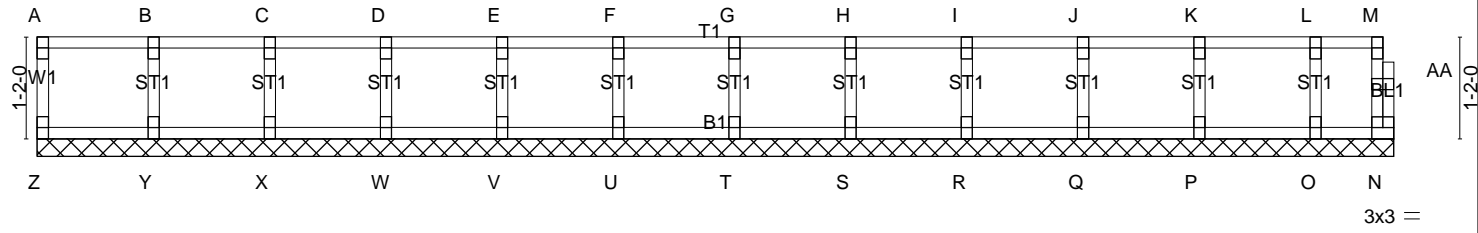
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ID:CVK1gr7QSWTTIHCrKHDQBuy5p?F-HEpxAvs?rz0gsV3eYoq4q5kZ0zTRUgyrk677nXyvvVx6

0-1-8

Scale = 1:26.4



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES GRIP</b>
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 0.02	Vert(CT) n/a - n/a 999	
BCLL 0.0	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00 N n/a n/a	
BCDL 5.0	Code IRC2015/TPI2014	Matrix-R		Weight: 65 lb FT = 20%F, 12%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** (lb/size) Z=73/15-6-12, N=36/15-6-12, Y=181/15-6-12, X=172/15-6-12, W=174/15-6-12, V=173/15-6-12, U=173/15-6-12, T=173/15-6-12, S=173/15-6-12, R=174/15-6-12, Q=172/15-6-12, P=180/15-6-12, O=138/15-6-12

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD A-Z=-67/0, N-AA=-29/0, M-AA=-29/0, A-B=-8/0, B-C=-8/0, C-D=-8/0, D-E=-8/0, E-F=-8/0, F-G=-8/0, G-H=-8/0, H-I=-8/0, I-J=-8/0, J-K=-8/0, K-L=-8/0, L-M=-8/0  
 BOT CHORD Y-Z=0/8, X-Y=0/8, W-X=0/8, V-W=0/8, U-V=0/8, T-U=0/8, S-T=0/8, R-S=0/8, Q-R=0/8, P-Q=0/8, O-P=0/8, N-O=0/8  
 WEBS B-Y=-167/0, C-X=-158/0, D-W=-160/0, E-V=-160/0, F-U=-160/0, G-T=-160/0, H-S=-160/0, I-R=-160/0, J-Q=-159/0, K-P=-166/0, L-O=-132/0

- 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 10-0-0 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