

Truss Connector Total List		
Qty	Product	Manuf
47	H2.5A	
6	THA29	Simpson

<b>THIS IS A TRUSS PLACEMENT DIAGRAM ONLY</b>		<b>SHOP DRAWING APPROVAL</b>	
<p>These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179.</p>		<p>THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND VOIDS ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS. REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.</p>	
REVIEWED BY:		APPROVED BY:	
DATE:		DATE:	
Job #: Q2200860	Plan: Wisteria B	 <b>Carolina Structural Systems</b> Roof Trusses • Floor Trusses • EWP <b>Carolina Structural Systems</b> P.O. Box 157, Ether, NC 27247 225 Frame Shop Rd., Star, NC 27356 910-491-9004	
Customer: Garman Homes	Date: 02/06/2022		
Site Address:	Sales Rep:		
City, ST, ZIP:	Designer:		

Job Q2200860	Truss A01	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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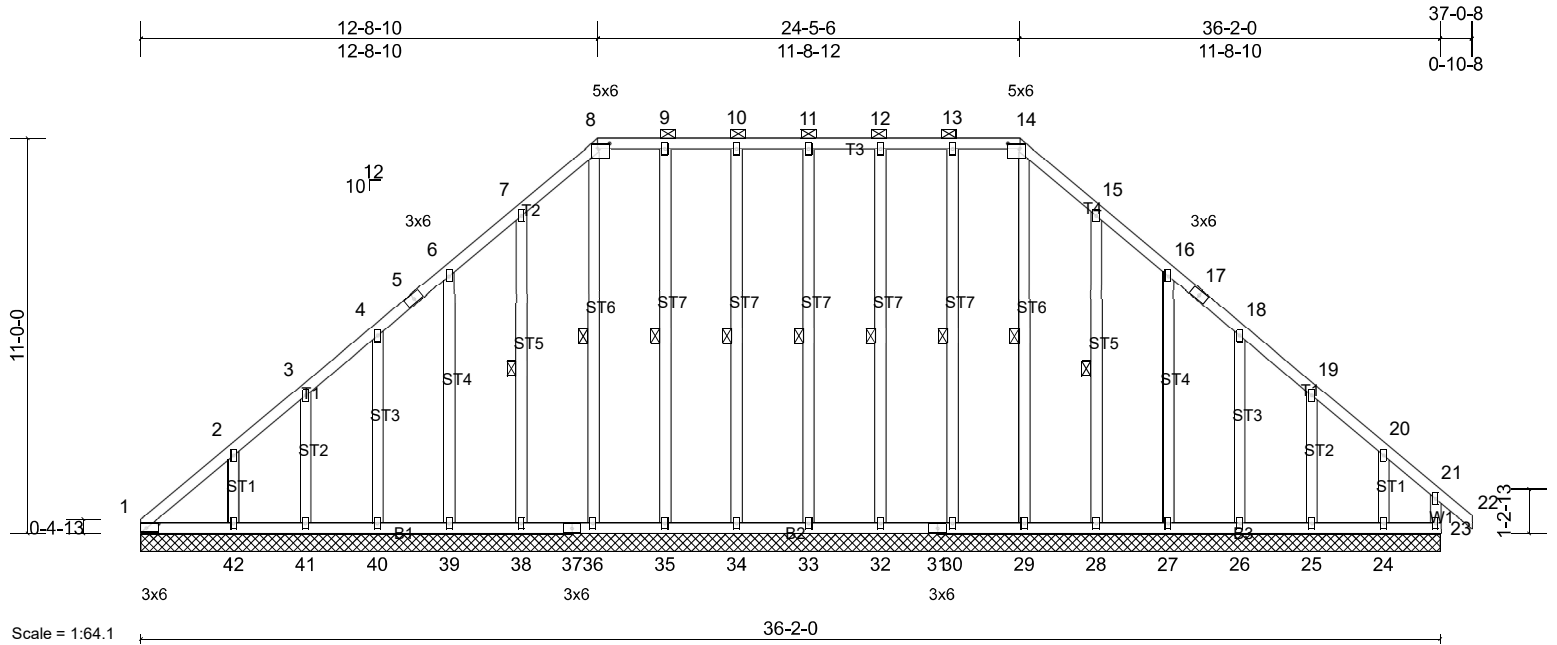


Plate Offsets (X, Y): [1:0-4-1,0-1-8], [8:0-4-0,0-1-12], [14:0-4-0,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	23	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS								
										Weight: 310 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, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-14.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 11-33, 10-34, 9-35, 8-36, 7-38, 12-32, 13-30, 14-29, 15-28

**REACTIONS** All bearings 36-2-0.

(lb) - Max Horiz 1=222 (LC 11), 43=222 (LC 11)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 1, 24, 25, 26, 27, 28, 32, 33, 34, 38, 39, 40, 41, 42, 43  
 Max Grav All reactions 250 (lb) or less at joint (s) 1, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43

**FORCES**

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

TOP CHORD 7-8=-249/285, 14-15=-249/285

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=36ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-0 to 3-7-6, Exterior (2) 3-7-6 to 12-8-10, Corner (3) 12-8-10 to 16-7-0, Exterior (2) 16-7-0 to 24-5-6, Corner (3) 24-5-6 to 28-0-12, Exterior (2) 28-0-12 to 37-0-8 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=1.60
- 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) Provide adequate drainage to prevent water ponding.

- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 34, 38, 39, 40, 41, 42, 32, 28, 27, 26, 25, 24, 1.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 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

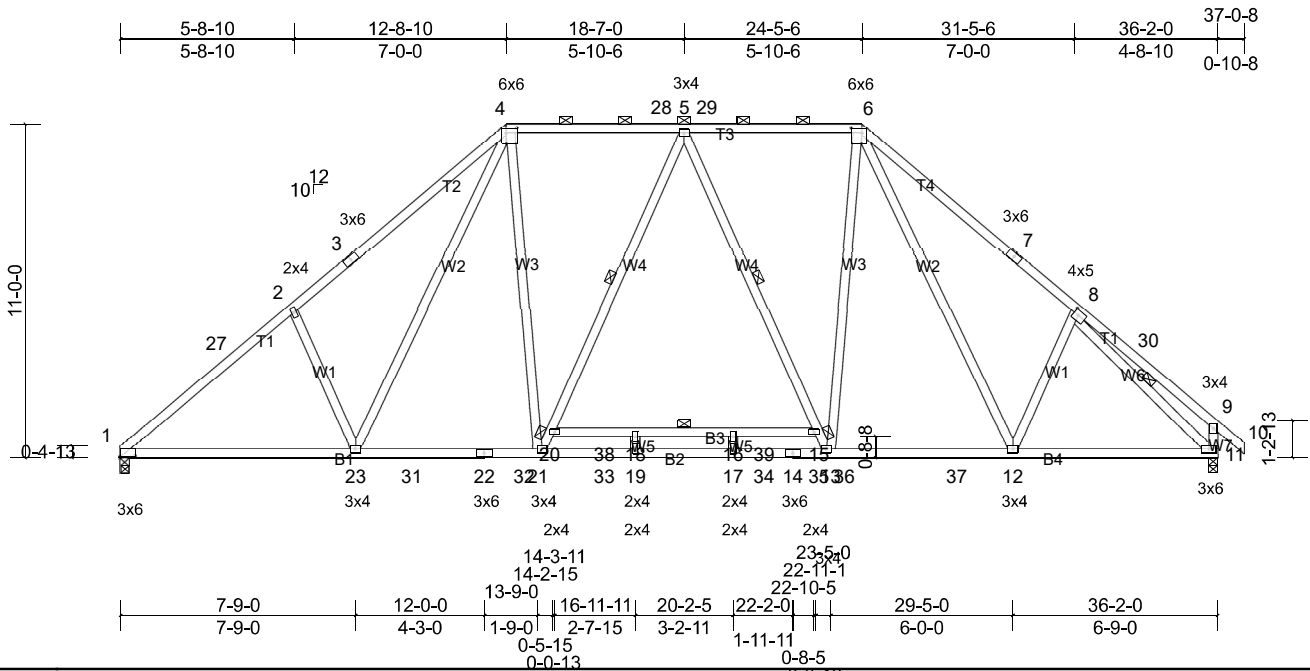
Job Q2200860	Truss A02	Truss Type Piggyback Base	Qty 6	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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Scale = 1:76

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.39	17-19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.69	17-19	>622	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							
Weight: 259 lb											FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2 \*Except\* B4,B2:2x4 SP No.1
- WEBS 2x4 SP No.3 \*Except\* W7:2x4 SP No.2

**BRACING**

- TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-7-5 max.): 4-6.
- BOT CHORD Rigid ceiling directly applied. Except: 6-0-0 oc bracing: 15-20
- WEBS 1 Row at midpt 5-15, 8-11, 5-20

- REACTIONS** (lb/size) 1=1526/0-3-8, (min. 0-1-15), 11=1594/0-3-8, (min. 0-2-1)
- Max Horiz 1=223 (LC 11)
- Max Grav 1=1662 (LC 20), 11=1734 (LC 21)

**FORCES**

- (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
- TOP CHORD 1-27=-2314/73, 2-27=-2177/97, 2-3=-2265/155, 3-4=-2146/203, 4-28=-1501/153, 5-28=-1501/153, 5-29=-1453/153, 6-29=-1453/153, 6-7=-1892/192, 7-8=-2008/153, 9-30=-319/42, 9-11=-328/93
- BOT CHORD 1-23=-30/1890, 23-31=0/1519, 22-31=0/1519, 22-32=0/1519, 21-32=0/1519, 21-33=0/1640, 19-33=0/1640, 17-19=0/1640, 17-34=0/1640, 14-34=0/1640, 14-35=0/1640, 13-35=0/1640, 13-36=0/1402, 36-37=0/1402, 12-37=0/1402, 11-12=0/1422
- WEBS 5-15=-342/72, 13-15=-411/32, 6-13=0/798, 6-12=-117/287, 8-11=-1819/45, 20-21=-325/46, 5-20=-255/85, 4-21=0/700, 4-23=-121/521, 2-23=-382/193

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=36ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-7-6, Interior (1) 3-7-6 to 12-8-10, Exterior (2) 12-8-10 to 17-10-0, Interior (1) 17-10-0 to 24-5-6, Exterior (2) 24-5-6 to 29-6-12, Interior (1) 29-6-12 to 37-0-8 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=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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, with BCDL = 10.0psf.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) 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 Q2200860	Truss A03	Truss Type Piggyback Base	Qty 6	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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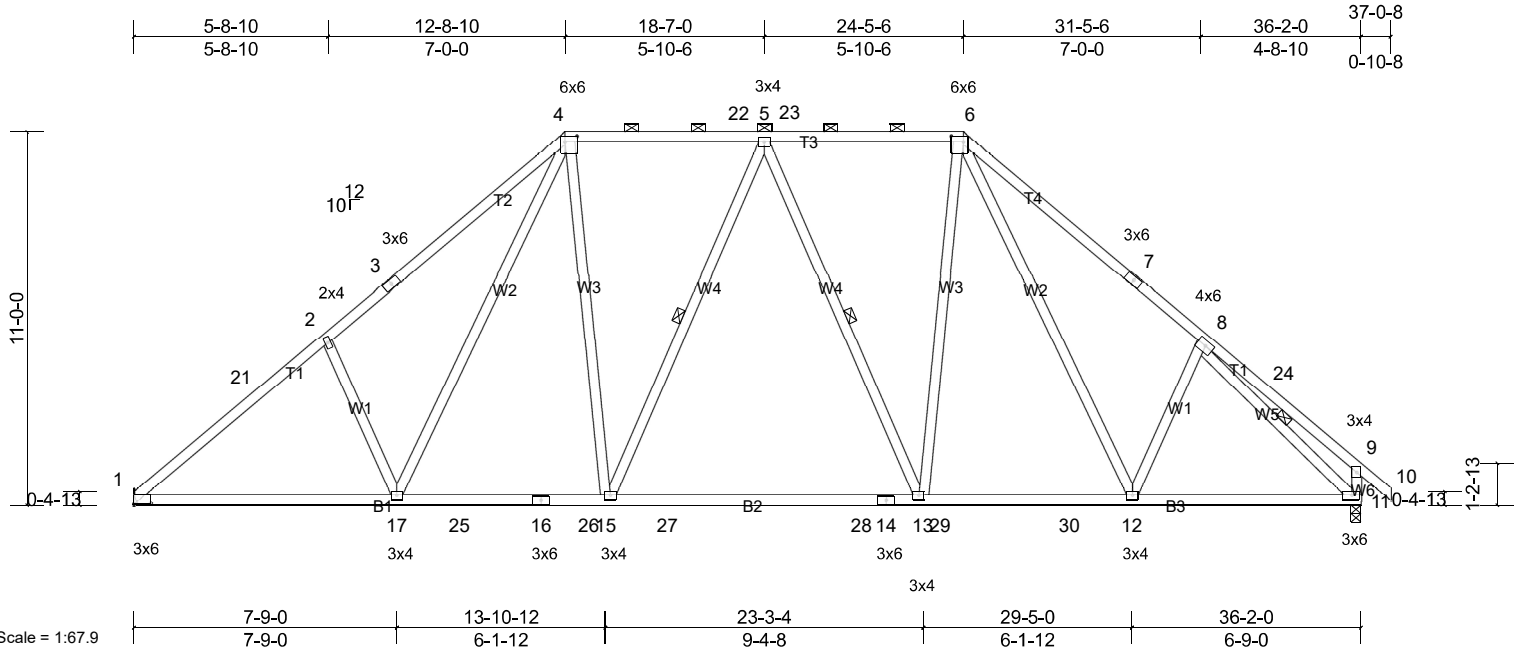


Plate Offsets (X, Y): [1:0-6-0,0-0-6], [4:0-4-4,0-2-0], [6:0-4-4,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.27	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.49	13-15	>888	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							
										Weight: 245 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* W6:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-11-14 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 8-11, 5-13, 5-15

**REACTIONS** (lb/size) 1=1440/ Mechanical, (min. 0-1-8), 11=1503/0-3-8, (min. 0-1-14)  
Max Horiz 1=223 (LC 11)  
Max Uplift 1=-10 (LC 12), 11=-36 (LC 12)  
Max Grav 1=1509 (LC 20), 11=1571 (LC 21)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-21=-2083/151, 2-21=-1946/175, 2-3=-2034/233, 3-4=-1915/281, 4-22=-1299/221, 5-22=-1299/221, 5-23=-1255/220, 6-23=-1255/220, 6-7=-1684/262, 7-8=-1801/223, 9-24=-285/50, 9-11=-305/99  
BOT CHORD 1-17=-65/1712, 17-25=0/1329, 16-25=0/1329, 16-26=0/1329, 15-26=0/1329, 15-27=0/1391, 27-28=0/1391, 14-28=0/1391, 13-14=0/1391, 13-29=0/1216, 29-30=0/1216, 12-30=0/1216, 11-12=-34/1273  
WEBS 8-11=-1638/109, 5-13=-339/73, 6-13=0/608, 6-12=-98/320, 5-15=-257/83, 4-15=0/522, 4-17=-112/553, 2-17=-382/194

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=36ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-7-6, Interior (1) 3-7-6 to 12-8-10, Exterior (2) 12-8-10 to 17-10-0, Interior (1) 17-10-0 to 24-5-6, Exterior (2) 24-5-6 to 29-6-12, Interior (1) 29-6-12 to 37-0-8 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=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 36 lb uplift at joint 11.
- 8) 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.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.

**LOAD CASE(S)** Standard

Job Q2200860	Truss A04	Truss Type Piggyback Base	Qty 4	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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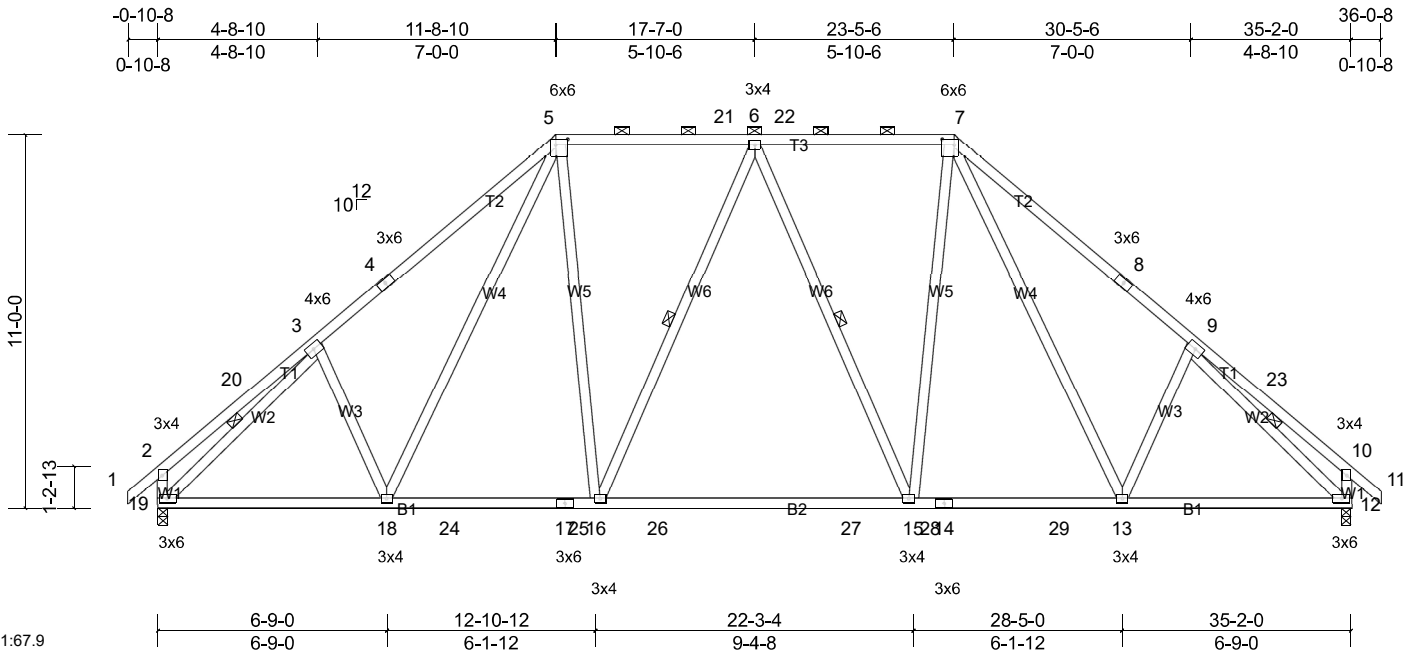


Plate Offsets (X, Y): [5:0-4-4,0-2-0], [7:0-4-4,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	-0.26	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.47	15-16	>890	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS								
										Weight: 254 lb	FT = 20%	

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* W1:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-2-4 max.): 5-7.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 6-15, 9-12, 6-16, 3-19

**REACTIONS** (lb/size) 12=1456/0-3-8, (min. 0-1-13), 19=1456/0-3-8, (min. 0-1-13)  
Max Horiz 19=-231 (LC 10)  
Max Uplift 12=-36 (LC 12), 19=-36 (LC 12)  
Max Grav 12=1523 (LC 21), 19=1523 (LC 20)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-20=-279/49, 3-4=-1739/218, 4-5=-1622/257, 5-21=-1199/216, 6-21=-1199/216, 6-22=-1199/216, 7-22=-1199/216, 7-8=-1623/257, 8-9=-1739/218, 10-23=-279/49, 10-12=-301/98, 2-19=-302/98  
BOT CHORD 18-19=-53/1393, 18-24=0/1223, 17-24=0/1223, 17-25=0/1223, 16-25=0/1223, 16-26=0/1311, 26-27=0/1311, 15-27=0/1311, 15-28=0/1163, 14-28=0/1163, 14-29=0/1163, 13-29=0/1163, 12-13=-32/1228  
WEBS 6-15=-291/77, 7-15=0/562, 7-13=-98/327, 9-12=-1580/105, 6-16=-291/77, 5-16=0/562, 5-18=-98/327, 3-19=-1579/104

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-1-8 to 3-7-11, Interior (1) 3-7-11 to 12-8-10, Exterior (2) 12-8-10 to 17-8-5, Interior (1) 17-8-5 to 24-5-6, Exterior (2) 24-5-6 to 29-5-1, Interior (1) 29-5-1 to 37-0-8 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=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 12 and 36 lb uplift at joint 19.
- 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.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) 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

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.

Job Q2200860	Truss A05	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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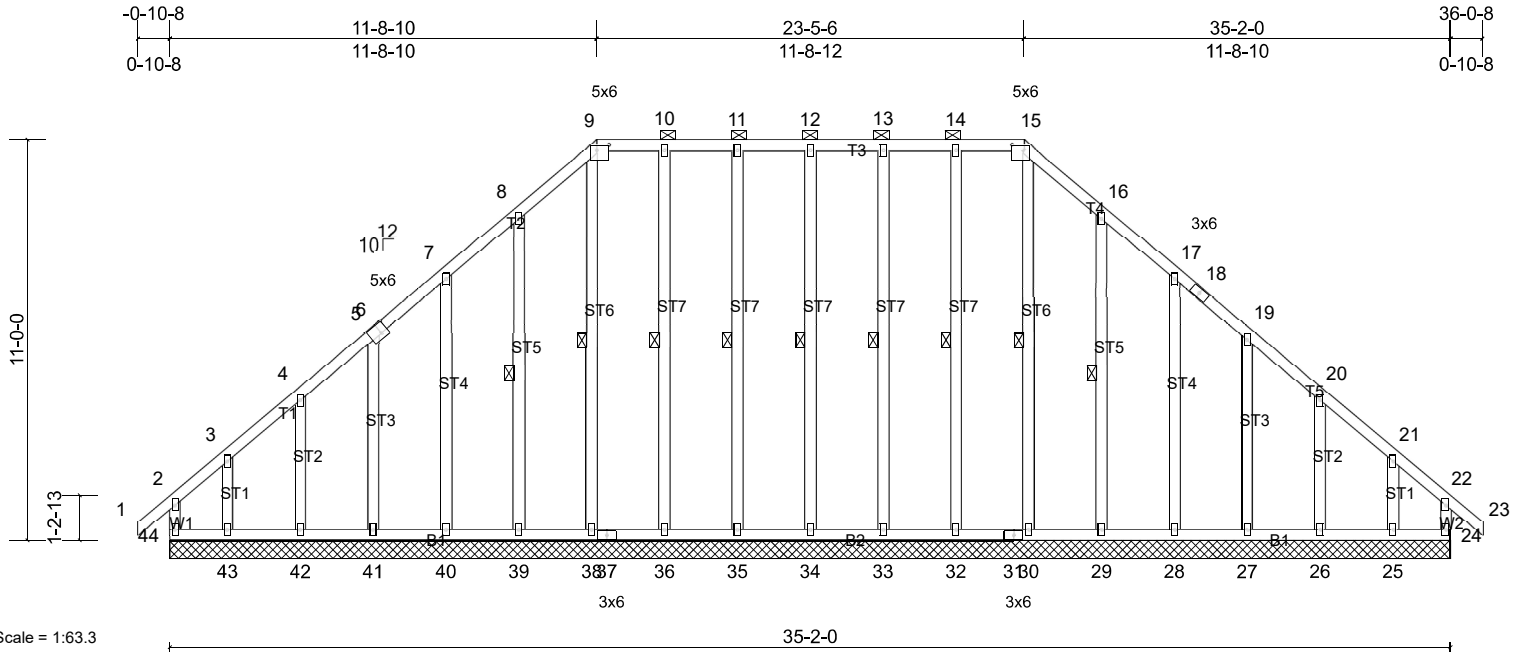


Plate Offsets (X, Y): [6:0-2-4,0-3-4], [9:0-4-0,0-1-12], [15:0-4-0,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.01	24	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 309 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* W1:2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-15.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 12-34, 11-35, 10-36, 9-38, 8-39, 13-33, 14-32, 15-30, 16-29

**REACTIONS** All bearings 35-2-0.  
(lb) - Max Horiz 44=-231 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) 24, 25, 26, 27, 28, 29, 33, 35, 39, 40, 41, 42, 43 except 44=-130 (LC 10)  
Max Grav All reactions 250 (lb) or less at joint (s) 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 8-9=-258/307, 9-10=-210/258, 10-11=-210/258, 11-12=-210/258, 12-13=-210/258, 13-14=-210/258, 14-15=-210/258, 15-16=-258/307

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-1-8 to 3-7-11, Exterior (2) 3-7-11 to 12-8-10, Corner (3) 12-8-10 to 16-2-13, Exterior (2) 16-2-13 to 24-5-6, Corner (3) 24-5-6 to 27-11-9, Exterior (2) 27-11-9 to 37-0-8 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=1.60

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) Provide adequate drainage to prevent water ponding.  
5) All plates are 2x4 MT20 unless otherwise indicated.  
6) Gable requires continuous bottom chord bearing.  
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).  
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 24, 35, 39, 40, 41, 42, 43, 33, 29, 28, 27, 26, 25 except (jt=lb) 44=130.  
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.  
13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.  
14) 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

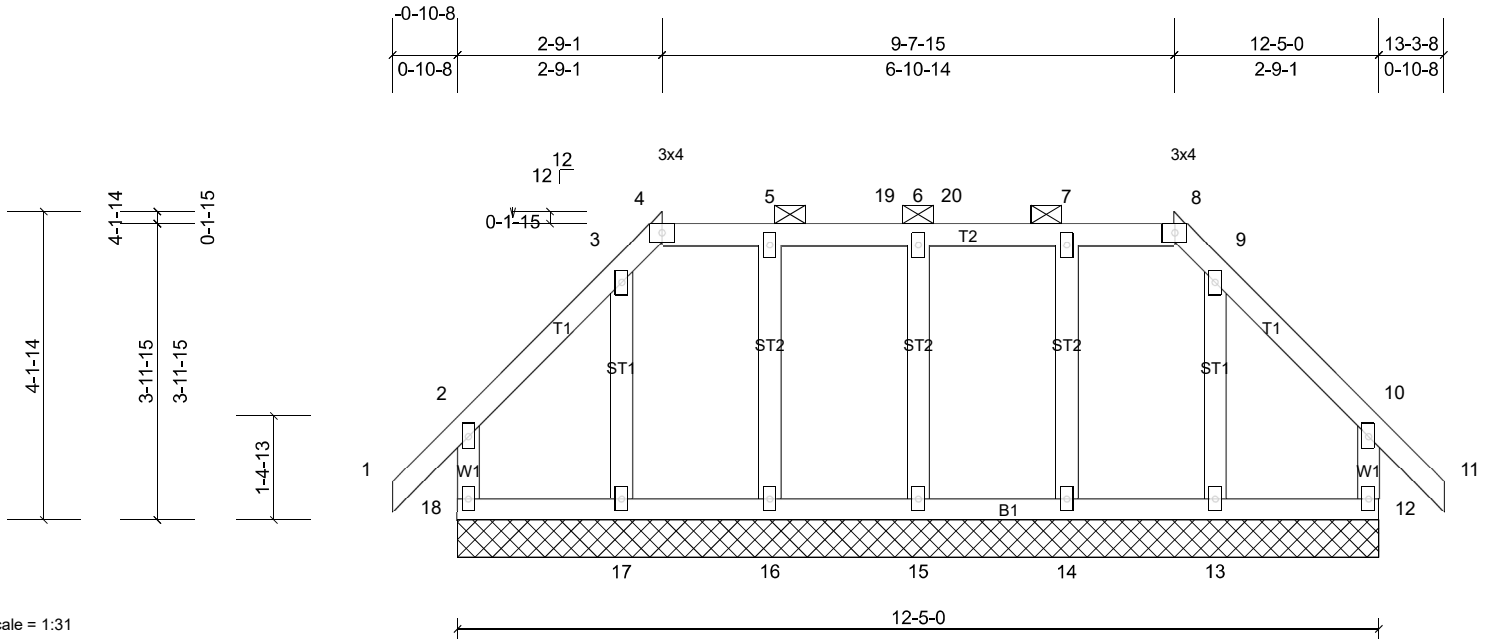
Job Q2200860	Truss B01	Truss Type Hip Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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Scale = 1:31

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	12	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 72 lb FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2  
 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.): 4-8.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** All bearings 12-5-0.

(lb) - Max Horiz 18=101 (LC 11)  
 Max Uplift All uplift 100 (lb) or less at joint(s)  
 12, 13, 14, 15, 16, 17, 18  
 Max Grav All reactions 250 (lb) or less at joint  
 (s) 12, 13, 14, 15, 16, 17, 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-10-8 to 2-2-8, Exterior (2) 2-2-8 to 2-9-1, Corner (3) 2-9-1 to 5-9-1, Exterior (2) 5-9-1 to 9-7-15, Corner (3) 9-7-15 to 12-7-15, Exterior (2) 12-7-15 to 13-3-8 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=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- 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 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 18, 12, 15, 16, 17, 14, 13.

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.

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



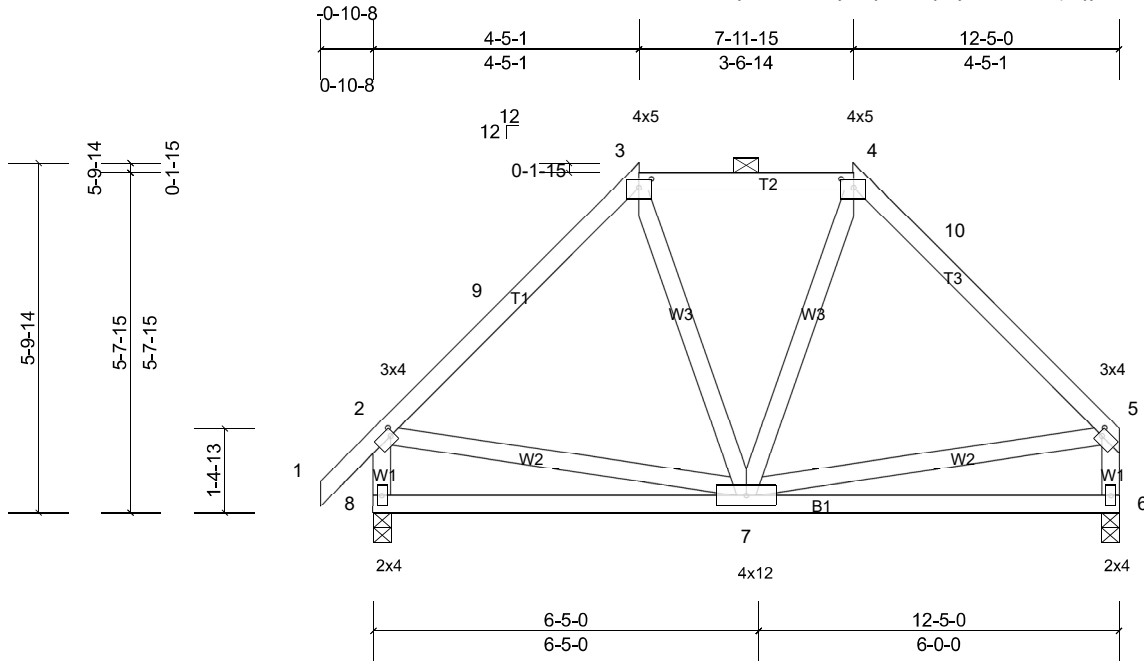
Job Q2200860	Truss B02	Truss Type Hip	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:38.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.03	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.06	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS						Weight: 81 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* W1:2x4 SP No.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.): 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 6=482/0-3-8, (min. 0-1-8),  
 8=549/0-3-8, (min. 0-1-8)  
 Max Horiz 8=126 (LC 11)  
 Max Uplift 6=-5 (LC 12), 8=-28 (LC 12)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-9=-466/81, 3-9=-368/100, 3-4=-282/110,  
 4-10=-338/99, 5-10=-464/81, 2-8=-495/129,  
 5-6=-429/96

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 4-5-1, Exterior (2) 4-5-1 to 12-3-4 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=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 8 and 5 lb uplift at joint 6.

- 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.
- 8) 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

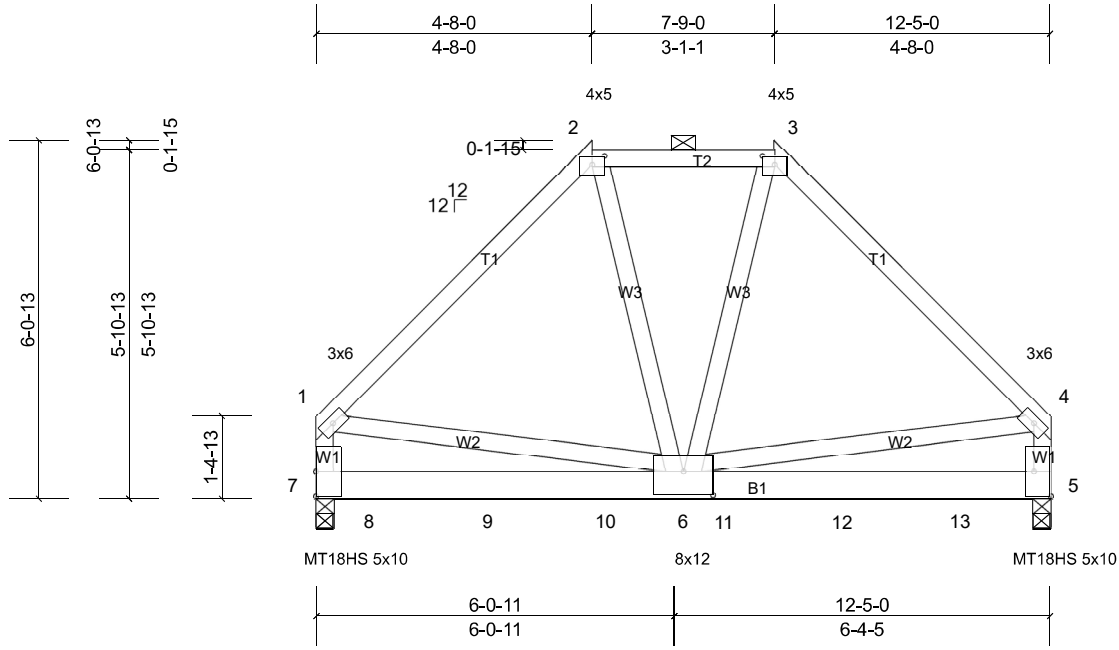
Job Q2200860	Truss B03	Truss Type Hip Girder	Qty 1	Ply 3	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:39

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.05	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.10	6-7	>999	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	NO	WB	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							
										Weight: 268 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.3 \*Except\* W1:2x4 SP No.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.): 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 5=4525/0-3-8, (min. 0-1-13), 7=4967/0-3-8, (min. 0-2-0)  
Max Horiz 7=116 (LC 7)  
Max Uplift 5=-67 (LC 8), 7=-73 (LC 8)  
Max Grav 5=4672 (LC 14), 7=5135 (LC 13)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-3745/94, 2-3=-3265/108, 3-4=-3746/94, 1-7=-3027/73, 4-5=-3030/73  
BOT CHORD 7-8=-97/827, 8-9=-97/827, 9-10=-97/827, 6-10=-97/827, 6-11=-25/724, 11-12=-25/724, 12-13=-25/724, 5-13=-25/724  
WEBS 2-6=-26/2498, 3-6=-26/2498, 1-6=-33/1930, 4-6=-34/1951

**NOTES**  
1) 3-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 - 3 rows staggered at 0-7-0 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 7 and 67 lb uplift at joint 5.
- 10) 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1493 lb down and 21 lb up at 0-10-12, 1490 lb down and 22 lb up at 2-10-12, 1490 lb down and 22 lb up at 4-10-12, 1490 lb down and 22 lb up at 6-10-12, and 1490 lb down and 22 lb up at 8-10-12, and 1490 lb down and 22 lb up at 10-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20  
Concentrated Loads (lb)  
Vert: 8=-1422, 9=-1420, 10=-1420, 11=-1420, 12=-1420, 13=-1420

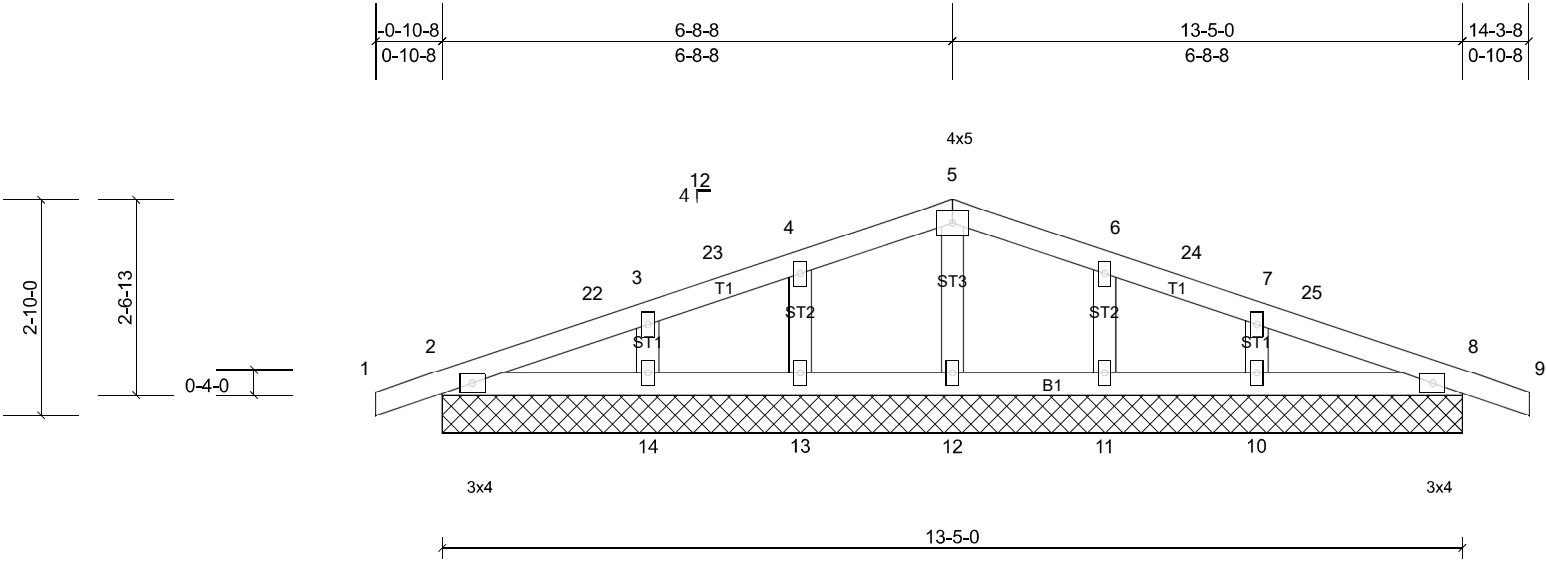
Job Q2200860	Truss C01	Truss Type Common Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:30.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 53 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.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS** All bearings 13-5-0.  
 (lb) - Max Horiz 2=23 (LC 10), 15=23 (LC 10)  
 Max Uplift All uplift 100 (lb) or less at joint(s)  
 2, 8, 10, 11, 13, 14, 15, 19  
 Max Grav All reactions 250 (lb) or less at joint  
 (s) 2, 8, 10, 11, 12, 13, 14, 15, 19

**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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-10-8 to 2-1-8, Exterior (2) 2-1-8 to 6-8-8, Corner (3) 6-8-8 to 9-8-8, Exterior (2) 9-8-8 to 14-3-8 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=1.60
  - 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.
  - 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 10.0 psf bottom chord live load nonconcurrent with any 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 2, 8, 13, 14, 11, 10, 2, 8.

- 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S)** Standard

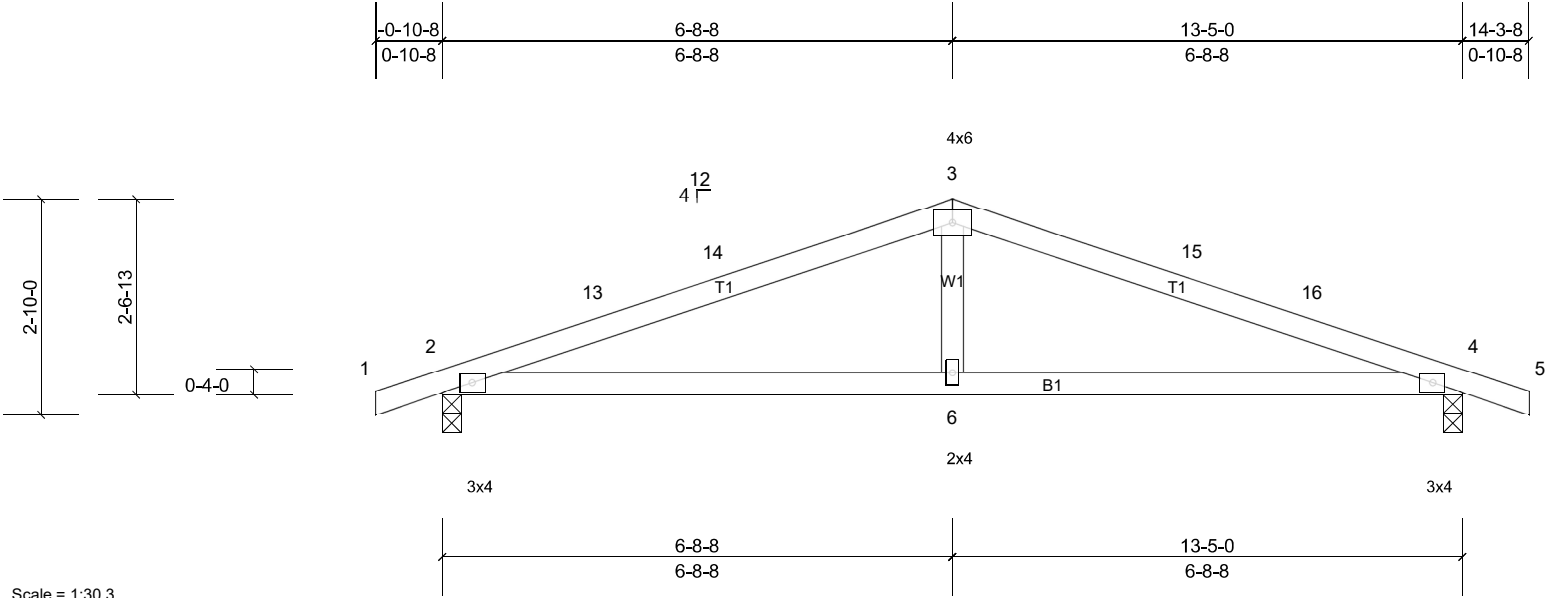
Job Q2200860	Truss C02	Truss Type Common	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.07	6-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.13	6-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 47 lb	FT = 20%

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

7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**LOAD CASE(S)** Standard

**REACTIONS** (lb/size) 2=589/0-3-0, (min. 0-1-8),  
4=589/0-3-0, (min. 0-1-8)  
Max Horiz 2=23 (LC 11)  
Max Uplift 2=-26 (LC 12), 4=-26 (LC 12)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-13=-1012/90, 13-14=-976/95,  
3-14=-968/107, 3-15=-968/107,  
15-16=-976/95, 4-16=-1012/90  
BOT CHORD 2-6=-40/926, 4-6=-40/926  
WEBS 3-6=0/301

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust)  
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-8-8, Exterior (2) 6-8-8 to 9-8-8, Interior (1) 9-8-8 to 14-3-8 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=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* 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.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2 and 26 lb uplift at joint 4.
  - 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.

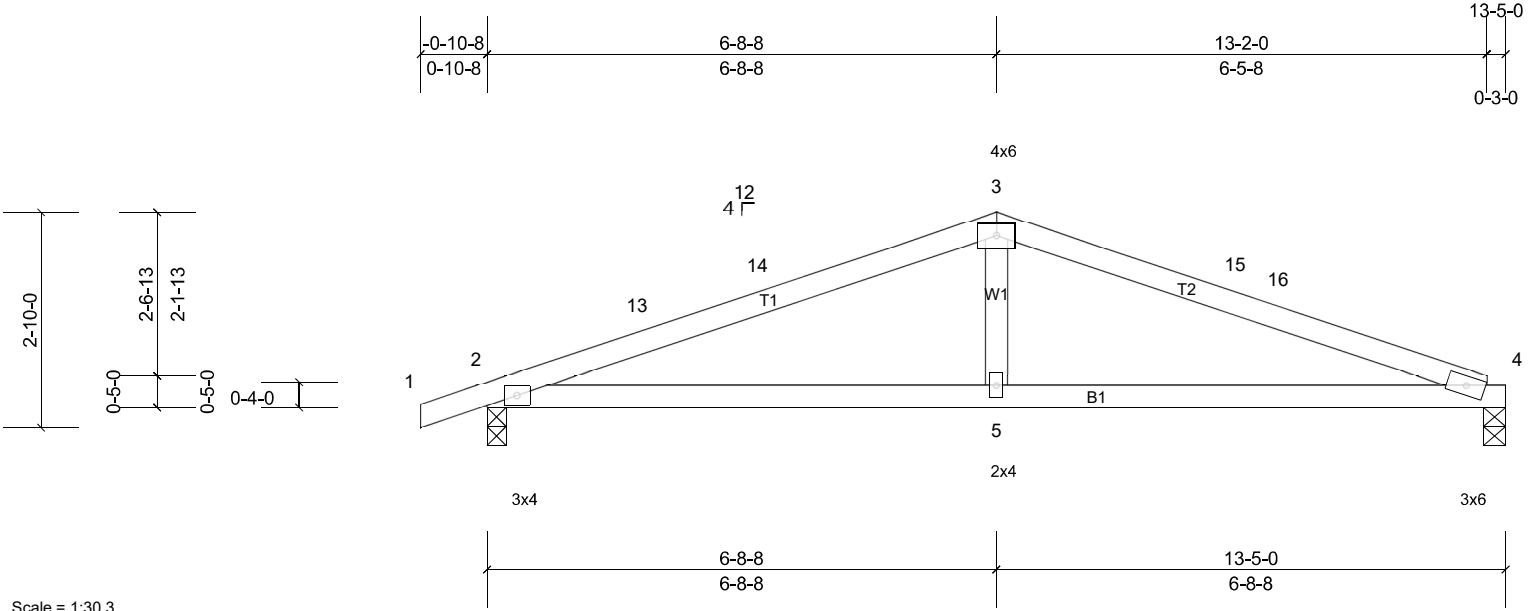
Job Q2200860	Truss C03	Truss Type Common	Qty 2	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.49	Vert(LL)	-0.07	5-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.13	5-12	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 45 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.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS** (lb/size) 2=585/0-3-0, (min. 0-1-8),  
 4=532/0-3-8, (min. 0-1-8),  
 6=532/0-3-8, (min. 0-1-8)  
 Max Horiz 2=24 (LC 11)  
 Max Uplift 2=-27 (LC 12), 4=-1 (LC 12), 6=-1 (LC 12)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-13=-994/92, 13-14=-958/101,  
 3-14=-950/113, 3-15=-951/120,  
 15-16=-958/107, 4-16=-995/107  
 BOT CHORD 2-5=-62/909, 4-5=-62/909  
 WEBS 3-5=0/295

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-8-8, Exterior (2) 6-8-8 to 9-8-8, Interior (1) 9-8-8 to 13-3-4 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=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* 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.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 4, 27 lb uplift at joint 2 and 1 lb uplift at joint 4.

- 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.
  - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S)** Standard

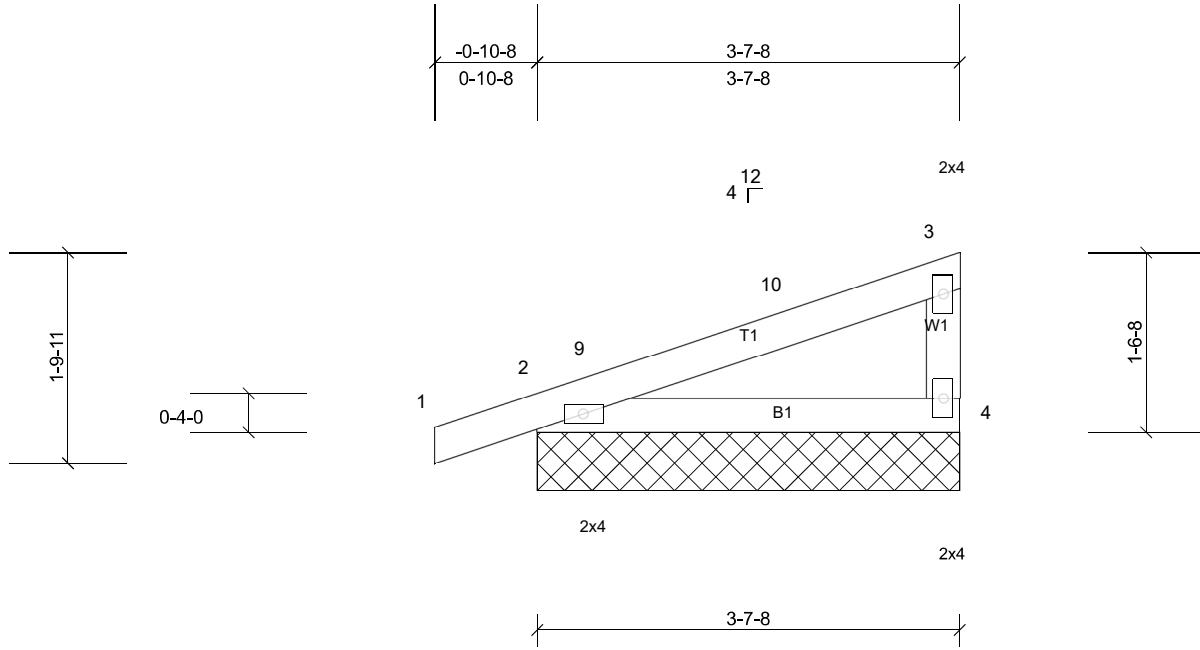
Job Q2200860	Truss D01	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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Scale = 1:19.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 14 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 3-7-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=198/3-7-8, (min. 0-1-8),  
 4=136/3-7-8, (min. 0-1-8),  
 5=198/3-7-8, (min. 0-1-8)  
 Max Horiz 2=39 (LC 11), 5=39 (LC 11)  
 Max Uplift 2=-25 (LC 12), 5=-25 (LC 12)

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

**NOTES**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-10-8 to 2-1-8, Exterior (2) 2-1-8 to 3-5-12 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
- 2) 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.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 2 and 25 lb uplift at joint 2.
- 8) 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

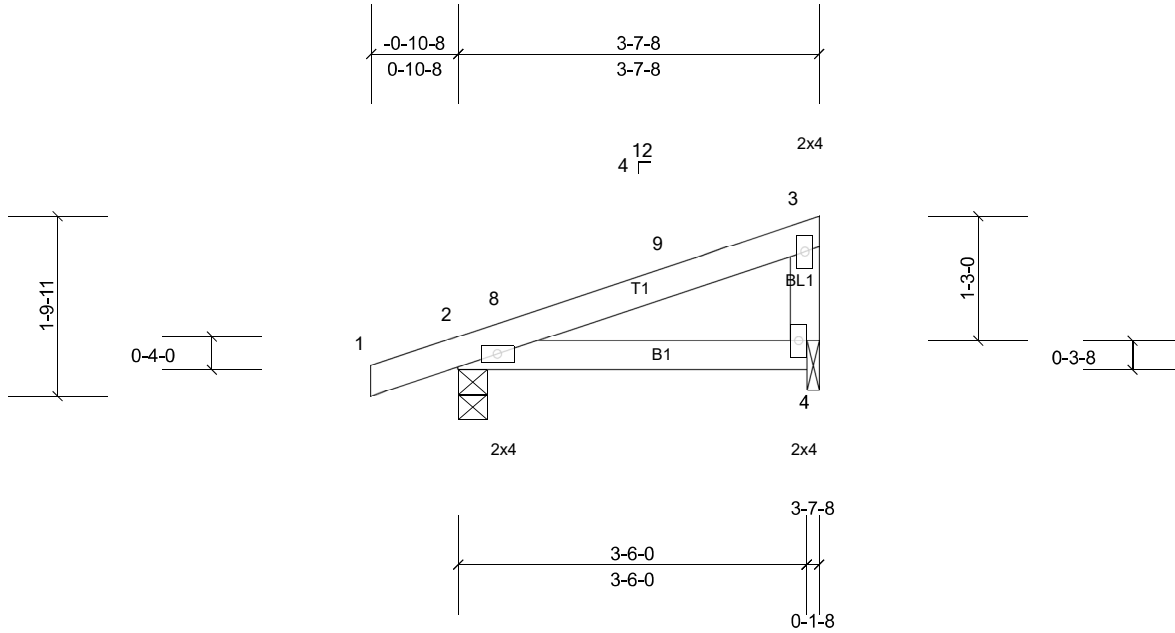
Job Q2200860	Truss D02	Truss Type Monopitch	Qty 4	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:23.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=198/0-3-8, (min. 0-1-8),  
 4=133/0-1-8, (min. 0-1-8)  
 Max Horiz 2=62 (LC 12)  
 Max Uplift 2=-17 (LC 12), 4=-7 (LC 12)

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

**NOTES**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-5-12 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* 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.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 2 and 7 lb uplift at joint 4.
- 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

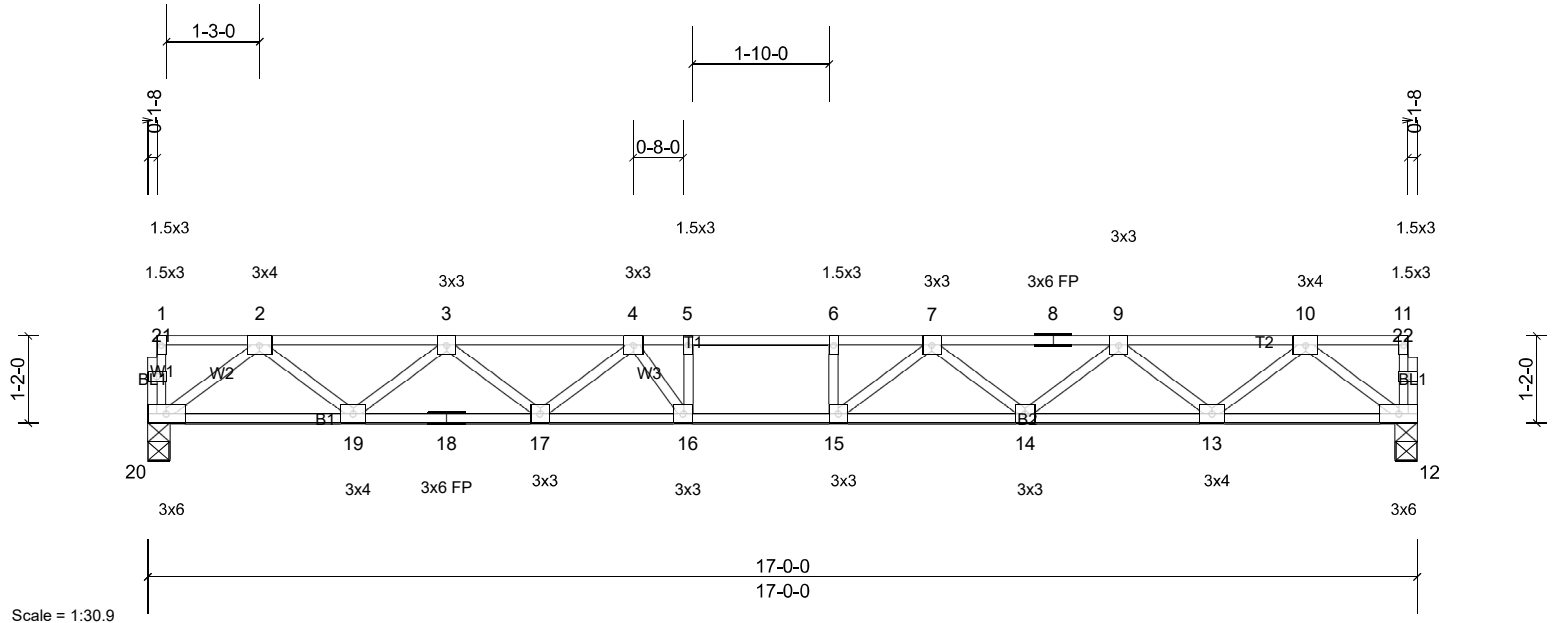
Job Q2200860	Truss F201	Truss Type Floor	Qty 5	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.55	Vert(LL)	-0.22	15	>926	480	MT20 244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.30	15	>672	240	
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.05	12	n/a	n/a	
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 85 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.2(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) 12=732/0-3-8, (min. 0-1-8), 20=732/0-3-8, (min. 0-1-8)

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

**TOP CHORD** 2-3=-1540/0, 3-4=-2479/0, 4-5=-2924/0, 5-6=-2924/0, 6-7=-2924/0, 7-8=-2486/0, 8-9=-2486/0, 9-10=-1539/0

**BOT CHORD** 19-20=0/913, 18-19=0/2138, 17-18=0/2138, 16-17=0/2808, 15-16=0/2924, 14-15=0/2802, 13-14=0/2139, 12-13=0/913

**WEBS** 10-12=-1143/0, 2-20=-1143/0, 10-13=0/815, 2-19=0/816, 9-13=-782/0, 3-19=-778/0, 9-14=0/451, 3-17=0/443, 7-14=-411/0, 4-17=-429/0, 7-15=-102/422, 5-16=-298/42, 4-16=-102/476

**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 10-00-00 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



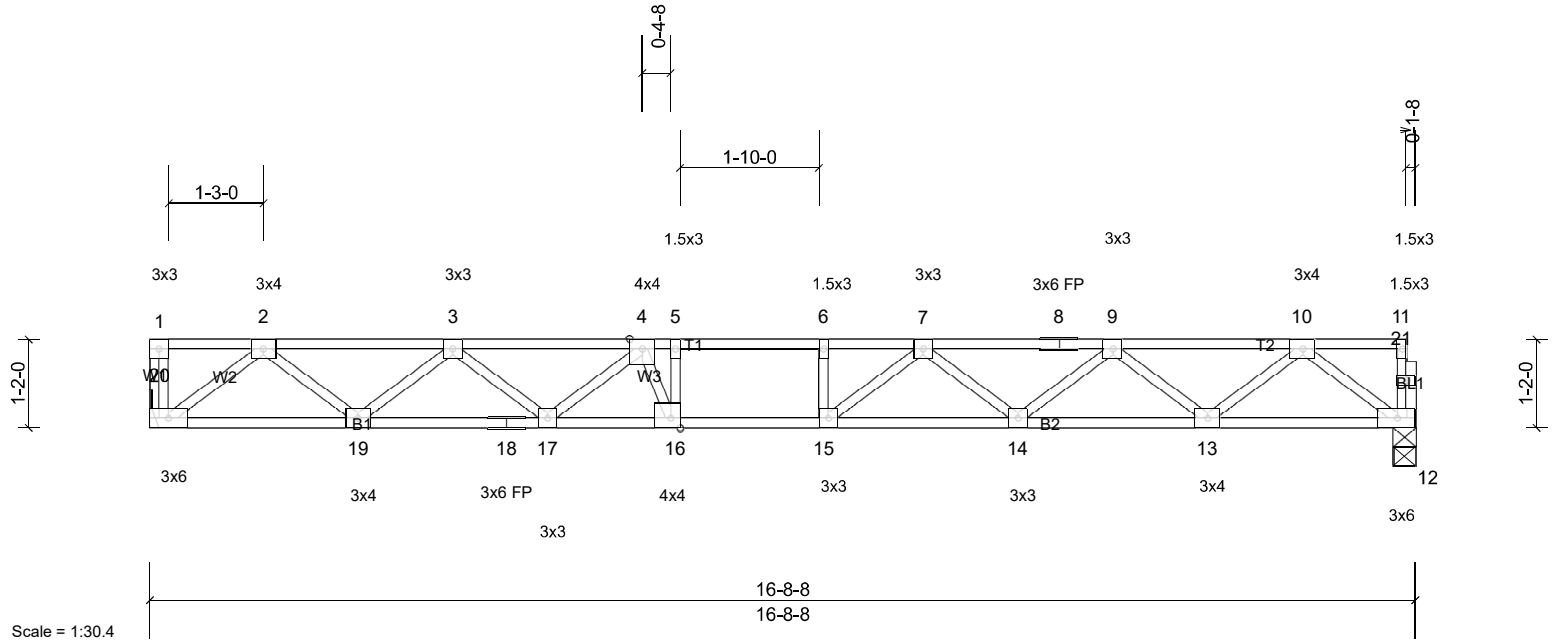
Job Q2200860	Truss F202	Truss Type Floor	Qty 3	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.69	Vert(LL)	-0.21	15	>954	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.29	14-15	>691	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.05	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 84 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) 12=719/0-3-8, (min. 0-1-8),  
 20=724/ Mechanical, (min. 0-1-8)

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

TOP CHORD 2-3=-1508/0, 3-4=-2416/0, 4-5=-2820/0,  
 5-6=-2820/0, 6-7=-2820/0, 7-8=-2424/0,  
 8-9=-2424/0, 9-10=-1506/0  
 BOT CHORD 19-20=0/898, 18-19=0/2089, 17-18=0/2089,  
 16-17=0/2739, 15-16=0/2820, 14-15=0/2723,  
 13-14=0/2092, 12-13=0/896  
 WEBS 10-12=-1122/0, 2-20=-1126/0, 10-13=0/794,  
 2-19=0/795, 9-13=-763/0, 3-19=-756/0,  
 9-14=0/433, 3-17=0/425, 7-14=-389/0,  
 4-17=-436/0, 7-15=-116/391, 5-16=-401/95,  
 4-16=-148/542

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 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

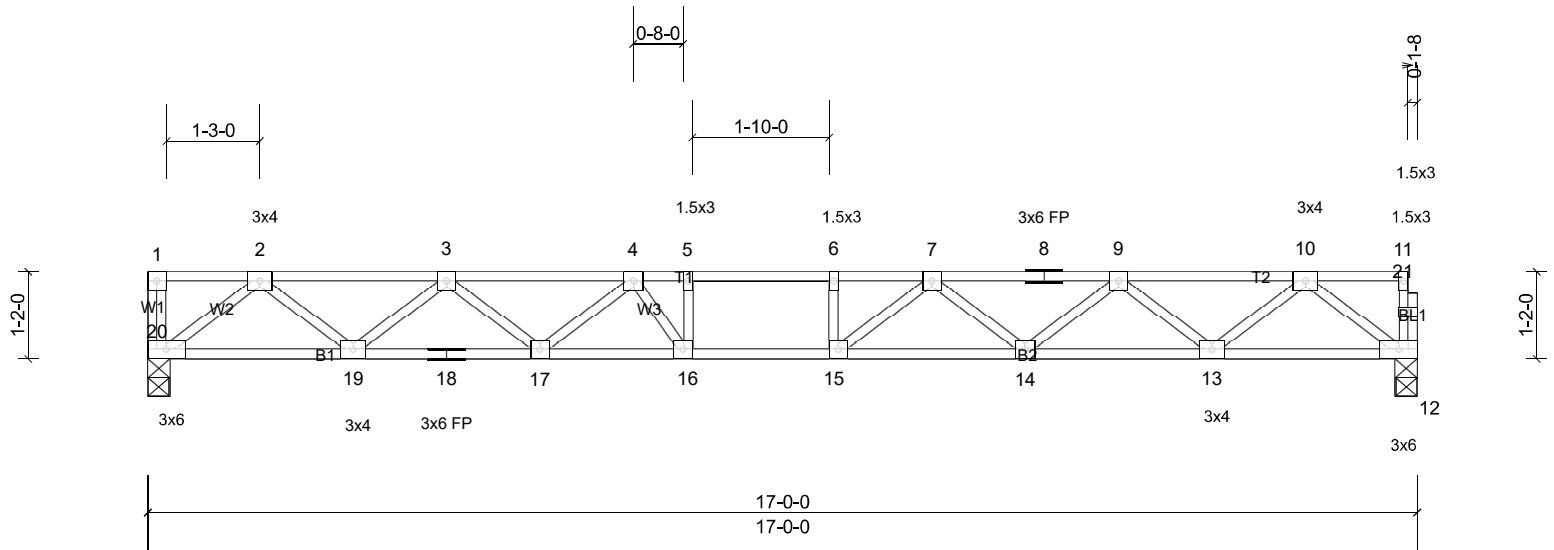
Job Q2200860	Truss F203	Truss Type Floor	Qty 7	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:30.9

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.55	Vert(LL)	-0.22	15	>926	480	MT20 244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.30	15	>672	240	
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.05	12	n/a	n/a	
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 85 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) 12=732/0-3-8, (min. 0-1-8),  
 20=737/0-3-8, (min. 0-1-8)

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

TOP CHORD 2-3=-1541/0, 3-4=-2479/0, 4-5=-2924/0, 5-6=-2924/0, 6-7=-2924/0, 7-8=-2486/0, 8-9=-2486/0, 9-10=-1539/0  
 BOT CHORD 19-20=0/914, 18-19=0/2138, 17-18=0/2138, 16-17=0/2808, 15-16=0/2924, 14-15=0/2802, 13-14=0/2139, 12-13=0/913  
 WEBS 10-12=-1143/0, 2-20=-1147/0, 10-13=0/815, 2-19=0/816, 9-13=-782/0, 3-19=-778/0, 9-14=0/451, 3-17=0/443, 7-14=-411/0, 4-17=-429/0, 7-15=-102/422, 5-16=-298/42, 4-16=-103/476

**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 10-00-00 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

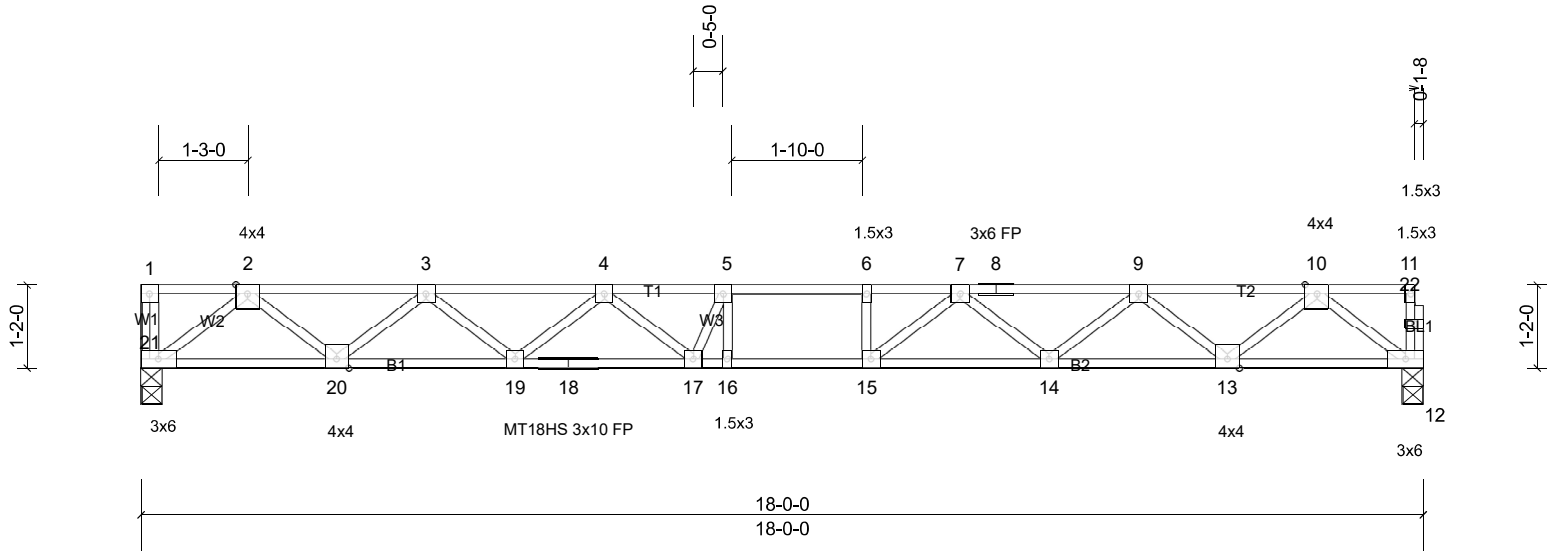
Job Q2200860	Truss F204	Truss Type Floor	Qty 7	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:32.3

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.26	15-16	>832	480	MT18HS	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.35	15-16	>605	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.06	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S								
											Weight: 90 lb	FT = 20%F, 11%E

**LUMBER**

TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat) \*Except\* B2:2x4 SP No.1 (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) 12=776/0-3-8, (min. 0-1-8),  
 21=780/0-3-8, (min. 0-1-8)

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

TOP CHORD 2-3=-1650/0, 3-4=-2699/0, 4-5=-3241/0,  
 5-6=-3285/0, 6-7=-3285/0, 7-8=-2695/0,  
 8-9=-2695/0, 9-10=-1650/0  
 BOT CHORD 20-21=0/972, 19-20=0/2301, 18-19=0/3075,  
 17-18=0/3075, 16-17=0/3285, 15-16=0/3285,  
 14-15=0/3072, 13-14=0/2301, 12-13=0/971  
 WEBS 10-12=-1216/0, 2-21=-1219/0, 10-13=0/884,  
 2-20=0/882, 9-13=-848/0, 3-20=-847/0,  
 9-14=0/512, 3-19=0/519, 7-14=-491/0,  
 4-19=-489/0, 7-15=-36/512, 4-17=0/387,  
 5-17=-419/215

**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 3x3 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) 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

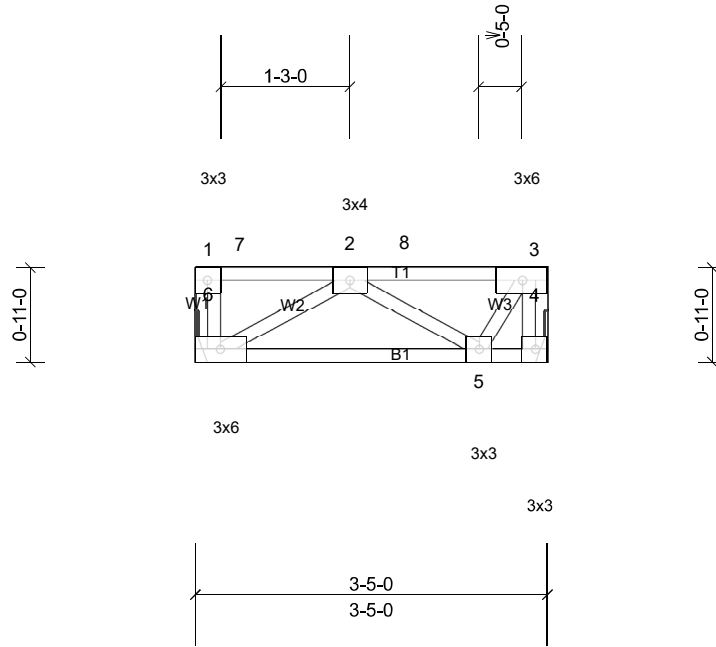
Job Q2200860	Truss F205	Truss Type Floor Girder	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:22.4

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	0.00	5	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.06	Vert(CT)	0.00	5-6	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.32	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 20 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 3-5-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 4=101/ Mechanical, (min. 0-1-8),  
 6=82/ Mechanical, (min. 0-1-8)  
 Max Uplift 4=-296 (LC 3), 6=-657 (LC 3)

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

TOP CHORD 1-6=-16/329, 3-4=-108/282  
 BOT CHORD 5-6=-582/99  
 WEBS 2-6=-114/671, 2-5=-68/499, 3-5=-284/73

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 296 lb uplift at joint 4 and 657 lb uplift at joint 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.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 606 lb up at 0-5-3, and 625 lb up at 2-0-6 on top chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00,  
 Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 4-6=-8, 1-3=-80  
 Concentrated Loads (lb)  
 Vert: 7=38, 8=58



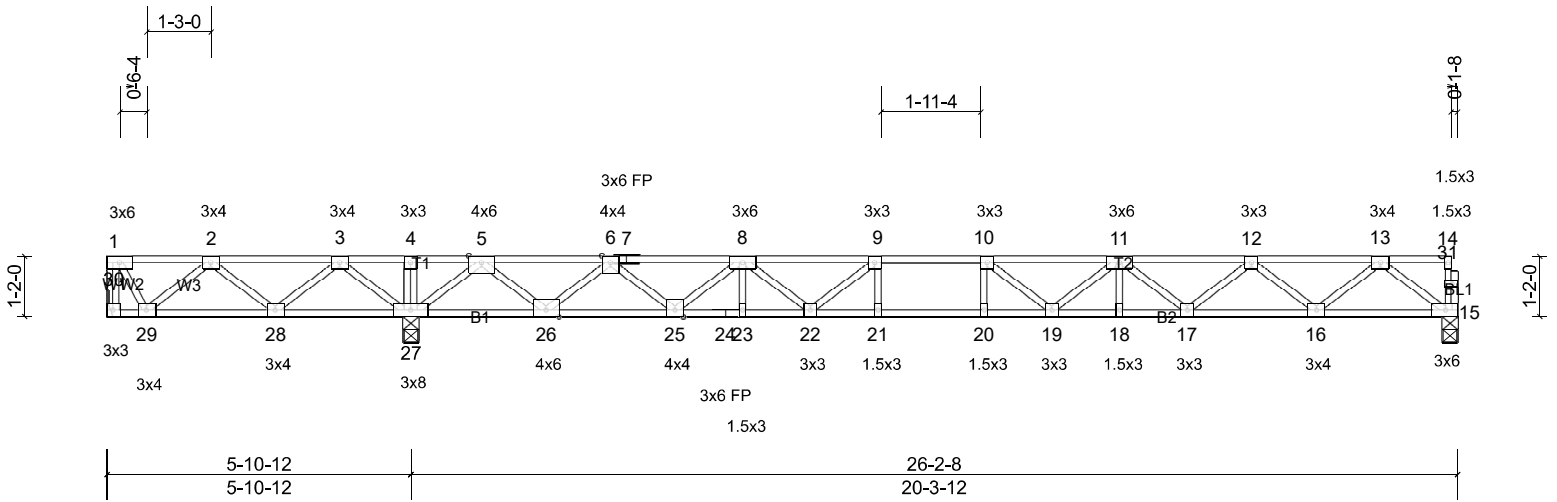
Job Q2200860	Truss F207	Truss Type Floor	Qty 2	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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Scale = 1:44.7

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.29	19-20	>830	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.63	Vert(CT)	-0.40	19-20	>604	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.03	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S								
										Weight: 134 lb	FT = 20%F, 11%E	

**LUMBER**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat) \*Except\* B2:2x4 SP DSS (flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.2(flat)

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 28-29,27-28,26-27.

**REACTIONS** (lb/size) 15=737/0-3-8, (min. 0-1-8),  
27=1795/0-3-8, (min. 0-1-8),  
30=-254/ Mechanical, (min. 0-1-8)  
Max Uplift 30=-430 (LC 4)  
Max Grav 15=740 (LC 4), 27=1795 (LC 1),  
30=106 (LC 3)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-30=-108/426, 1-2=-33/270, 2-3=0/1408,  
3-4=0/2778, 4-5=0/2778, 5-6=0/522,  
6-7=-1169/0, 7-8=-1169/0, 8-9=-2320/0,  
9-10=-2896/0, 10-11=-2972/0, 11-12=-2532/0,  
12-13=-1558/0  
BOT CHORD 28-29=-814/78, 27-28=-2023/0,  
26-27=-1498/0, 25-26=0/475, 24-25=0/1882,  
23-24=0/1882, 22-23=0/1882, 21-22=0/2896,  
20-21=0/2896, 19-20=0/2896, 18-19=0/2894,  
17-18=0/2894, 16-17=0/2163, 15-16=0/926  
WEBS 3-27=-1162/0, 3-28=0/844, 2-28=-818/0,  
2-29=-58/708, 1-29=-512/63, 13-15=-1160/0,  
5-27=-1606/0, 13-16=0/823, 5-26=0/1271,  
12-16=-788/0, 6-26=-1244/0, 12-17=0/479,  
6-25=0/908, 11-17=-462/0, 8-25=-914/0,  
10-19=-240/315, 8-22=0/564, 9-22=-833/0,  
9-21=-15/313, 10-20=-283/45

**NOTES**  
1) Unbalanced floor live loads have been considered for this design.  
2) All plates are 3x3 MT20 unless otherwise indicated.  
3) Refer to girder(s) for truss to truss connections.  
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 430 lb uplift at joint 30.

- 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.
- 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.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

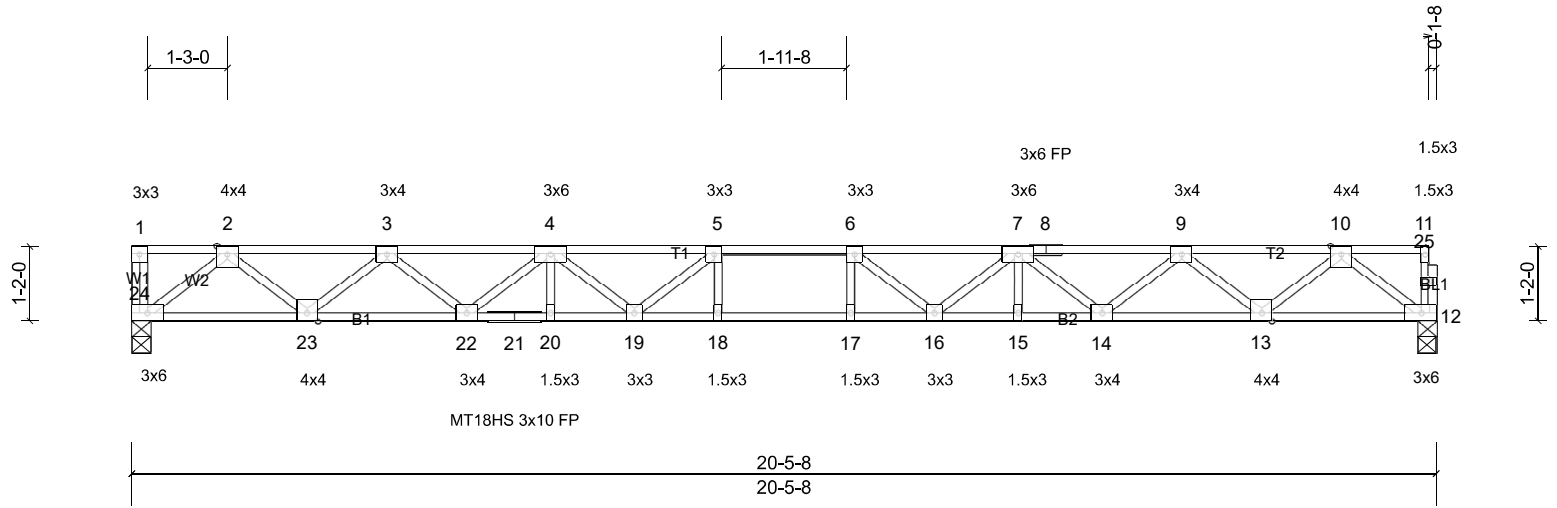
Job	Truss	Truss Type	Qty	Ply	Garman Homes - Wisteria A & B
Q2200860	F208	Floor	7	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

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Scale = 1:36.1

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.41	17-18	>590	480	MT18HS	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.56	17-18	>429	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.09	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S								
										Weight: 104 lb	FT = 20%F, 11%E	

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-0-13 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
 2-2-0 oc bracing: 18-19,16-17  
 1-4-12 oc bracing: 17-18.

**REACTIONS** (lb/size) 12=884/0-3-8, (min. 0-1-8),  
 24=889/0-3-8, (min. 0-1-8)

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

TOP CHORD 2-3=-1920/0, 3-4=-3230/0, 4-5=-4030/0,  
 5-6=-4280/0, 6-7=-4030/0, 7-8=-3230/0,  
 8-9=-3230/0, 9-10=-1920/0  
 BOT CHORD 23-24=0/1115, 22-23=0/2698, 21-22=0/3769,  
 20-21=0/3769, 19-20=0/3769, 18-19=0/4280,  
 17-18=0/4280, 16-17=0/4280, 15-16=0/3769,  
 14-15=0/3769, 13-14=0/2698, 12-13=0/1114  
 WEBS 10-12=-1395/0, 2-24=-1398/0, 10-13=0/1049,  
 2-23=0/1049, 9-13=-1013/0, 3-23=-1013/0,  
 9-14=0/692, 3-22=0/692, 7-14=-689/0,  
 4-22=-689/0, 7-16=0/422, 4-19=0/422,  
 6-16=-590/71, 5-19=-590/71

**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.
- 5) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

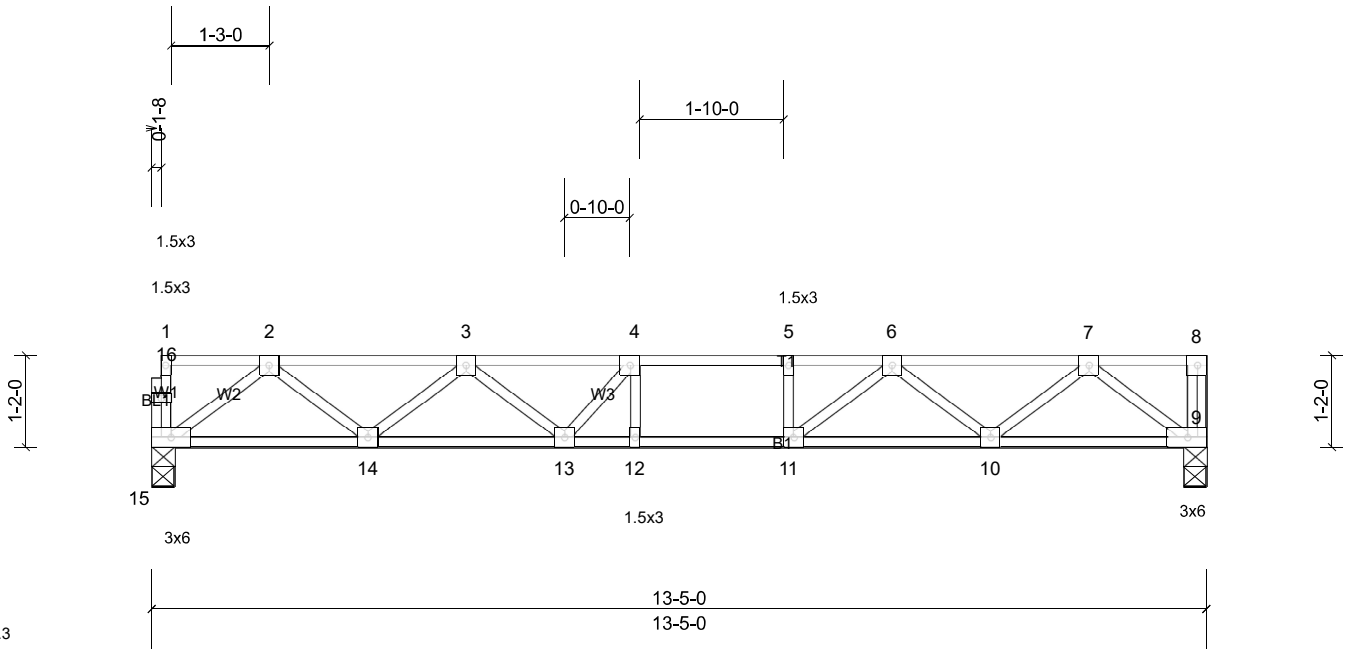
Job Q2200860	Truss F209	Truss Type Floor	Qty 8	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:29.3

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.42	Vert(LL)	-0.10	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.14	12-13	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 68 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) 9=579/0-3-8, (min. 0-1-8),  
 15=574/0-3-8, (min. 0-1-8)

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

TOP CHORD 2-3=-1143/0, 3-4=-1716/0, 4-5=-1793/0,  
 5-6=-1793/0, 6-7=-1135/0

BOT CHORD 14-15=0/707, 13-14=0/1553, 12-13=0/1793,  
 11-12=0/1793, 10-11=0/1543, 9-10=0/711

WEBS 7-9=-891/0, 2-15=-885/0, 7-10=0/552,  
 2-14=0/567, 6-10=-532/0, 3-14=-534/0,  
 6-11=0/461, 3-13=0/292, 4-13=-282/52

**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 10-00-00 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



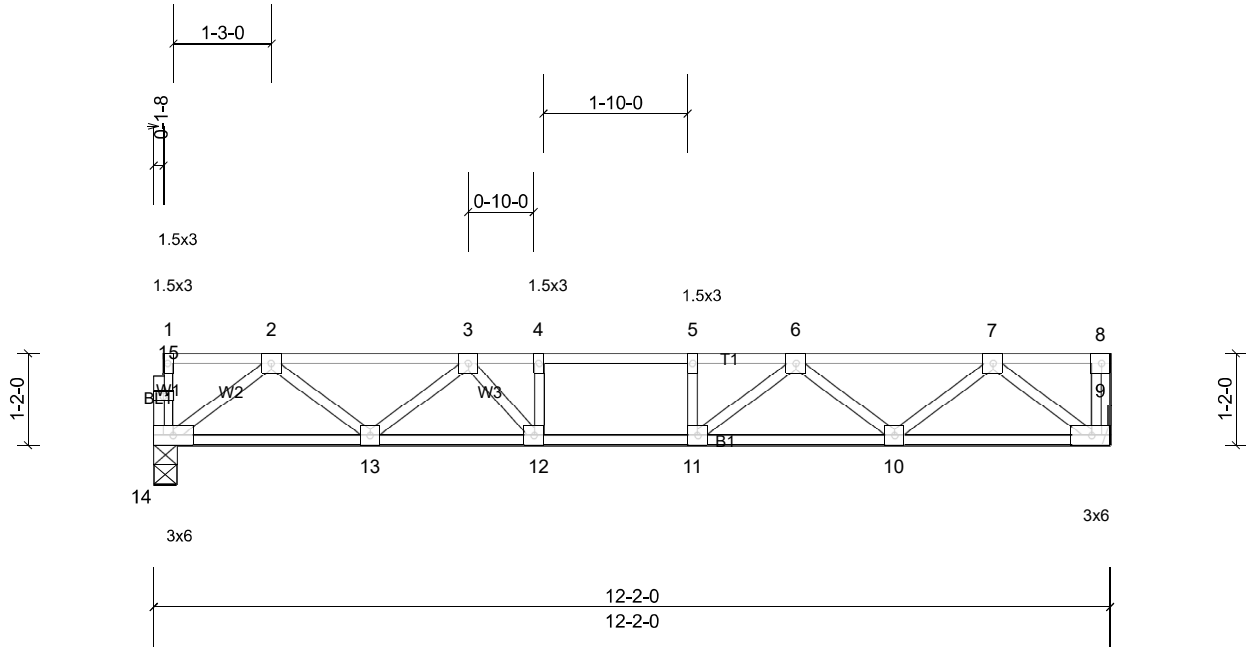
Job Q2200860	Truss F210	Truss Type Floor	Qty 2	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:29.3

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.07	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.49	Vert(CT)	-0.10	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 62 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" oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS** (lb/size) 9=524/ Mechanical, (min. 0-1-8), 14=519/0-3-8, (min. 0-1-8)

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

TOP CHORD 2-3=-999/0, 3-4=-1469/0, 4-5=-1469/0, 5-6=-1469/0, 6-7=-1004/0

BOT CHORD 13-14=0/638, 12-13=0/1340, 11-12=0/1469, 10-11=0/1336, 9-10=0/640

WEBS 7-9=-803/0, 2-14=-799/0, 7-10=0/475, 2-13=0/470, 6-10=-432/0, 3-13=-444/0, 6-11=0/331, 3-12=0/363

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 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'-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

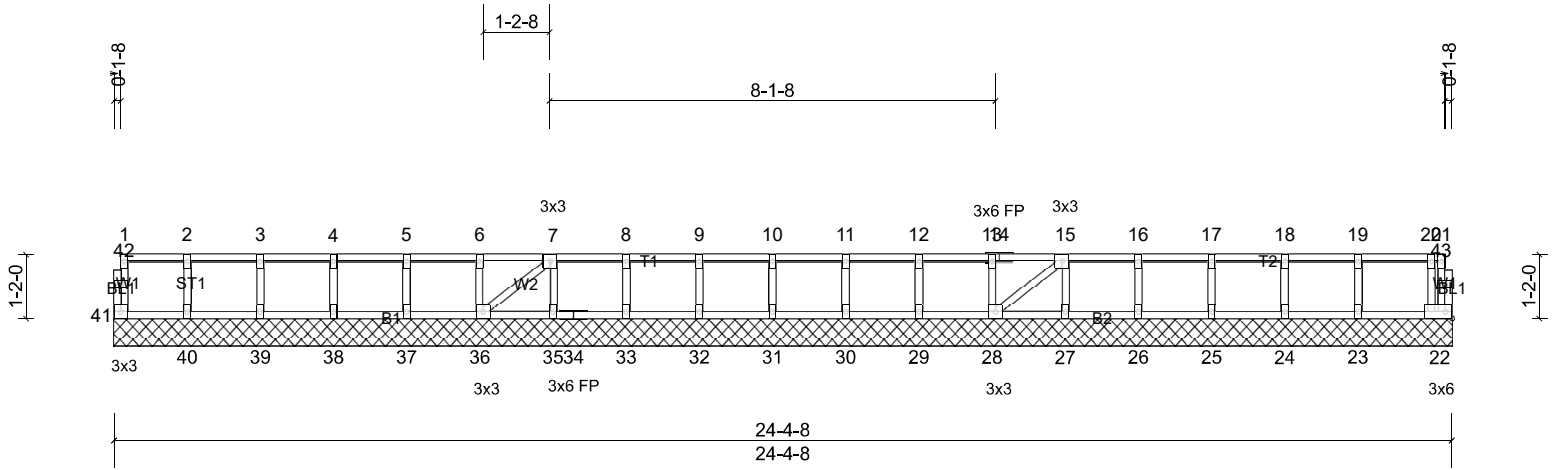
Job Q2200860	Truss K201	Truss Type Floor Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:42

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	22	n/a	n/a	
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 106 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) \*Except\* BL1:2x4 SP No.2 (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 24-4-8.

(lb) - Max Grav All reactions 250 (lb) or less at joint (s) 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41

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

**NOTES**

- All plates are 1.5x3 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 1-4-0 oc.
- 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.
- 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

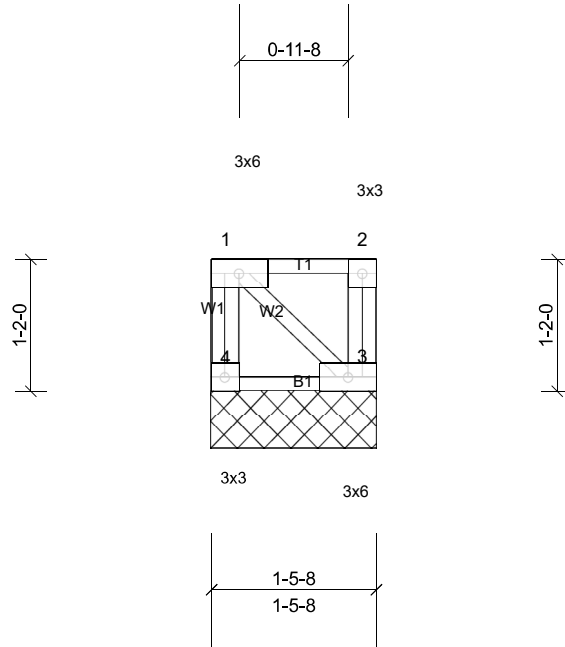
Job Q2200860	Truss K202	Truss Type Floor Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:20.4

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	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	n/a	-	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 12 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 1-5-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 3=66/1-5-8, (min. 0-1-8),  
 4=66/1-5-8, (min. 0-1-8)

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

**NOTES**

- 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 1-4-0 oc.
- 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.
- 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

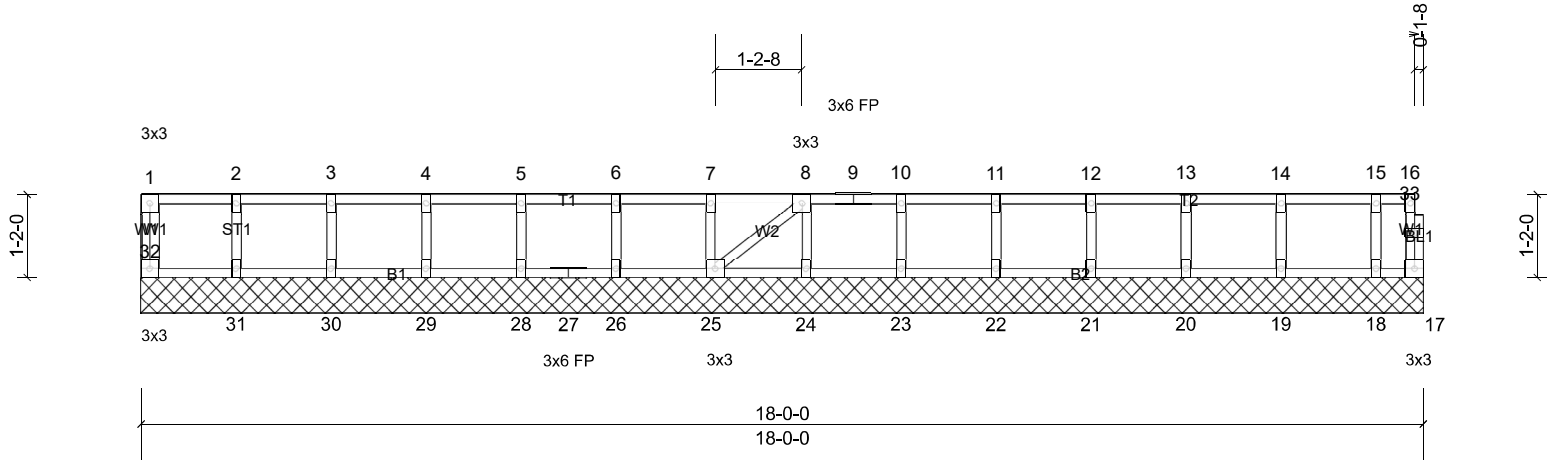
Job Q2200860	Truss K203	Truss Type Floor Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:32.3

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	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 79 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 18-0-0.

(lb) - Max Grav All reactions 250 (lb) or less at joint (s) 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32

**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

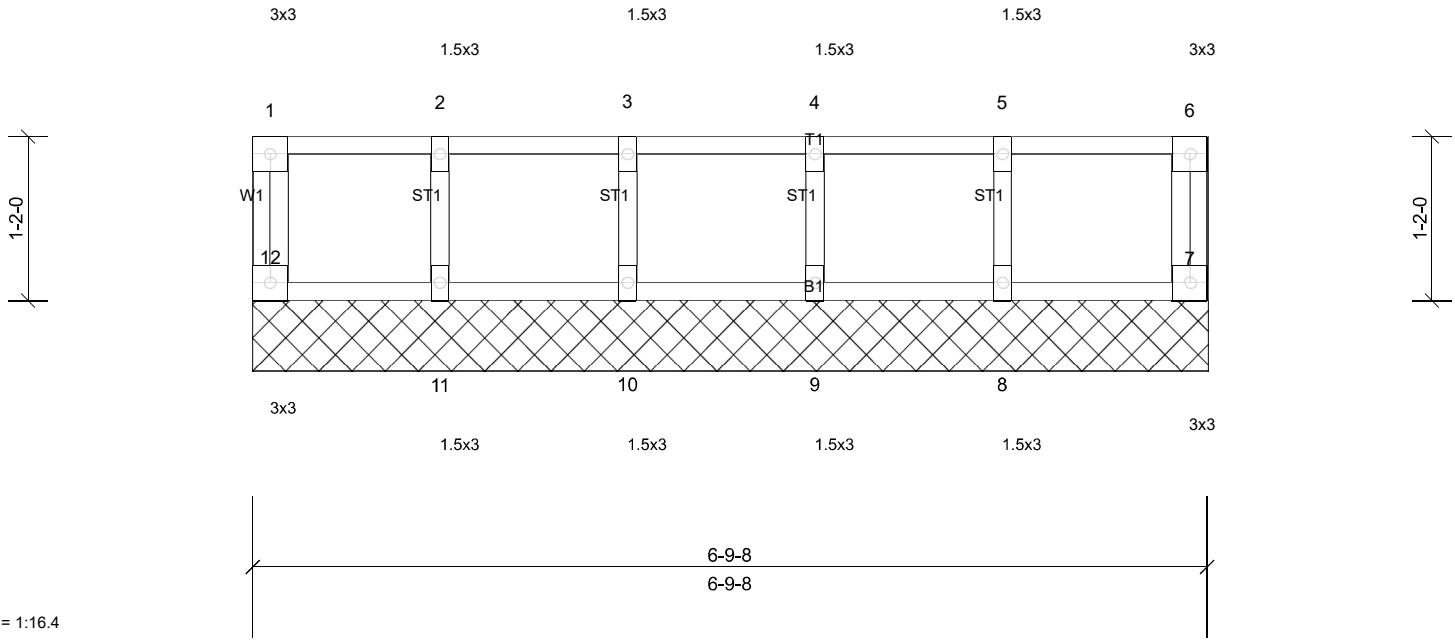
Job Q2200860	Truss K204	Truss Type Floor Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:16.4

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)	n/a	-	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							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)  
 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 6-9-8.

(lb) - Max Grav All reactions 250 (lb) or less at joint (s) 7, 8, 9, 10, 11, 12

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

**NOTES**

- All plates are 1.5x3 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 1-4-0 oc.
- 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.
- 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

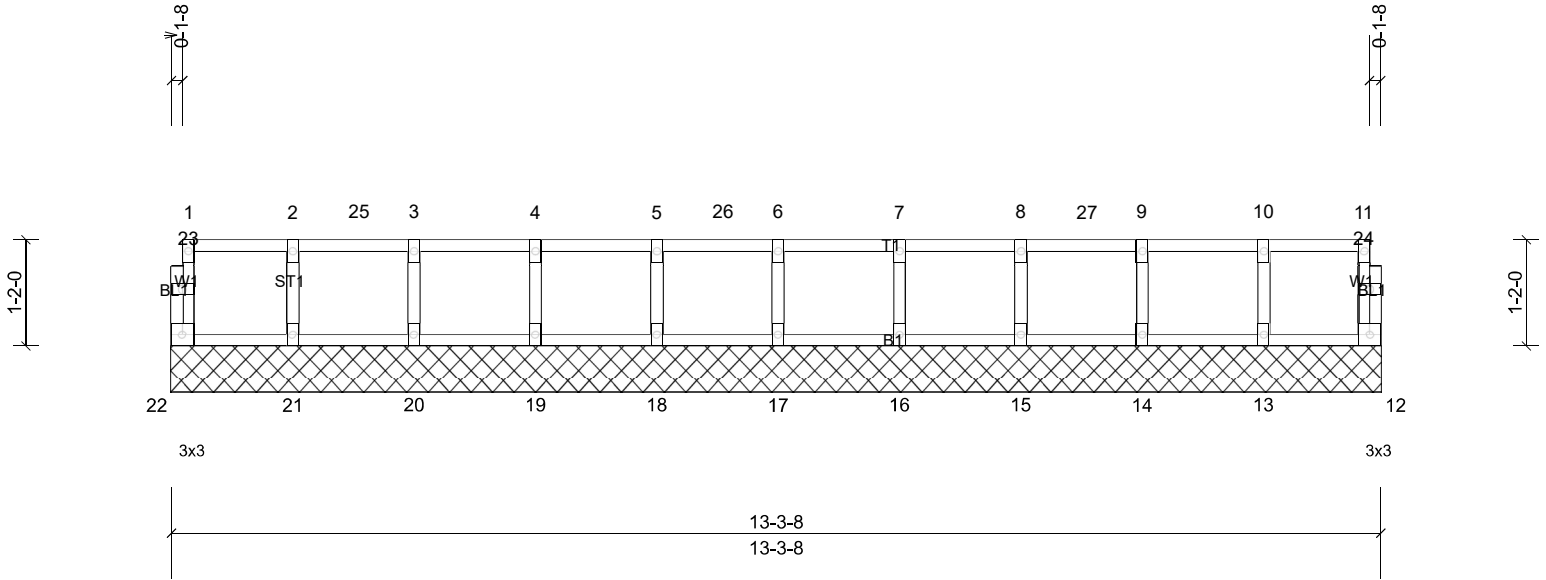
Job Q2200860	Truss K207	Truss Type Floor Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

Run: 8.42 S Feb 11 2021 Print: 8.420 S Feb 10 2021 MiTek Industries, Inc. Thu Jun 02 16:24:11

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Scale = 1:25.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	n/a	-	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 56 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 13-3-8.

(lb) - Max Grav All reactions 250 (lb) or less at joint (s) 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22

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

**NOTES**

- All plates are 1.5x3 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 1-4-0 oc.
- 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.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 12-22=-10, 1-11=-100  
 Concentrated Loads (lb)  
 Vert: 4=-97, 7=-97, 10=-97, 25=-97, 26=-97, 27=-97

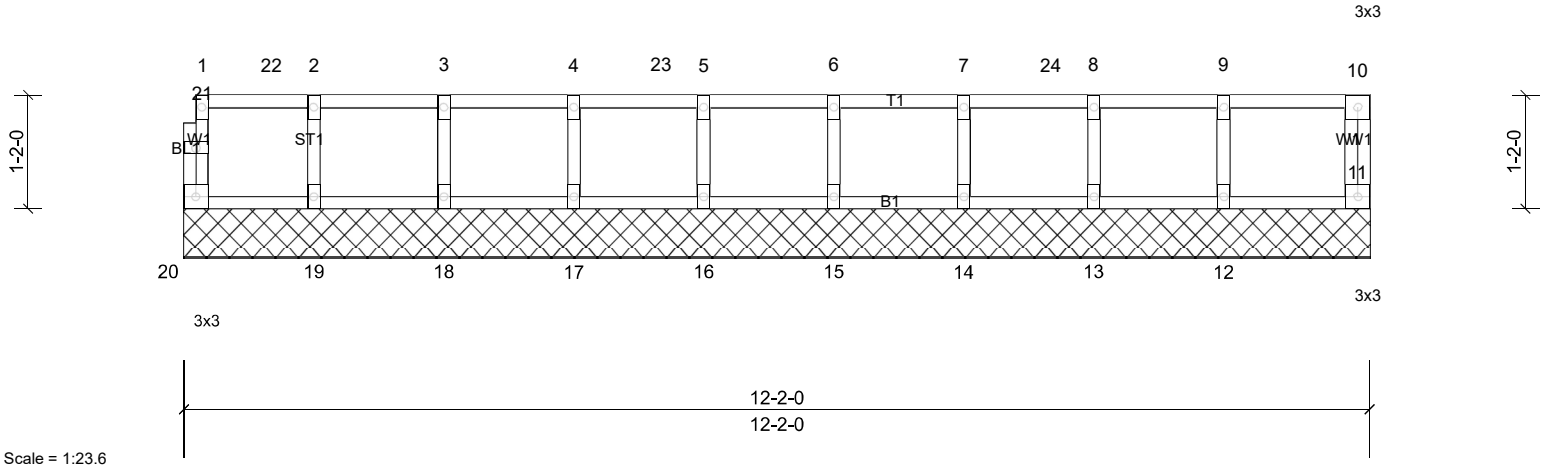
Job Q2200860	Truss K209	Truss Type Floor Supported Gable	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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Scale = 1:23.6

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	0.10	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	0.04	Horiz(TL)	n/a	-	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 52 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 12-2-0.

- (lb) - Max Grav All reactions 250 (lb) or less at joint (s) 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

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

**NOTES**

- All plates are 1.5x3 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 1-4-0 oc.
- 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.
- 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.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 11-20=-10, 1-10=-100  
Concentrated Loads (lb)  
Vert: 3=-39, 6=-39, 9=-39, 22=-42, 23=-39, 24=-39

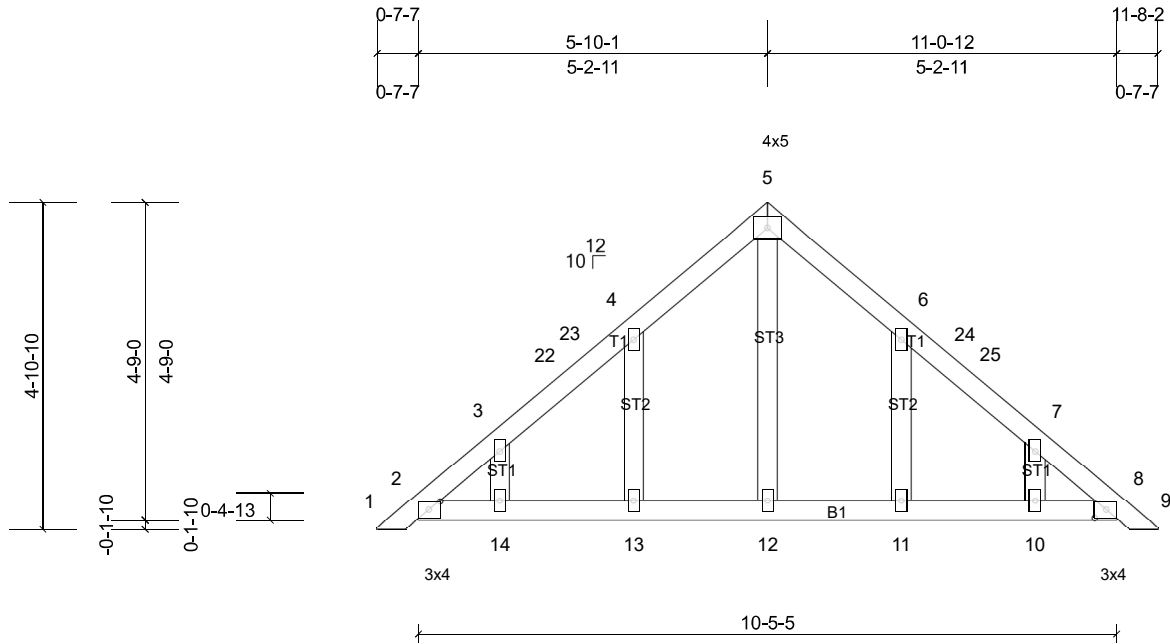
Job Q2200860	Truss P01	Truss Type Piggyback	Qty 2	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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ID:pbV2vm3TVaBo1n9Orx2LSlzBTn-fdQEmS8Nb1rXoc6606LErWTEGA2iv00V2D6s\_5zAHQI



Scale = 1:34.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 54 lb	FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS** All bearings 10-5-5.  
(lb) - Max Horiz 2=84 (LC 11), 15=84 (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, 19

**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=120mph (3-second gust)  
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Exterior (2) 0-2-14 to  
3-2-14, Interior (1) 3-2-14 to 5-10-6, Exterior (2) 5-10-6  
to 8-10-6, Interior (1) 8-10-6 to 11-5-14 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=1.60
  - 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.
  - 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 10.0 psf bottom  
chord live load nonconcurrent with any 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.
  - Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 100 lb uplift at joint  
(s) 2, 13, 14, 11, 10, 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.
- This truss design requires that a minimum of 7/16"  
structural wood sheathing be applied directly to the top  
chord and 1/2" gypsum sheetrock be applied directly to  
the bottom chord.
- See Standard Industry Piggyback Truss Connection  
Detail for Connection to base truss as applicable, or  
consult qualified building designer.

**LOAD CASE(S)** Standard



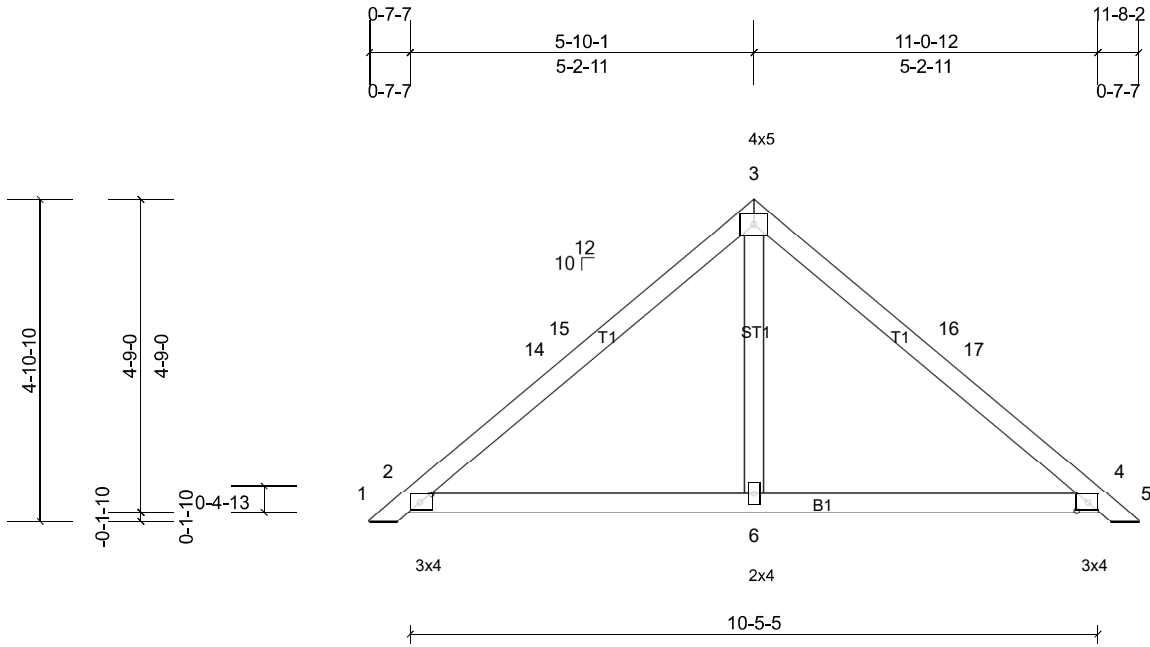
Job Q2200860	Truss P02	Truss Type Piggyback	Qty 16	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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ID:XneFa?OP8tazmxjax61h2\_zBTsy-fdQEmS8Nb1rXoc6606LErWTAgAydv0YV2D6s\_5zAHQI



Scale = 1:35

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 44 lb	FT = 20%

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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS** All bearings 10-5-5.  
 (lb) - Max Horiz 2=84 (LC 11), 7=84 (LC 11)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 2, 4, 7, 11  
 Max Grav All reactions 250 (lb) or less at joint (s) except 2=288 (LC 1), 4=288 (LC 1), 6=309 (LC 1), 7=288 (LC 1), 11=288 (LC 1)

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

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-2-14 to 3-2-14, Interior (1) 3-2-14 to 5-10-6, Exterior (2) 5-10-6 to 8-10-6, Interior (1) 8-10-6 to 11-5-14 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=1.60
  - 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) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 6-0-0 oc.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 2, 4, 2, 4.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

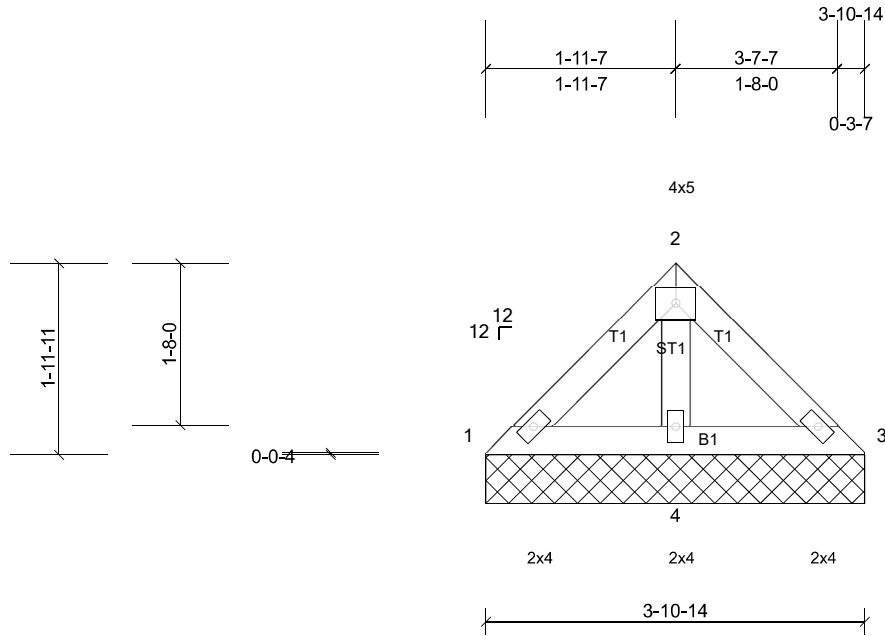
Job	Truss	Truss Type	Qty	Ply	Garman Homes - Wisteria A & B
Q2200860	V01	Valley	1	1	Job Reference (optional)

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Scale = 1:23.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 15 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 1=48/3-10-14, (min. 0-1-8),  
 3=48/3-10-14, (min. 0-1-8),  
 4=216/3-10-14, (min. 0-1-8)  
 Max Horiz 1=-34 (LC 10)  
 Max Uplift 4=-9 (LC 12)  
 Max Grav 1=55 (LC 21), 3=55 (LC 22), 4=216 (LC 1)

**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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) 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=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 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

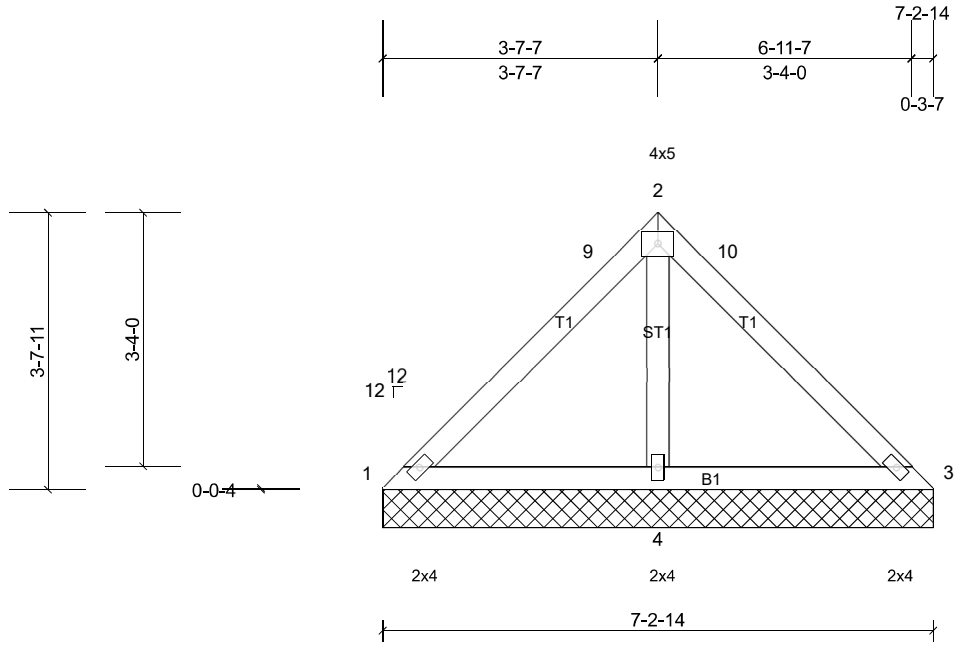
Job Q2200860	Truss V02	Truss Type Valley	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:30.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 29 lb	FT = 20%

**LUMBER**

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

**LOAD CASE(S)** Standard

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 7-3-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 1=40/7-2-14, (min. 0-1-8),  
 3=40/7-2-14, (min. 0-1-8),  
 4=499/7-2-14, (min. 0-1-8)  
 Max Horiz 1=-66 (LC 10)  
 Max Uplift 1=-6 (LC 22), 3=-6 (LC 21), 4=-51 (LC 12)  
 Max Grav 1=66 (LC 21), 3=66 (LC 22), 4=499 (LC 1)

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

**WEBS** 2-4=-353/124

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 3-7-11, Exterior (2) 3-7-11 to 6-6-15, Interior (1) 6-6-15 to 7-3-2 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=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 6 lb uplift at joint 3 and 51 lb uplift at joint 4.
- 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.

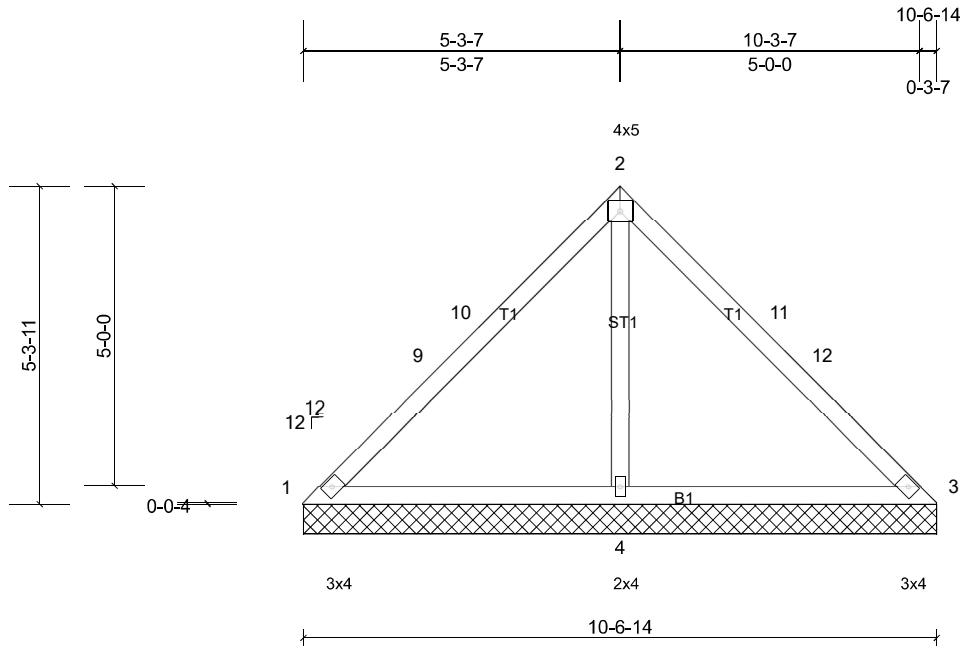
Job Q2200860	Truss V03	Truss Type Valley	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:38.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.30	Horiz(TL)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 44 lb	FT = 20%

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

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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size)  
 1=17/10-6-14, (min. 0-1-8),  
 3=17/10-6-14, (min. 0-1-8),  
 4=811/10-6-14, (min. 0-1-8)  
 Max Horiz 1=98 (LC 11)  
 Max Uplift 1=-41 (LC 22), 3=-41 (LC 21),  
 4=-97 (LC 12)  
 Max Grav 1=65 (LC 21), 3=65 (LC 22), 4=811 (LC 1)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-9=-131/252, 9-10=-90/261, 2-10=-89/341,  
 2-11=-89/341, 11-12=-90/261, 3-12=-110/252  
 BOT CHORD 1-4=-257/149, 3-4=-257/149  
 WEBS 2-4=-628/206

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust)  
 Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
 MWFRS (directional) and C-C Exterior (2) 0-0-4 to 3-0-4,  
 Interior (1) 3-0-4 to 5-3-11, Exterior (2) 5-3-11 to 8-3-11,  
 Interior (1) 8-3-11 to 10-7-2 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=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 1, 41 lb uplift at joint 3 and 97 lb uplift at joint 4.

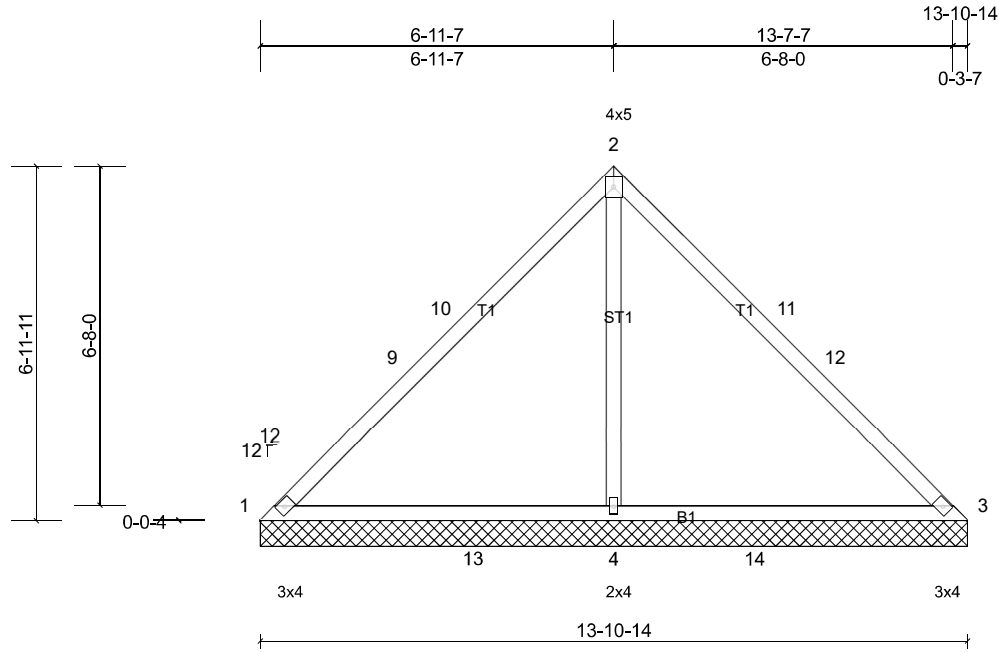
Job Q2200860	Truss V04	Truss Type Valley	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Carolina Structural Systems, Star, NC 27356

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Scale = 1:45.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.82	Horiz(TL)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 58 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 10-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 1=-50/13-10-14, (min. 0-1-8),  
3=-50/13-10-14, (min. 0-1-8),  
4=1213/13-10-14, (min. 0-1-8)  
Max Horiz 1=-129 (LC 10)  
Max Uplift 1=-108 (LC 22), 3=-108 (LC 21),  
4=-181 (LC 12)  
Max Grav 1=86 (LC 12), 3=86 (LC 12),  
4=1299 (LC 17)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-9=-227/451, 9-10=-152/461,  
2-10=-151/563, 2-11=-151/553,  
11-12=-152/461, 3-12=-180/451  
BOT CHORD 1-13=-420/212, 4-13=-420/212,  
4-14=-420/212, 3-14=-420/212  
WEBS 2-4=-976/310

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 6-11-11, Exterior (2) 6-11-11 to 9-11-11, Interior (1) 9-11-11 to 13-11-2 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=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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, with BCDL = 10.0psf.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 1, 108 lb uplift at joint 3 and 181 lb uplift at joint 4.
- 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

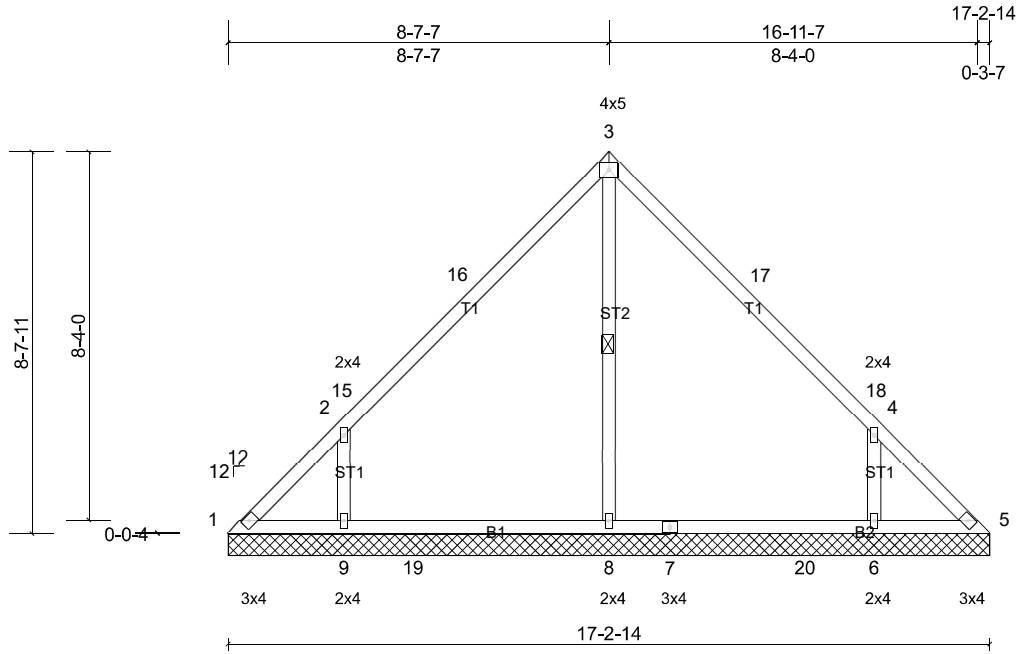
Job Q2200860	Truss V05	Truss Type Valley	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:52.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 79 lb	FT = 20%

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

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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-8

**REACTIONS** All bearings 17-2-14.  
 (lb) - Max Horiz 1=-161 (LC 10)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 5, 14 except 1=-142 (LC 10), 6=-134 (LC 12), 9=-142 (LC 12)  
 Max Grav All reactions 250 (lb) or less at joint (s) 1 except 6=536 (LC 18), 8=694 (LC 17), 9=524 (LC 17)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-197/279  
 WEBS 3-8=-382/20, 2-9=-416/249, 4-6=-414/244

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 8-7-11, Exterior (2) 8-7-11 to 11-7-11, Interior (1) 11-7-11 to 17-3-2 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=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 5, 5 except (jt=lb) 1=141, 9=142, 6=133.



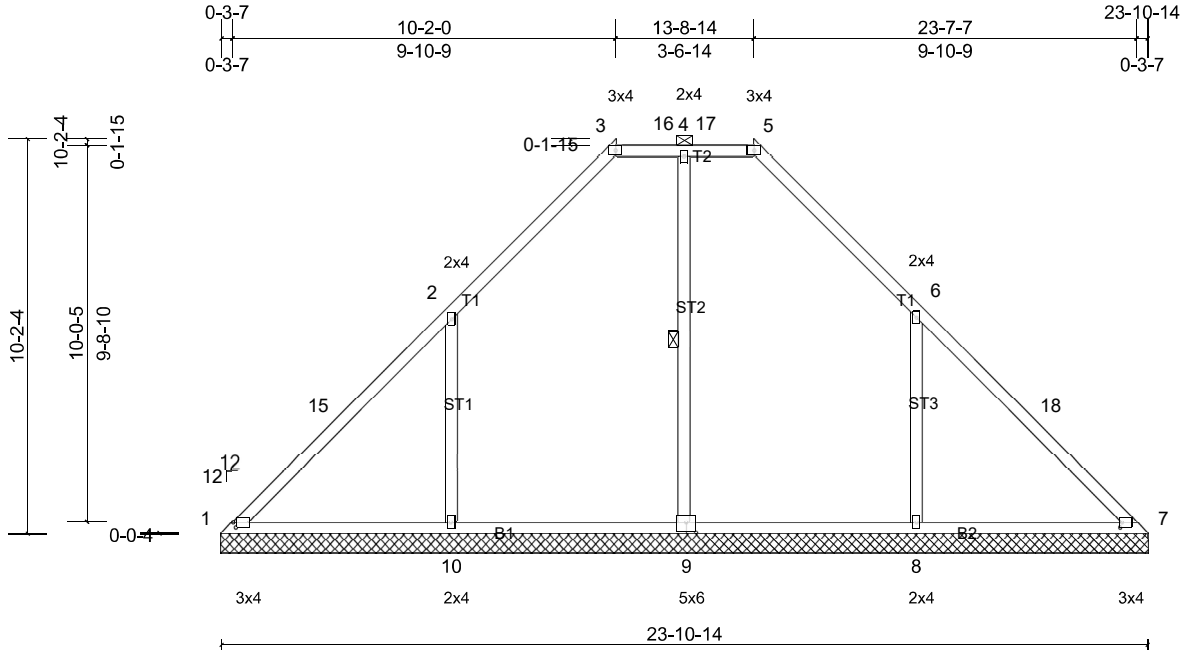
Job Q2200860	Truss V07	Truss Type Valley	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:59.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 113 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.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-9

**REACTIONS** All bearings 23-10-14.  
(lb) - Max Horiz 1=-189 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) except 8=-137 (LC 12), 10=-137 (LC 12)  
Max Grav All reactions 250 (lb) or less at joint (s) except 1=263 (LC 18), 7=259 (LC 1), 8=658 (LC 18), 9=503 (LC 17), 10=667 (LC 17)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-15=-298/112  
BOT CHORD 1-10=-149/268  
WEBS 2-10=-412/240, 6-8=-413/239

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 10-2-4, Exterior (2) 10-2-4 to 17-11-7, Interior (1) 17-11-7 to 23-11-2 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=1.60

3) Provide adequate drainage to prevent water ponding.  
4) Gable requires continuous bottom chord bearing.  
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* 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.  
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 10 and 137 lb uplift at joint 8.  
8) 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.  
9) 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



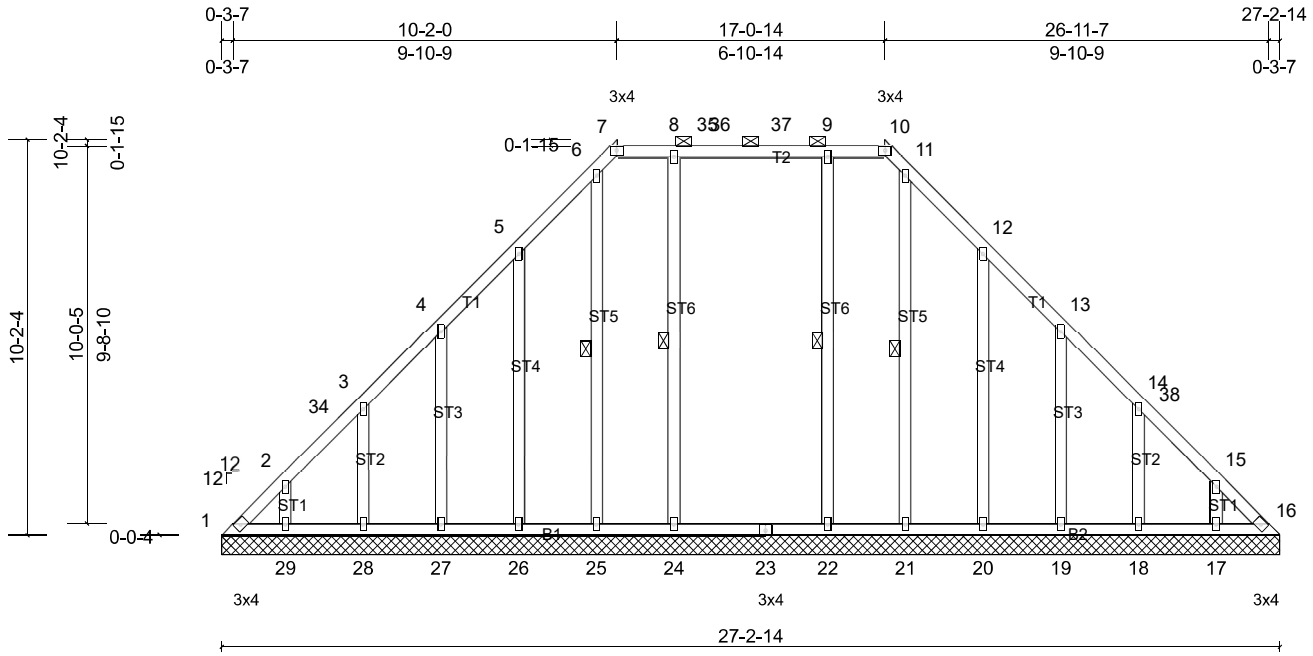
Job Q2200860	Truss V08	Truss Type Valley	Qty 1	Ply 1	Garman Homes - Wisteria A & B Job Reference (optional)
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Scale = 1:59.3

Plate Offsets (X, Y): [11:0-0-0,Edge], [12:0-0-0,Edge], [13:0-0-0,Edge], [14:0-0-0,Edge], [15:0-0-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.01	16	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 196 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.): 7-10.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 8-24, 9-22, 6-25, 11-21

**REACTIONS** All bearings 27-2-14.  
(lb) - Max Horiz 1=192 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 16, 17, 18, 19, 20, 22, 26, 27, 28, 29  
Max Grav All reactions 250 (lb) or less at joint (s) 1, 16, 17, 18, 19, 20, 21, 25, 26, 27, 28, 29 except 22=320 (LC 17), 24=320 (LC 17)

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

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 10-2-4, Exterior (2) 10-2-4 to 14-5-2, Interior (1) 14-5-2 to 17-1-2, Exterior (2) 17-1-2 to 21-7-7, Interior (1) 21-7-7 to 26-11-2 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=1.60
  - 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) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Gable studs spaced at 2-0-0 oc.

- 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, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 16, 22, 26, 27, 28, 29, 20, 19, 18, 17.
- 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.

**LOAD CASE(S)** Standard