ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0725-3383-A
Lot 91 Magnolia Hills

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: I75332691 thru I75332712

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

August 1,2025

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	A1-GE	GABLE	1	1	I75332691
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:37 2025 Page 1
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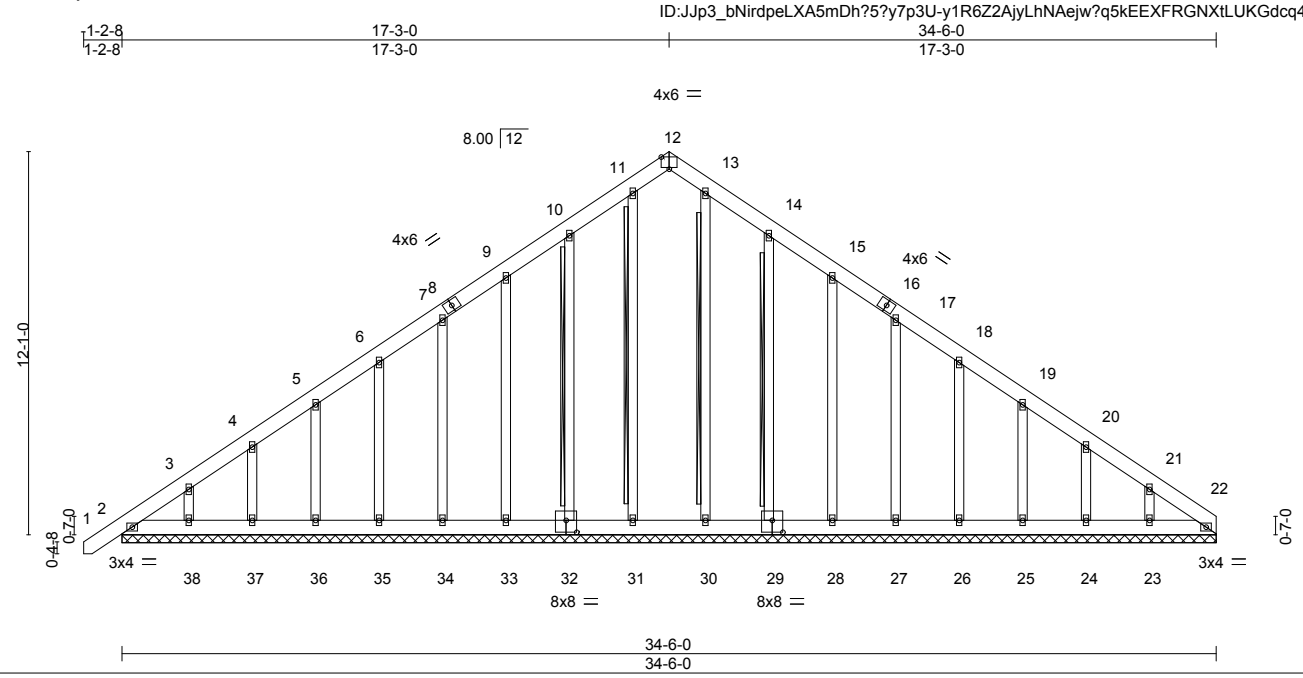

Plate Offsets (X,Y)-- [12:0-3-0,Edge], [29:0-4-0,0-4-8], [32:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 319 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 11-31, 10-32, 13-30, 14-29
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. All bearings 34-6-0.
(lb) - Max Horz 2=360(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 34, 35, 36, 37, 38, 28, 27, 26, 25, 24, 22 except 32=-103(LC 12), 29=-108(LC 13), 23=-113(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 32, 33, 34, 35, 36, 37, 38, 30, 29, 28, 27, 26, 25, 24, 23, 22 except 31=264(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-402/260, 3-4=-319/228, 10-11=-169/259, 20-21=-251/127, 21-22=-340/163
BOT CHORD 2-38=-135/304, 37-38=-135/304, 36-37=-135/304, 35-36=-135/304, 34-35=-135/304, 33-34=-135/304, 32-33=-135/304, 31-32=-134/303, 30-31=-134/303, 29-30=-134/303, 28-29=-135/304, 27-28=-135/304, 26-27=-135/304, 25-26=-135/304, 24-25=-135/304, 23-24=-135/304, 22-23=-135/304

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-0-15 to 3-3-14, Exterior(2N) 3-3-14 to 17-3-0, Corner(3R) 17-3-0 to 21-7-13, Exterior(2N) 21-7-13 to 34-6-0 zone;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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 33, 34, 35, 36, 37, 38, 28, 27, 26, 25, 24, 22 except (jt=lb) 32=103, 29=108, 23=113.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

August 1,2025

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818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	A2	COMMON	11	1	I75332692
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:38 2025 Page 1
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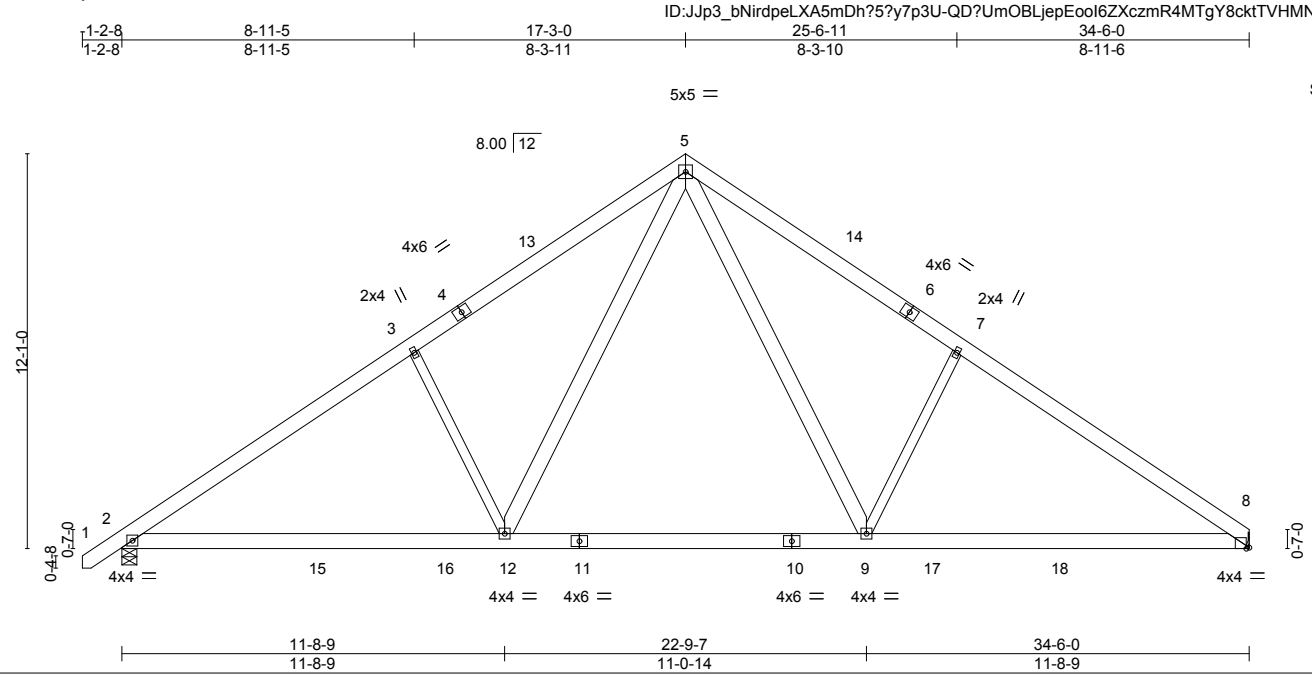

Plate Offsets (X,Y)-- [8:0-1-2,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.21	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.36	8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.05	2-12	>999	240	Weight: 258 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
7-9,3-12: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-6-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 8=Mechanical
Max Horz 2=288(LC 9)
Max Uplift 2=-90(LC 12), 8=-73(LC 13)
Max Grav 2=1819(LC 19), 8=1743(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2442/400, 3-5=-2299/503, 5-7=-2324/511, 7-8=-2467/407
BOT CHORD 2-12=-219/2131, 9-12=0/1388, 8-9=-214/1962
WEBS 5-9=-191/1247, 7-9=-548/347, 5-12=-185/1204, 3-12=-517/336

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 17-3-0, Exterior(2R) 17-3-0 to 21-7-13, Interior(1) 21-7-13 to 34-5-4 zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.

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Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	A4	COMMON	6	1	I75332693
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:38 2025 Page 1
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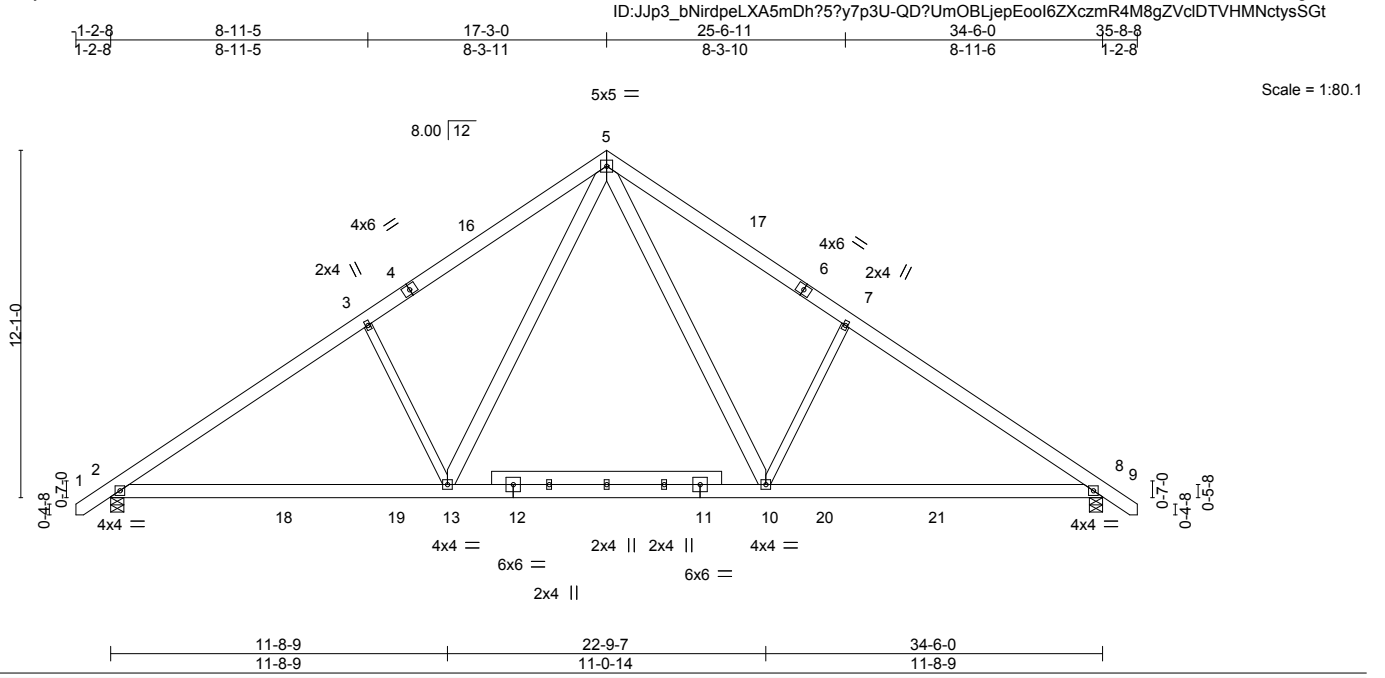

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.19	2-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.32	2-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.05	2-13	>999	240	Weight: 280 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
7-10,3-13: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=293(LC 11)
Max Uplift 2=-90(LC 12), 8=-90(LC 13)
Max Grav 2=1810(LC 19), 8=1810(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2427/396, 3-5=-2284/499, 5-7=-2284/499, 7-8=-2428/396
BOT CHORD 2-13=-177/2127, 10-13=0/1382, 8-10=-174/1931
WEBS 5-10=-184/1207, 7-10=-518/335, 5-13=-184/1207, 3-13=-517/335

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 17-3-0, Exterior(2R) 17-3-0 to 21-7-13, Interior(1) 21-7-13 to 35-6-15 zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.

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Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	A5-GE	GABLE	1	1	I75332694
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:39 2025 Page 1
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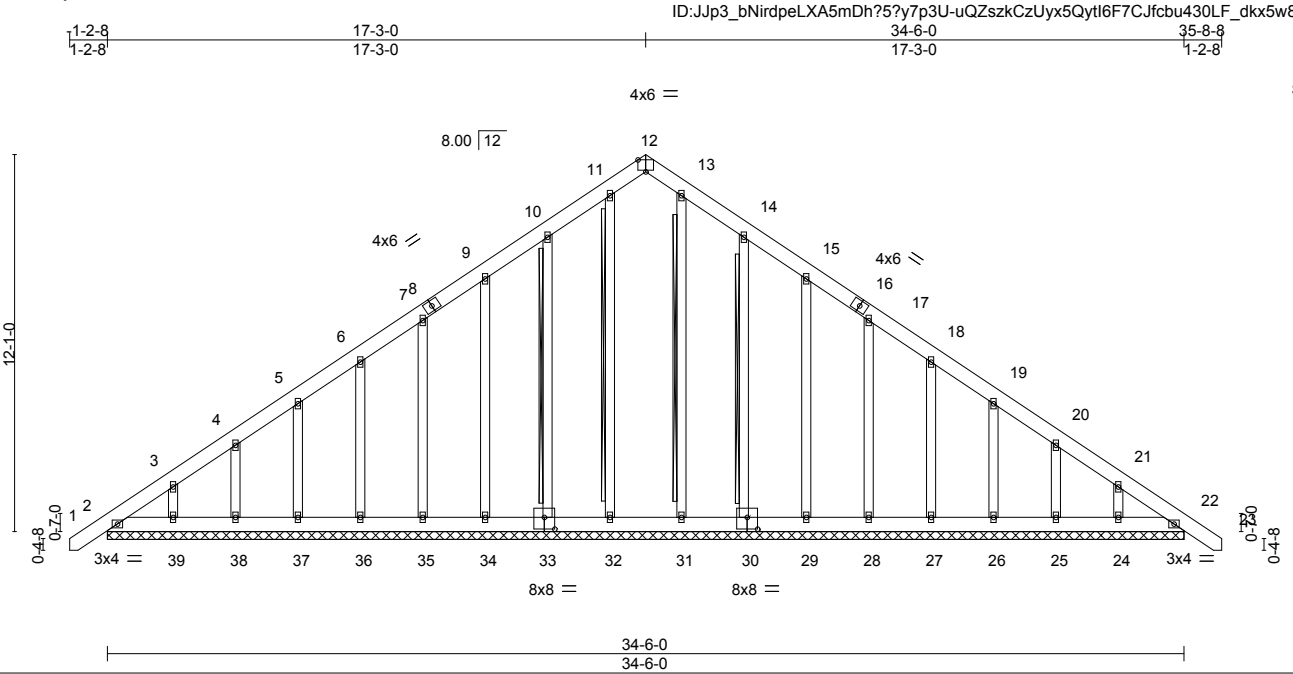

Plate Offsets (X,Y)-- [12:0-3-0,Edge], [16:0-0-0,0-0-0], [30:0-4-0,0-4-8], [33:0-4-0,0-4-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	22	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	22	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S							Weight: 322 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 11-32, 10-33, 13-31, 14-30
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. All bearings 34-6-0.
(lb) - Max Horz 2=-366(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 34, 35, 36, 37, 38, 39, 29, 28, 27, 26, 25, 24 except 33=-103(LC 12), 30=-108(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 22, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25, 24 except 32=267(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-399/264, 3-4=-316/231, 10-11=-173/266, 13-14=-173/263, 21-22=-327/162
BOT CHORD 2-39=-144/323, 38-39=-144/323, 37-38=-144/323, 36-37=-144/323, 35-36=-144/323, 34-35=-144/323, 33-34=-144/323, 32-33=-143/323, 31-32=-143/323, 30-31=-143/323, 29-30=-144/324, 28-29=-144/324, 27-28=-144/324, 26-27=-144/324, 25-26=-144/324, 24-25=-144/324, 22-24=-144/324

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-0-15 to 3-3-14, Exterior(2N) 3-3-14 to 17-3-0, Corner(3R) 17-3-0 to 21-7-13, Exterior(2N) 21-7-13 to 35-6-15 zone;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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 34, 35, 36, 37, 38, 39, 29, 28, 27, 26, 25, 24 except (jt=lb) 33=103, 30=108.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

August 1,2025

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Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	B1-GE	GABLE	1	1	I75332695
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:40 2025 Page 1
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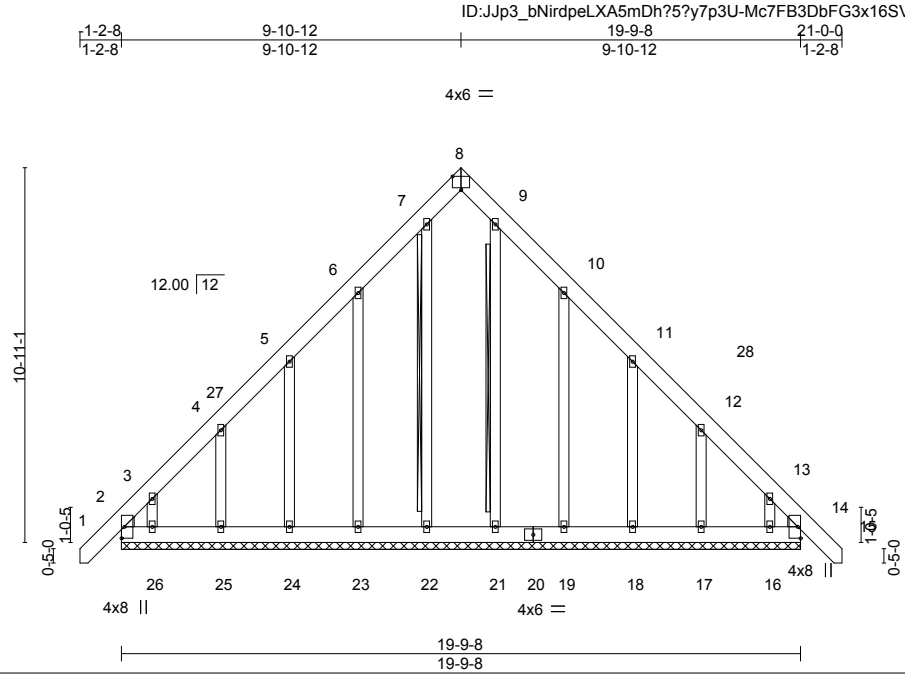

Plate Offsets (X,Y)-- [8:0-3-0,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	14	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	14	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	14	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S							Weight: 196 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 7-22, 9-21
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. All bearings 19-9-8.
(lb) - Max Horz 2=-329(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 22 except 2=-180(LC 10), 23=-159(LC 12), 24=-140(LC 12), 25=-152(LC 12), 26=-242(LC 12), 19=-162(LC 13), 18=-141(LC 13), 14=-125(LC 11), 17=-151(LC 13), 16=-231(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 22, 23, 24, 25, 26, 21, 19, 18, 17, 16 except 2=422(LC 12), 14=385(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-547/284, 3-4=-358/212, 12-13=-322/159, 13-14=-505/245
BOT CHORD 2-26=-158/386, 25-26=-160/388, 24-25=-161/389, 23-24=-161/390, 22-23=-161/390, 21-22=-161/390, 19-21=-161/390, 18-19=-161/390, 17-18=-161/389, 16-17=-160/388, 14-16=-158/385
WEBS 3-26=-163/251

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-1-2 to 3-3-11, Exterior(2N) 3-3-11 to 9-10-12, Corner(3R) 9-10-12 to 14-3-9, Exterior(2N) 14-3-9 to 20-10-10 zone;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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 22 except (jt=lb) 2=180, 23=159, 24=140, 25=152, 26=242, 19=162, 18=141, 14=125, 17=151, 16=231.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

August 1,2025

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Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	B2	COMMON GIRDER	1	2	I75332696
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:41 2025 Page 1
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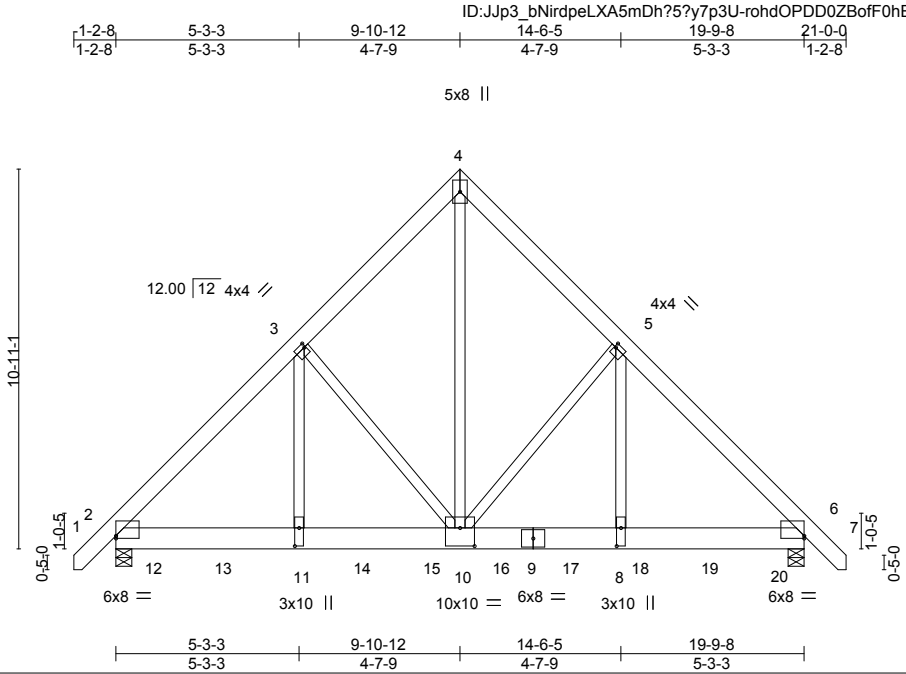

Plate Offsets (X,Y)-- [2:0-0-0,0-0-14], [3:0-0-8,0-1-8], [5:0-0-8,0-1-8], [6:Edge,0-0-14], [8:0-6-4,0-1-8], [10:0-5-0,0-6-4], [11:0-6-4,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.09	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.15	10-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	1.00	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.05	10-11	>999	240	Weight: 371 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-4-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 6=0-5-8
Max Horz 2=-263(LC 6)
Max Uplift 2=-456(LC 8), 6=-466(LC 9)
Max Grav 2=8865(LC 2), 6=9090(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-8948/504, 3-4=-6030/448, 4-5=-6031/449, 5-6=-8934/503
BOT CHORD 2-11=-348/5917, 10-11=-348/5929, 8-10=-253/5922, 6-8=-253/5910
WEBS 4-10=-527/8149, 5-10=-2653/303, 5-8=-171/4209, 3-10=-2664/302, 3-11=-171/4230

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 2=456, 6=466.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1649 lb down and 90 lb up at 1-0-0, 1646 lb down and 93 lb up at 3-0-0, 1646 lb down and 93 lb up at 5-0-0, 1646 lb down and 93 lb up at 7-0-0, 1646 lb down and 93 lb up at 9-0-0, 1646 lb down and 93 lb up at 11-0-0, 1646 lb down and 93 lb up at 13-0-0, 1646 lb down and 93 lb up at 15-0-0, and 1646 lb down and 93 lb up at 17-0-0, and 1651 lb down and 88 lb up at 19-0-0 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=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-7=-60, 2-6=-20

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Continued on page 2

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Edenton, NC 27932

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 11=-1347(B) 12=-1349(B) 13=-1347(B) 14=-1347(B) 15=-1347(B) 16=-1347(B) 17=-1347(B) 18=-1347(B) 19=-1347(B) 20=-1351(B)

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	C1-GE	ATTIC	1	1	I75332697
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:41 2025 Page 1
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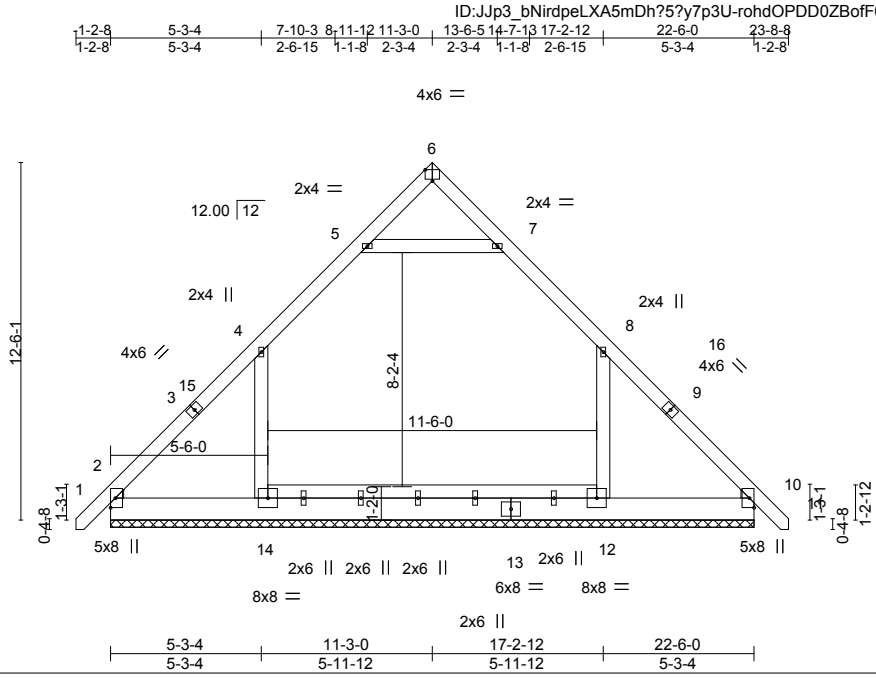

Plate Offsets (X,Y)-- [6:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.00	11	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.00	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S							Weight: 236 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1 *Except*
12-14: 2x6 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

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

REACTIONS. All bearings 22-6-0.
(lb) - Max Horz 2=369(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) except 14=-287(LC 12), 12=-284(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except 2=576(LC 1), 14=1098(LC 20), 12=1095(LC 21), 10=576(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-677/69, 4-5=-566/143, 7-8=-565/144, 8-10=-672/63
BOT CHORD 2-14=-25/457, 12-14=-25/457, 10-12=-25/457
WEBS 4-14=-471/369, 8-12=-468/366, 5-7=-287/173

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-0-14 to 3-3-15, Exterior(2N) 3-3-15 to 11-3-0, Corner(3R) 11-3-0 to 15-7-13, Exterior(2N) 15-7-13 to 23-6-14 zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-14, 8-12
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 287 lb uplift at joint 14 and 284 lb uplift at joint 12.
8) Attic room checked for L/360 deflection.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	C2	ATTIC	6	1	I75332698
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:42 2025 Page 1
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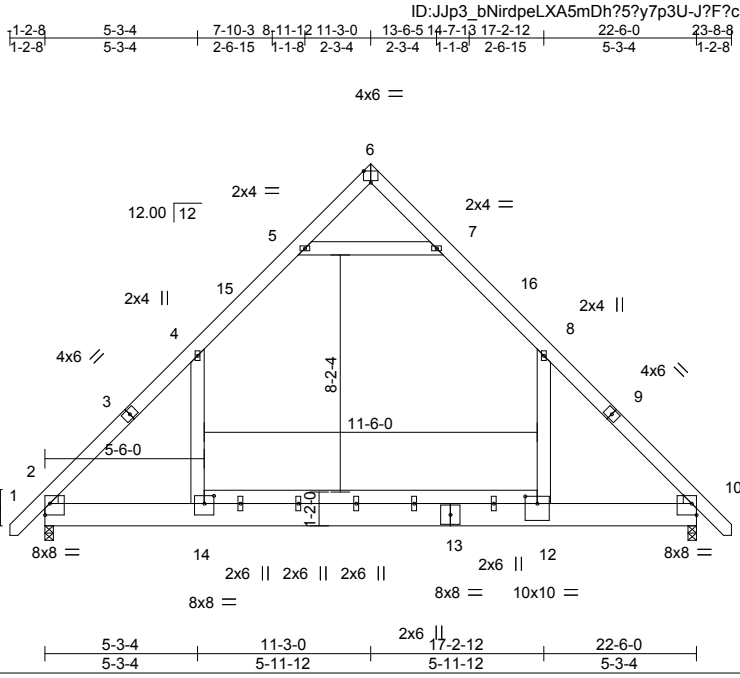

Plate Offsets (X,Y)-- [2:Edge,0-4-12], [6:0-3-0,Edge], [10:Edge,0-4-12], [12:0-5-0,0-3-0], [14:0-4-0,0-3-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.29	12-14	>911	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.51	12-14	>522	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.10	12-14	>999	240	Weight: 236 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E *Except*
1-3,9-11: 2x6 SP No.1
BOT CHORD 2x10 SP No.1 *Except*
12-14: 2x6 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-4-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-4-3 oc bracing.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=295(LC 11)
Max Grav 2=1518(LC 20), 10=1518(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1928/0, 4-5=-1039/142, 5-6=0/385, 6-7=0/386, 7-8=-1038/142, 8-10=-1927/0
BOT CHORD 2-14=0/1088, 12-14=0/1088, 10-12=0/1088
WEBS 4-14=0/939, 8-12=0/939, 5-7=-1492/184

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-14 to 3-3-15, Interior(1) 3-3-15 to 11-3-0, Exterior(2R) 11-3-0 to 15-7-13, Interior(1) 15-7-13 to 23-6-14 zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-14, 8-12
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
7) Attic room checked for L/360 deflection.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	C3	ATTIC	2	2	I75332699
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:43 2025 Page 1
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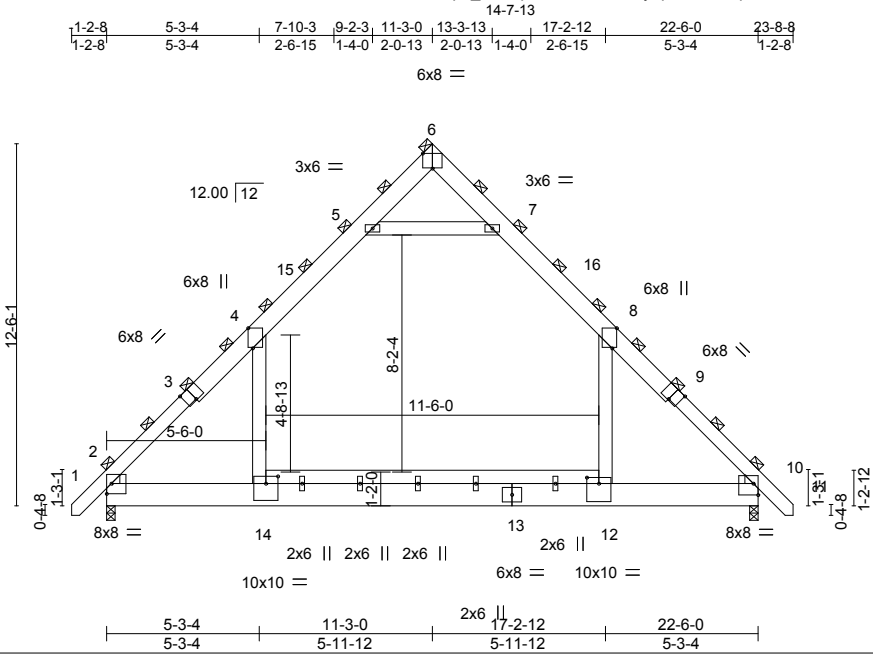

Plate Offsets (X,Y)-- [2:Edge,0-4-4], [3:0-4-0,Edge], [4:0-8-6,Edge], [6:0-4-0,Edge], [8:0-8-6,Edge], [9:0-4-0,Edge], [10:Edge,0-4-12], [12:0-5-0,0-2-8], [14:0-5-0,0-3-0]

LOADING (psf)		SPACING-	4-9-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.26	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.47	12-14	>572	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.13	12-14	>999	240	Weight: 505 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP 2400F 2.0E *Except* 1-3,9-11: 2x6 SP No.1
BOT CHORD 2x10 SP 2400F 2.0E *Except* 12-14: 2x6 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD 2-0-0 oc purlins (4-11-15 max.) (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-696(LC 10)
Max Grav 2=5052(LC 20), 10=4038(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-5857/93, 4-5=-2882/431, 5-6=-123/1482, 6-7=-86/1334, 7-8=-3030/468, 8-10=-5634/55
BOT CHORD 2-14=0/3262, 12-14=0/3262, 10-12=0/3262
WEBS 4-14=0/3443, 8-12=0/2956, 5-7=-4911/756

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-14 to 3-3-15, Interior(1) 3-3-15 to 11-3-0, Exterior(2R) 11-3-0 to 15-7-13, Interior(1) 15-7-13 to 23-6-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-14, 8-12
8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1882 lb down and 470 lb up at 5-6-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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Continued on page 2

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-143, 4-5=-190, 5-6=-142, 6-7=-142, 7-8=-190, 8-11=-142, 2-14=-47, 12-14=-95, 10-12=-47, 5-7=-47
   Drag: 4-14=-24, 8-12=-24
   Concentrated Loads (lb)
   Vert: 14=-1860(F)

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	C4	ATTIC	3	1	I75332700
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:43 2025 Page 1
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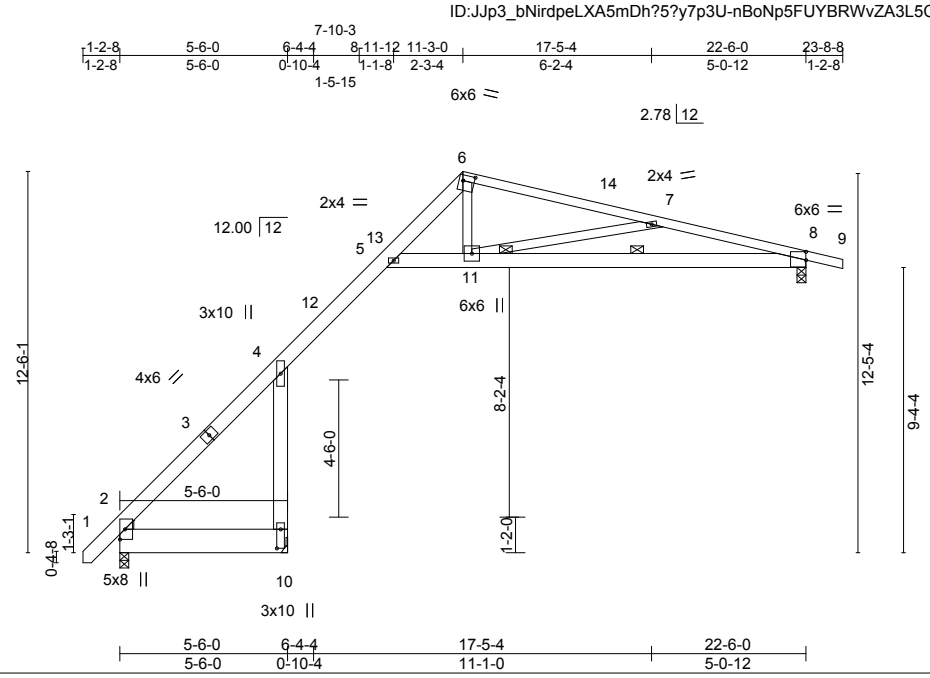

Scale = 1:75.6

Plate Offsets (X,Y)-- [6:0-4-8,0-2-4], [8:0-0-1,0-3-5], [10:0-7-8,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	0.00	2-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.00	2-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.60	Horz(CT)	-0.36	8	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	-0.00	2	>999	240	Weight: 141 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E *Except*
6-9: 2x4 SP No.1, 1-3: 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1 *Except*
6-11: 2x4 SP No.3, 7-11: 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-11
JOINTS 1 Brace at Jt(s): 11

REACTIONS. (size) 2=0-3-8, 10=Mechanical, 8=0-3-8
Max Horz 2=345(LC 12)
Max Uplift 2=-95(LC 10), 10=-500(LC 12), 8=-196(LC 9)
Max Grav 2=298(LC 12), 10=1050(LC 20), 8=552(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1233/476, 4-5=-444/386, 5-6=-676/918, 6-7=-687/1031, 7-8=-1536/2062
WEBS 5-11=-819/623, 8-11=-1948/1472, 7-11=-868/1204, 4-10=-1107/1991

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-14 to 3-3-15, Interior(1) 3-3-15 to 11-3-0, Exterior(2R) 11-3-0 to 15-7-13, Interior(1) 15-7-13 to 23-8-8 zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 2, 500 lb uplift at joint 10 and 196 lb uplift at joint 8.
7) Load case(s) 18 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
8) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-13=-80, 6-13=-60, 6-9=-60, 2-10=-20
18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-4=-20, 4-13=-40, 6-13=-20, 6-9=-20, 2-10=-20

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

August 1,2025

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	D1-SG	GABLE	1	1	I75332701
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:44 2025 Page 1
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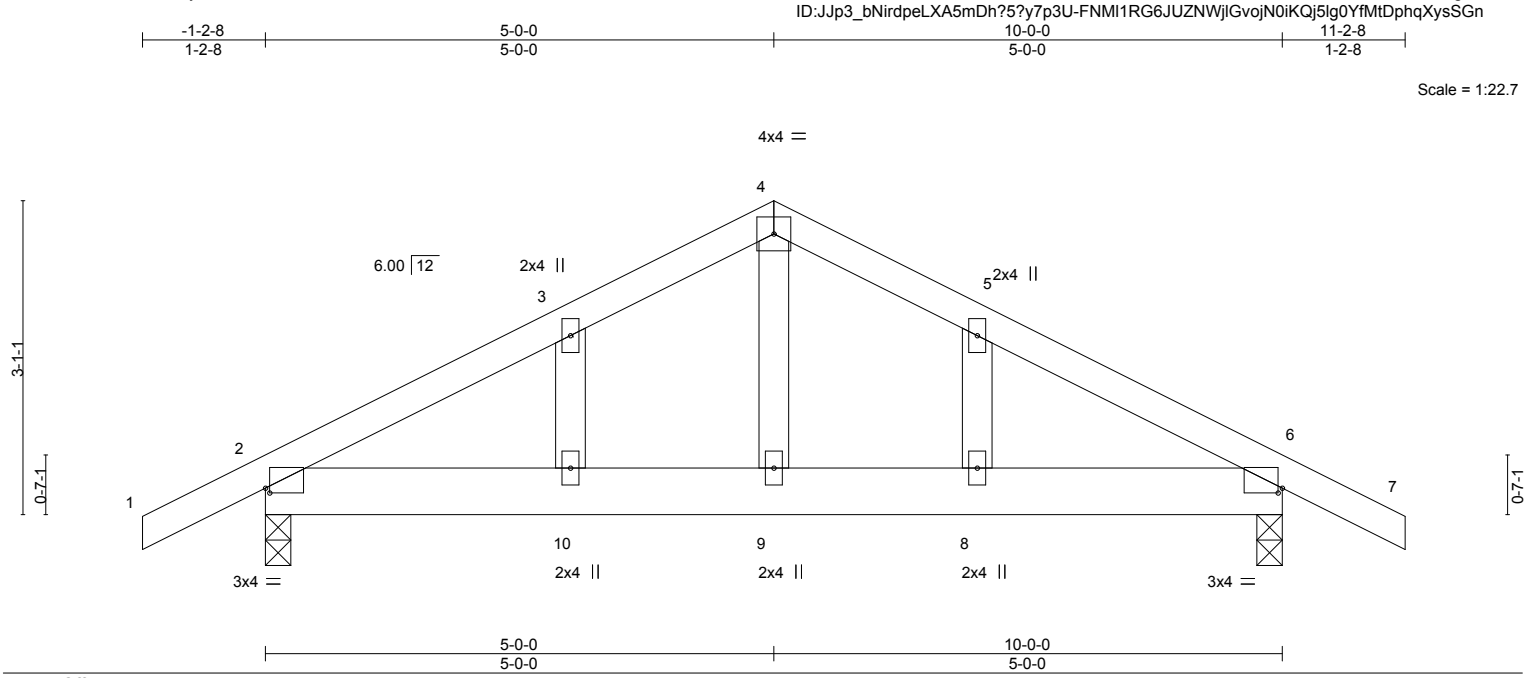

Plate Offsets (X,Y)-- [2:0-0-8,0-0-9], [6:0-0-8,0-0-9]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.01	10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.02	8	>999	240	Weight: 52 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

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

REACTIONS. (size) 2=0-3-0, 6=0-3-0
Max Horz 2=-63(LC 17)
Max Uplift 2=-120(LC 9), 6=-120(LC 8)
Max Grav 2=470(LC 1), 6=470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-498/499, 3-4=-455/584, 4-5=-455/584, 5-6=-498/499
BOT CHORD 2-10=-319/386, 9-10=-319/386, 8-9=-319/386, 6-8=-319/386
WEBS 4-9=-369/250

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-2-8 to 3-0-0, Exterior(2N) 3-0-0 to 5-0-0, Corner(3R) 5-0-0 to 9-4-13, Exterior(2N) 9-4-13 to 11-2-8 zone; porch 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 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 120 lb uplift at joint 2 and 120 lb uplift at joint 6.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	D2	COMMON	4	1	I75332702
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:44 2025 Page 1
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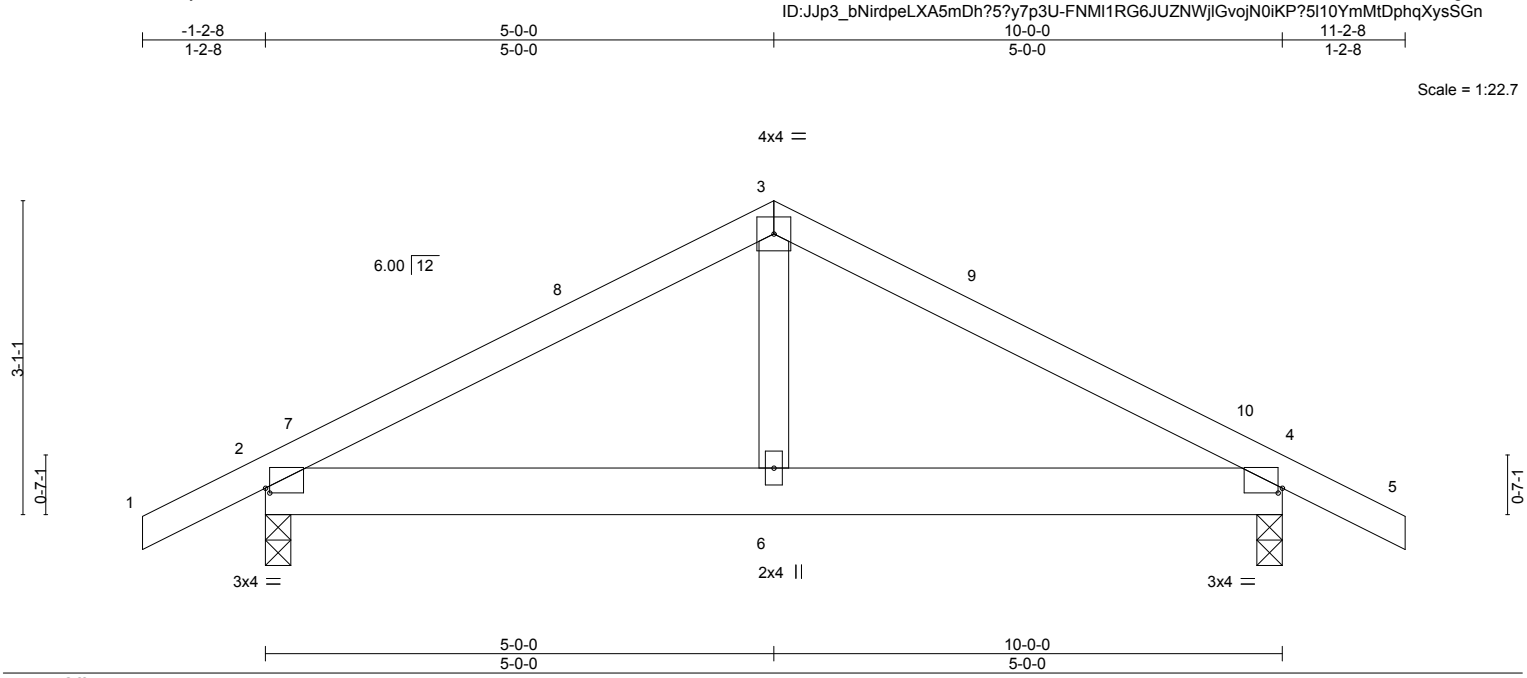

Plate Offsets (X,Y)-- [2:0-0-8,0-0-9], [4:0-0-8,0-0-9]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.01	6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.01	2-6	>999	240	Weight: 48 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS. (size) 2=0-3-0, 4=0-3-0
Max Horz 2=-40(LC 10)
Max Uplift 2=-91(LC 9), 4=-91(LC 8)
Max Grav 2=470(LC 1), 4=470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-511/488, 3-4=-511/487
BOT CHORD 2-6=-287/381, 4-6=-287/381

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-0-0, Exterior(2R) 5-0-0 to 9-4-13, Interior(1) 9-4-13 to 11-2-8 zone; porch 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 91 lb uplift at joint 2 and 91 lb uplift at joint 4.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	VB6	VALLEY	1	1	I75332703
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:49 2025 Page 1
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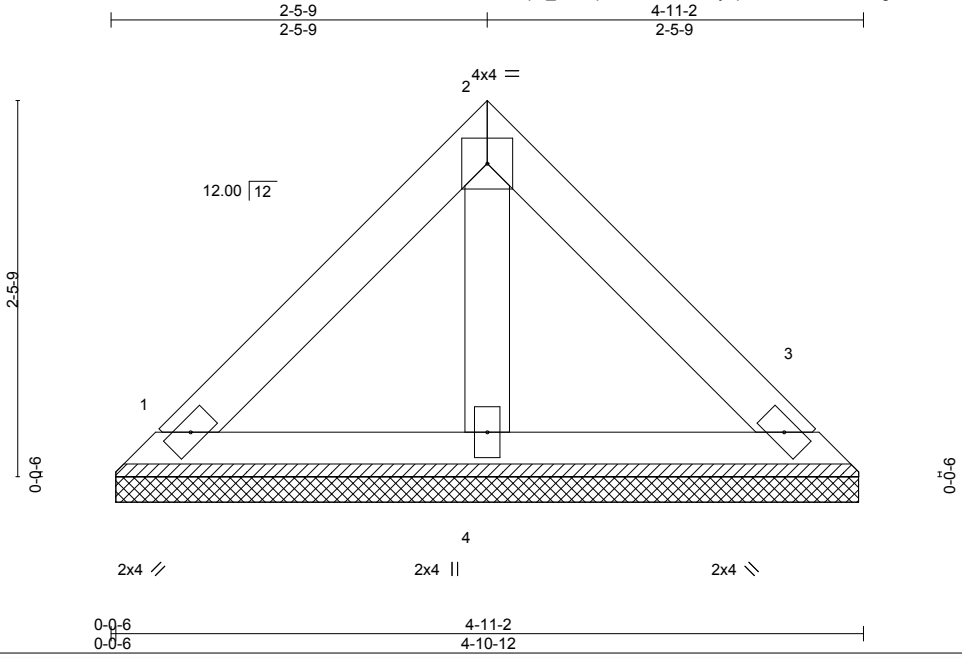

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-10-6, 3=4-10-6, 4=4-10-6
Max Horz 1=51(LC 11)
Max Uplift 1=-18(LC 13), 3=-18(LC 13)
Max Grav 1=103(LC 1), 3=103(LC 1), 4=132(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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 18 lb uplift at joint 1 and 18 lb uplift at joint 3.
6) Non Standard bearing condition. Review required.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	VB5	VALLEY	1	1	I75332704
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:49 2025 Page 1
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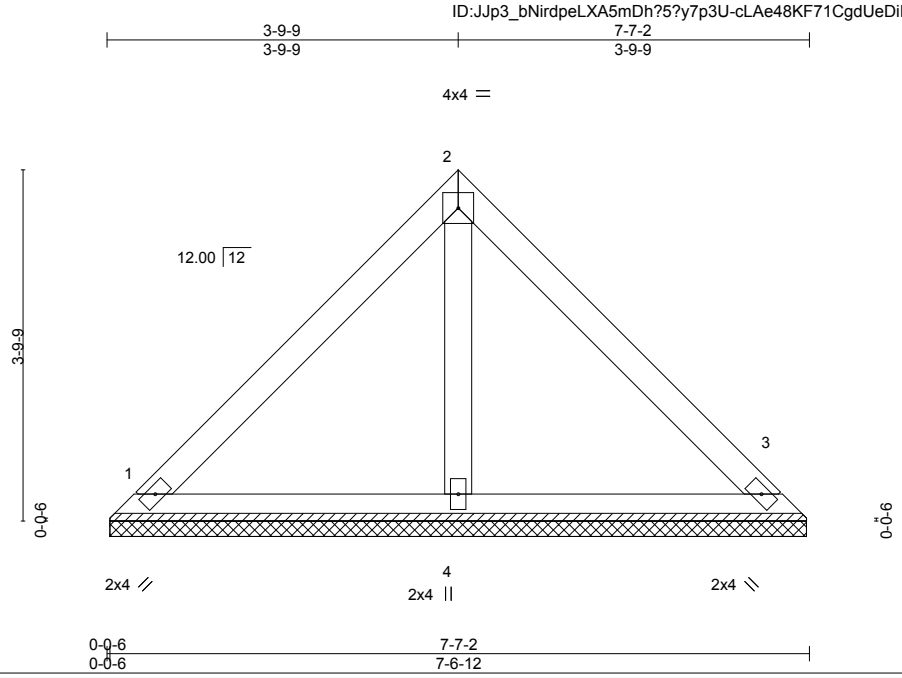

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 30 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. (size) 1=7-6-6, 3=7-6-6, 4=7-6-6
Max Horz 1=83(LC 9)
Max Uplift 1=-30(LC 13), 3=-30(LC 13)
Max Grav 1=168(LC 1), 3=168(LC 1), 4=216(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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 30 lb uplift at joint 1 and 30 lb uplift at joint 3.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	VB4	VALLEY	1	1	I75332705
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:48 2025 Page 1
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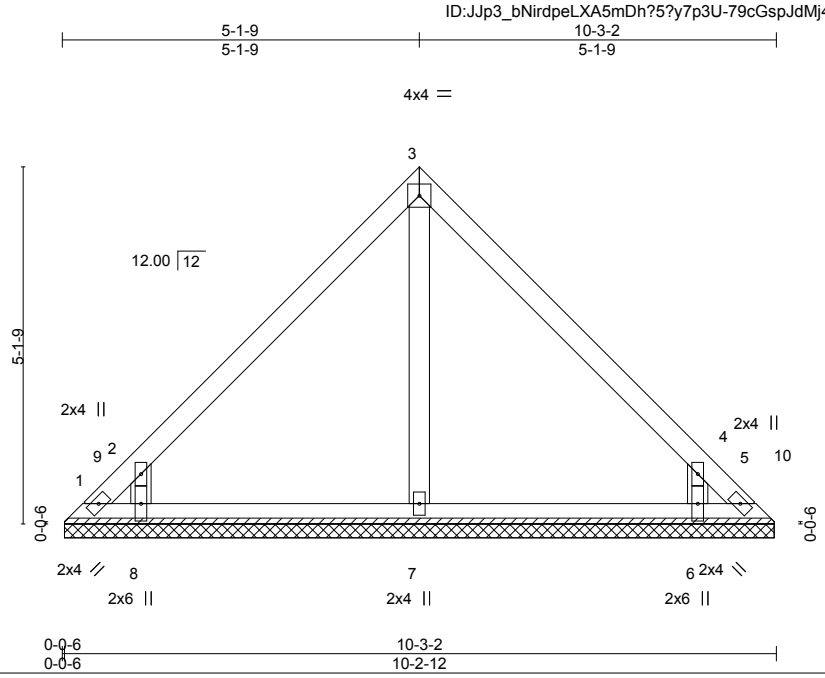

Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	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	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 44 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 10-2-6.
(lb) - Max Horz 1=115(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-152(LC 10), 5=-132(LC 11), 8=-190(LC 12), 6=-189(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=393(LC 19), 6=393(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-321/150, 4-5=-307/147
WEBS 2-8=-377/553, 4-6=-377/552

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-1-9, Exterior(2R) 5-1-9 to 9-6-6, Interior(1) 9-6-6 to 9-10-14 zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 152 lb uplift at joint 1, 132 lb uplift at joint 5, 190 lb uplift at joint 8 and 189 lb uplift at joint 6.
6) Non Standard bearing condition. Review required.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	VB3	VALLEY	1	1	I75332706
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:48 2025 Page 1
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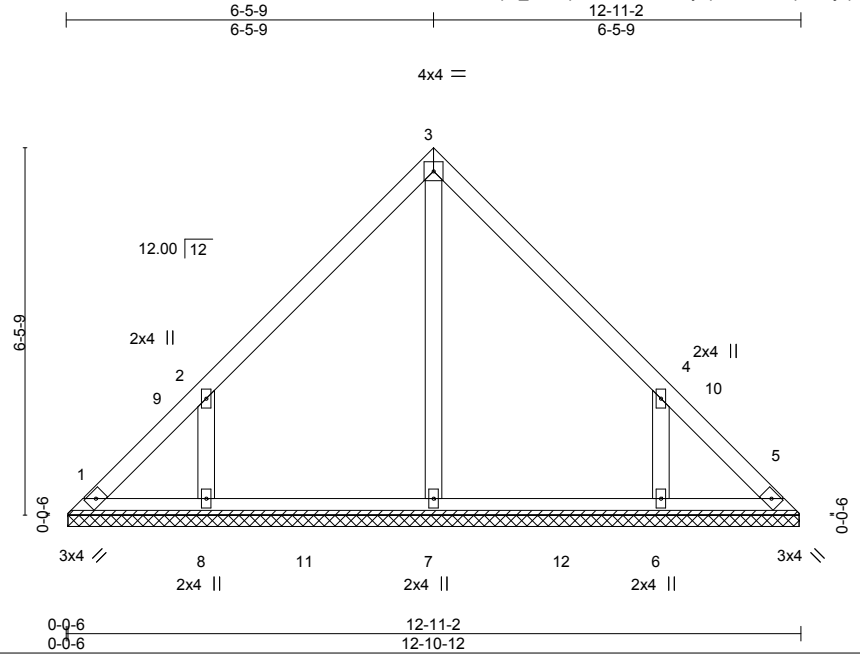

Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S							Weight: 59 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 12-10-6.
(lb) - Max Horz 1=-147(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-162(LC 12), 6=-162(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=391(LC 19), 8=414(LC 19), 6=413(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-295/369, 4-6=-295/369

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 6-5-9, Exterior(2R) 6-5-9 to 10-10-6, Interior(1) 10-10-6 to 12-6-14 zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=162, 6=162.
6) Non Standard bearing condition. Review required.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	VB2	VALLEY	1	1	I75332707
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:47 2025 Page 1
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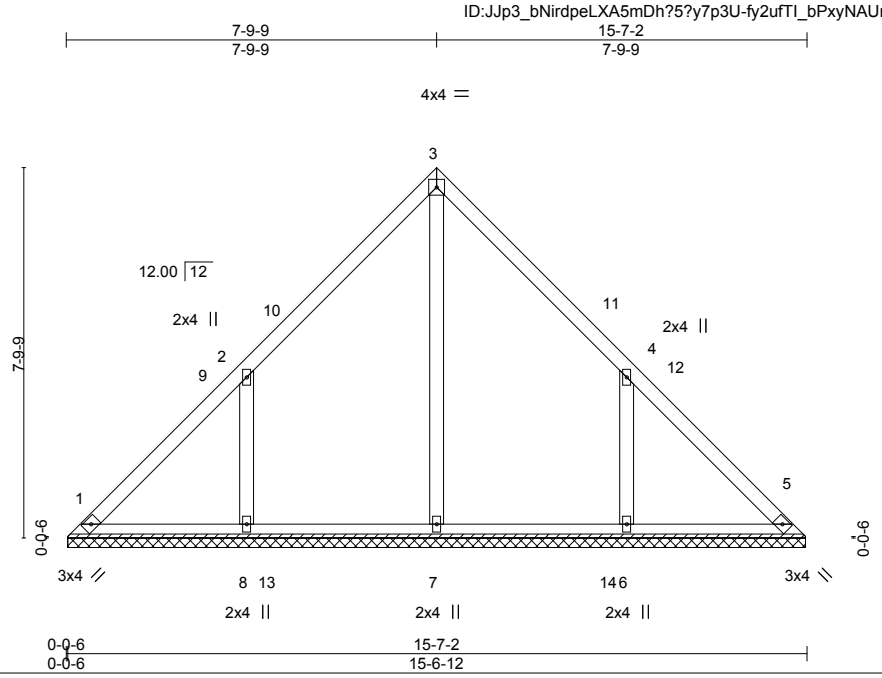

Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S							Weight: 75 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 15-6-6.
(lb) - Max Horz 1=-178(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-186(LC 12), 6=-186(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=408(LC 22), 8=512(LC 19), 6=512(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-316/346, 4-6=-316/346

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 7-9-9, Exterior(2R) 7-9-9 to 12-2-6, Interior(1) 12-2-6 to 15-2-14 zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 1 except (jt=lb) 8=186, 6=186.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	VB1	VALLEY	1	1	I75332708
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:46 2025 Page 1
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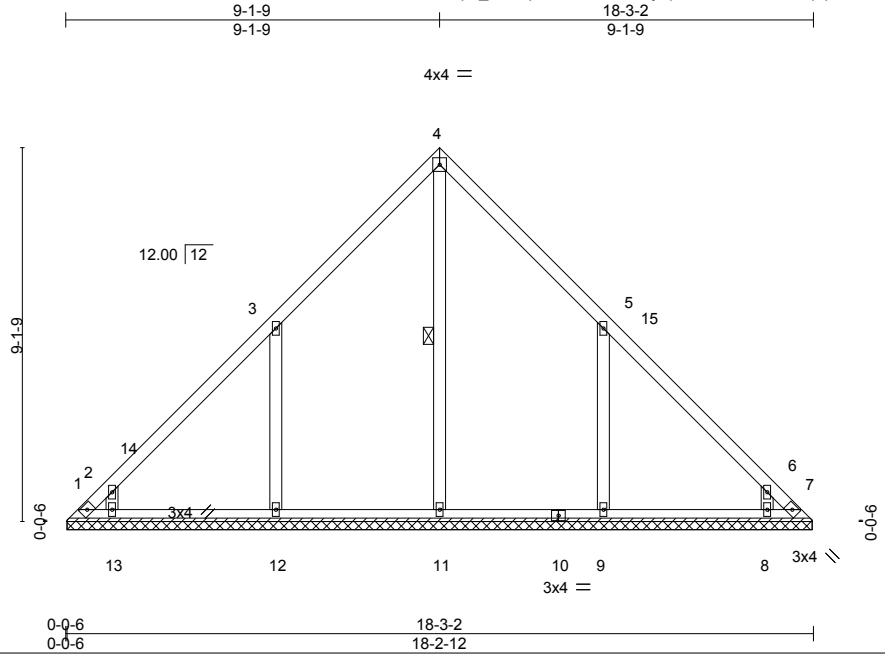


Plate Offsets (X,Y)-- [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 92 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-11

REACTIONS. All bearings 18-2-6.
(lb) - Max Horz 1=210(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-184(LC 10), 7=-149(LC 11), 12=-184(LC 12), 13=-145(LC 12), 9=-184(LC 13), 8=-145(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=421(LC 22), 12=520(LC 19), 13=368(LC 19), 9=520(LC 20), 8=369(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-300/213, 6-7=-293/186
WEBS 3-12=-317/314, 2-13=-263/241, 5-9=-317/314, 6-8=-263/241

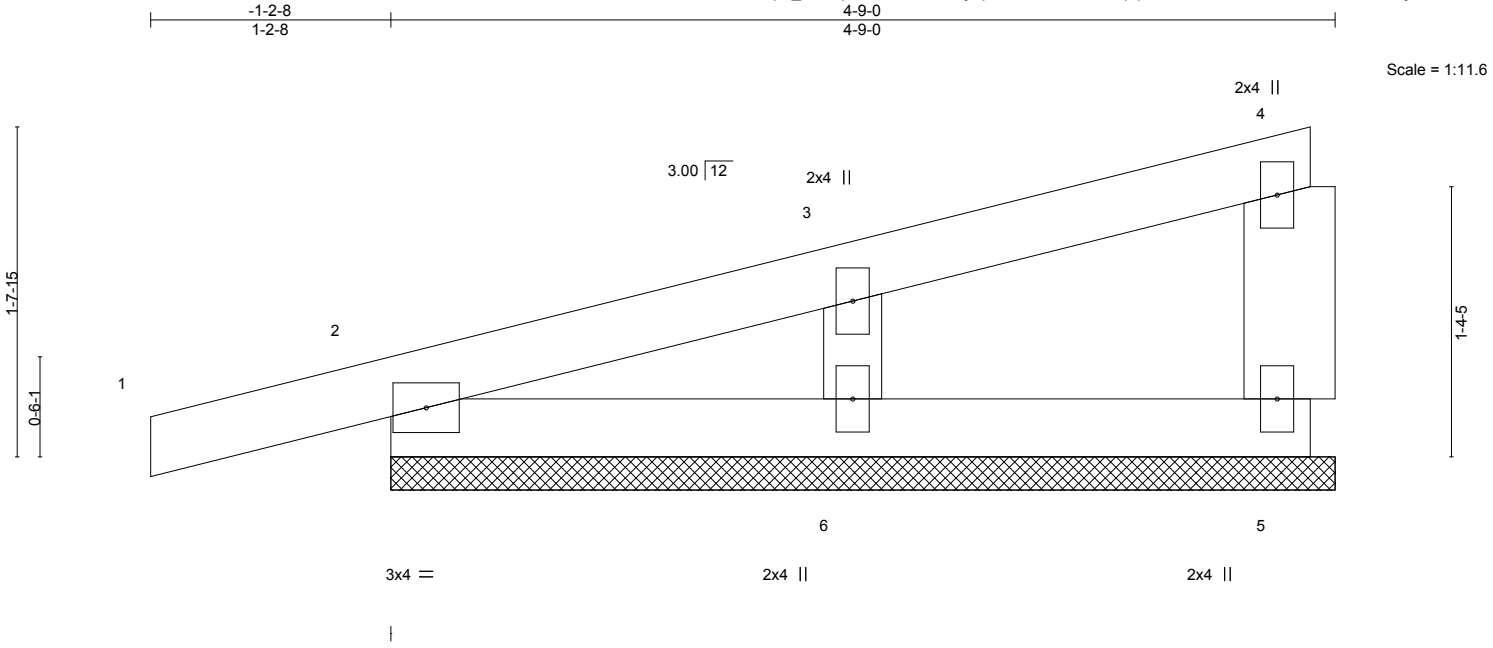
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 9-1-9, Exterior(2R) 9-1-9 to 13-6-6, Interior(1) 13-6-6 to 17-10-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 184 lb uplift at joint 1, 149 lb uplift at joint 7, 184 lb uplift at joint 12, 145 lb uplift at joint 13, 184 lb uplift at joint 9 and 145 lb uplift at joint 8.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	P4-GE	GABLE	1	1	I75332709
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:46 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-BmUWR7HMq6p5m1ve1Dlr57PnavSVUSJeLXIouQysSGl



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x6 SP No.1
OTHERS	2x4 SP No.2

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.

REACTIONS. (size) 5=4-9-0, 2=4-9-0, 6=4-9-0
Max Horz 2=69(LC 8)
Max Uplift 5=-25(LC 8), 2=-85(LC 8), 6=-65(LC 12)
Max Grav 5=70(LC 1), 2=167(LC 1), 6=197(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-141/289

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-2-8 to 3-2-5, Exterior(2N) 3-2-5 to 4-6-4 zone; porch 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 2-0-0 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 25 lb uplift at joint 5, 85 lb uplift at joint 2 and 65 lb uplift at joint 6.

August 1,2025

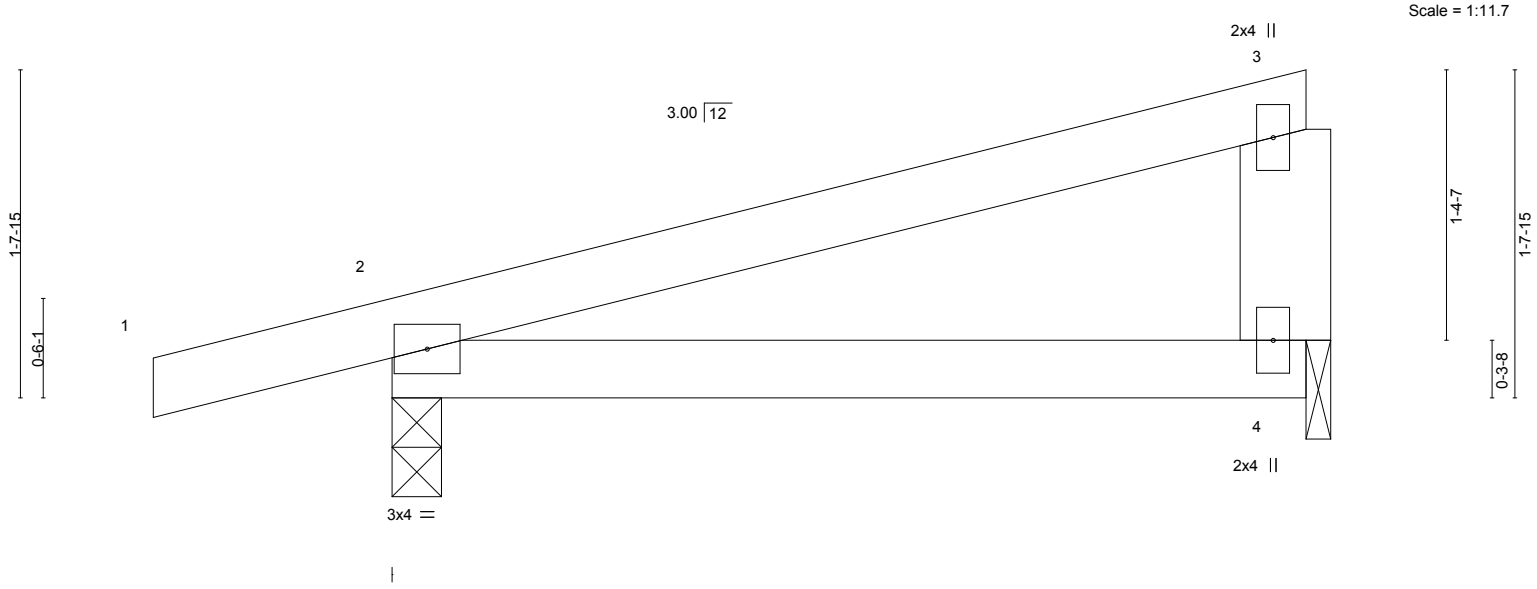
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	P3	MONOPITCH	10	1	I75332710
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:45 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-jaw8EnGk4ohE8tKSTVEcZwsa6V4AI?sV6tYFMzysSGm

-1-2-8 / 1-2-8 | 4-9-0 / 4-9-0

Scale = 1:11.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.02	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.04	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.03	2-4	>999	240	Weight: 18 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x6 SP No.1

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.

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=48(LC 8)
Max Uplift 2=-117(LC 8), 4=-67(LC 8)
Max Grav 2=268(LC 1), 4=164(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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-6-4 zone; porch 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 2 and 67 lb uplift at joint 4.

August 1,2025

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	P2	MONOPITCH	6	1	I75332711
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:45 2025 Page 1
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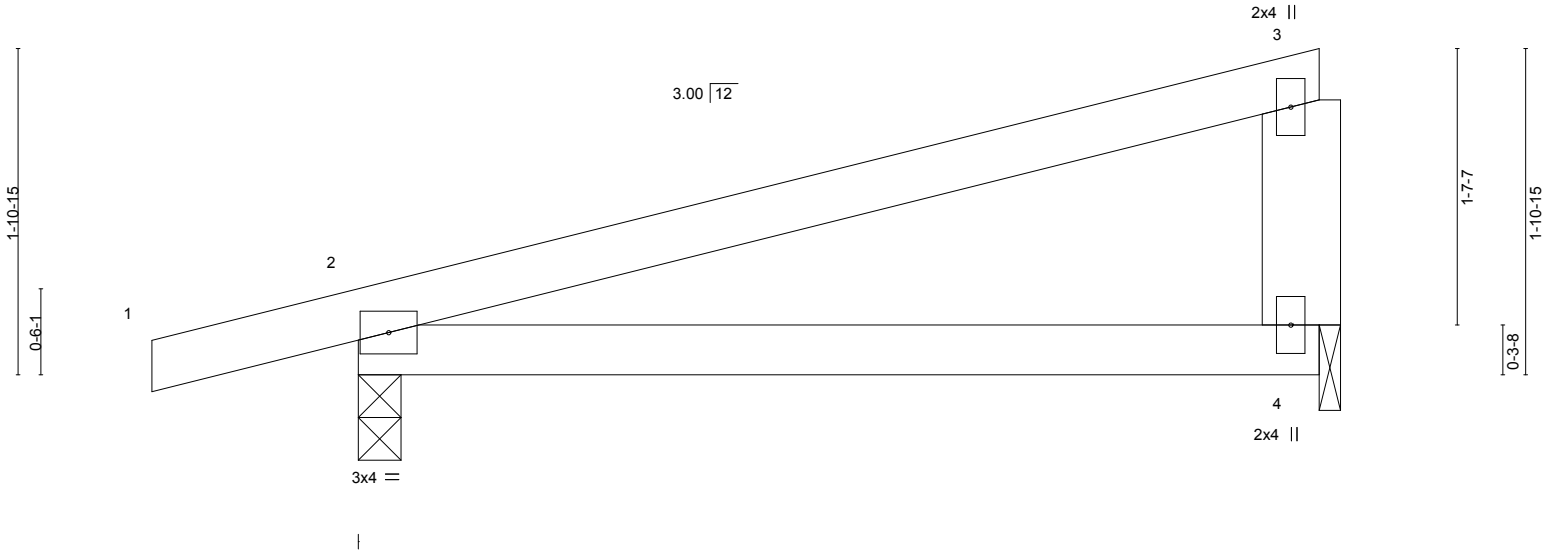
-1-2-8 / 1-2-8 | 5-9-0 / 5-9-0

Scale = 1:13.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.04	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.09	2-4	>728	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.06	2-4	>999	240	Weight: 22 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x6 SP No.1

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.

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=56(LC 8)
Max Uplift 2=-130(LC 8), 4=-85(LC 8)
Max Grav 2=306(LC 1), 4=206(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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-6-4 zone; porch 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 2 and 85 lb uplift at joint 4.

August 1,2025

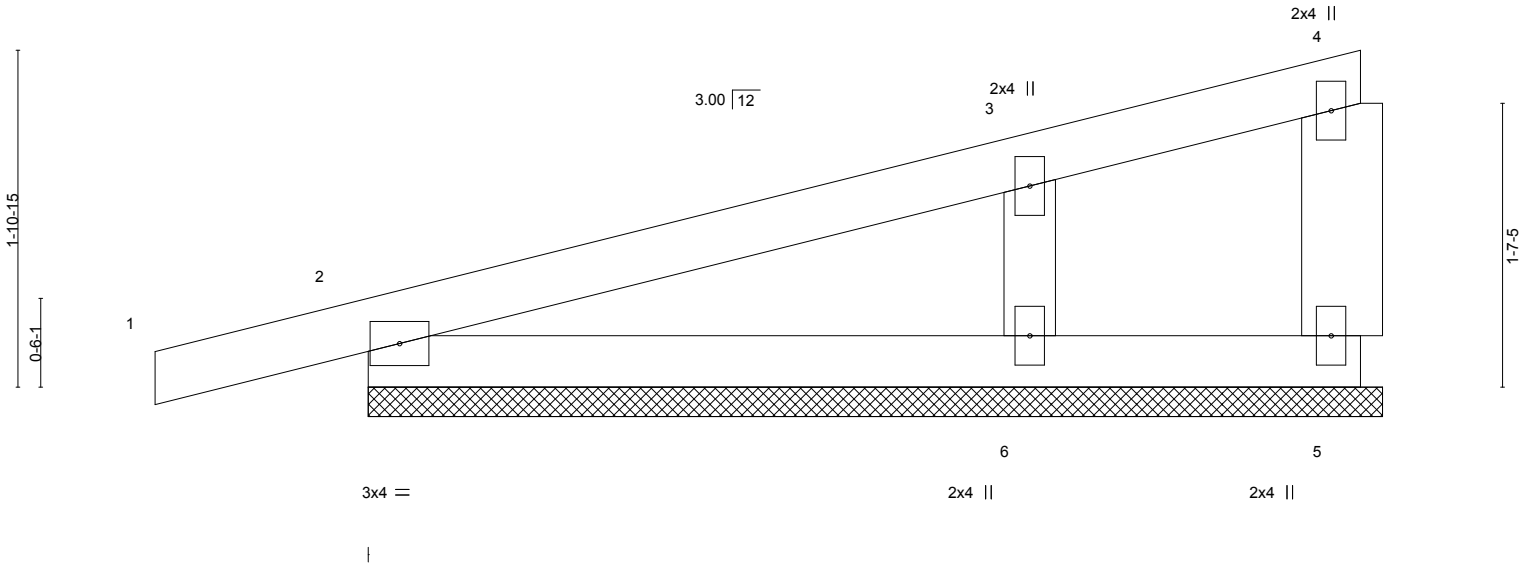
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3383-A	P1-GE	GABLE	1	1	I75332712
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:24:45 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-jaw8EnGk4ohE8tKSTVEcZwsbQV5bl_mV6tYFMzysSGm

-1-2-8 5-9-0
1-2-8 5-9-0

Scale = 1:13.1



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

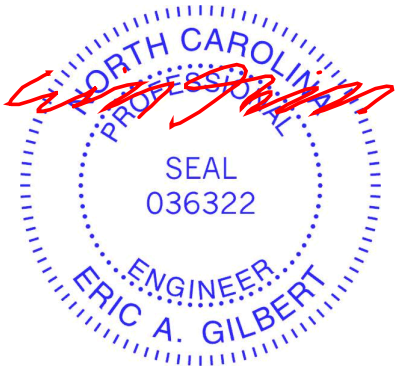
TOP CHORD	Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=5-9-0, 2=5-9-0, 6=5-9-0
Max Horz 2=80(LC 8)
Max Uplift 5=-10(LC 8), 2=-93(LC 8), 6=-93(LC 12)
Max Grav 5=20(LC 1), 2=210(LC 1), 6=284(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-207/401

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-2-8 to 3-2-5, Exterior(2N) 3-2-5 to 5-6-4 zone; porch 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 2-0-0 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 10 lb uplift at joint 5, 93 lb uplift at joint 2 and 93 lb uplift at joint 6.



August 1,2025

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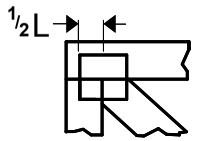
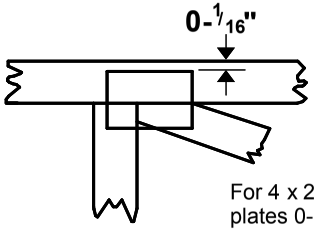
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

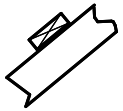
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

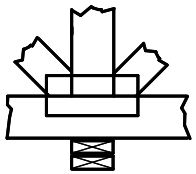
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

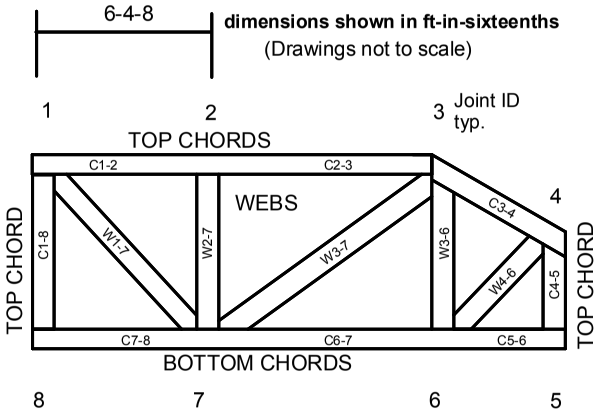


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0725-3384-A
Lot 91 Magnolia Hills

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: I75332679 thru I75332690

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

August 1,2025

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	ET1	GABLE	1	1	I75332679
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:32 2025 Page 1
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0-1-8 0-1-8

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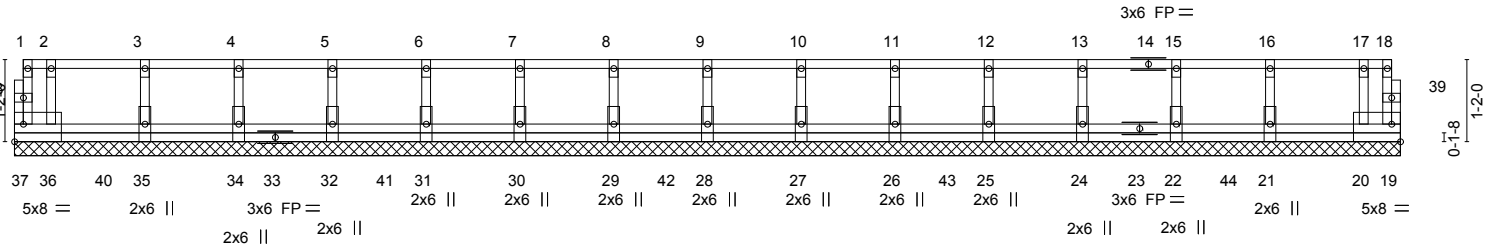

0-6-4	1-10-4	3-2-4	4-6-4	5-10-4	7-2-4	8-6-4	9-10-4	11-2-4	12-6-4	13-10-4	15-2-4	16-6-4	17-10-4	19-2-4	19-8-8
0-6-4	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-6-4

Plate Offsets (X,Y)-- [20:Edge,0-3-0], [37:Edge,0-3-0]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	-0.00	19	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 109 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(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 10-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 19-8-8.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 37
Max Grav All reactions 250 lb or less at joint(s) 28, 29, 30, 31, 32, 34, 35, 36, 27, 26, 25, 24, 22, 21, 20, 19

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) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 37.
7) 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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 19-37=-10, 1-18=-100
Concentrated Loads (lb)
Vert: 30=-74 34=-74 27=-74 24=-74 19=-78 40=-74 41=-74 42=-74 43=-74 44=-74

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	F1	GABLE	1	1	I75332680
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:34 2025 Page 1
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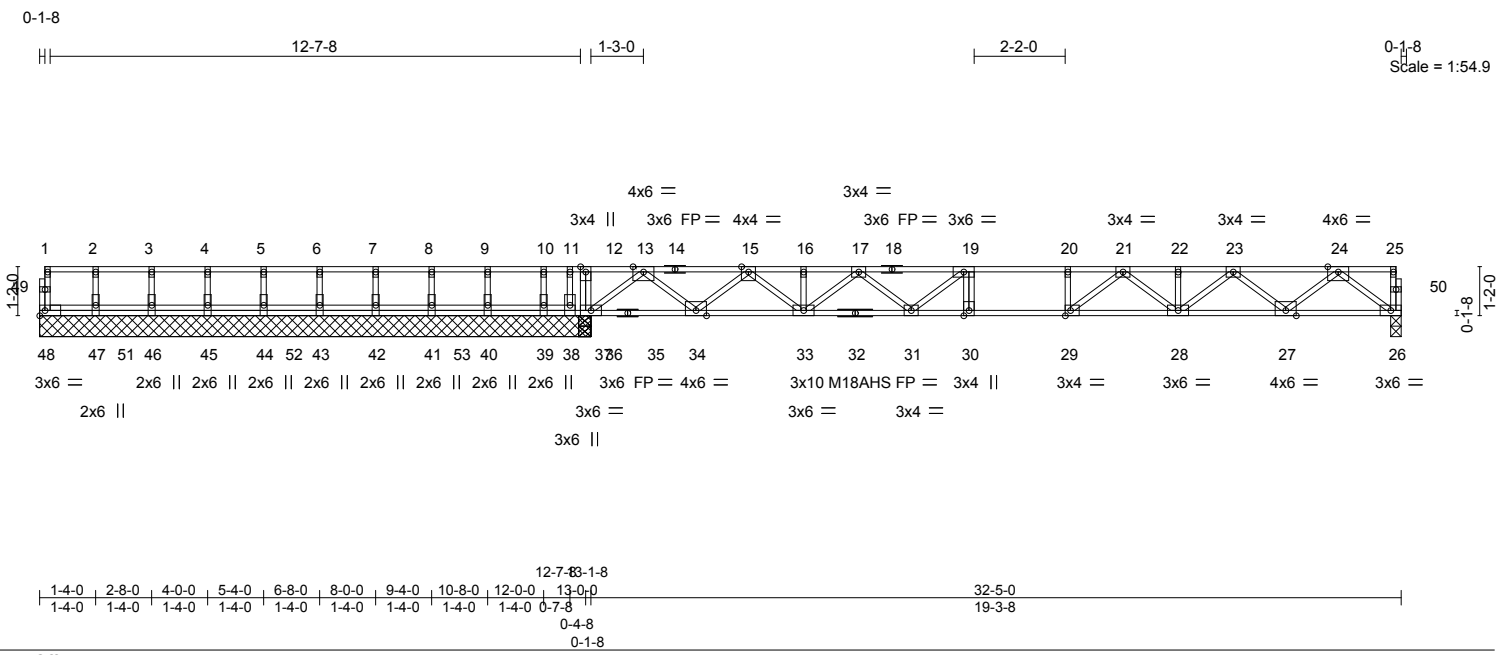


Plate Offsets (X,Y)-- [29:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.49	Vert(LL)	-0.34	30	>672	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.65	Vert(CT)	-0.47	30	>491	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	NO	WB	0.57	Horz(CT)	0.07	26	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 171 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

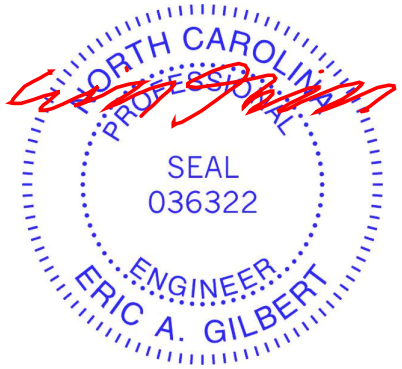
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 36-38.

REACTIONS. All bearings 13-1-8 except (jt=length) 26=0-3-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) except 38=-970(LC 4)
Max Grav All reactions 250 lb or less at joint(s) 48, 47, 46, 45, 44, 43, 42, 41, 40 except 36=1962(LC 1), 36=1962(LC 1), 36=1962(LC 1), 26=1041(LC 1), 39=328(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-15=-2023/0, 15-16=-3667/0, 16-17=-3667/0, 17-19=-4518/0, 19-20=-4724/0, 20-21=-4724/0, 21-22=-3782/0, 22-23=-3782/0, 23-24=-2239/0
BOT CHORD 34-36=0/1108, 33-34=0/2981, 31-33=0/4262, 30-31=0/4724, 29-30=0/4724, 28-29=0/4296, 27-28=0/3124, 26-27=0/1314
WEBS 12-36=-636/0, 13-36=-1387/0, 13-34=0/1192, 15-34=-1246/0, 15-33=0/876, 24-26=-1646/0, 24-27=0/1204, 23-27=-1152/0, 23-28=0/841, 21-28=-655/0, 21-29=0/547, 11-38=0/455, 17-33=-760/0, 17-31=0/333, 19-31=-259/0, 20-29=-263/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Gable studs spaced at 1-4-0 oc.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 970 lb uplift at joint 38.
7) 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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 26-48=-10, 1-25=-100
Concentrated Loads (lb)
Vert: 45=-95 42=-95 39=-95 51=-95 52=-95 53=-95



August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	F2	FLOOR	1	1	I75332681
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:35 2025 Page 1
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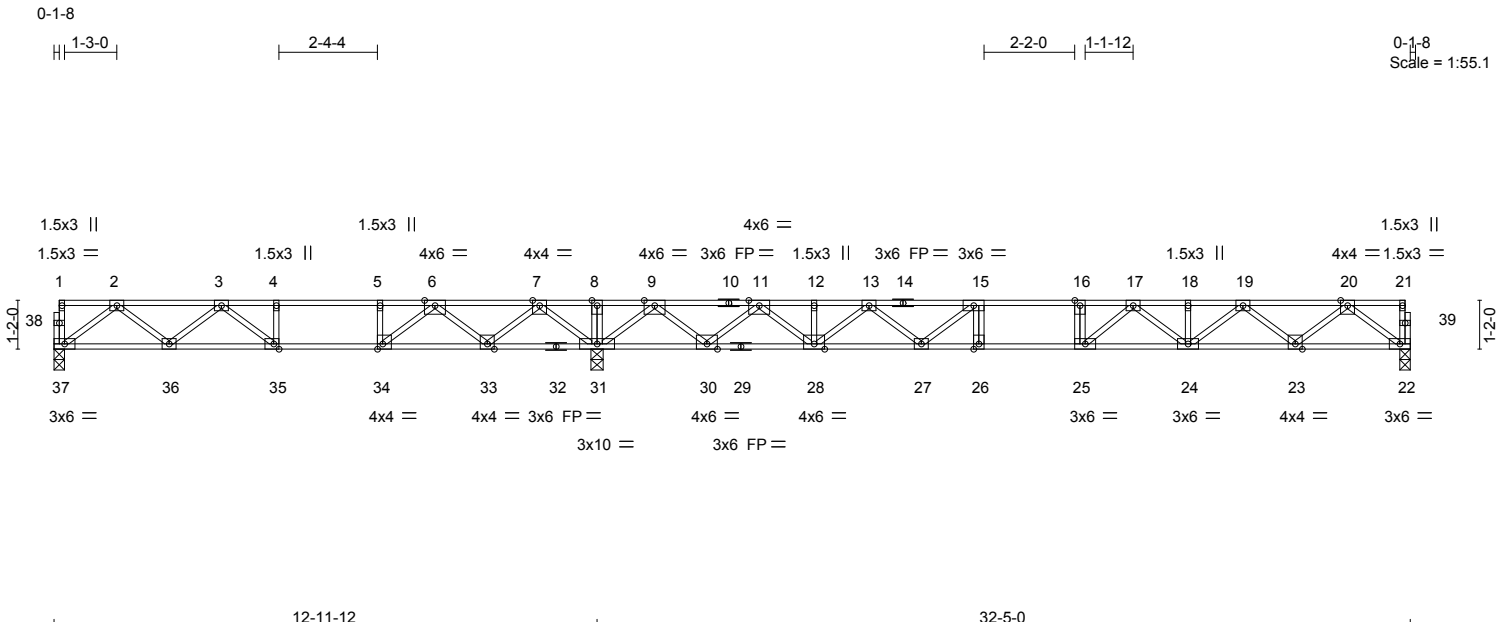

Plate Offsets (X,Y)-- [34:0-1-8,Edge], [35:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	-0.28	25	>824	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.38	25	>604	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.05	22	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 163 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.1(flat) *Except* 1-10: 2x4 SP 2400F 2.0E(flat)
BOT CHORD	2x4 SP No.1(flat) *Except* 22-29: 2x4 SP 2400F 2.0E(flat)
WEBS	2x4 SP No.3(flat)

BRACING-

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

REACTIONS. (size) 37=0-3-0, 31=0-3-8, 22=0-3-0
Max Grav 37=608(LC 3), 31=2131(LC 1), 22=934(LC 4)

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

TOP CHORD	2-3=-1162/48, 3-4=-1560/543, 4-5=-1560/543, 5-6=-1560/543, 6-7=-456/1438, 7-8=0/2740, 8-9=0/2740, 9-11=-325/363, 11-12=-2211/0, 12-13=-2211/0, 13-15=-3332/0, 15-16=-3800/0, 16-17=-3800/0, 17-18=-3259/0, 18-19=-3259/0, 19-20=-1967/0
BOT CHORD	36-37=-9/746, 35-36=-178/1515, 34-35=-543/1560, 33-34=-1066/1064, 31-33=-1777/0, 30-31=-1239/0, 28-30=-50/1381, 27-28=0/2915, 26-27=0/3800, 25-26=0/3800, 24-25=0/3625, 23-24=0/2733, 22-23=0/1171
WEBS	2-37=-933/12, 2-36=-50/541, 3-36=-459/170, 7-31=-1407/0, 7-33=0/953, 6-33=-1014/0, 6-34=0/1132, 5-34=-523/0, 3-35=-484/57, 9-31=-1884/0, 9-30=0/1447, 11-30=-1420/0, 11-28=0/1108, 13-28=-933/0, 13-27=0/647, 15-27=-867/0, 20-22=-1466/0, 20-23=0/1036, 19-23=-997/0, 19-24=0/672, 17-24=-467/0, 17-25=-186/499

NOTES-

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

August 1,2025

ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	F3	FLOOR	1	1	I75332682
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:36 2025 Page 1
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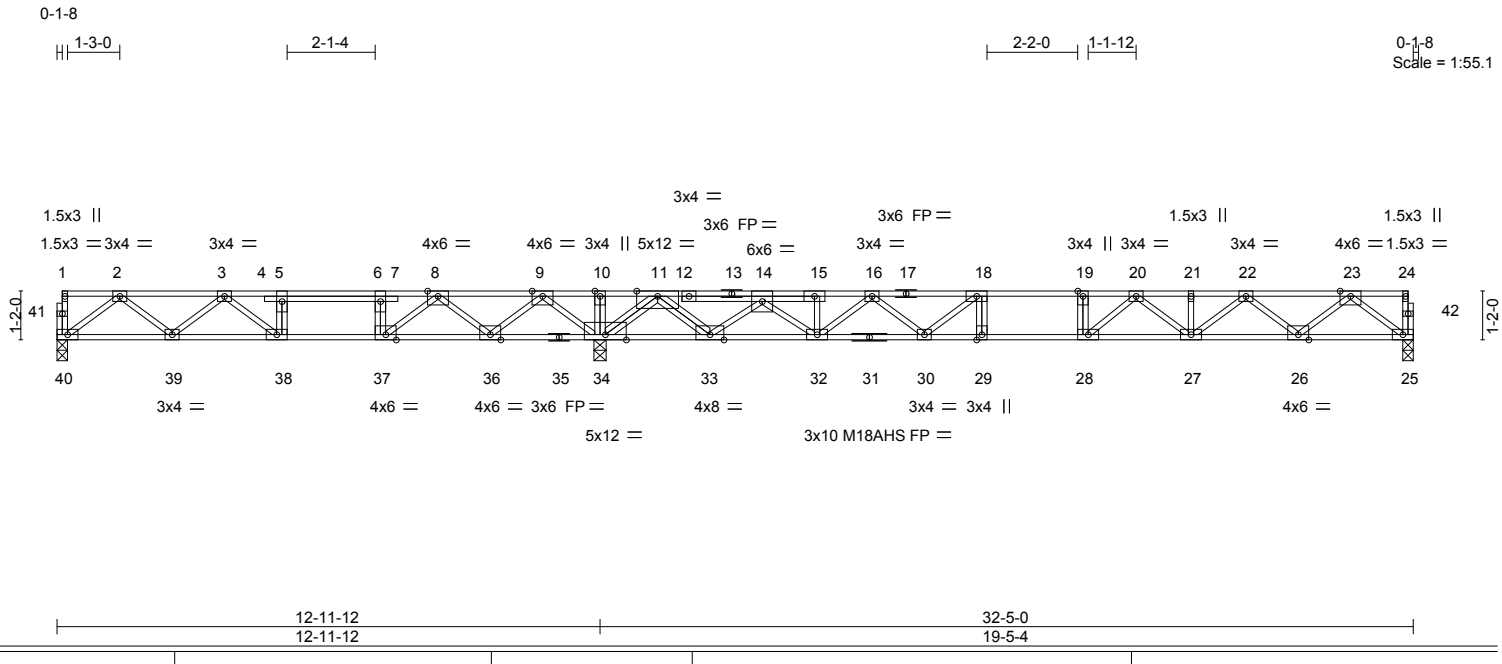

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	-0.32	29	>732	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.42	29	>548	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.04	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 179 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 40=0-3-0, 34=0-3-8, 25=0-3-0
Max Uplift 40=-128(LC 4)
Max Grav 40=473(LC 3), 34=3045(LC 1), 25=1014(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-833/382, 3-5=-747/1454, 5-6=-747/1427, 6-8=-777/1427, 8-9=0/2770, 9-10=0/4362, 10-11=0/4362, 11-14=-503/47, 14-15=-3294/0, 15-16=-3287/0, 16-18=-4214/0, 18-19=-4487/0, 19-20=-4487/0, 20-21=-3649/0, 21-22=-3649/0, 22-23=-2170/0
BOT CHORD 39-40=-198/564, 38-39=-650/1032, 37-38=-1427/747, 36-37=-2250/0, 34-36=-3265/0, 33-34=-1862/0, 32-33=0/2683, 30-32=0/3911, 29-30=0/4487, 28-29=0/4487, 27-28=0/4124, 26-27=0/3024, 25-26=0/1278
WEBS 2-40=-704/250, 2-39=-239/350, 3-39=-259/349, 9-34=-1644/0, 9-36=0/1161, 8-36=-1205/0, 8-37=0/1567, 6-37=-796/0, 3-38=-1010/0, 11-34=-3136/0, 11-33=0/2566, 14-33=-2761/0, 14-32=0/823, 16-32=-827/0, 16-30=0/482, 18-30=-572/55, 5-38=0/517, 19-28=-327/0, 23-25=-1600/0, 23-26=0/1161, 22-26=-1112/0, 22-27=0/799, 20-27=-606/0, 20-28=0/740

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x6 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 128 lb uplift at joint 40.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 930 lb down at 16-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 25-40=-10, 1-24=-100
Concentrated Loads (lb)
Vert: 14=-850(B)

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	F8	FLOOR	7	1	I75332683
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:38 2025 Page 1
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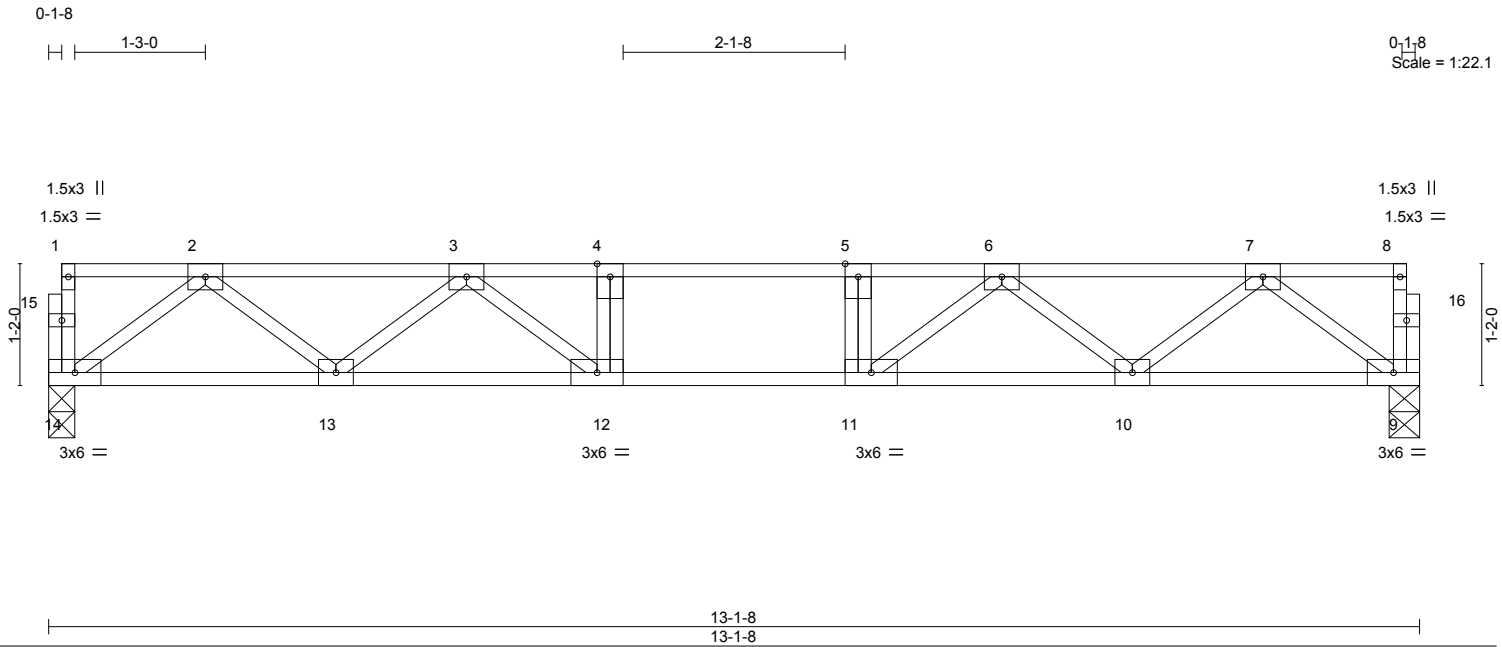

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	-0.11	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.49	Vert(CT)	-0.14	12-13	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 68 lb	FT = 20%F, 11%E

LUMBER-

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

BRACING-

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

REACTIONS. (size) 14=0-3-0, 9=0-3-8
Max Grav 14=702(LC 1), 9=702(LC 1)

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

TOP CHORD	2-3=-1385/0, 3-4=-2140/0, 4-5=-2140/0, 5-6=-2140/0, 6-7=-1385/0
BOT CHORD	13-14=0/869, 12-13=0/1865, 11-12=0/2140, 10-11=0/1865, 9-10=0/869
WEBS	2-14=-1088/0, 2-13=0/671, 3-13=-626/0, 3-12=0/555, 4-12=-257/0, 5-11=-257/0, 7-9=-1088/0, 7-10=0/671, 6-10=-626/0, 6-11=0/555

NOTES-

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

August 1,2025

ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	F9-GR	FLOOR GIRDER	1	1	I75332684
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:38 2025 Page 1
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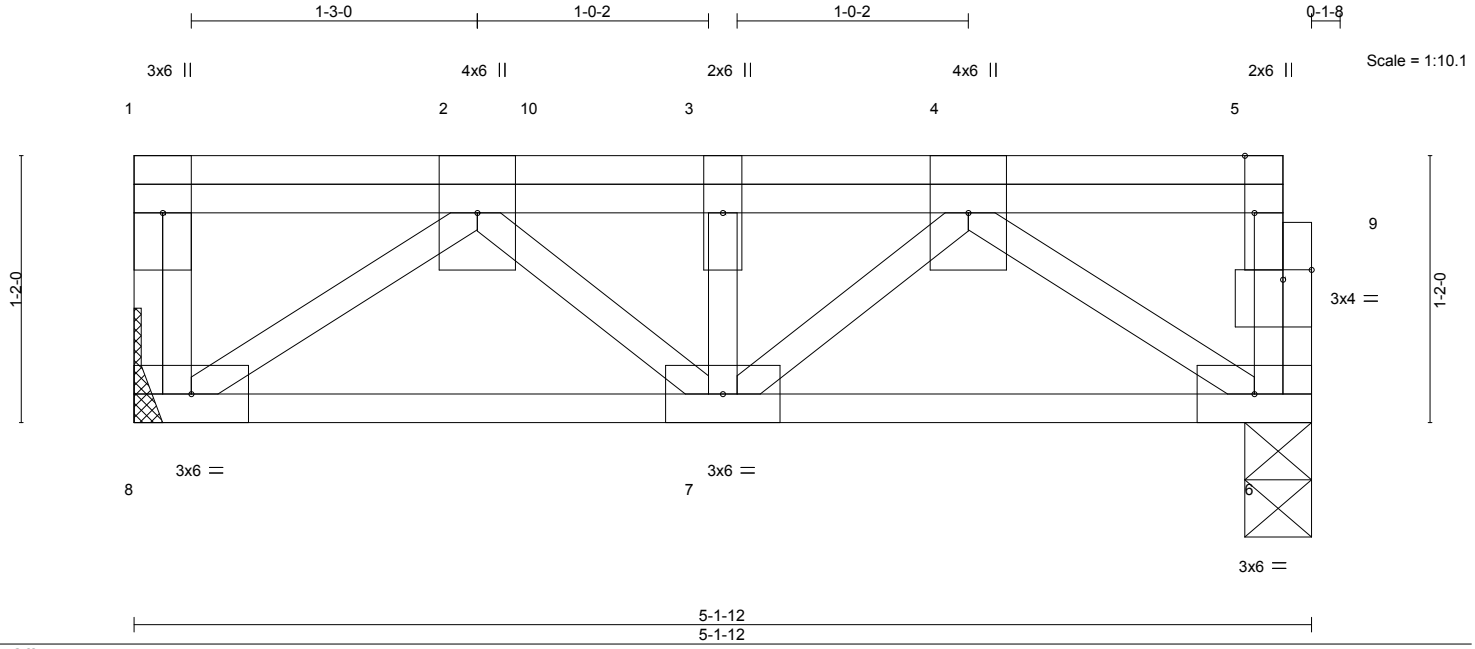

Plate Offsets (X,Y)-- [5:0-3-0,Edge], [9:0-1-8,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.24	Vert(LL)	-0.01	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.30	Vert(CT)	-0.02	7	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.01	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 37 lb	FT = 20%F, 11%E

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-1-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=Mechanical, 6=0-3-8
Max Grav 8=950(LC 1), 6=1050(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1537/0, 3-4=-1537/0
BOT CHORD 7-8=0/1252, 6-7=0/1327
WEBS 2-8=-1538/0, 4-6=-1622/0, 4-7=0/284, 3-7=-428/0, 2-7=0/385

NOTES-
1) Plates checked for a plus or minus 1 degree rotation about its center.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 734 lb down at 1-10-4, and 734 lb down at 3-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-8=-10, 1-5=-100
Concentrated Loads (lb)
Vert: 4=-734(F) 10=-734(F)

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	F6	FLOOR	2	1	I75332685
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:37 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-zf4kVUh86Fl5OsyhlggSqq2na4grq9KUTI4ezwysSHq

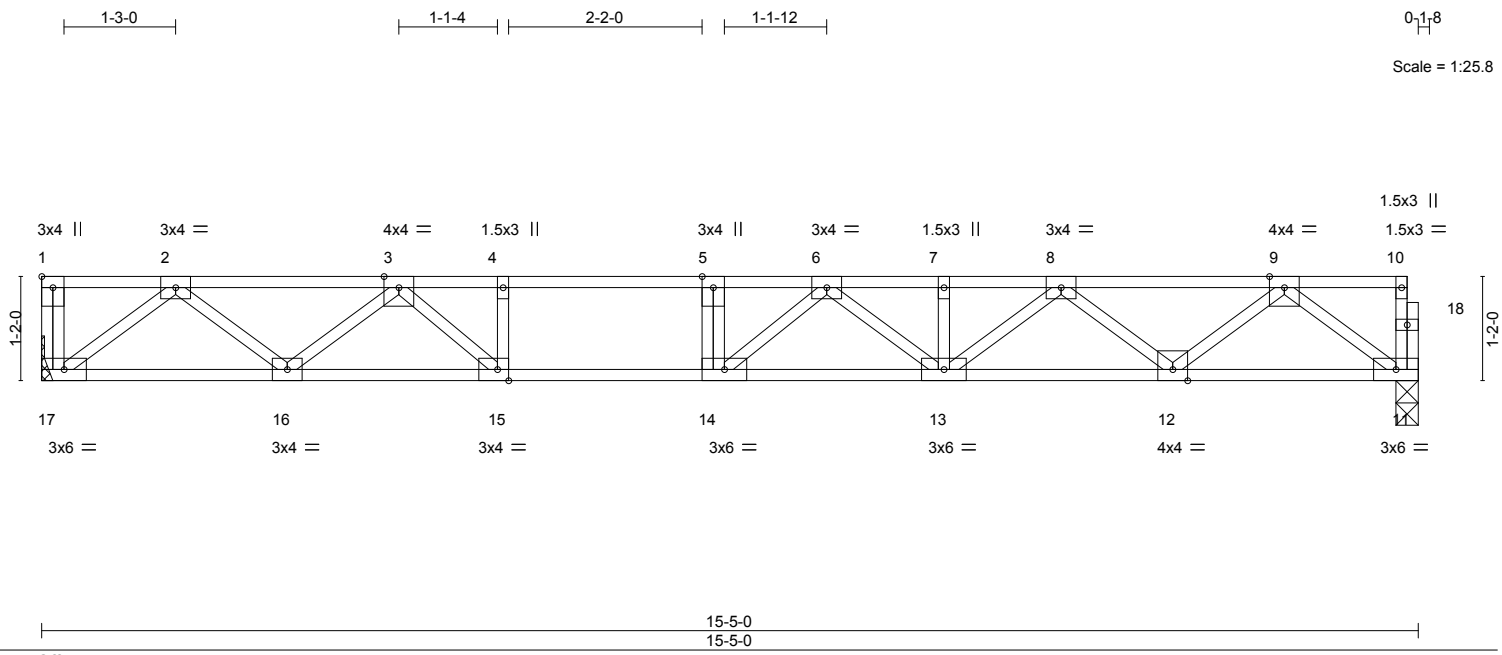

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [15:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.97	Vert(LL)	-0.26	13-14	>691	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(CT)	-0.36	13-14	>509	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.05	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 79 lb	FT = 20%F, 11%E

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

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

REACTIONS. (size) 17=Mechanical, 11=0-3-0
Max Grav 17=834(LC 1), 11=828(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1678/0, 3-4=-2890/0, 4-5=-2890/0, 5-6=-2890/0, 6-7=-2743/0, 7-8=-2743/0, 8-9=-1698/0
BOT CHORD 16-17=0/1032, 15-16=0/2343, 14-15=0/2890, 13-14=0/2965, 12-13=0/2345, 11-12=0/1030
WEBS 9-11=-1290/0, 9-12=0/869, 8-12=-842/0, 8-13=0/508, 6-13=-295/0, 6-14=-298/319, 4-15=-437/0, 2-17=-1295/0, 2-16=0/841, 3-16=-866/0, 3-15=0/903

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	F7	FLOOR	4	1	I75332686
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:37 2025 Page 1
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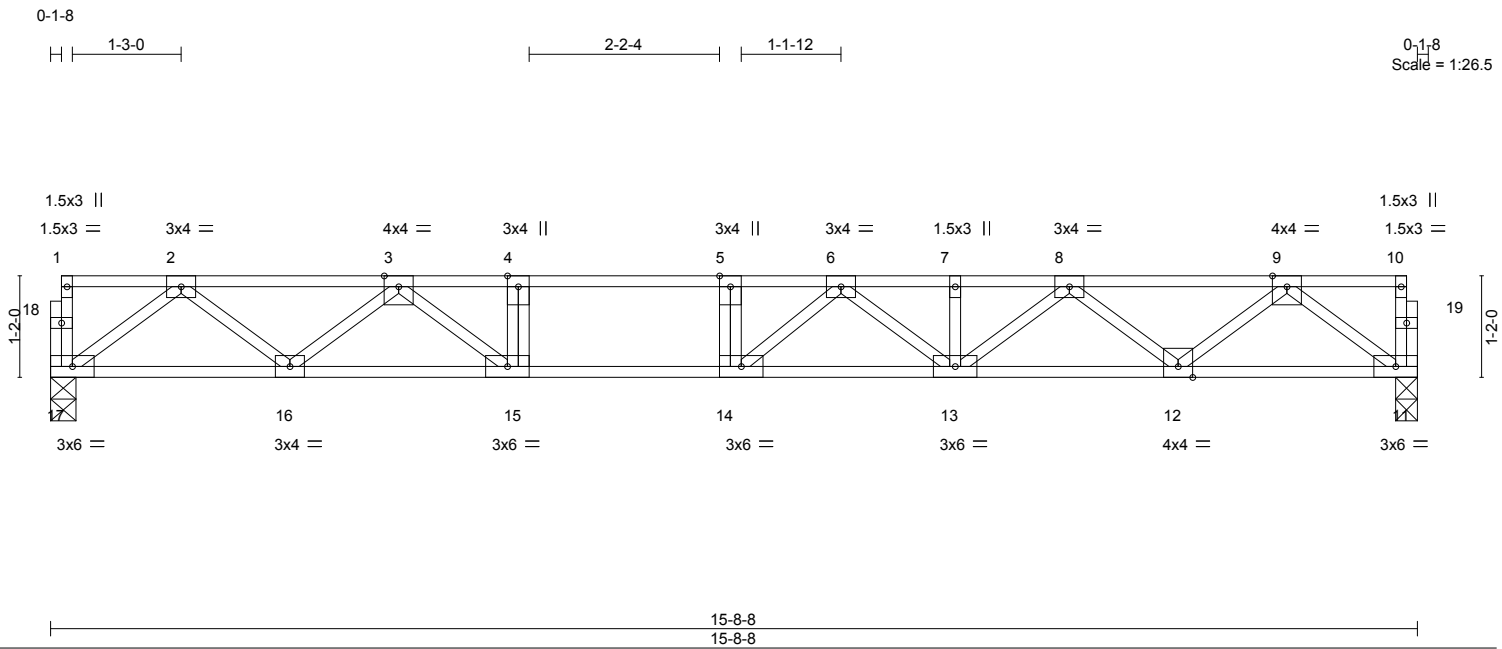

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.25	13-14	>742	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.92	Vert(CT)	-0.34	13-14	>548	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.05	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 81 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 13-14.

REACTIONS. (size) 17=0-3-8, 11=0-3-0
Max Grav 17=844(LC 1), 11=844(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1719/0, 3-4=-3017/0, 4-5=-3017/0, 5-6=-3017/0, 6-7=-2821/0, 7-8=-2821/0, 8-9=-1738/0
BOT CHORD 16-17=0/1054, 15-16=0/2391, 14-15=0/3017, 13-14=0/3067, 12-13=0/2402, 11-12=0/1051
WEBS 9-11=-1316/0, 9-12=0/894, 8-12=-865/0, 8-13=0/535, 6-13=-313/0, 6-14=-289/360, 4-15=-434/0, 2-17=-1320/0, 2-16=0/866, 3-16=-874/0, 3-15=0/956

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	ET3	GABLE	1	1	I75332687
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:33 2025 Page 1
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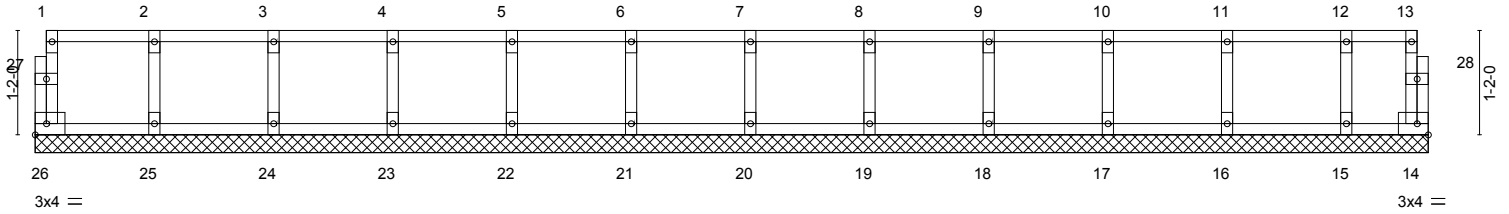

1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	15-7-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-11-0

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 66 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 15-7-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 26, 14, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15

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) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

August 1,2025

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	F4	FLOOR	6	1	I75332688
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:36 2025 Page 1
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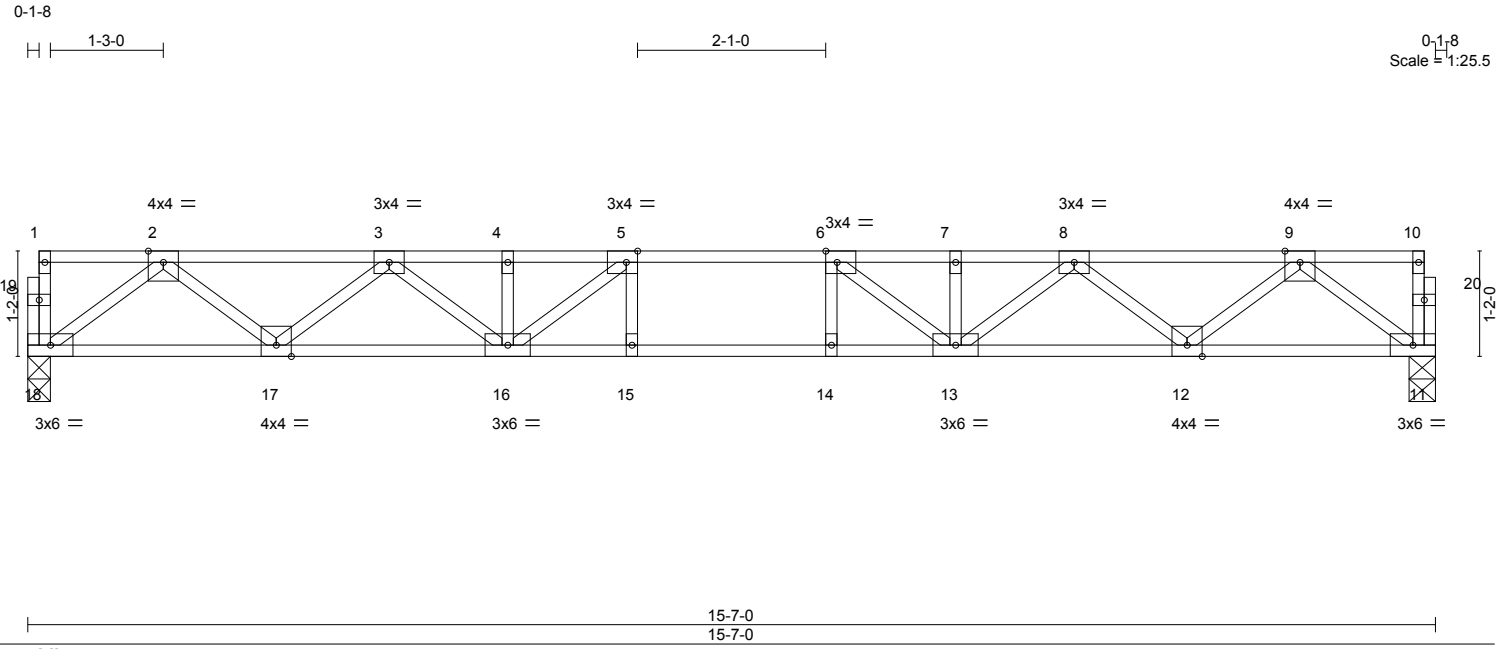

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [6:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	-0.17	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.71	Vert(CT)	-0.23	14-15	>799	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.05	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 79 lb	FT = 20%F, 11%E

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

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

REACTIONS. (size) 18=0-3-0, 11=0-3-8
Max Grav 18=837(LC 1), 11=837(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1726/0, 3-4=-2770/0, 4-5=-2770/0, 5-6=-3060/0, 6-7=-2770/0, 7-8=-2770/0, 8-9=-1726/0
BOT CHORD 17-18=0/1045, 16-17=0/2371, 15-16=0/3060, 14-15=0/3060, 13-14=0/3060, 12-13=0/2371, 11-12=0/1045
WEBS 2-18=-1308/0, 2-17=0/886, 3-17=-840/0, 3-16=0/510, 9-11=-1308/0, 9-12=0/886, 8-12=-840/0, 8-13=0/510, 6-13=-645/6, 5-16=-645/6

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	F5	FLOOR	10	1	I75332689
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:36 2025 Page 1
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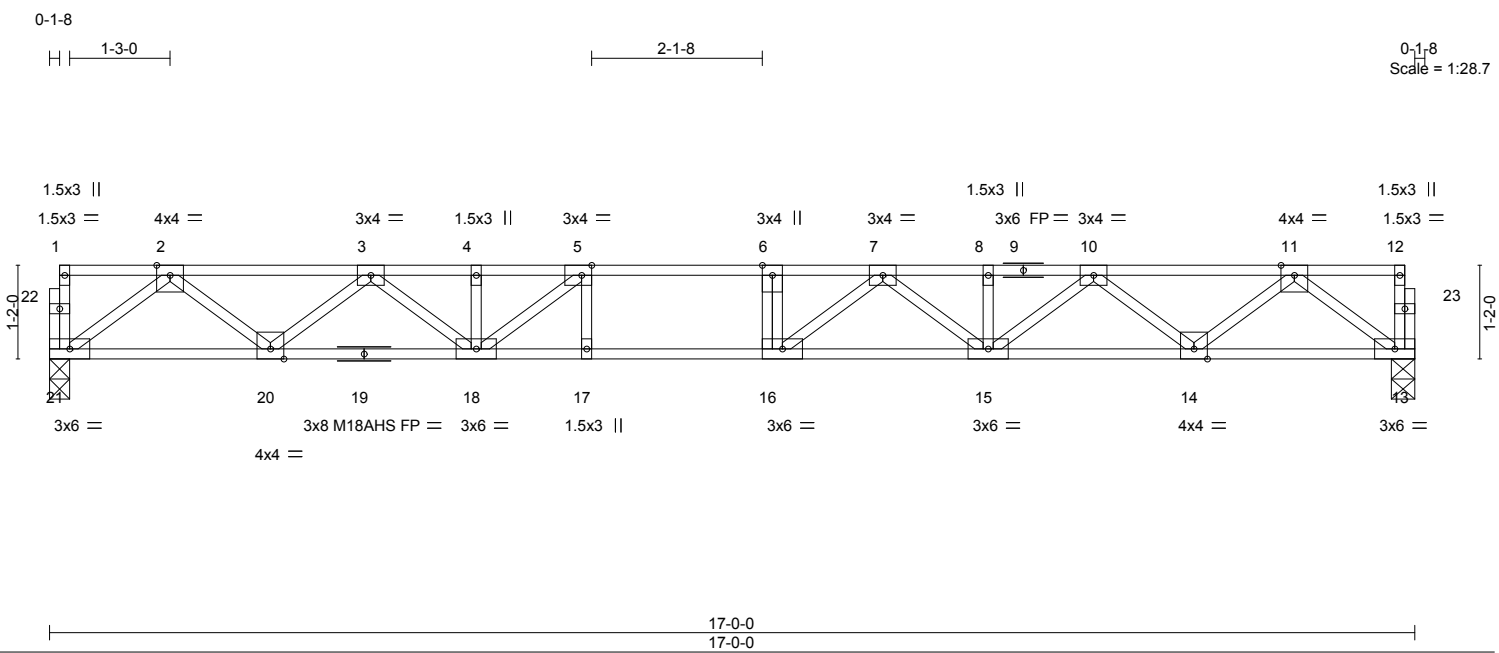

Plate Offsets (X,Y)-- [5:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.27	15-16	>748	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.95	Vert(CT)	-0.37	15-16	>543	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.06	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 87 lb	FT = 20%F, 11%E

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 16-17,15-16.

REACTIONS. (size) 21=0-3-0, 13=0-3-8
Max Grav 21=915(LC 1), 13=915(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1923/0, 3-4=-3138/0, 4-5=-3138/0, 5-6=-3635/0, 6-7=-3635/0, 7-8=-3168/0, 8-10=-3168/0, 10-11=-1918/0
BOT CHORD 20-21=0/1147, 18-20=0/2659, 17-18=0/3635, 16-17=0/3635, 15-16=0/3508, 14-15=0/2663, 13-14=0/1146
WEBS 2-21=-1436/0, 2-20=0/1010, 3-20=-958/0, 3-18=0/611, 5-18=-890/0, 11-13=-1435/0, 11-14=0/1006, 10-14=-970/0, 10-15=0/645, 7-15=-434/0, 7-16=-149/525

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

August 1,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 91 Magnolia Hills
J0725-3384-A	ET2	GABLE	1	1	I75332690
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 25.2.0 s Jul 24 2025 MiTek Industries, Inc. Thu Jul 31 19:23:33 2025 Page 1
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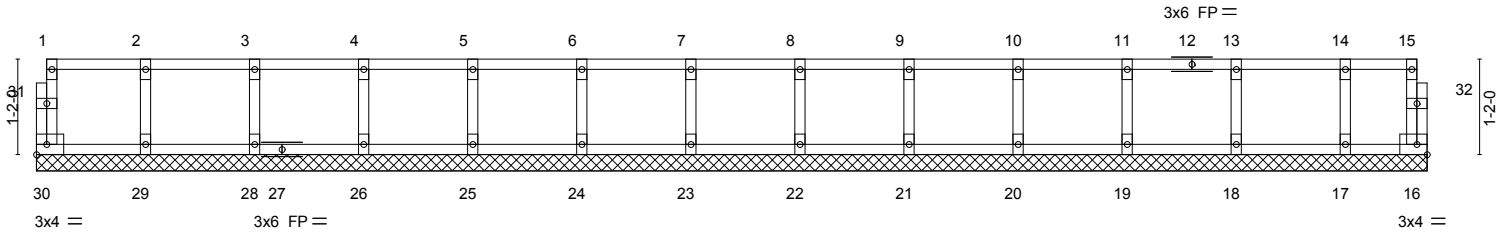


1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-0-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-0-0

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 71 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 17-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17

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

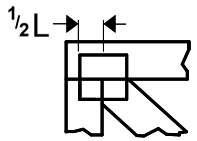
NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5)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

August 1,2025

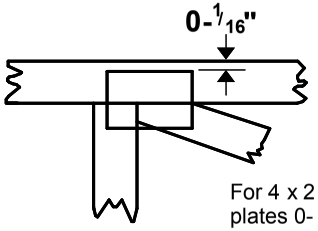
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

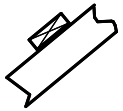
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

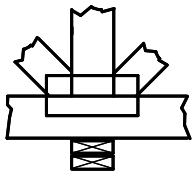
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

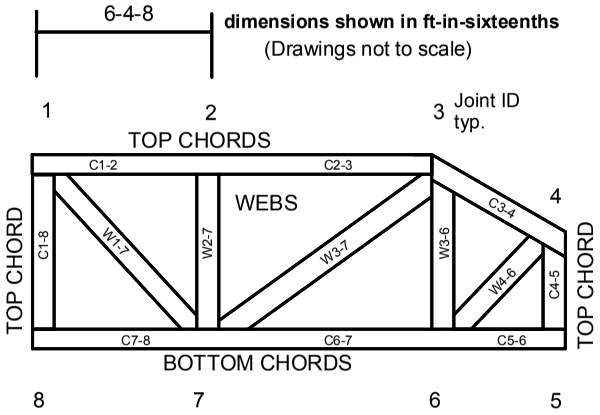


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

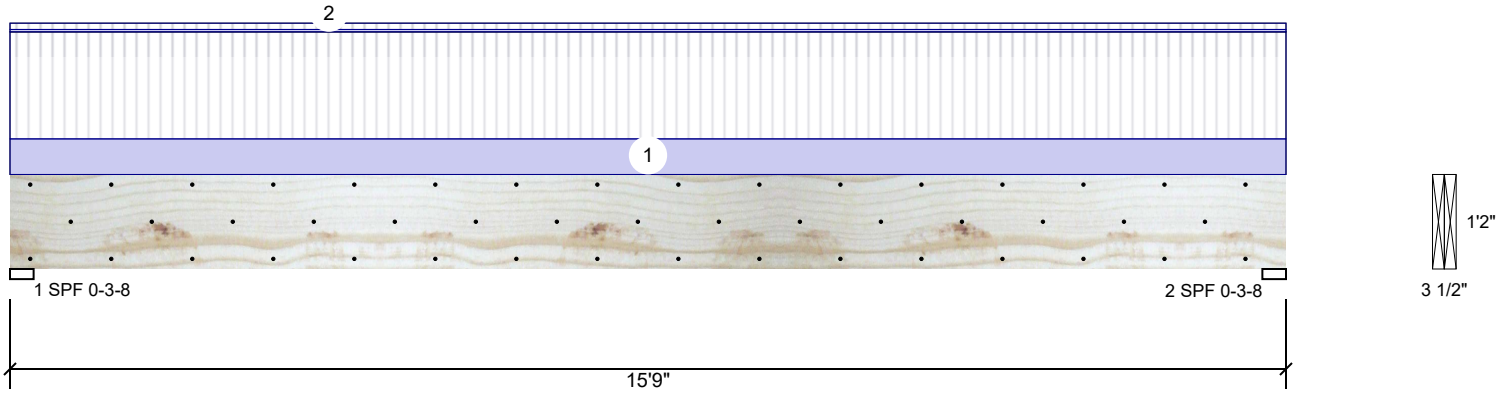
Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

Client:		Date:	8/2/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 91 Magnolia Hills
		Project #:	

BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	3019	1103	0	0	0
2	Vertical	3019	1103	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	79%	1103 / 3019	4122	L	D+L
2 - SPF	3.500"	Vert	79%	1103 / 3019	4122	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	15300 ft-lb	7'10 1/2"	26999 ft-lb	57%	D+L	L
Unbraced	15300 ft-lb	7'10 1/2"	15309 ft-lb	100%	D+L	L
Shear	3925 lb	1'5 1/2"	10453 lb	38%	D+L	L
LL Defl inch	0.321 (L/572)	7'10 9/16"	0.382 (L/480)	84%	L	L
TL Defl inch	0.438 (L/419)	7'10 9/16"	0.510 (L/360)	86%	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at a maximum of 6'6 7/8" o.c.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Far Face	114 PLF	343 PLF	0 PLF	0 PLF	0 PLF	F4
2	Tie-In Far	0-0-0 to 15-9-0	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 15-9-0	0-6-2	Near Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
	Self Weight				11 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

Manufacturer Info

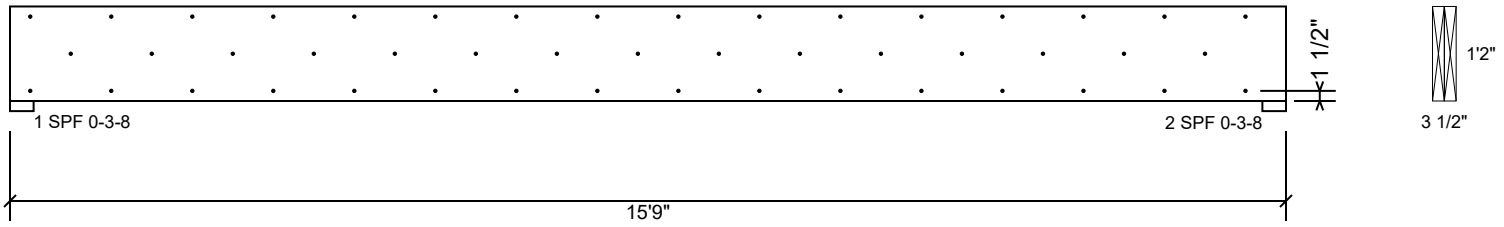
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:		Date:	8/2/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 91 Magnolia Hills
		Project #:	

BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	93.1 %
Load	228.5 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

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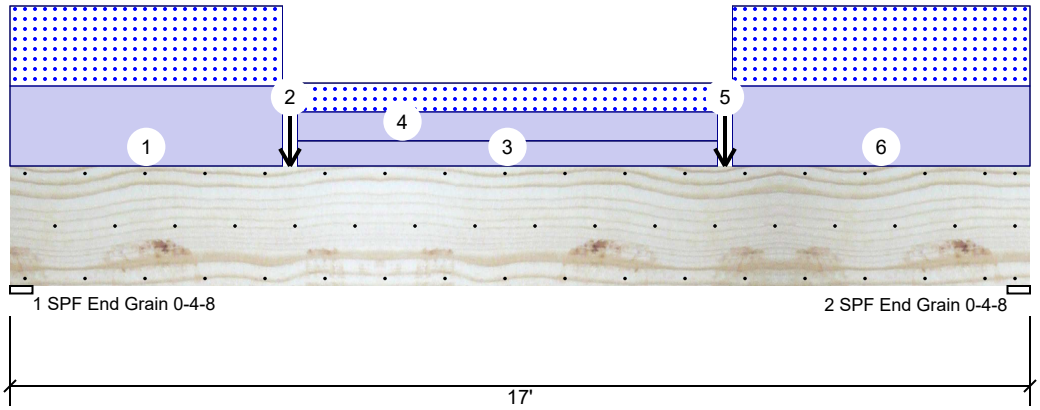
Client:		Date:	8/2/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 91 Magnolia Hills
		Project #:	

GDH Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	6439	5849	0	0
2	Vertical	0	6288	5720	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	93%	6439 / 5849	12288	L	D+S
2 - SPF End Grain	4.500"	Vert	91%	6288 / 5720	12007	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	49112 ft-lb	9' 5/16"	84163 ft-lb	58%	D+S	L
Unbraced	49112 ft-lb	9' 5/16"	49247 ft-lb	100%	D+S	L
Shear	10439 lb	2'4 1/2"	20608 lb	51%	D+S	L
LL Defl inch	0.178 (L/1107)	8'6 1/2"	0.410 (L/480)	43%	S	L
TL Defl inch	0.379 (L/519)	8'6 7/16"	0.547 (L/360)	69%	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at a maximum of 3'6 1/4" o.c.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 4-6-8		Top	380 PLF	0 PLF	380 PLF	0 PLF	0 PLF	C2
2	Point	4-8-0		Top	3500 lb	0 lb	3500 lb	0 lb	0 lb	C3
	Bearing Length	0-3-8								
3	Part. Uniform	4-9-8 to 11-9-8		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
4	Part. Uniform	4-9-8 to 11-9-8		Top	137 PLF	0 PLF	137 PLF	0 PLF	0 PLF	C4

Continued on page 2...

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

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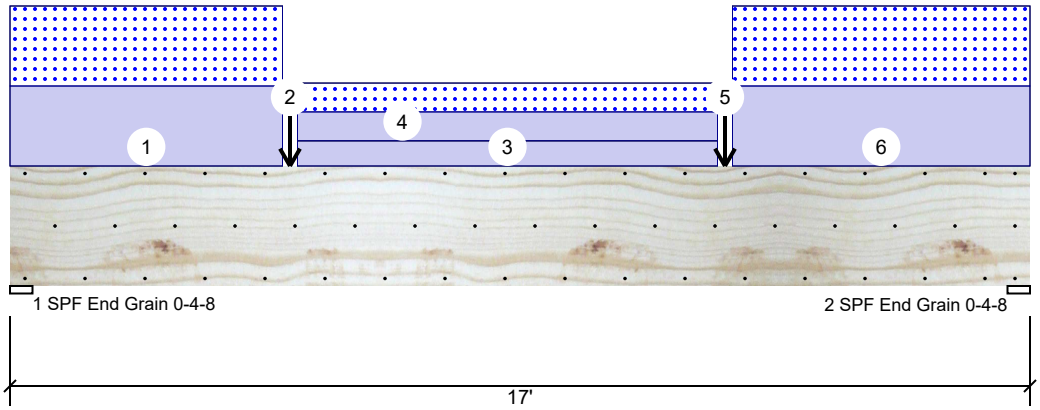
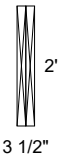
GDH Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level





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ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
5	Point	11-11-0		Top	3500 lb	0 lb	3500 lb	0 lb	0 lb	C3
	Bearing Length	0-3-8								
6	Part. Uniform	12-0-8 to 17-0-0		Top	380 PLF	0 PLF	380 PLF	0 PLF	0 PLF	C2
	Self Weight				19 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
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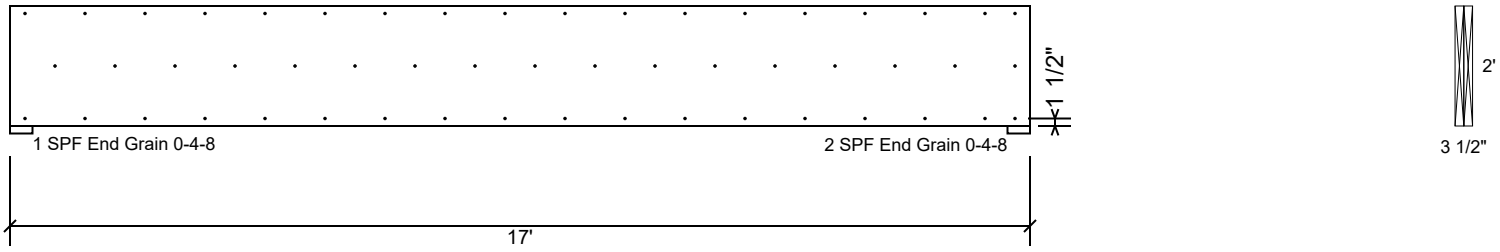
Client:		Date:	8/2/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 91 Magnolia Hills
		Project #:	

GDH Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

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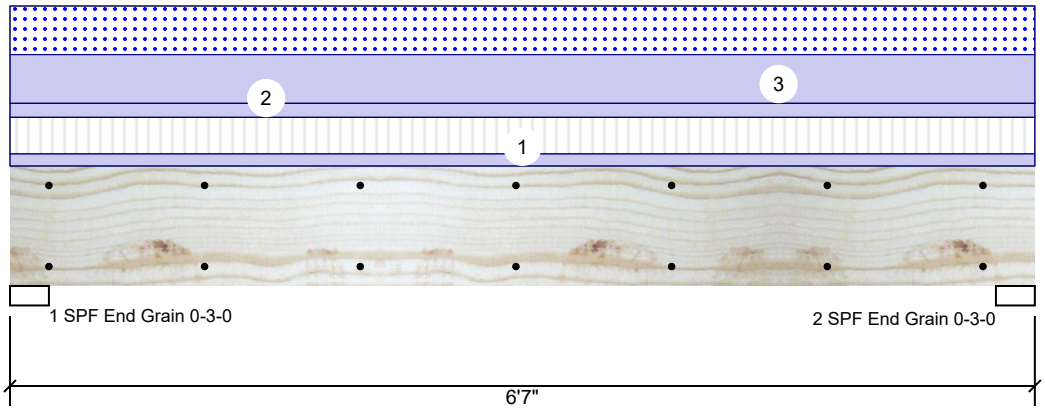
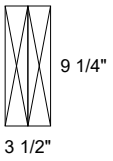
Client:		Date:	8/2/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 91 Magnolia Hills
		Project #:	

BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1030	2130	1369	0	0
2	Vertical	1030	2130	1369	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	45%	2130 / 1800	3930	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	45%	2130 / 1800	3930	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5752 ft-lb	3'3 1/2"	14423 ft-lb	40%	D+0.75(L+S)	L
Unbraced	5752 ft-lb	3'3 1/2"	10370 ft-lb	55%	D+0.75(L+S)	L
Shear	2711 lb	5'6 3/4"	7943 lb	34%	D+0.75(L+S)	L
LL Defl inch	0.049 (L/1522)	3'3 1/2"	0.155 (L/480)	32%	0.75(L+S)	L
TL Defl inch	0.107 (L/697)	3'3 1/2"	0.207 (L/360)	52%	D+0.75(L+S)	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at end bearings.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	104 PLF	313 PLF	0 PLF	0 PLF	0 PLF	F4
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
3	Uniform			Top	416 PLF	0 PLF	416 PLF	0 PLF	0 PLF	A4
	Self Weight				7 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

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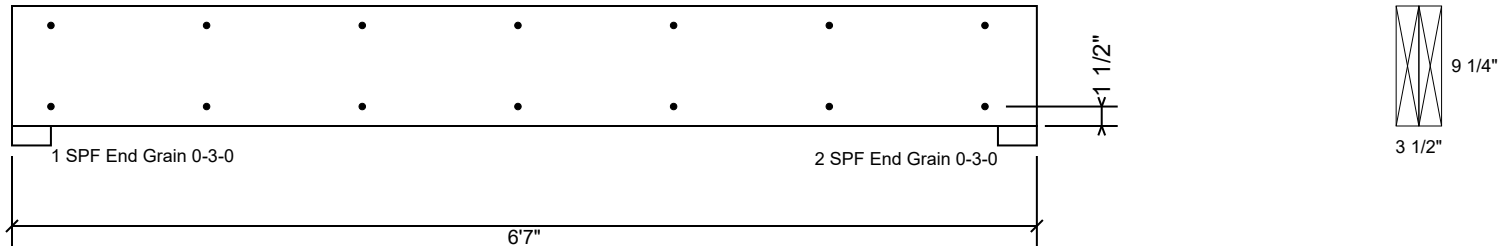
Client:		Date:	8/2/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 91 Magnolia Hills
		Project #:	

BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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6. For flat roofs provide proper drainage to prevent ponding

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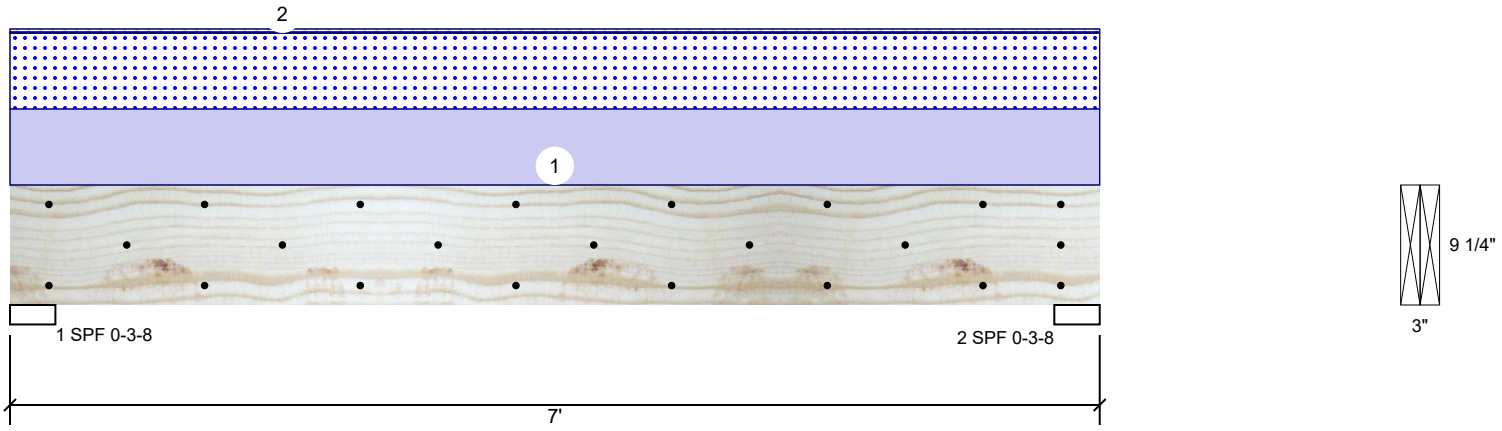
Client:		Date:	8/2/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 91 Magnolia Hills
		Project #:	

FB1 SP #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	70	980	917	0	0
2	Vertical	70	980	917	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	43%	980 / 917	1897	L	D+S
2 - SPF	3.500"	Vert	43%	980 / 917	1897	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2900 ft-lb	3'6"	3280 ft-lb	88%	D+S	L
Unbraced	2900 ft-lb	3'6"	3018 ft-lb	96%	D+S	L
Shear	1731 lb	1' 3/4"	3723 lb	46%	D+S	L
LL Defl inch	0.039 (L/2014)	3'6"	0.164 (L/480)	24%	S	L
TL Defl inch	0.081 (L/974)	3'6"	0.218 (L/360)	37%	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings.
2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on bottom edge only and across their full width.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at end bearings.
7 Bottom must be laterally braced at end bearings.
8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Far Face	262 PLF	0 PLF	262 PLF	0 PLF	0 PLF	C4
2	Tie-In Far	0-0-0 to 7-0-0	0-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 7-0-0	0-6-0	Near Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
	Self Weight				11 PLF					

This design is valid until 2/28/2028

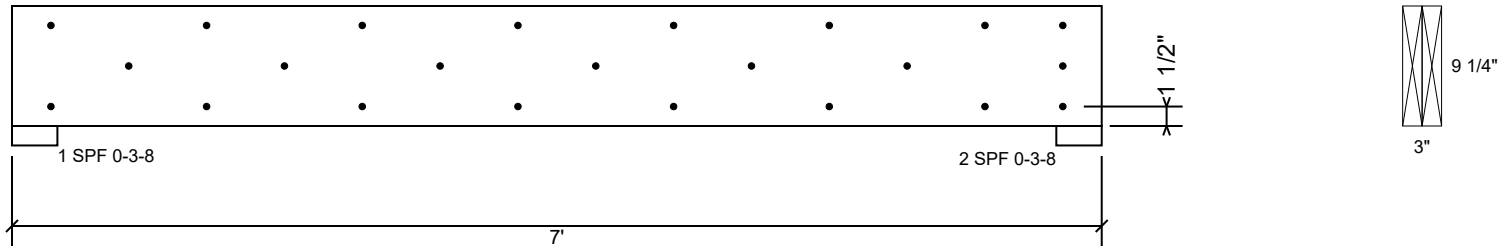
Manufacturer Info

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:		Date:	8/2/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 91 Magnolia Hills
		Project #:	

FB1 SP #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	75.0 %
Load	262.0 PLF
Yield Limit per Foot	349.5 PLF
Yield Limit per Fastener	116.5 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

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