ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0225-1022
Lot 22 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: I73815532 thru I73815554

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

North Carolina COA: C-0844

May 30,2025

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 22 Magnolia Hills
J0225-1022	A1-GE	GABLE	1	1	I73815532
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:38 2025 Page 1
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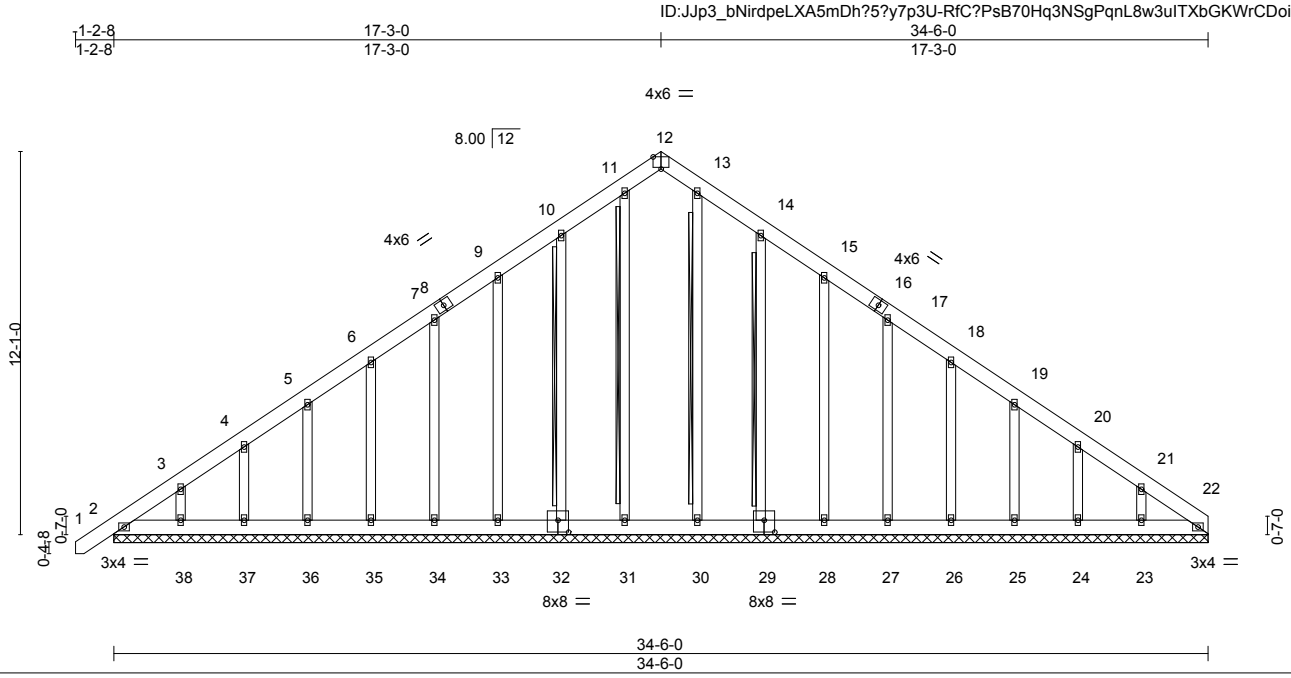

Plate Offsets (X,Y)-- [12:0-3-0,Edge], [29:0-4-0,0-4-8], [32:0-4-0,0-4-8]

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.

May 30,2025

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Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	A2	COMMON	11	1	I73815533
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:39 2025 Page 1
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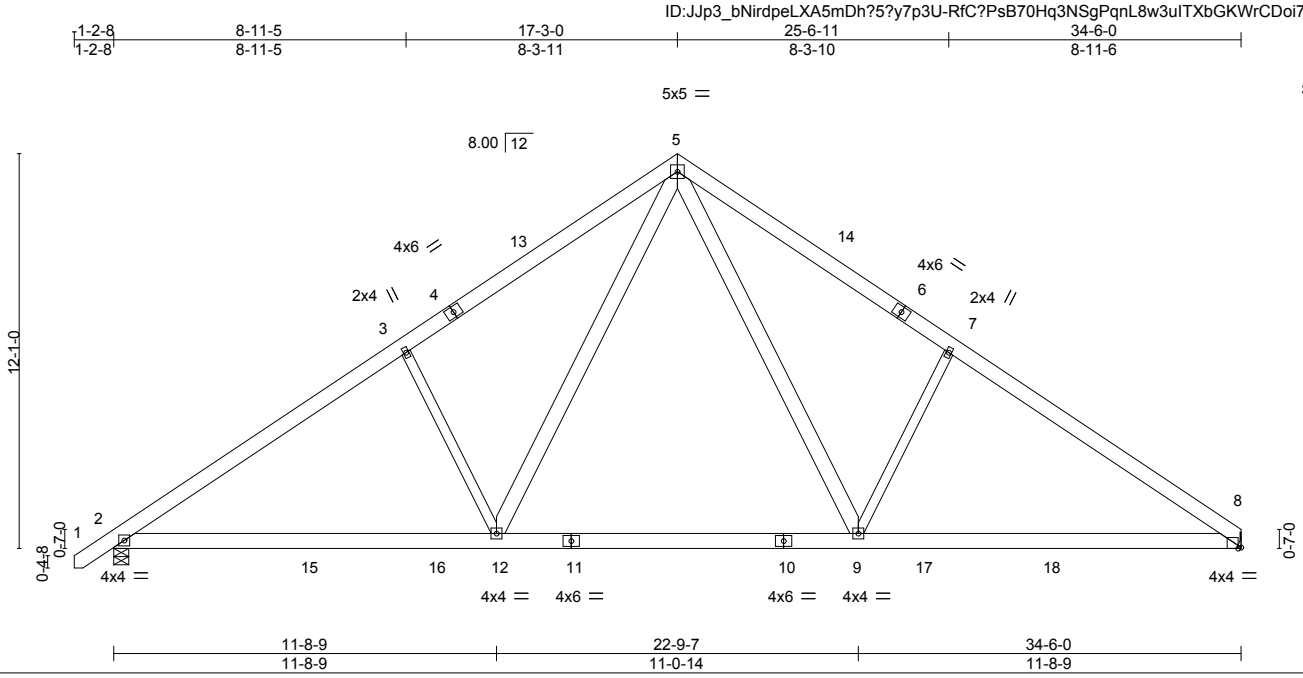

Plate Offsets (X,Y)-- [8:0-1-2,Edge]

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 22 Magnolia Hills
J0225-1022	A4	COMMON	6	1	I73815534
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:39 2025 Page 1
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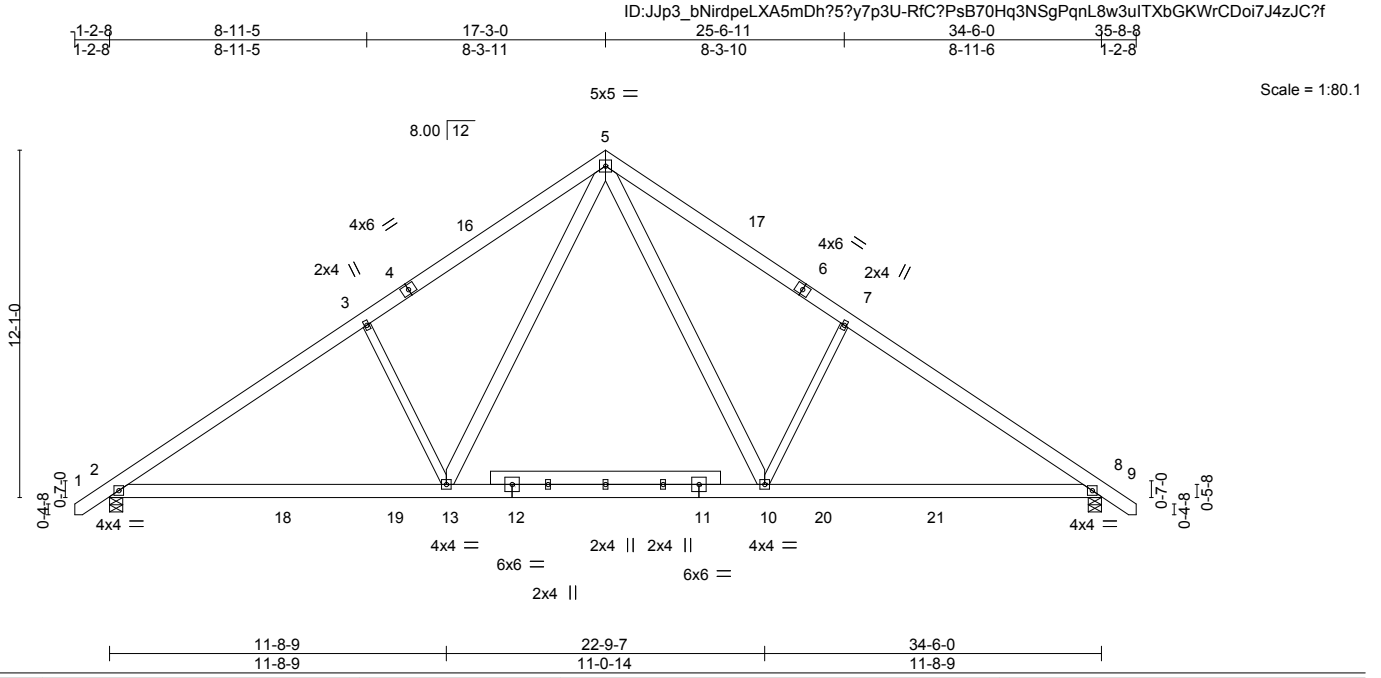

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.19	2-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.32	2-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014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

May 30,2025

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Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	A5-GE	GABLE	1	1	I73815535
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:40 2025 Page 1
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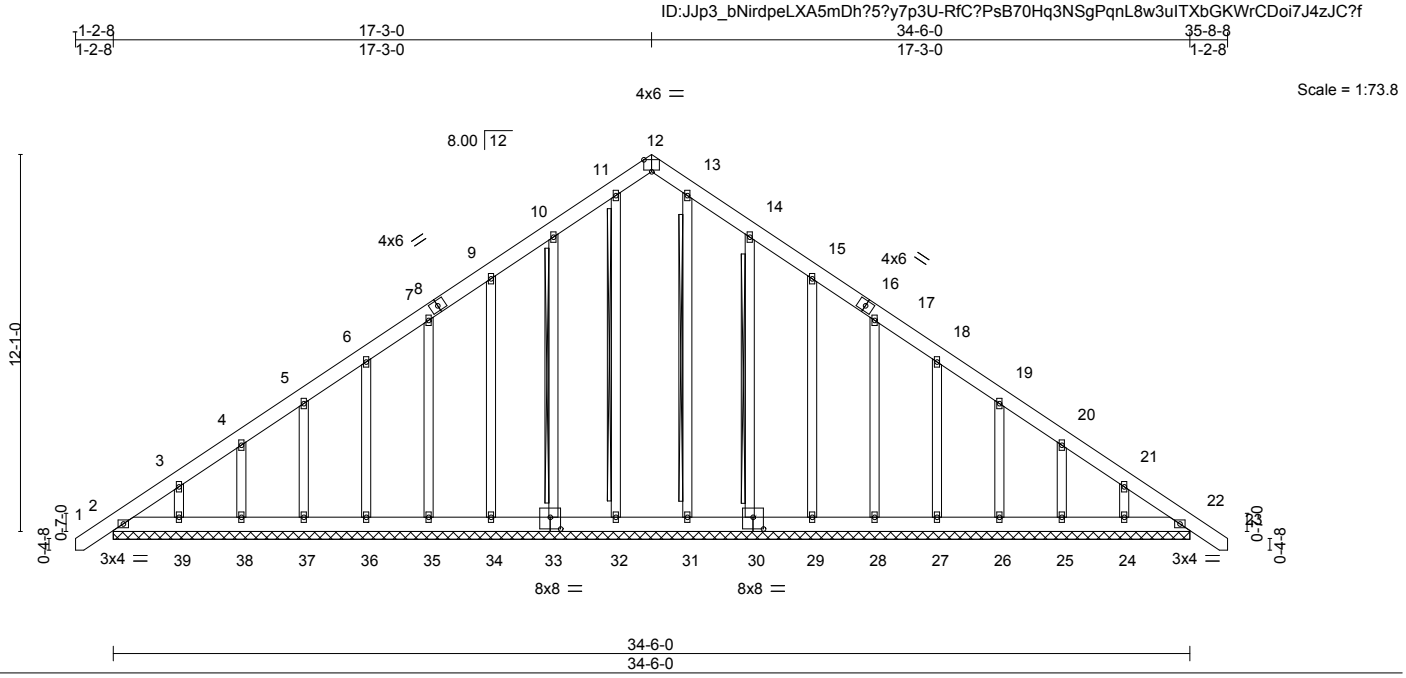

Plate Offsets (X,Y)-- [12:0-3-0,Edge], [16:0-0-0,0-0-0], [30:0-4-0,0-4-8], [33:0-4-0,0-4-8]

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.

May 30,2025

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	B1-GE	GABLE	1	1	I73815536
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:41 2025 Page 1
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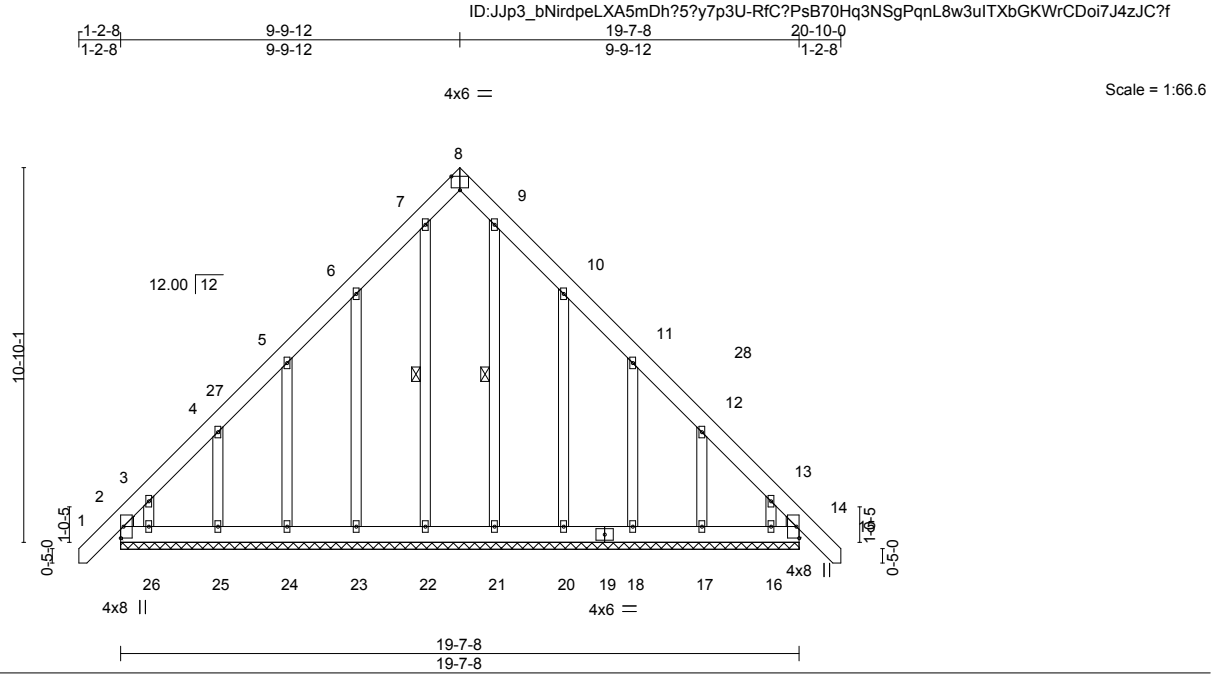

Plate Offsets (X,Y)-- [8:0-3-0,Edge]

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: 193 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 1 Row at midpt 7-22, 9-21

REACTIONS. All bearings 19-7-8.
(lb) - Max Horz 2=327(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 22 except 2=-188(LC 10), 23=-159(LC 12), 24=-140(LC 12), 25=-152(LC 12), 26=-251(LC 12), 20=-162(LC 13), 18=-140(LC 13), 14=-132(LC 11), 17=-152(LC 13), 16=-239(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 22, 23, 24, 25, 26, 21, 20, 18, 17, 16 except 2=434(LC 12), 14=396(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-551/283, 3-4=-359/212, 12-13=-324/159, 13-14=-508/246
BOT CHORD 2-26=-156/384, 25-26=-158/387, 24-25=-159/388, 23-24=-160/389, 22-23=-160/389, 21-22=-160/389, 20-21=-160/389, 18-20=-160/389, 17-18=-159/388, 16-17=-158/387, 14-16=-156/384
WEBS 3-26=-163/253, 13-16=-164/251

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 9-9-12 , Corner(3R) 9-9-12 to 14-2-9, Exterior(2N) 14-2-9 to 20-8-10 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=188, 23=159, 24=140, 25=152, 26=251, 20=162, 18=140, 14=132, 17=152, 16=239.

May 30,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	B2	COMMON GIRDER	1	2	I73815537
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:42 2025 Page 1
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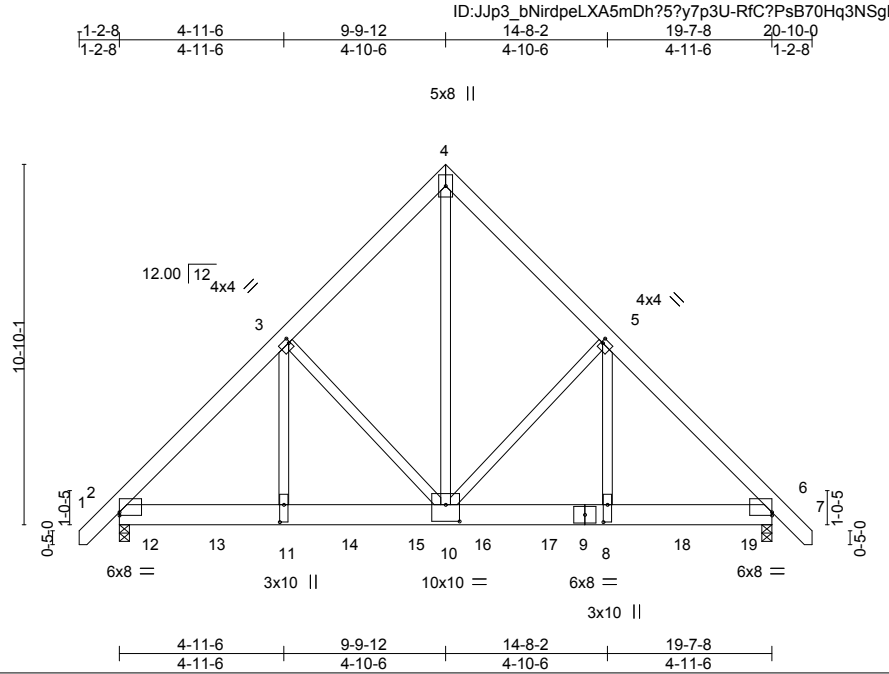

Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [3:0-0-8,0-1-12], [5:0-0-8,0-1-12], [6:Edge,0-1-2], [8:0-6-4,0-1-8], [10:0-5-0,0-6-0], [11:0-6-4,0-1-8]

LOADING (psf)		SPACING-	1-4-8	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.09	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.15	8-10	>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: 366 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 5-4-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-10, 6=0-3-10
Max Horz 2=-180(LC 27)
Max Uplift 2=-429(LC 8), 6=-430(LC 9)
Max Grav 2=8759(LC 2), 6=8787(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-8906/465, 3-4=-5962/384, 4-5=-5962/385, 5-6=-8905/464
BOT CHORD 2-11=-322/5934, 10-11=-322/5946, 8-10=-258/5945, 6-8=-258/5933
WEBS 4-10=-463/8141, 5-10=-2577/238, 5-8=-170/4150, 3-10=-2578/238, 3-11=-169/4151

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=429, 6=430.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1655 lb down and 84 lb up at 0-10-0, 1653 lb down and 86 lb up at 2-10-0, 1653 lb down and 86 lb up at 4-10-0, 1653 lb down and 86 lb up at 6-10-0, 1653 lb down and 86 lb up at 8-10-0, 1653 lb down and 86 lb up at 10-10-0, 1653 lb down and 86 lb up at 12-10-0, 1653 lb down and 86 lb up at 14-10-0, and 1653 lb down and 86 lb up at 16-10-0, and 1655 lb down and 84 lb up at 18-10-0 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=-41, 4-7=-41, 2-6=-14

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Continued on page 2

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

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 8=-1353(B) 11=-1353(B) 12=-1355(B) 13=-1353(B) 14=-1353(B) 15=-1353(B) 16=-1353(B) 17=-1353(B) 18=-1353(B) 19=-1356(B)

May 30,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	C1-GE	ATTIC	1	1	I73815538
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:42 2025 Page 1

ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

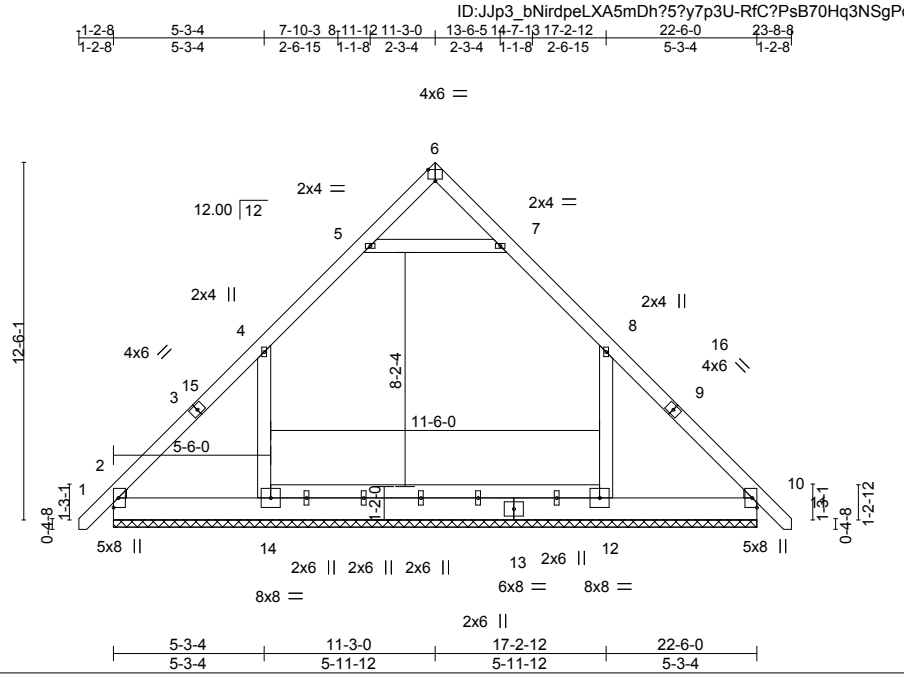

Plate Offsets (X,Y)-- [6:0-3-0,Edge]

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.

May 30,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	C2	ATTIC	6	1	I73815539
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:43 2025 Page 1

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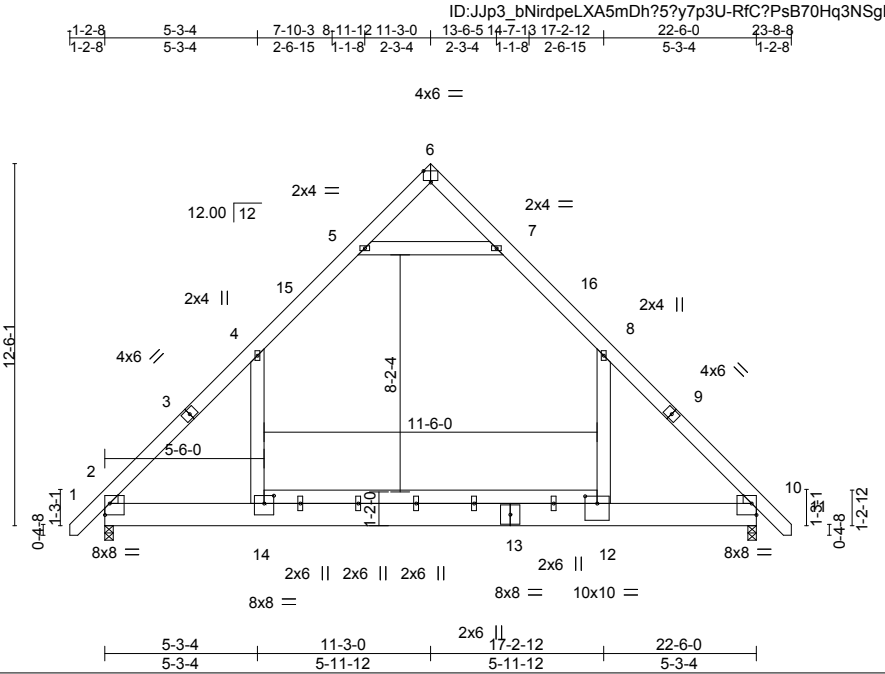

Plate Offsets (X,Y)-- [2:Edge,0-4-12], [6:0-3-0,Edge], [10:Edge,0-4-12], [12:0-5-0,0-3-0], [14:0-4-0,0-3-4]

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.

May 30,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	C3	ATTIC	2	2	I73815540
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:43 2025 Page 1
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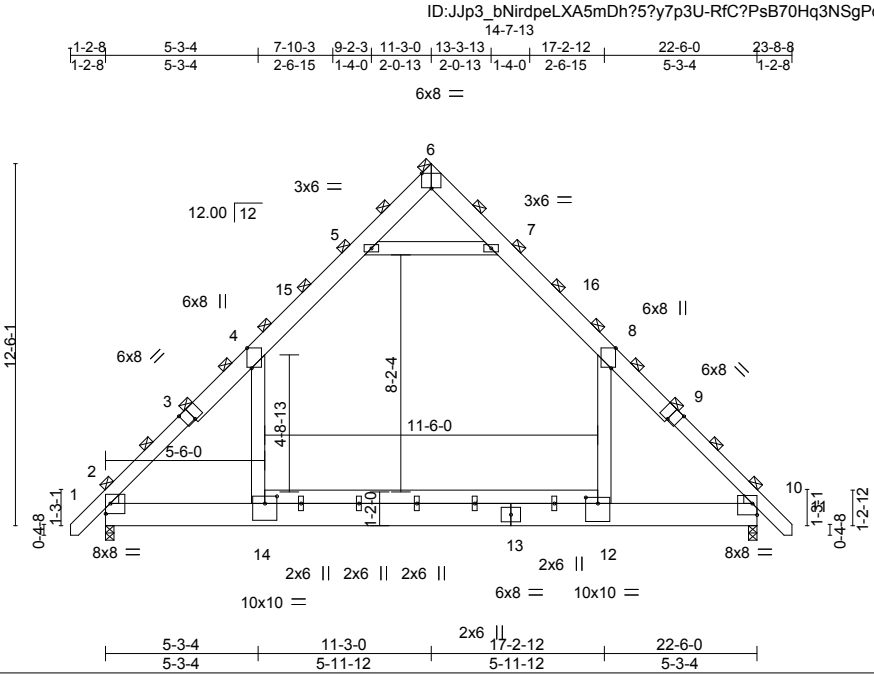

Plate Offsets (X,Y)-- [2:Edge,0-4-4], [3:0-4-0,Edge], [4:0-8-6,Edge], [6:0-4-0,Edge], [8:0-8-6,Edge], [9:0-4-0,Edge], [10:Edge,0-4-12], [12:0-5-0,0-2-8], [14:0-5-0,0-3-0]

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 (5-2-3 max.)
(Switched from sheeted: Spacing > 2-8-0).
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) Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) 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.
12) Attic room checked for L/360 deflection.

May 30,2025

LOAD CASE(S) Standard

Continued on page 2

ENGINEERING BY TRENCO A MiTek Affiliate
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)

May 30,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	C4	ATTIC	3	1	I73815541
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:44 2025 Page 1
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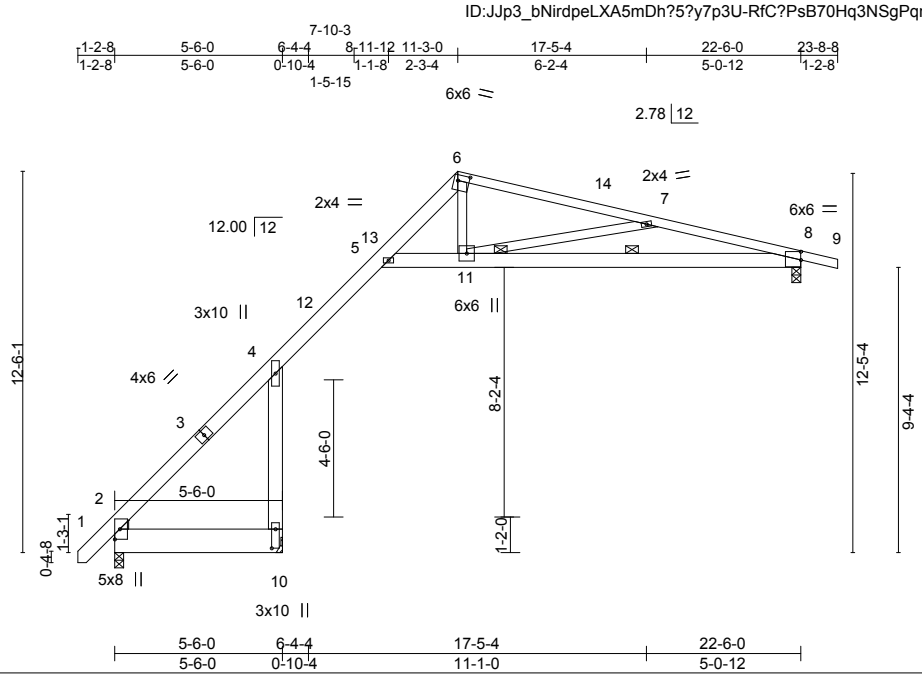

Plate Offsets (X,Y)-- [6:0-4-8,0-2-4], [8:0-0-1,0-3-5], [10:0-7-8,0-1-8]

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)	-0.37	8	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	-0.00	2-10	>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*
6-11,7-11: 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=-1239/475, 4-5=-444/392, 5-6=-676/922, 6-7=-687/1040, 7-8=-1536/2069
WEBS 5-11=-828/623, 8-11=-1954/1472, 7-11=-868/1203, 4-10=-1099/2031

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) 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

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

May 30,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	D1-SG	GABLE	1	1	I73815542
					Job Reference (optional)

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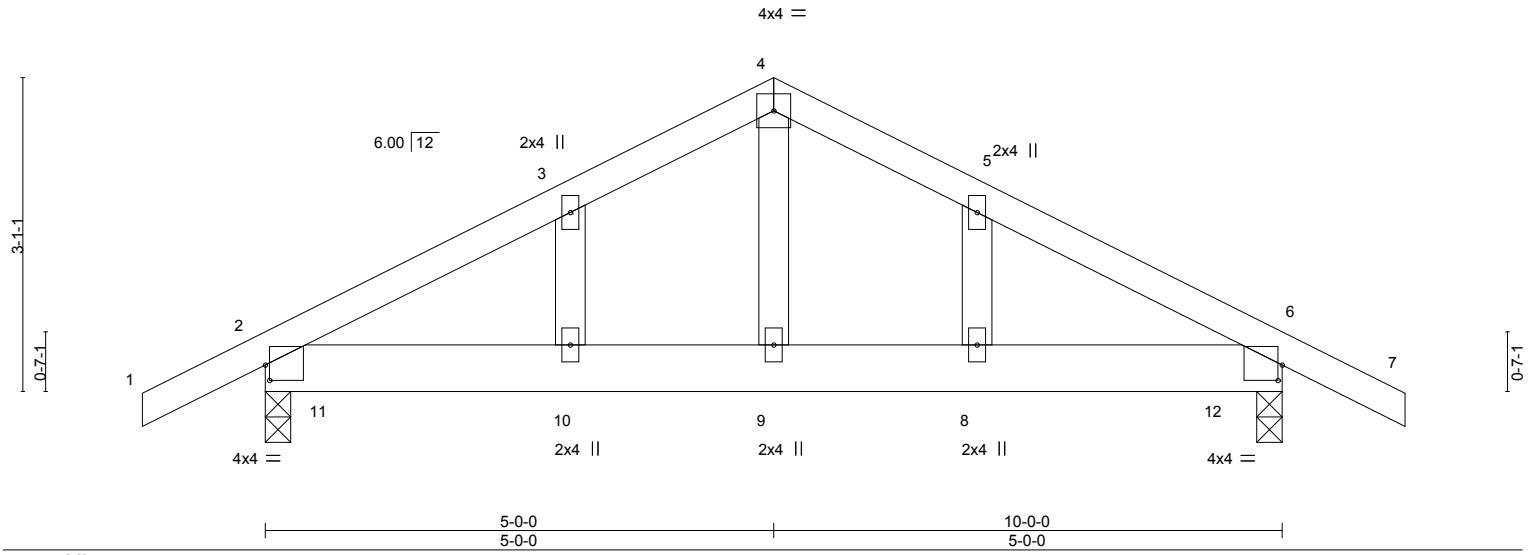
-1-2-8 / 1-2-8 | 5-0-0 / 5-0-0 | 10-0-0 / 5-0-0 | 11-2-8 / 1-2-8

Scale = 1:22.7



5-0-0 / 5-0-0 | 10-0-0 / 5-0-0

Plate Offsets (X,Y)-- [2:0-0-8,0-1-13], [6:0-0-8,0-1-13]

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	0.19	Vert(LL)	-0.01	10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.03	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 9-1-12 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=-498/904, 3-4=-455/965, 4-5=-455/966, 5-6=-498/903
BOT CHORD 2-10=-667/386, 9-10=-667/386, 8-9=-667/386, 6-8=-667/386
WEBS 4-9=-680/250

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.

May 30,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	D2	COMMON	4	1	I73815543
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:45 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-2-8 | 5-0-0 | 10-0-0 | 11-2-8
1-2-8 | 5-0-0 | 5-0-0 | 1-2-8

Scale = 1:22.7

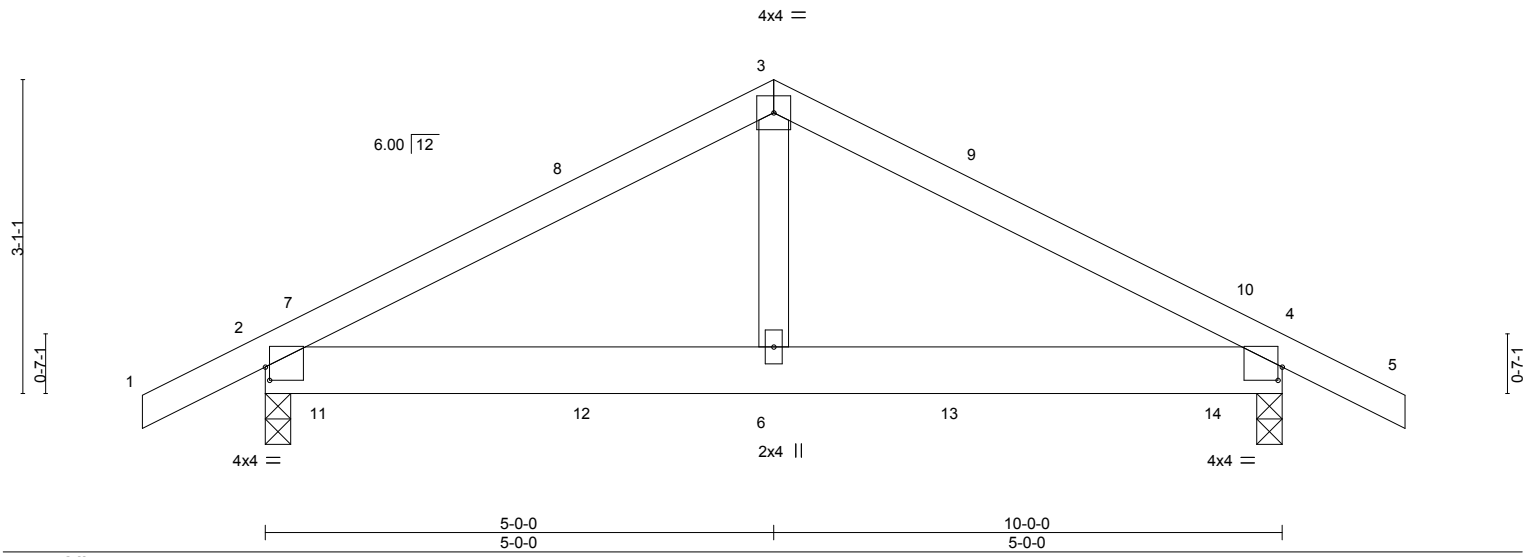


Plate Offsets (X,Y)-- [2:0-0-8,0-1-9], [4:0-0-8,0-1-9]

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	0.29	Vert(LL)	-0.01	6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.03	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 9-8-12 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=-511/819, 3-4=-511/819
BOT CHORD 2-6=-578/381, 4-6=-578/381
WEBS 3-6=-496/240

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.

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Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	P1-GE	GABLE	1	1	I73815544
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:45 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

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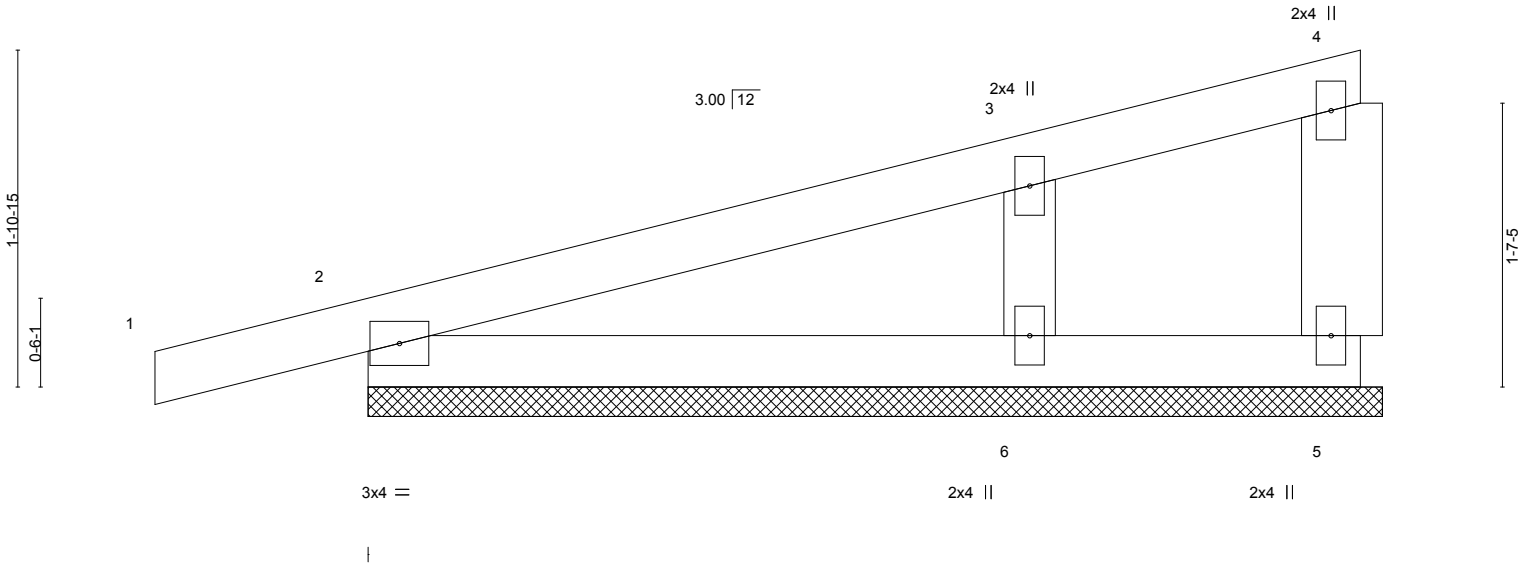

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	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) 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 exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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 10 lb uplift at joint 5, 93 lb uplift at joint 2 and 93 lb uplift at joint 6.

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	P2	MONOPITCH	6	1	I73815545
					Job Reference (optional)

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ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

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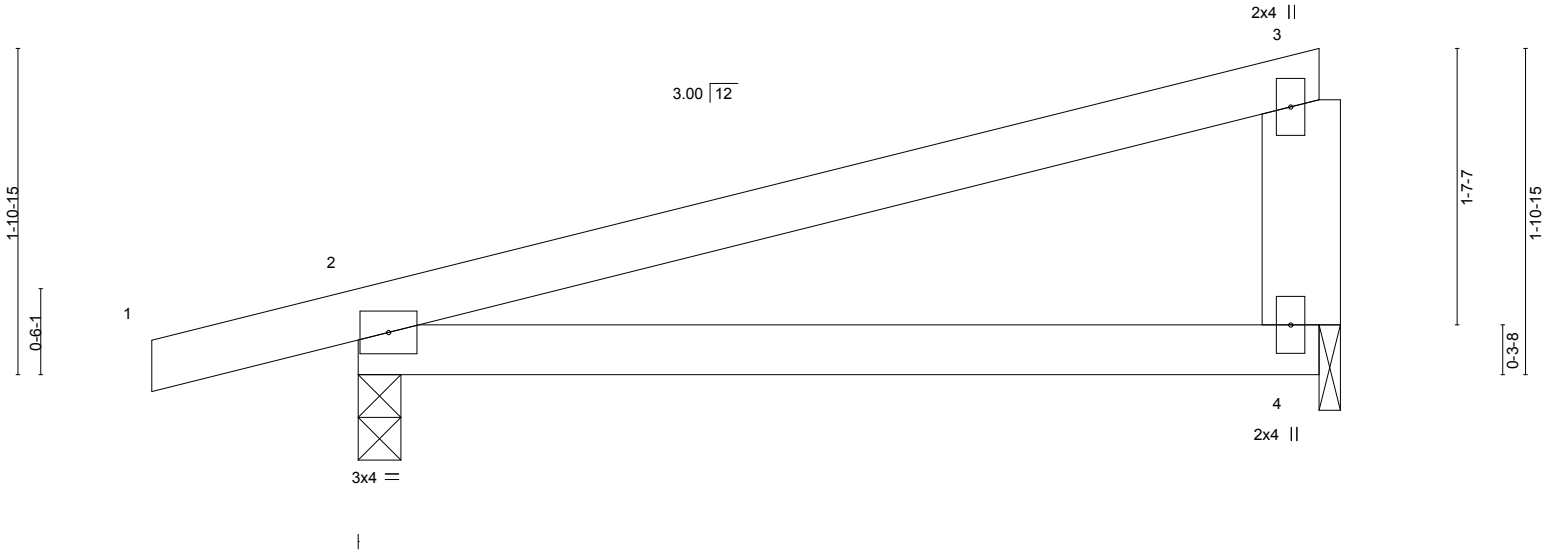

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.04	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.09	2-4	>728	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.15	2-4	>444	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) 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 exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 2 and 85 lb uplift at joint 4.

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Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	P3	MONOPITCH	10	1	I73815546
					Job Reference (optional)

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ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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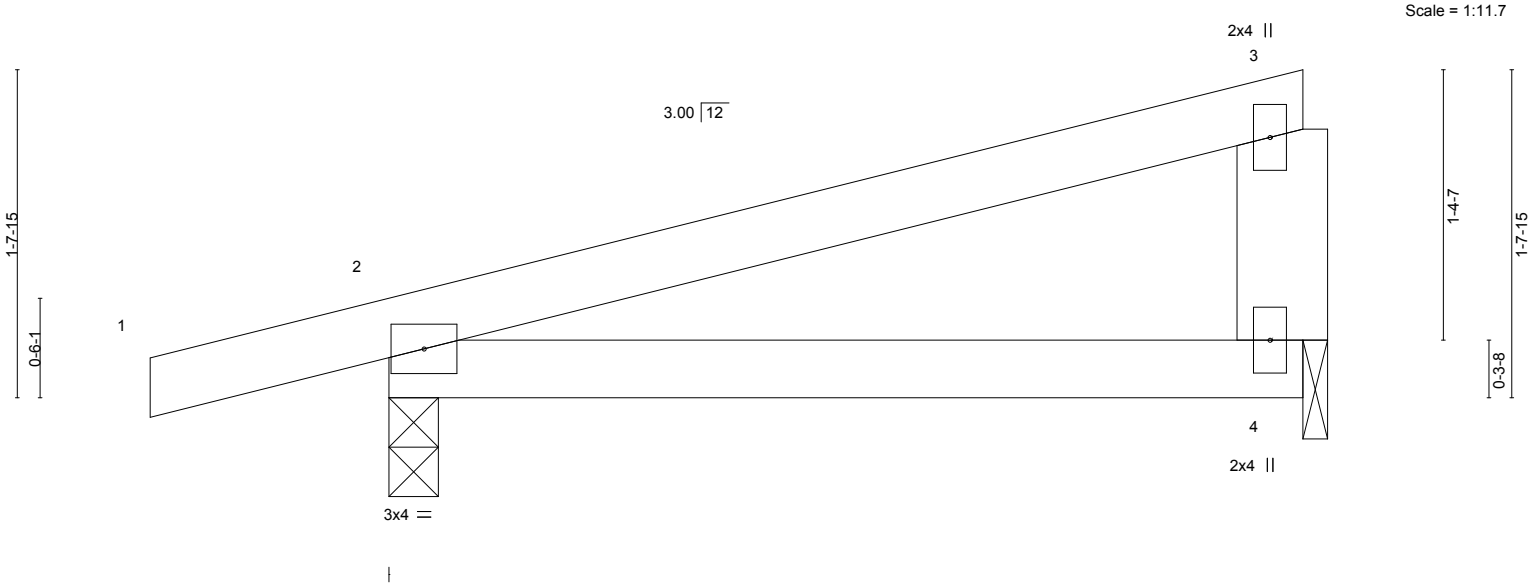
1-2-8 4-9-0

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	0.28	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)	0.06	2-4	>821	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) 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 exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 2 and 67 lb uplift at joint 4.

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	P4-GE	GABLE	1	1	I73815547
					Job Reference (optional)

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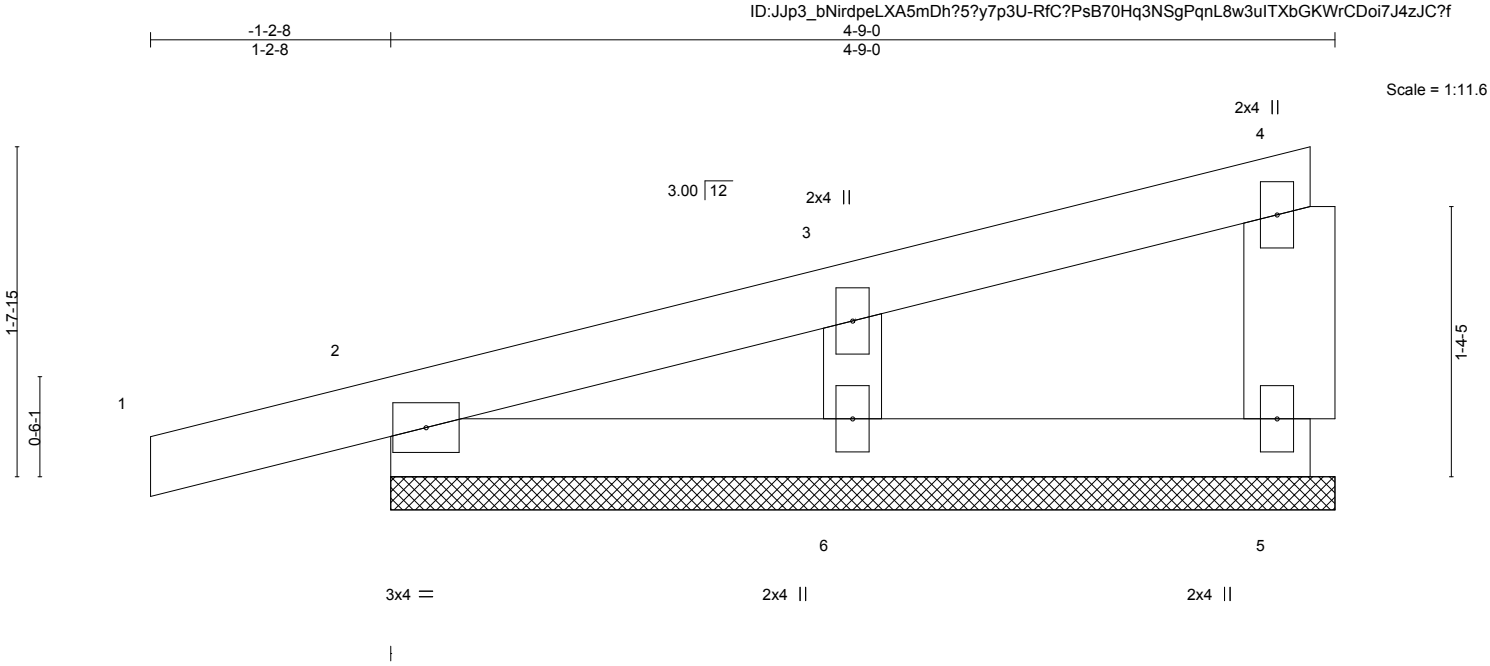

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	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) 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 exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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 25 lb uplift at joint 5, 85 lb uplift at joint 2 and 65 lb uplift at joint 6.

May 30,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	VB1	Valley	1	1	I73815548
					Job Reference (optional)

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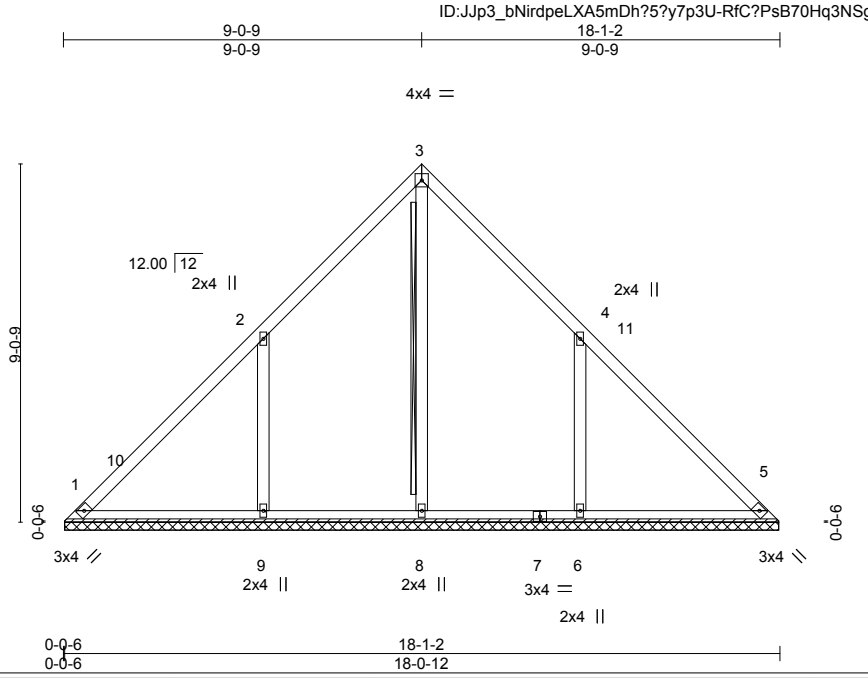

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 89 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 T-Brace: 2x4 SPF No.2 - 3-8
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 18-0-6.
(lb) - Max Horz 1=-208(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-221(LC 12), 6=-221(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=393(LC 22), 9=617(LC 19), 6=617(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-372/359, 4-6=-372/359

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 5-0-9, Interior(1) 5-0-9 to 9-0-9, Exterior(2R) 9-0-9 to 13-5-6, Interior(1) 13-5-6 to 17-8-14 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) 9=221, 6=221.
7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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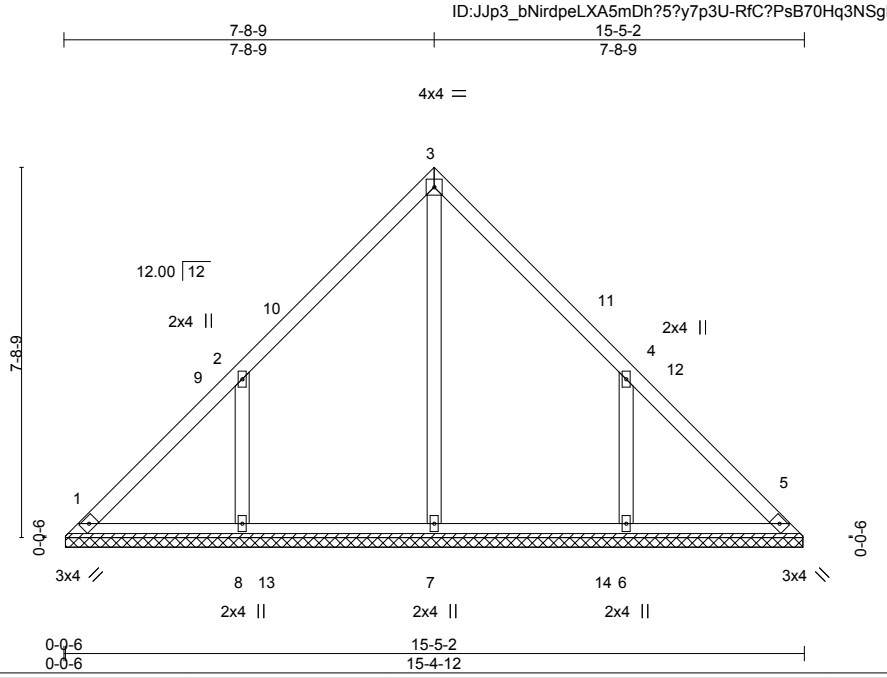
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	VB2	Valley	1	1	I73815549
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:47 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.13	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 74 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 15-4-6.
(lb) - Max Horz 1=-176(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-184(LC 12), 6=-184(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=408(LC 22), 8=504(LC 19), 6=504(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-314/346, 4-6=-314/346

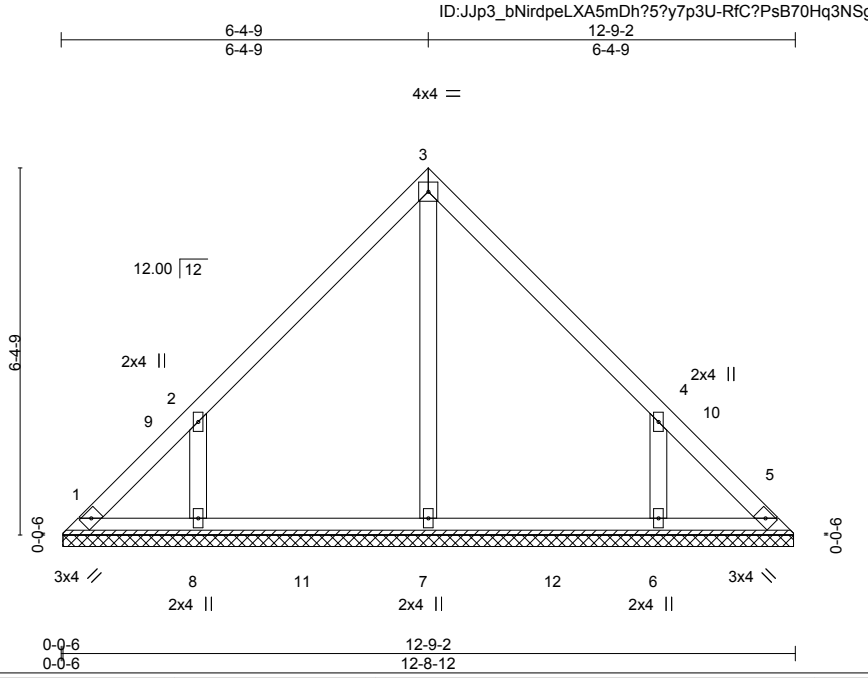
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 7-8-9, Exterior(2R) 7-8-9 to 12-1-6, Interior(1) 12-1-6 to 15-0-14 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, 5 except (jt=lb) 8=184, 6=184.

May 30,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	VB3	Valley	1	1	I73815550
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:47 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.15	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: 58 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 12-8-6.
(lb) - Max Horz 1=-145(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-161(LC 12), 6=-161(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=388(LC 19), 8=410(LC 19), 6=410(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-295/373, 4-6=-295/373

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 6-4-9, Exterior(2R) 6-4-9 to 10-9-6, Interior(1) 10-9-6 to 12-4-14 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, 5 except (jt=lb) 8=161, 6=161.

May 30,2025

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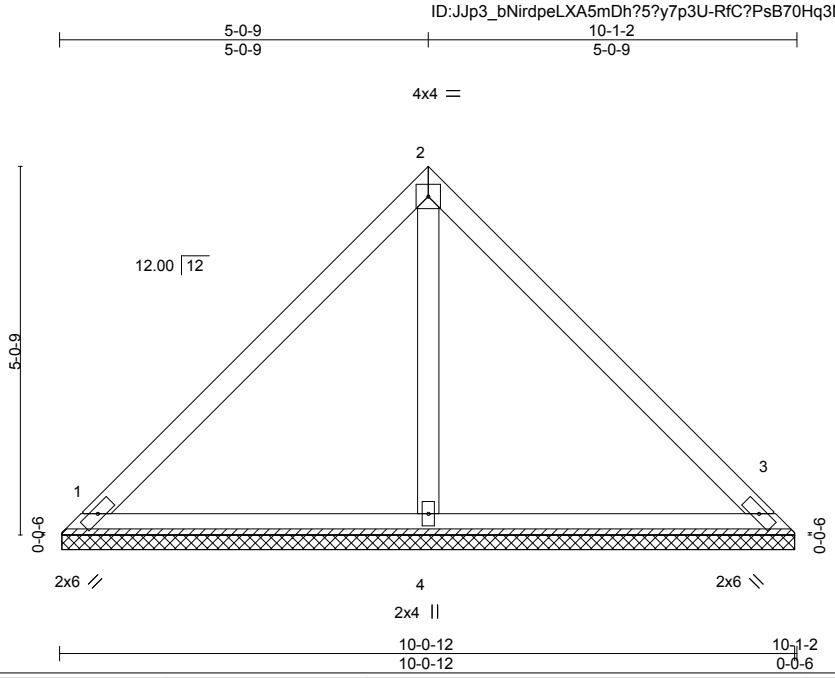
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	VB4	Valley	1	1	I73815551
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:48 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.32	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	0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 41 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=10-0-6, 3=10-0-6, 4=10-0-6
Max Horz 1=-113(LC 8)
Max Uplift 1=-28(LC 13), 3=-28(LC 13)
Max Grav 1=213(LC 1), 3=213(LC 1), 4=325(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 100 lb uplift at joint(s) 1, 3.

May 30,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	VB5	Valley	1	1	I73815552
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:48 2025 Page 1
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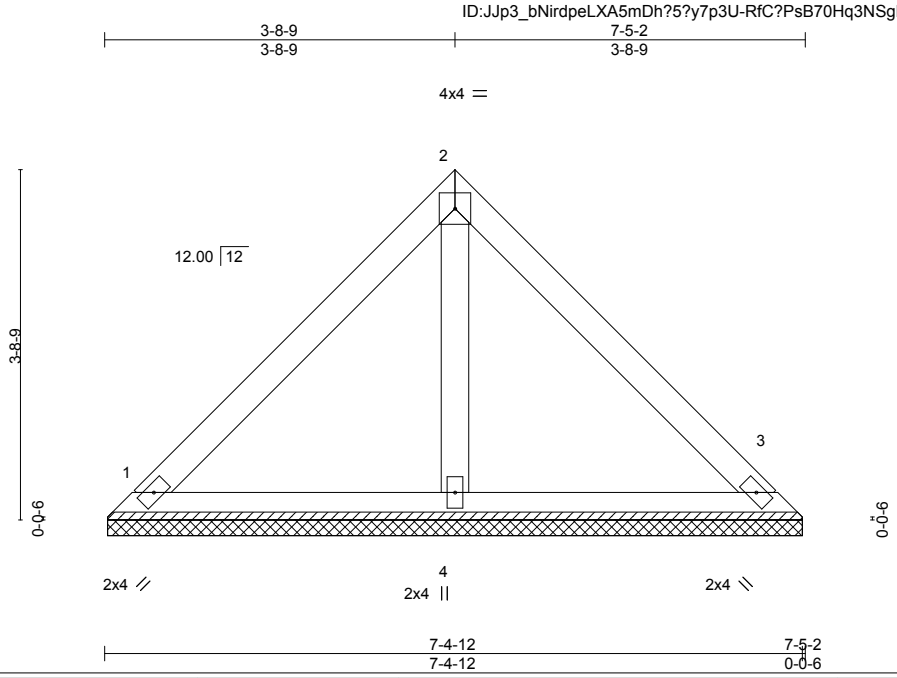

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	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=7-4-6, 3=7-4-6, 4=7-4-6
Max Horz 1=81(LC 9)
Max Uplift 1=-29(LC 13), 3=-29(LC 13)
Max Grav 1=164(LC 1), 3=164(LC 1), 4=210(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 100 lb uplift at joint(s) 1, 3.

May 30,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	VB6	Valley	1	1	I73815553
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:49 2025 Page 1
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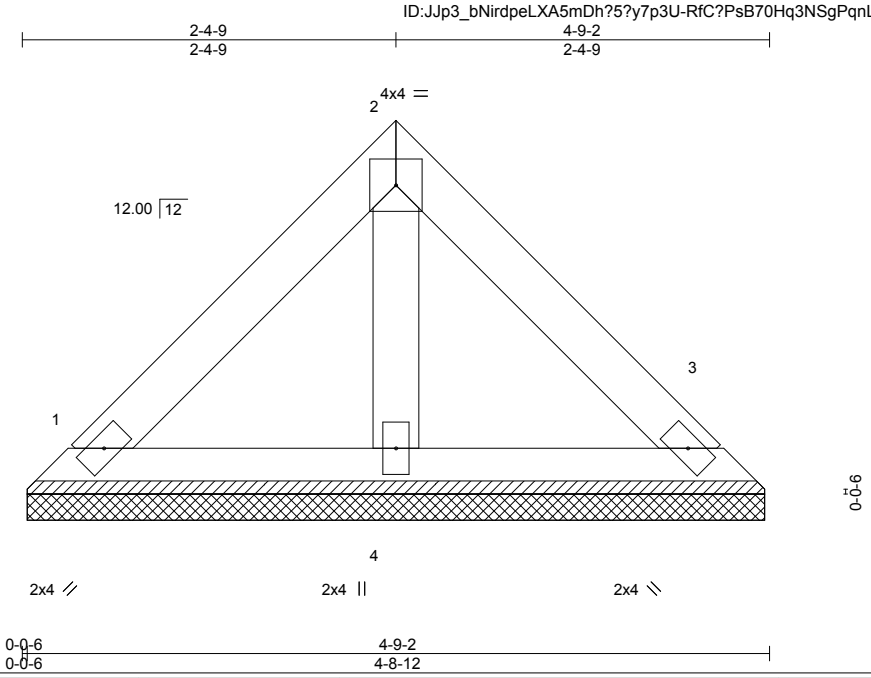

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 18 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 4-9-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-8-6, 3=4-8-6, 4=4-8-6
Max Horz 1=49(LC 9)
Max Uplift 1=-18(LC 13), 3=-18(LC 13)
Max Grav 1=99(LC 1), 3=99(LC 1), 4=127(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 100 lb uplift at joint(s) 1, 3.

May 30,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1022	VB7	Valley	1	1	I73815554
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 06:12:49 2025 Page 1
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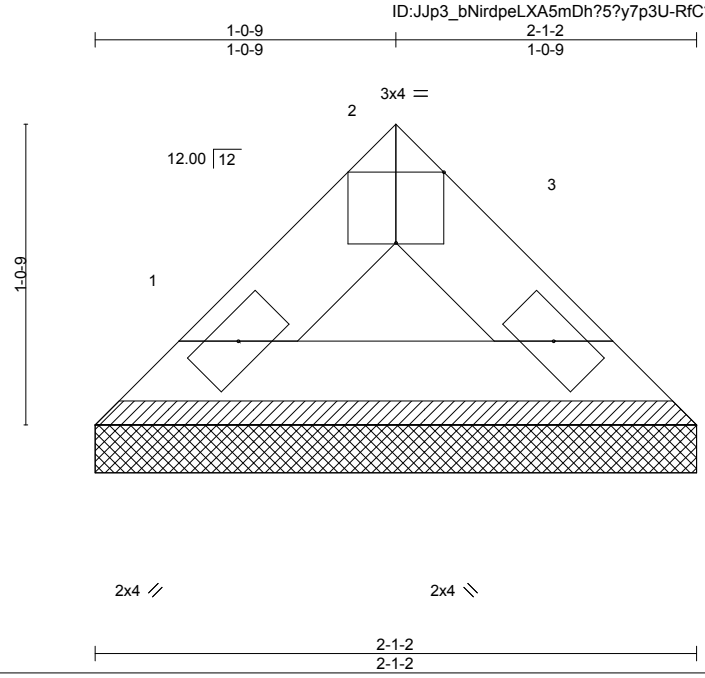

Plate Offsets (X,Y)-- [2:0-2-0,Edge]

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	0.01	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 6 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-1-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-1-2, 3=2-1-2
Max Horz 1=-17(LC 8)
Max Uplift 1=-2(LC 13), 3=-2(LC 12)
Max Grav 1=56(LC 1), 3=56(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 100 lb uplift at joint(s) 1, 3.

May 30,2025

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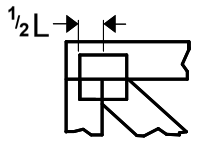
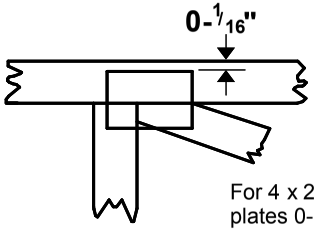
Edenton, NC 27932

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.

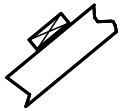
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

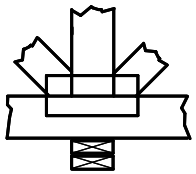
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

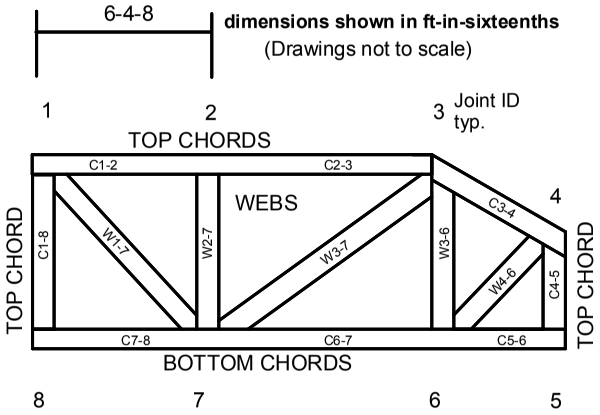


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.

Reaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park P.O. Box 40408
Fayetteville, N.C. 28309 (910) 864-TRUS

REQ. QUOTE DATE	/ /	**ORDER #**	J0225-1023
ORDER DATE	02/20/25	**QUOTE #**	
DELIVERY DATE	/ /	**CUSTOMER ACCT #**	0000007216
DATE OF INVOICE	/ /	**CUSTOMER PO #**	
ORDERED BY	Shaun Garderner	**INVOICE #**	
COUNTY	Harnett	**TERMS**	
SUPERINTENDANT	Shaun Garderner	**SALES REP**	Neil Baggett
JOBSITE PHONE #	(910) 988-8172	**SALES AREA**	Neil Baggett

SOLD TO
Precision Custom Homes
206 Shoreline Drive
Raeford, NC 28376
(910) 988-8172

SHIP TO
Precision Custom Homes and
79 Mahogany Ct.
Cameron, NC

JOB NAME: Lot 22 Magnolia Hills **LOT #** 22 **SUBDIV:** Magnolia Hills
MODEL: Floor **TAG:** Midas 2.0 w/CP **JOB CATEGORY:** WCall - Will Call

DELIVERY INSTRUCTIONS:
60 miles round trip

SPECIAL INSTRUCTIONS:
Modified from Lot 5 Magnolia Hills

PLAN SEAL DATE: 5/27/25

BUILDING DEPARTMENT
Floor Order

OVERHANG INFO		HEEL HEIGHT	00-06-08	REQ. LAYOUTS				REQ. ENGINEERING				QUOTE	BY	DATE
END CUT	RETURN													/ /
PLUMB		GABLE STUDS	24 IN. OC			JOBSITE	1			JOBSITE	1	LAYOUT	NB	05/29/25
												CUTTING	NB	05/28/25

FLOOR TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
40.0,10.0,0.0,5.0	1.00

FLOOR TRUSS SPACING: 24.0 IN. O.C. (TYP.)

FLOOR PROFILE	QTY / PLY	DEPTH ID	BASE SPAN	O/A SPAN	END TYPE LEFT	END TYPE RIGHT	INT BEARING SIZE	INT BEARING LOCATION	REACTIONS
	1	01-02-00 ET1	19-06-08	19-06-08					Joint 18 95.4 lbs. Joint 19 123.5 lbs. Joint 20 208.9 lbs. Joint 21 171.7 lbs. Joint 22 197.8 lbs.
	1	01-02-00 ET2	17-00-00	17-00-00					Joint 16 36.7 lbs. Joint 17 122.5 lbs. Joint 18 151.8 lbs. Joint 19 145.3 lbs. Joint 20 147.0 lbs.
	1	01-02-00 ET3	15-07-00	15-07-00					Joint 14 31.8 lbs. Joint 15 117.8 lbs. Joint 16 152.4 lbs. Joint 17 145.2 lbs. Joint 18 147.0 lbs.
	1	01-02-00 F1	32-05-00	32-05-00					Joint 25 1043.1 lbs. 284.8 lbs. Joint 35 1851.6 lbs. 533.0 lbs. Joint 37 -208.1 lbs. -845.4 lbs. Joint 38 310.9 lbs. 222.1 lbs. Joint 39 207.7 lbs. 91.0 lbs.
	1	01-02-00 F2	32-05-00	32-05-00					Joint 21 959.9 lbs. 232.3 lbs. Joint 30 2068.0 lbs. 1137.0 lbs. Joint 36 616.5 lbs. 47.3 lbs.
	1	01-02-00 F3	32-05-00	32-05-00					Joint 25 1014.1 lbs. 323.5 lbs. Joint 34 3045.3 lbs. 2119.6 lbs. Joint 40 473.0 lbs. -127.7 lbs.
	6	01-02-00 F4	15-07-00	15-07-00					Joint 9 837.1 lbs. 435.2 lbs. Joint 16 837.1 lbs. 435.2 lbs.
	10	01-02-00 F5	17-00-00	17-00-00					Joint 11 915.0 lbs. 500.9 lbs. Joint 19 915.0 lbs. 446.1 lbs.
	2	01-02-00 F6	15-05-00	15-05-00					Joint 9 827.9 lbs. 427.2 lbs. Joint 16 834.2 lbs. 428.5 lbs.

Reaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park P.O. Box 40408
Fayetteville, N.C. 28309 (910) 864-TRUS

REQ. QUOTE DATE	/ /	**ORDER #**	J0225-1023
ORDER DATE	02/20/25	**QUOTE #**	
DELIVERY DATE	/ /	**CUSTOMER ACCT #**	0000007216
DATE OF INVOICE	/ /	**CUSTOMER PO #**	
ORDERED BY	Shaun Garderner	**INVOICE #**	
COUNTY	Harnett	**TERMS**	
SUPERINTENDANT	Shaun Garderner	**SALES REP**	Neil Baggett
JOBSITE PHONE #	(910) 988-8172	**SALES AREA**	Neil Baggett

SOLD TO
Precision Custom Homes
206 Shoreline Drive
Raeford, NC 28376
(910) 988-8172

SHIP TO
Precision Custom Homes and
79 Mahogany Ct.
Cameron, NC

JOB NAME: Lot 22 Magnolia Hills **LOT #** 22 **SUBDIV:** Magnolia Hills
MODEL: Floor **TAG:** Midas 2.0 w/CP **JOB CATEGORY:** WCall - Will Call

DELIVERY INSTRUCTIONS:
60 miles round trip

SPECIAL INSTRUCTIONS:
Modified from Lot 5 Magnolia Hills

PLAN SEAL DATE: 5/27/25

BUILDING DEPARTMENT
Floor Order

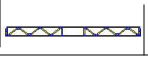
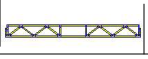
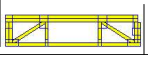
OVERHANG INFO		**HEEL HEIGHT**	00-06-08	**REQ. LAYOUTS**				**REQ. ENGINEERING**					**BY**	**DATE**
END CUT	**RETURN**											**QUOTE**		/ /
PLUMB		**GABLE STUDS**	24 IN. OC			JOBSITE	1			JOBSITE	1	**LAYOUT**	NB	05/29/25
												CUTTING	NB	05/28/25

FLOOR TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
40.0,10.0,0.0,5.0	1.00

FLOOR TRUSS SPACING: 24.0 IN. O.C. (TYP.)

FLOOR PROFILE	QTY / PLY	DEPTH ID	BASE SPAN	O/A SPAN	END TYPE LEFT	END TYPE RIGHT	INT BEARING SIZE	INT BEARING LOCATION	REACTIONS
	4	01-02-00 F7	15-08-08	15-08-08					Joint 9 844.0 lbs. 441.2 lbs. Joint 16 844.0 lbs. 441.2 lbs.
	7	01-02-00 F8	13-01-08	13-01-08					Joint 9 701.9 lbs. 375.5 lbs. Joint 14 701.9 lbs. 375.5 lbs.
	1	01-02-00 F9-GR	05-01-12	05-01-12					Joint 5 997.2 lbs. 940.0 lbs. Joint 8 1003.4 lbs. 925.3 lbs.

ITEMS

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES
10	Hangers, USP	HUS 410			SIMPSON (HUS410)
2	BlueLinx (F)	LVL, Metsa(F) 2.0,	07-00-00		BM2
2	BlueLinx (F)	LVL, Metsa(F) 2.0, 14"	16-00-00		BM1
2	BlueLinx (F)	LVL, Metsa(F) 2.0, 24"	20-00-00		GDH
3	Hangers, USP	MSH422			SIMPSON (THA422)

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0225-1023
Lot 22 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: I73815085 thru I73815096

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

North Carolina COA: C-0844

May 29,2025

Gilbert, Eric

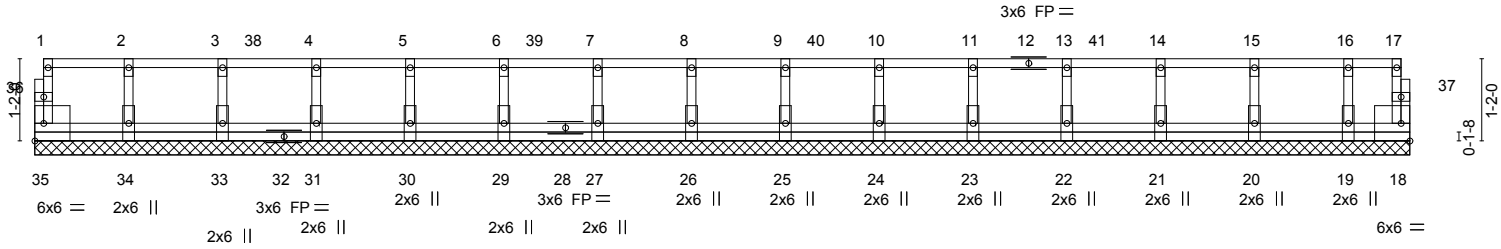
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 22 Magnolia Hills
J0225-1023	ET1	GABLE	1	1	I73815085
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:21 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8 0-1-8

Scale = 1:32.7



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	17-4-0	18-8-0	19-6-8
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	0-10-8

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.00	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 107 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 19-6-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 35, 34, 33, 31, 30, 29, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18

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.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 18-35=-10, 1-17=-100
Concentrated Loads (lb)
Vert: 17=-72 2=-64 5=-64 8=-64 11=-64 15=-64 38=-64 39=-64 40=-64 41=-64

May 29,2025

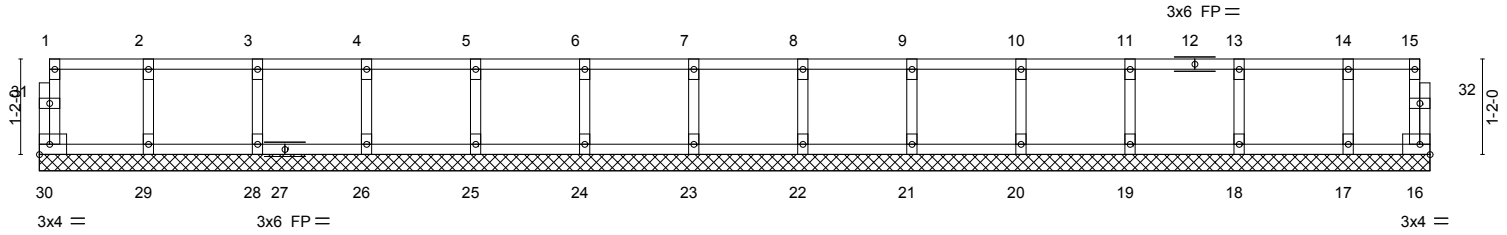
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	ET2	GABLE	1	1	I73815086
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:22 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8 0-1-8

Scale = 1:28.2



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.

May 29,2025

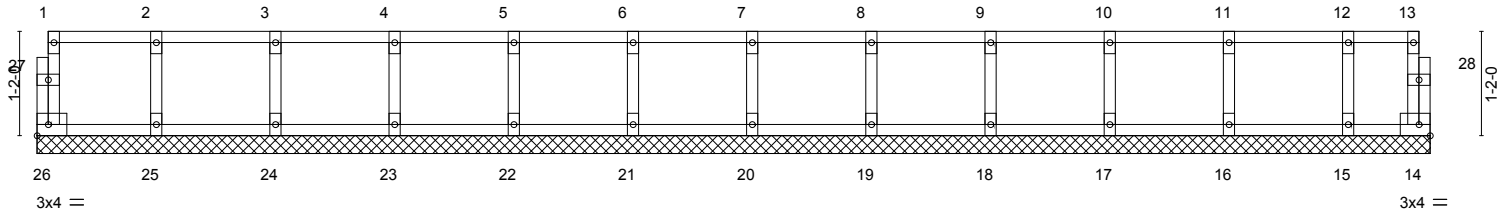
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	ET3	GABLE	1	1	I73815087
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:22 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8 0-1-8

Scale = 1:25.8



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.

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	F1	GABLE	1	1	I73815088
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:23 2025 Page 1
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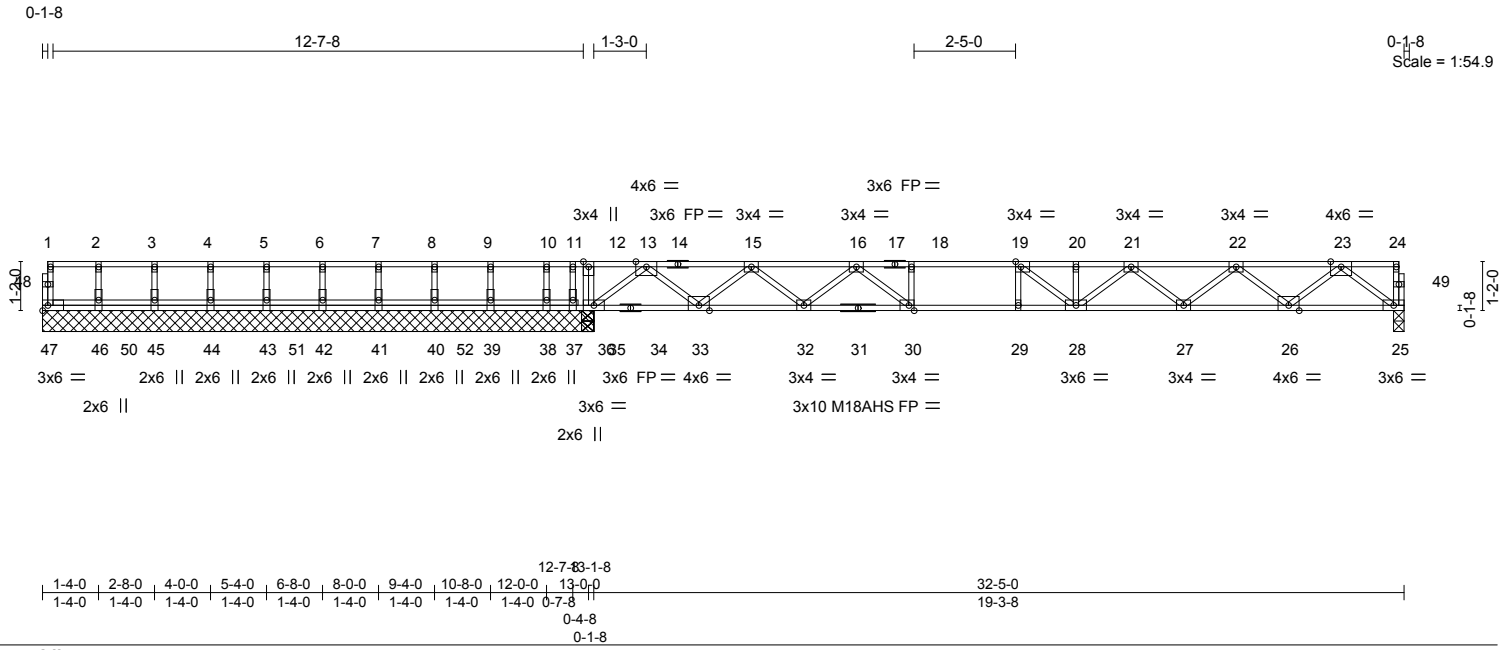

Plate Offsets (X,Y)-- [19:0-1-8,Edge], [30:0-1-8,Edge]

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	0.56	Vert(LL)	-0.36	29	>648	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.63	Vert(CT)	-0.49	29	>473	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.07	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 168 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: 35-37.

REACTIONS. All bearings 13-1-8 except (jt=length) 25=0-3-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) except 37=-845(LC 4)
Max Grav All reactions 250 lb or less at joint(s) 47, 46, 45, 44, 43, 42, 41, 40, 39 except 35=1852(LC 1), 35=1852(LC 1), 35=1852(LC 1), 25=1043(LC 1), 38=311(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-15=-2062/0, 15-16=-3622/0, 16-18=-4704/0, 18-19=-4704/0, 19-20=-4629/0, 20-21=-4629/0, 21-22=-3730/0, 22-23=-2247/0
BOT CHORD 33-35=0/1131, 32-33=0/3017, 30-32=0/4215, 29-30=0/4704, 28-29=0/4704, 27-28=0/4289, 26-27=0/3148, 25-26=0/1310
WEBS 12-35=-573/0, 13-35=-1416/0, 13-33=0/1212, 15-33=-1244/0, 15-32=0/787, 16-32=-772/0, 16-30=0/624, 18-30=-301/0, 23-25=-1640/0, 23-26=0/1219, 22-26=-1174/0, 22-27=0/757, 21-27=-728/0, 11-37=0/401, 21-28=0/434

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 845 lb uplift at joint 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.
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: 25-47=-10, 1-24=-100
Concentrated Loads (lb)
Vert: 44=-95 41=-95 38=-95 50=-95 51=-95 52=-95

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	F2	Floor	1	1	I73815089
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:24 2025 Page 1
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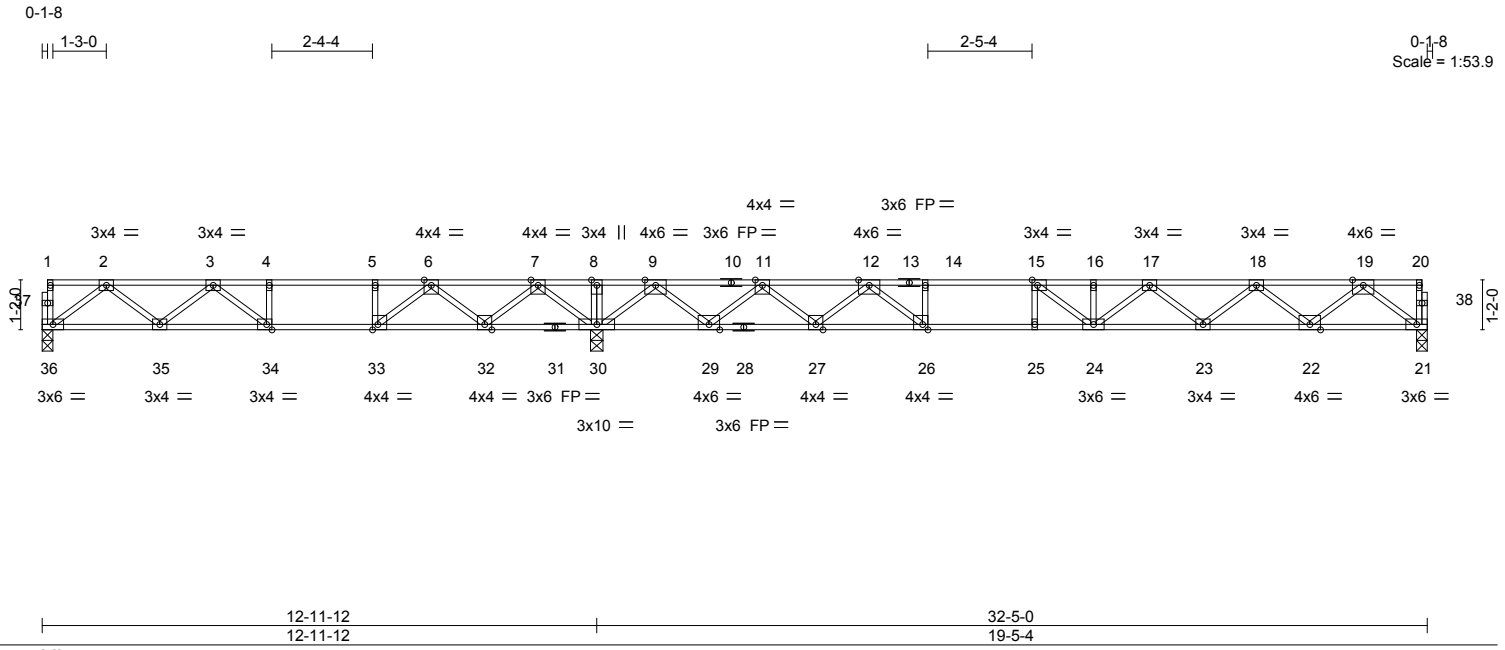


Plate Offsets (X,Y)-- [15:0-1-8,Edge], [26:0-1-8,Edge], [33:0-1-8,Edge], [34:0-1-8,Edge]

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	0.96	Vert(LL)	-0.35	24-25	>658	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.48	24-25	>482	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.06	21	n/a	n/a		
BCDL	5.0	Code IRC2021/TPI2014		Matrix-S							Weight: 159 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat) *Except*
13-20: 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat) *Except*
21-28: 2x4 SP 2400F 2.0E(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 6-0-0 oc bracing.

REACTIONS. (size) 36=0-3-0, 30=0-3-8, 21=0-3-0
Max Grav 36=616(LC 3), 30=2068(LC 1), 21=960(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1183/0, 3-4=-1613/304, 4-5=-1613/304, 5-6=-1613/304, 6-7=-541/1054, 7-8=0/2292, 8-9=0/2292, 9-11=-751/267, 11-12=-2462/0, 12-14=-3875/0, 14-15=-3875/0, 15-16=-4041/0, 16-17=-4041/0, 17-18=-3319/0, 18-19=-2039/0
BOT CHORD 35-36=0/759, 34-35=-38/1544, 33-34=-304/1613, 32-33=-728/1141, 30-32=-1353/0, 29-30=-826/0, 27-29=0/1776, 26-27=0/3188, 25-26=0/3875, 24-25=0/3875, 23-24=0/3784, 22-23=0/2840, 21-22=0/1201
WEBS 2-36=-949/0, 2-35=0/553, 3-35=-470/109, 7-30=-1344/0, 7-32=0/903, 6-32=-958/0, 6-33=0/1001, 5-33=-446/0, 3-34=-352/87, 9-30=-1839/0, 9-29=0/1435, 11-29=-1380/0, 11-27=0/933, 12-27=-1000/0, 12-26=0/1152, 14-26=-486/0, 19-21=-1504/0, 19-22=0/1091, 18-22=-1043/0, 18-23=0/624, 17-23=-604/0, 17-24=0/329, 16-24=-289/12, 15-24=-275/591, 15-25=-265/3

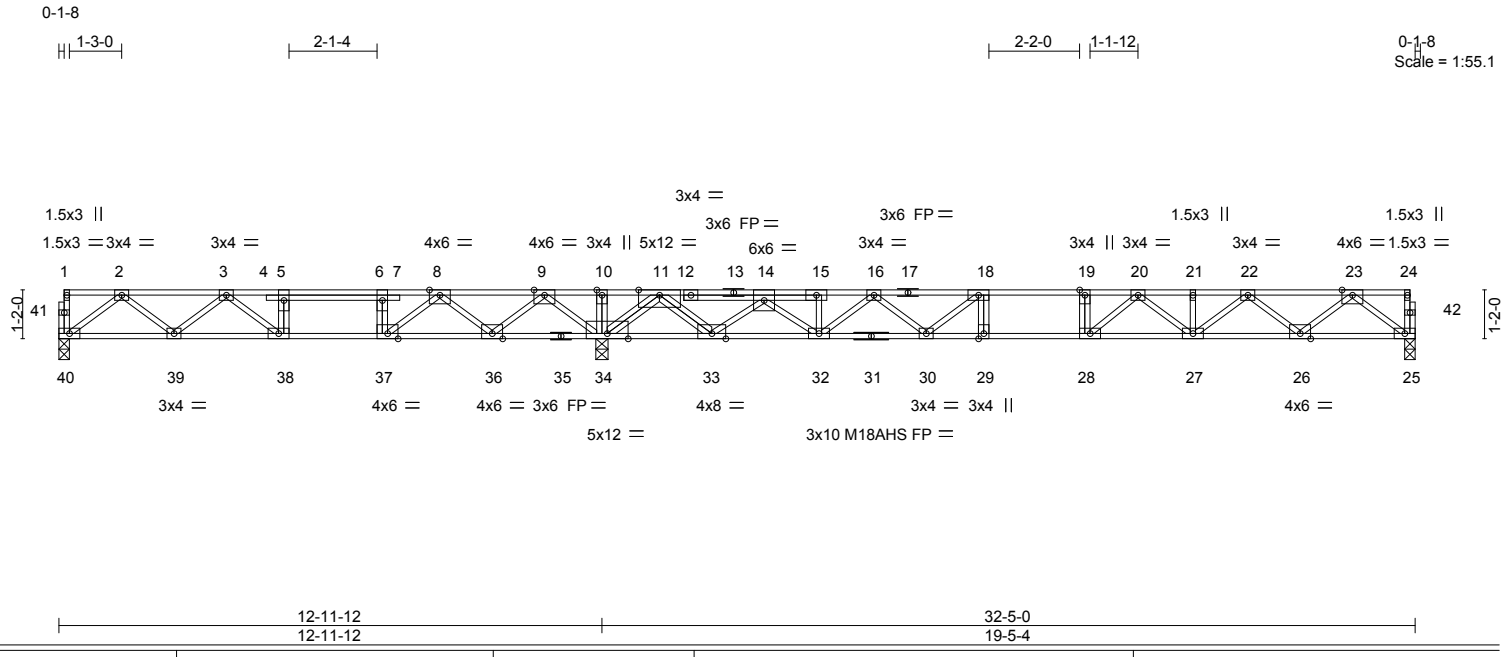
NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	F3	Floor	1	1	I73815090
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:25 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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)

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	F4	Floor	6	1	I73815091
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:25 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

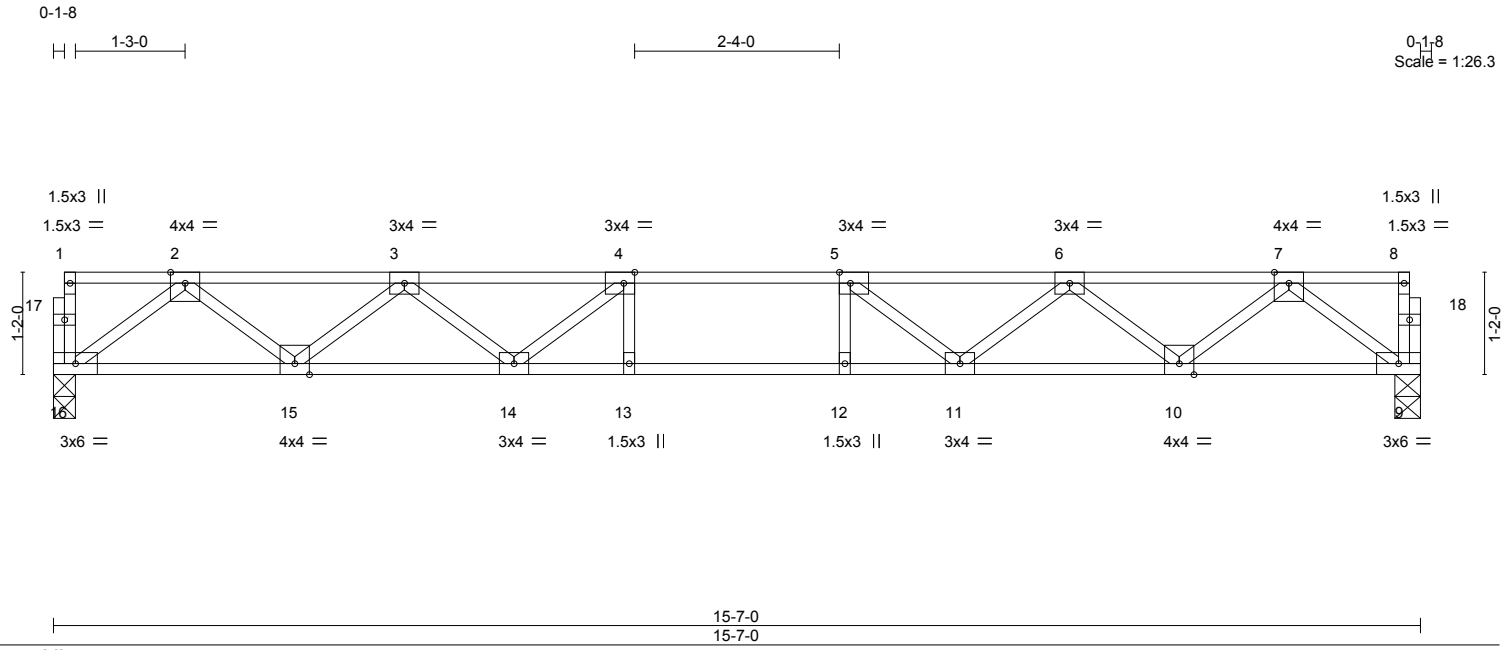


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

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	0.44	Vert(LL)	-0.19	13-14	>992	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.24	13-14	>751	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.05	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 77 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) 16=0-3-0, 9=0-3-8
Max Grav 16=837(LC 1), 9=837(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1730/0, 3-4=-2725/0, 4-5=-3061/0, 5-6=-2725/0, 6-7=-1730/0
BOT CHORD 15-16=0/1040, 14-15=0/2384, 13-14=0/3061, 12-13=0/3061, 11-12=0/3061, 10-11=0/2384, 9-10=0/1040
WEBS 2-16=-1302/0, 2-15=0/897, 3-15=-852/0, 3-14=0/504, 4-14=-627/0, 7-9=-1302/0, 7-10=0/897, 6-10=-852/0, 6-11=0/504, 5-11=-627/0

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.

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	F5	Floor	10	1	I73815092
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:26 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

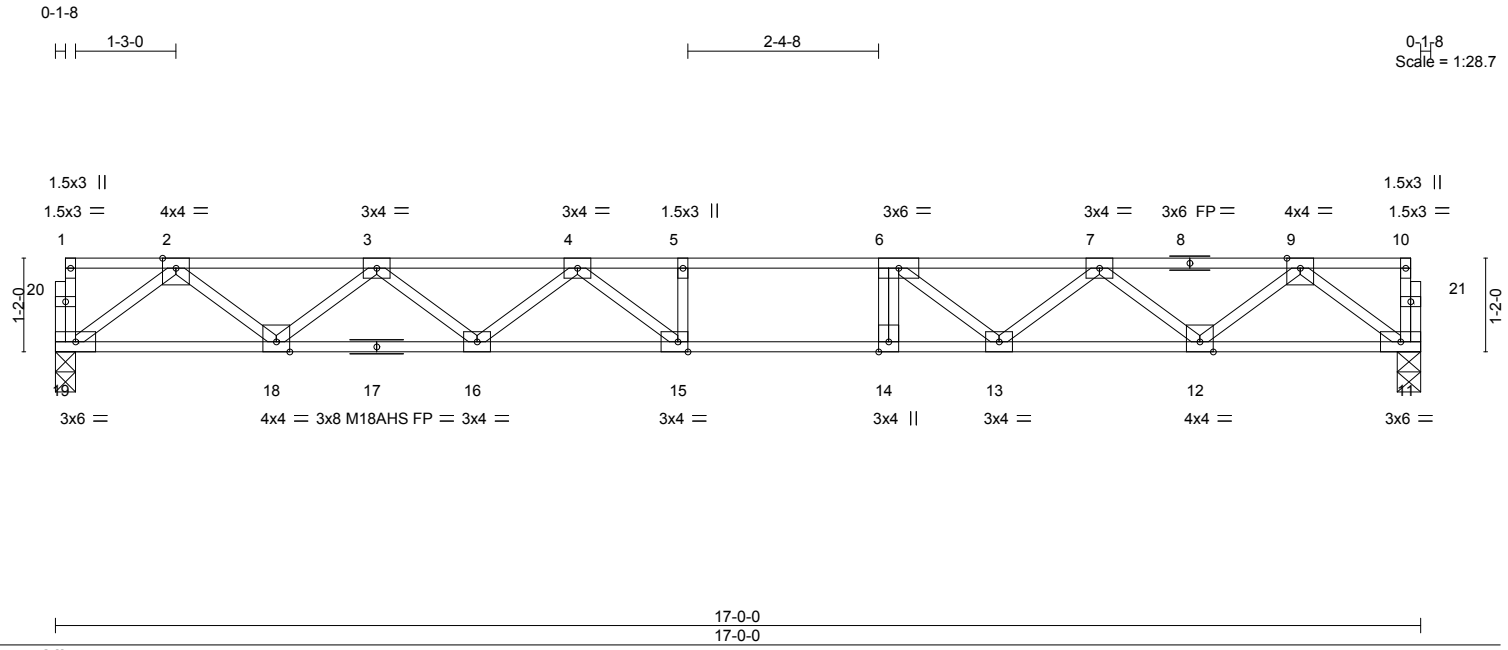


Plate Offsets (X,Y)-- [15:0-1-8,Edge]

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	0.83	Vert(LL)	-0.27	15-16	>743	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.64	Vert(CT)	-0.36	15-16	>554	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.05	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 85 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat) *Except*
11-17: 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 19=0-3-0, 11=0-3-8
Max Grav 19=915(LC 1), 11=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=-3115/0, 4-5=-3630/0, 5-6=-3630/0, 6-7=-3107/0, 7-9=-1924/0
BOT CHORD 18-19=0/1141, 16-18=0/2678, 15-16=0/3497, 14-15=0/3630, 13-14=0/3630, 12-13=0/2662, 11-12=0/1146
WEBS 2-19=-1429/0, 2-18=0/1018, 3-18=-982/0, 3-16=0/569, 4-16=-498/0, 4-15=-140/548, 9-11=-1435/0, 9-12=0/1013, 7-12=-960/0, 7-13=0/623, 6-13=-837/0

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.

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	F6	Floor	2	1	I73815093
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:26 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

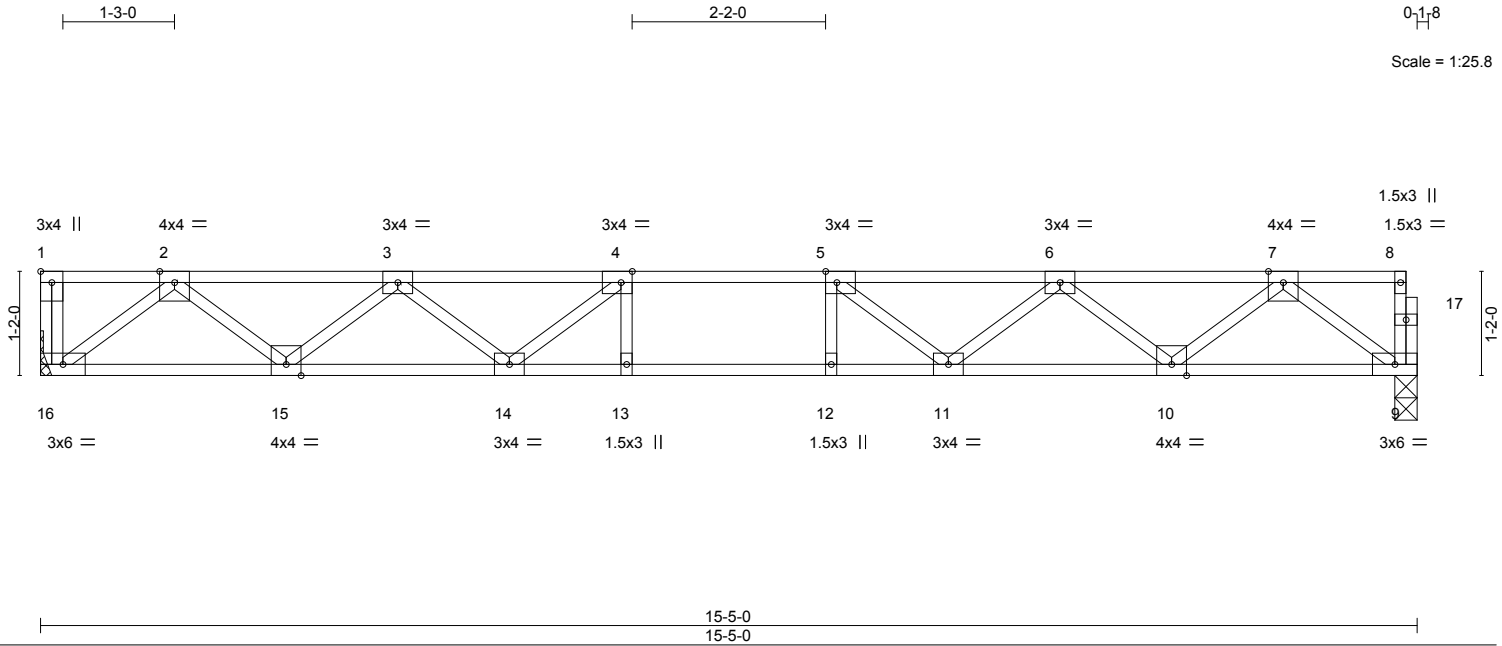


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-1-8,Edge], [5:0-1-8,Edge]

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	0.40	Vert(LL)	-0.17	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(CT)	-0.23	13-14	>800	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.05	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 77 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) 16=Mechanical, 9=0-3-0
Max Grav 16=834(LC 1), 9=828(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1707/0, 3-4=-2679/0, 4-5=-3000/0, 5-6=-2679/0, 6-7=-1707/0
BOT CHORD 15-16=0/1029, 14-15=0/2351, 13-14=0/3000, 12-13=0/3000, 11-12=0/3000, 10-11=0/2352, 9-10=0/1028
WEBS 2-16=-1291/0, 2-15=0/883, 3-15=-838/0, 3-14=0/486, 4-14=-602/0, 7-9=-1287/0, 7-10=0/884, 6-10=-839/0, 6-11=0/486, 5-11=-602/0

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.

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	F7	Floor	4	1	I73815094
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:26 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

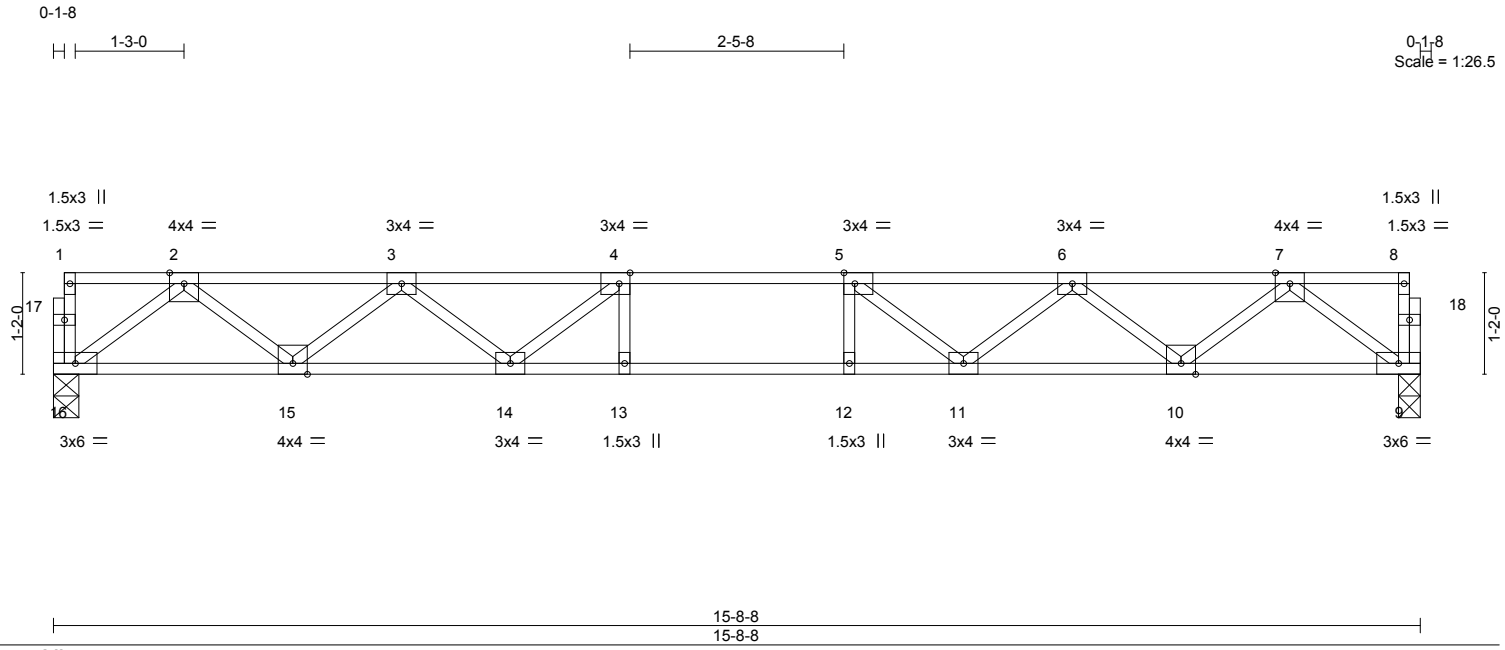


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

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	0.47	Vert(LL)	-0.20	13-14	>939	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.26	13-14	>717	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.05	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 77 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) 16=0-3-8, 9=0-3-0
Max Grav 16=844(LC 1), 9=844(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1747/0, 3-4=-2759/0, 4-5=-3106/0, 5-6=-2759/0, 6-7=-1747/0
BOT CHORD 15-16=0/1050, 14-15=0/2409, 13-14=0/3106, 12-13=0/3106, 11-12=0/3106, 10-11=0/2409, 9-10=0/1050
WEBS 2-16=-1314/0, 2-15=0/907, 3-15=-862/0, 3-14=0/518, 4-14=-647/0, 7-9=-1314/0, 7-10=0/907, 6-10=-862/0, 6-11=0/518, 5-11=-647/0

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.

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	F8	FLOOR	7	1	I73815095
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:27 2025 Page 1
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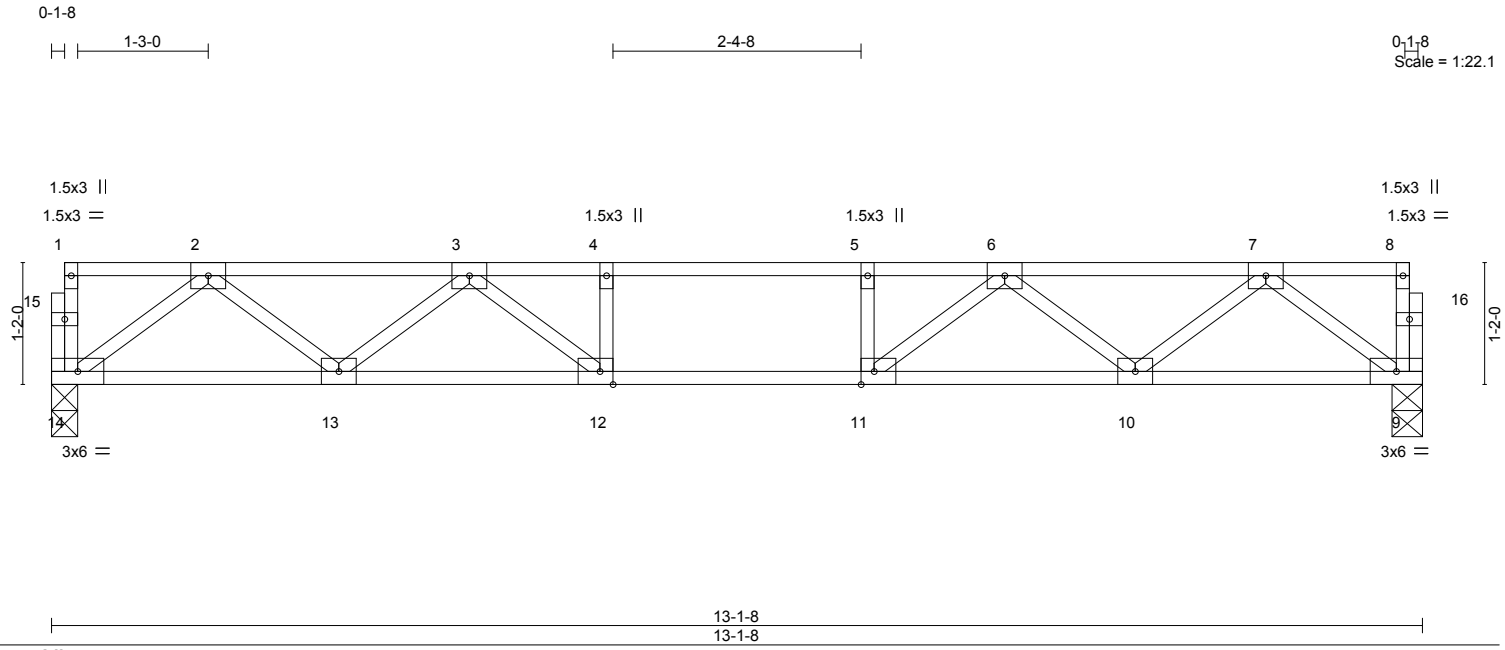


Plate Offsets (X,Y)-- [11:0-1-8,Edge], [12:0-1-8,Edge]

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	0.44	Vert(LL)	-0.12	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.50	Vert(CT)	-0.15	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: 65 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=-1384/0, 3-4=-2136/0, 4-5=-2136/0, 5-6=-2136/0, 6-7=-1384/0
BOT CHORD 13-14=0/869, 12-13=0/1865, 11-12=0/2136, 10-11=0/1865, 9-10=0/869
WEBS 2-14=-1088/0, 2-13=0/670, 3-13=-626/0, 3-12=0/561, 4-12=-270/0, 7-9=-1088/0, 7-10=0/670, 6-10=-626/0, 6-11=0/561, 5-11=-270/0

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.

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 22 Magnolia Hills
J0225-1023	F9-GR	FLOOR GIRDER	1	1	I73815096
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu May 29 05:32:27 2025 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

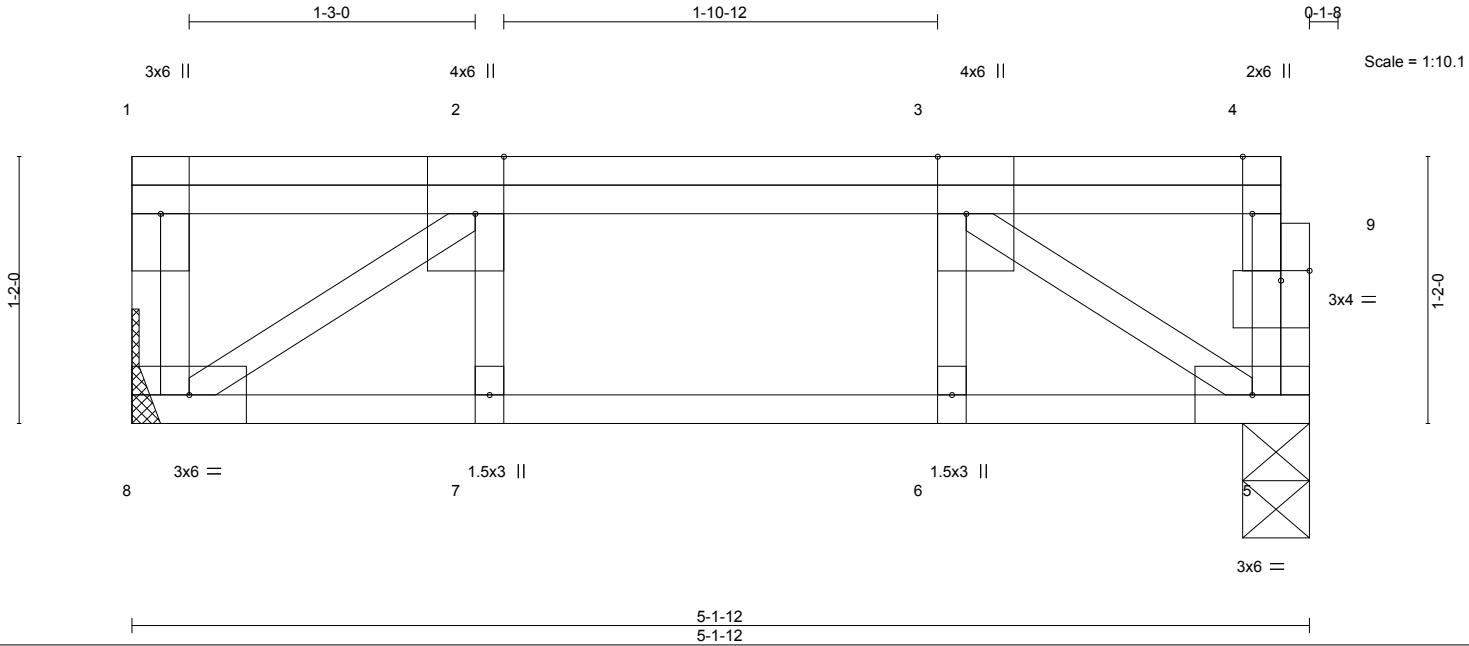


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [3:0-3-0,Edge], [4:0-3-0,Edge], [9:0-1-8,0-0-8]

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	0.11	Vert(LL)	-0.02	6-7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.31	Vert(CT)	-0.02	6-7	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.01	5	n/a	n/a		
BCDL	5.0	Code IRC2021/TPI2014		Matrix-S							Weight: 34 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, 5=0-3-8
Max Grav 8=1003(LC 1), 5=997(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1348/0
BOT CHORD 7-8=0/1348, 6-7=0/1348, 5-6=0/1348
WEBS 2-8=-1631/0, 3-5=-1625/0

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.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 762 lb down at 1-10-4, and 785 lb down at 3-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

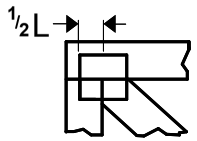
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 2=-734(F) 3=-734(F)

May 29,2025

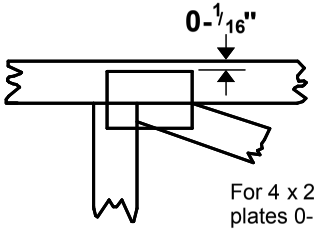
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

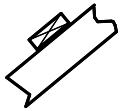
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

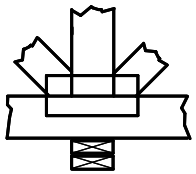
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

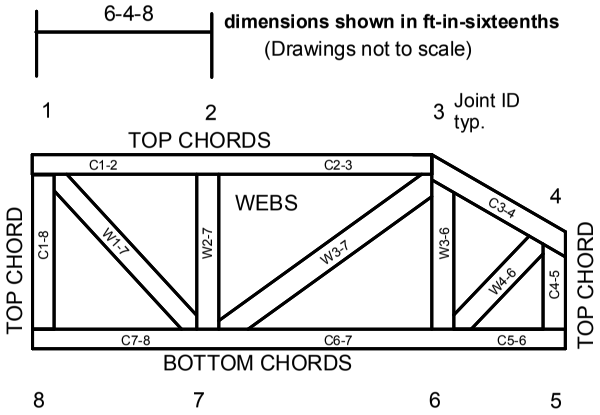


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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

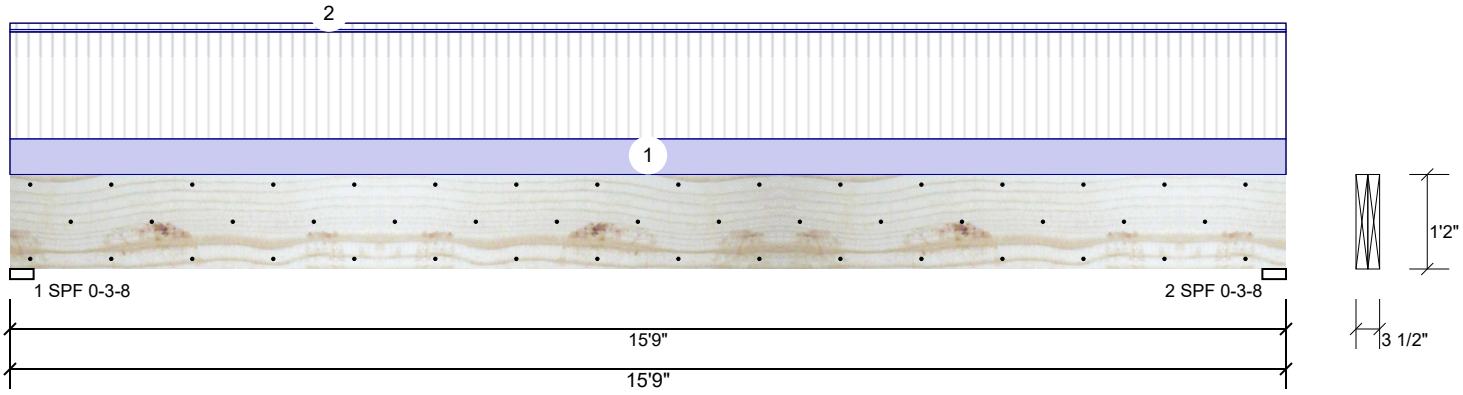
Failure to Follow Could Cause Property Damage or Personal Injury

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:	5/29/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 22 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	0.567 (57%)	D+L	L
Unbraced	15300 ft-lb	7'10 1/2"	15309 ft-lb	0.999 (100%)	D+L	L
Shear	3938 lb	1'5 1/2"	10453 lb	0.377 (38%)	D+L	L
LL Defl inch	0.321 (L/572)	7'10 9/16"	0.382 (L/480)	0.840 (84%)	L	L
TL Defl inch	0.438 (L/419)	7'10 9/16"	0.510 (L/360)	0.860 (86%)	D+L	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
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 the bottom edge only.
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 6/28/2026

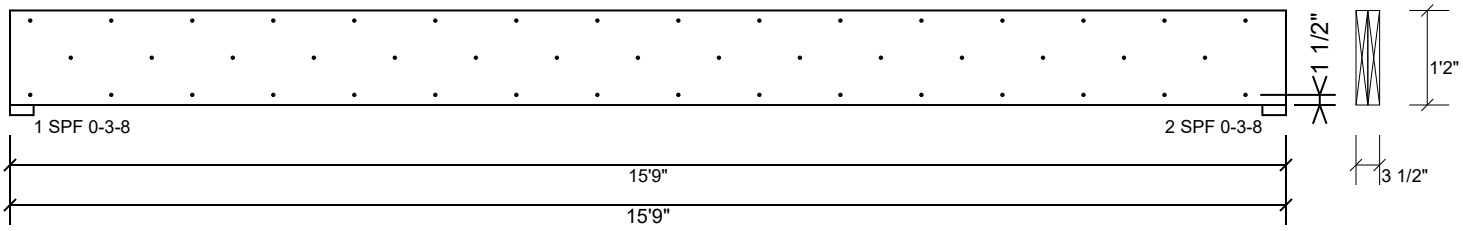
Manufacturer Info

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

Client:		Date:	5/29/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 22 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

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Lumber

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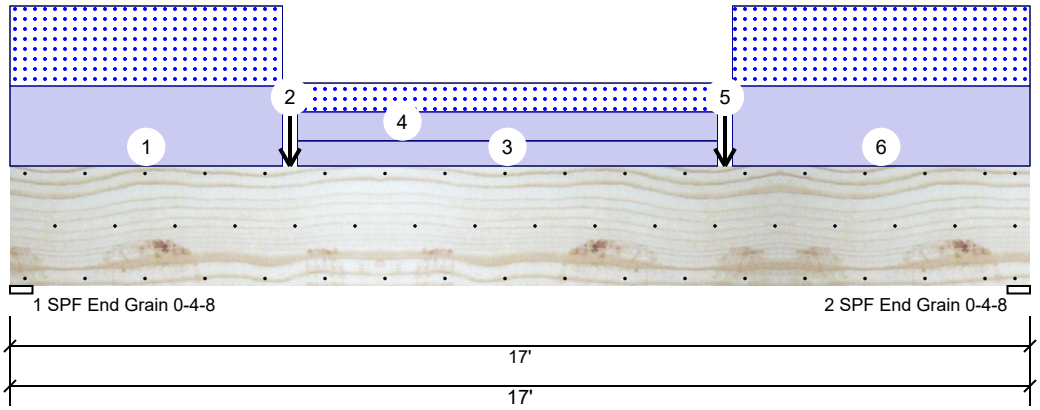
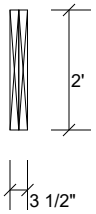
Address:		Job Name:	Lot 22 Magnolia Hills
		Project #:	

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	0.584 (58%)	D+S	L
Unbraced	49112 ft-lb	9' 5/16"	49247 ft-lb	0.997 (100%)	D+S	L
Shear	10476 lb	2'4 1/2"	20608 lb	0.508 (51%)	D+S	L
LL Defl inch	0.178 (L/1107)	8'6 1/2"	0.410 (L/480)	0.433 (43%)	S	L
TL Defl inch	0.379 (L/519)	8'6 7/16"	0.547 (L/360)	0.693 (69%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
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 the bottom edge only.
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

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

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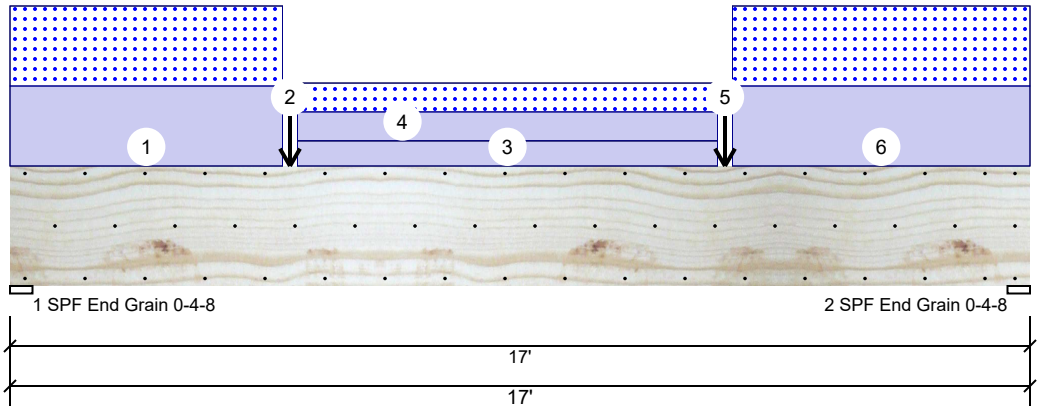
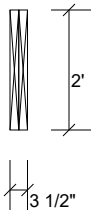
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 22 Magnolia Hills
		Project #:	

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
4	Part. Uniform	4-9-8 to 11-9-8		Top	137 PLF	0 PLF	137 PLF	0 PLF	0 PLF	C4
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

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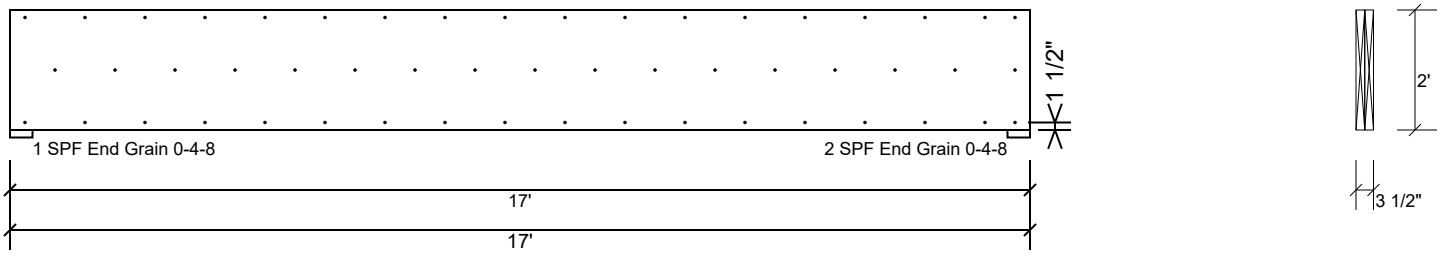
Level: Level



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

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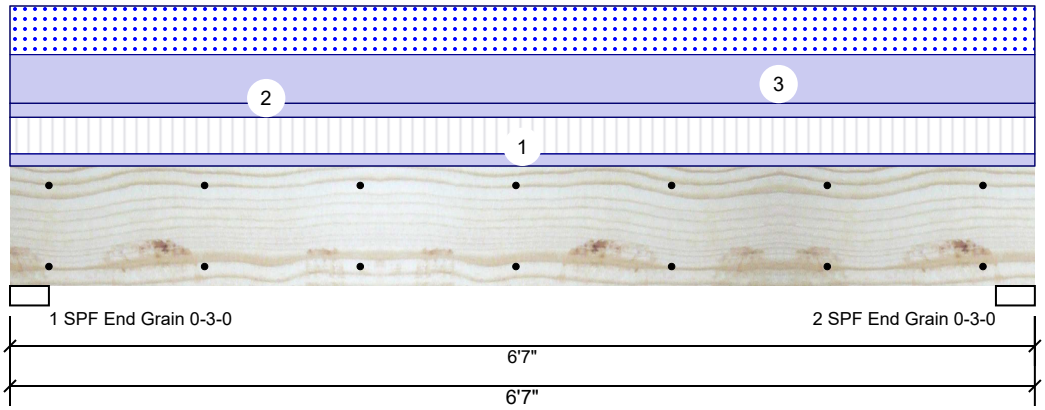
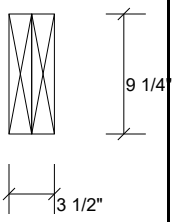
BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

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	0.399 (40%)	D+0.75(L+S)	L
Unbraced	5752 ft-lb	3'3 1/2"	10370 ft-lb	0.555 (55%)	D+0.75(L+S)	L
Shear	2717 lb	5'6 3/4"	7943 lb	0.342 (34%)	D+0.75(L+S)	L
LL Defl inch	0.049 (L/1522)	3'3 1/2"	0.155 (L/480)	0.315 (32%)	0.75(L+S)	L
TL Defl inch	0.107 (L/697)	3'3 1/2"	0.207 (L/360)	0.517 (52%)	D+0.75(L+S)	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
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 the bottom edge only.
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

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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

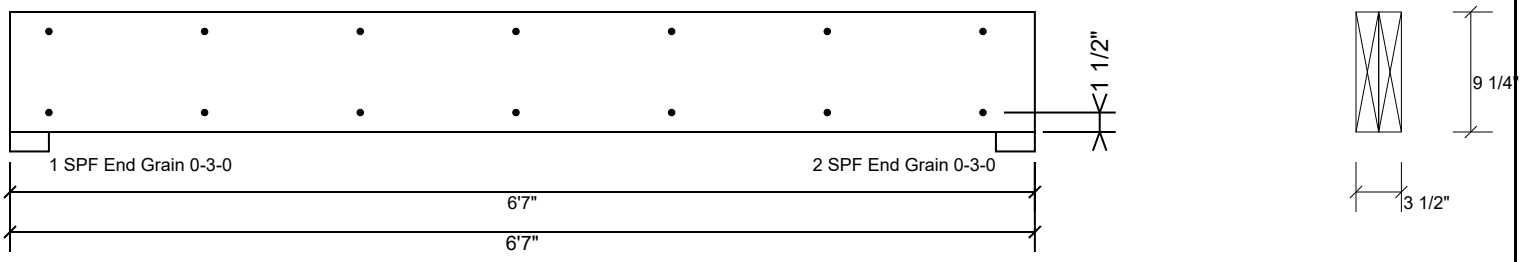
This design is valid until 6/28/2026

Manufacturer Info

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

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

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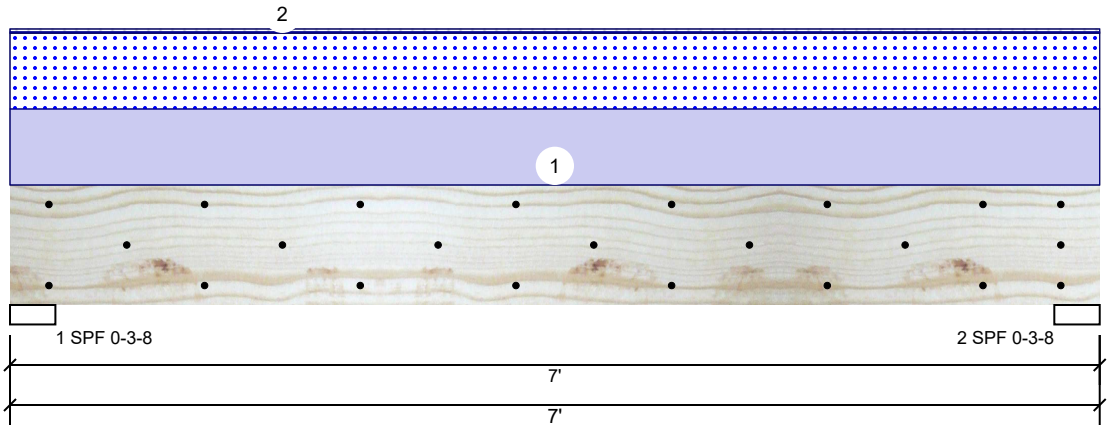
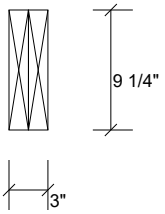
Manufacturer Info

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

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	943	917	0	0
2	Vertical	70	943	917	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	42%	943 / 917	1860	L	D+S
2 - SPF	3.500"	Vert	42%	943 / 917	1860	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2843 ft-lb	3'6"	3280 ft-lb	0.867 (87%)	D+S	L
Unbraced	2843 ft-lb	3'6"	3018 ft-lb	0.942 (94%)	D+S	L
Shear	1705 lb	1' 3/4"	3723 lb	0.458 (46%)	D+S	L
LL Defl inch	0.039 (L/2014)	3'6"	0.164 (L/480)	0.238 (24%)	S	L
TL Defl inch	0.079 (L/993)	3'6"	0.218 (L/360)	0.363 (36%)	D+S	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
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 the bottom edge only.
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.

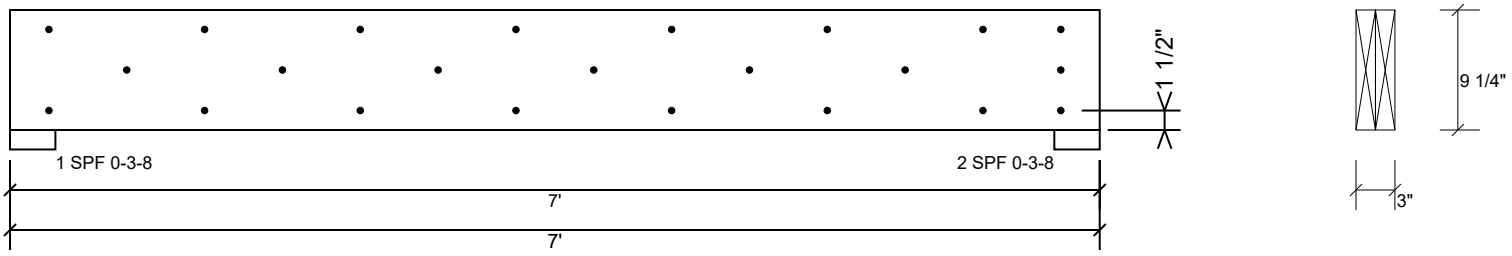
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Far Face	262 PLF	0 PLF	262 PLF	0 PLF	0 PLF	C4
2	Tie-In Far	0-0-0 to 7-0-0	0-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 7-0-0	0-6-0	Near Face	15 PSF	40 PSF	0 PSF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

Manufacturer Info

This design is valid until 6/28/2026

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

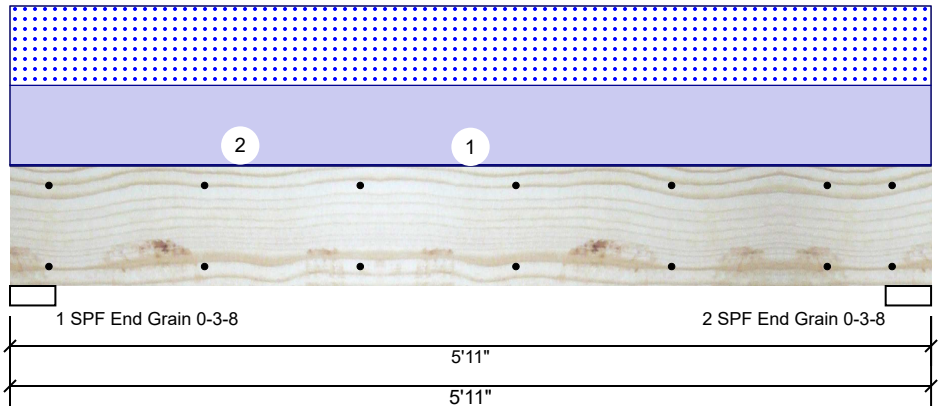
Manufacturer Info

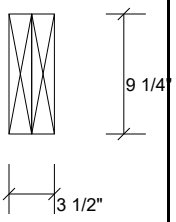
This design is valid until 6/28/2026

Client:		Date:	5/29/2025
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 22 Magnolia Hills
		Project #:	

HDR1 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	0	1381	1337	0	0
2	Vertical	0	1381	1337	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	26%	1381 / 1337	2718	L	D+S
2 - SPF End Grain	3.500"	Vert	26%	1381 / 1337	2718	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3421 ft-lb	2'11 1/2"	14423 ft-lb	0.237 (24%)	D+S	L
Unbraced	3421 ft-lb	2'11 1/2"	11110 ft-lb	0.308 (31%)	D+S	L
Shear	1747 lb	1' 3/4"	7943 lb	0.220 (22%)	D+S	L
LL Defl inch	0.026 (L/2564)	2'11 1/2"	0.136 (L/480)	0.187 (19%)	S	L
TL Defl inch	0.052 (L/1262)	2'11 1/2"	0.182 (L/360)	0.285 (29%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
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3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on the bottom edge only.
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	8 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	452 PLF	0 PLF	452 PLF	0 PLF	0 PLF	A4
	Self Weight				7 PLF					

Notes

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Lumber

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Handling & Installation

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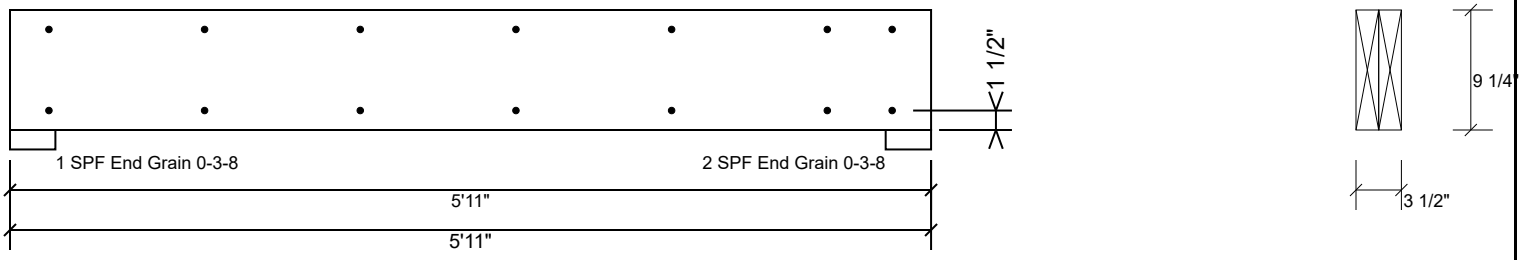
Address:		Job Name:	Lot 22 Magnolia Hills
		Project #:	

HDR1 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

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