

RE: J1018-4523
 Watermark/Lot 29 South Creek/Harnett

Trenco
 818 Soundside Rd
 Edenton, NC 27932

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2009/TPI2007
 Wind Code: ASCE 7-05 Wind Speed: 100 mph
 Roof Load: 40.0 psf

Design Program: MiTek 20/20 8.1
 Design Method: MWFRS(low-rise)/C-C hybrid Wind ASCE 7-05
 Floor Load: N/A psf

This package includes 26 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E12241712	a1	9/25/18
2	E12241713	a2	9/25/18
3	E12241714	a3	9/25/18
4	E12241715	a3ge	9/25/18
5	E12241716	a4	9/25/18
6	E12241717	a4a	9/25/18
7	E12241718	a5	9/25/18
8	E12241719	a5a	9/25/18
9	E12241720	a5ge	9/25/18
10	E12241721	b1	9/25/18
11	E12241722	b1ge	9/25/18
12	E12241723	b2	9/25/18
13	E12241724	b3	9/25/18
14	E12241725	c1ge	9/25/18
15	E12241726	c2	9/25/18
16	E12241727	c3gdr	9/25/18
17	E12241728	d1	9/25/18
18	E12241729	d1ge	9/25/18
19	E12241730	m1ge	9/25/18
20	E12241731	vb1	9/25/18
21	E12241732	vb2	9/25/18
22	E12241733	vb3	9/25/18
23	E12241734	vb4	9/25/18
24	E12241735	vb5	9/25/18
25	E12241736	vc1	9/25/18
26	E12241737	vc2	9/25/18

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

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2018.

North Carolina COA:C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.



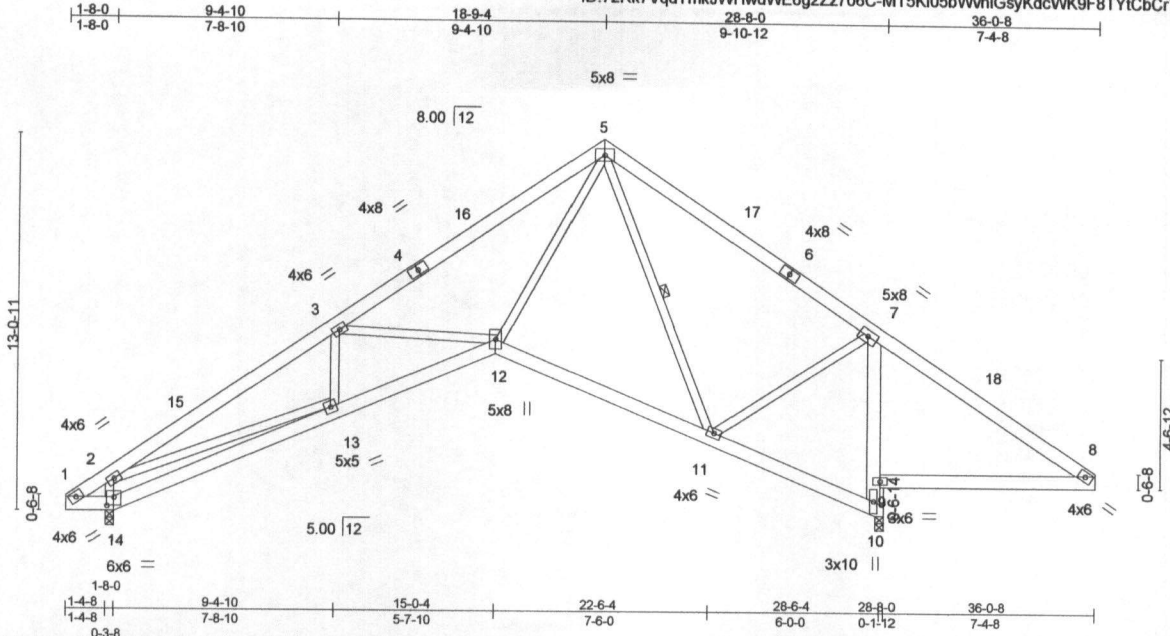
September 25, 2018

Job J1018-4523	Truss A1	Truss Type ROOF SPECIAL	Qty 5	Ply 1	Watermark/Lot 29 South Creek/Hamett E12241712
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Comtech, Inc., Fayetteville, NC 28309

Job Reference (optional)

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:44 2018 Page 1
ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-MT5KI05bWWhiGsyKdcWK9F8TYtCbCrTgySDqaxya4L5



Scale = 1:78.3

Plate Offsets (X, Y) - [14.0-3.0-0.3-8]

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 0.44	Vert(LL) -0.09 12-13 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.30	Vert(TL) -0.22 12-13 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.67	Horz(TL) 0.18 10 n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	Matrix-S	Wind(LL) 0.07 12-13 >999 240	Weight: 267 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3 *Except*
 5-11: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-14 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
 WEBS 5-11-0 oc bracing: 9-10
 1 Row at midpt 5-11

REACTIONS.

(lb/size) 14=1114/0-3-8, 10=1770/0-3-8
 Max Horz 14=348(LC 6)
 Max Uplift 14=-114(LC 7), 10=-304(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-322/16, 2-3=-2261/263, 3-5=-1640/166, 5-7=-605/155, 7-8=-344/573
 BOT CHORD 1-14=-38/351, 13-14=-386/451, 12-13=-358/1942, 11-12=-51/669, 10-11=-338/376,
 9-10=-1613/603, 7-9=-1511/461, 8-9=-343/359
 WEBS 2-14=-1023/304, 2-13=-93/1624, 3-12=-576/385, 5-12=-118/1333, 5-11=-688/146,
 7-11=-25/794

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 18-9-4, Exterior(2) 18-9-4 to 23-2-1 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=114, 10=304.



September 25, 2018

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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 Edenton, NC 27932

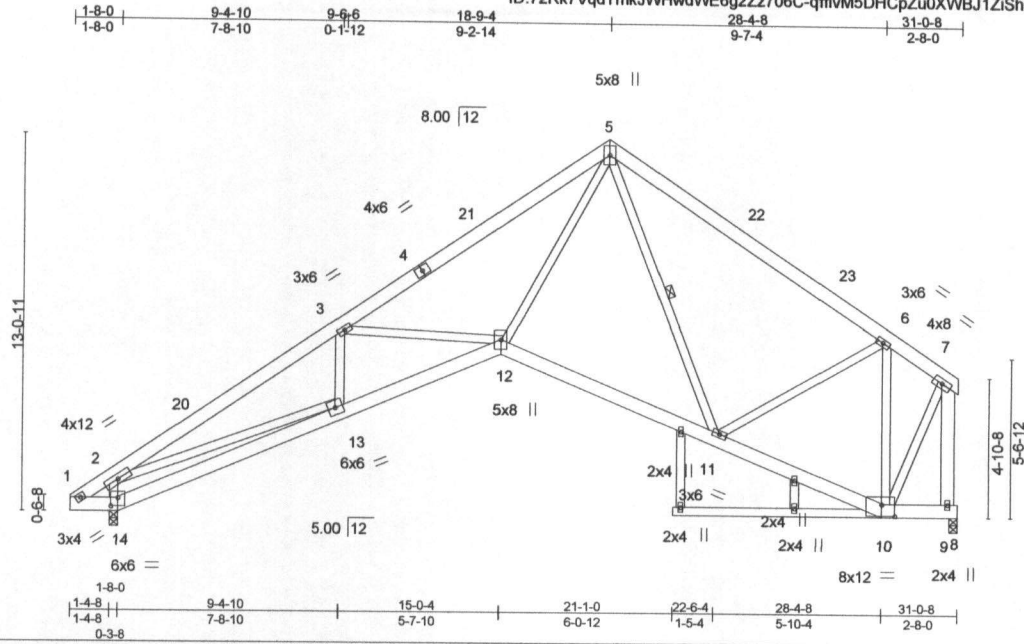
Job J1018-4523	Truss A2	Truss Type ROOF SPECIAL	Qty 4	Ply 1	Watermark/Lot 29 South Creek/Harnett E12241713
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:45 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-qffivM5DHCpZu0XWBJ1ZiShdVHXExFyqB6yN6Nya4L4

Job Reference (optional)



Scale = 1:78.2

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.49	Vert(LL)	-0.12 12-13	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.34	Vert(TL)	-0.29 12-13	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.85	Horz(TL)	0.24 9	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.09 12-13	>999	240		
	Code IRC2009/TPI2007						Weight: 270 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3 *Except*
 7-9: 2x6 SP No.1, 5-11: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 5-11

REACTIONS.

(lb/size) 14=1298/0-3-8, 9=1164/0-3-8
 Max Horz 14=343(LC 6)
 Max Uplift 14=107(LC 7), 9=40(LC 7)

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

TOP CHORD 1-2=379/36, 2-3=2802/566, 3-5=2296/473, 5-6=1204/338, 6-7=495/114,
 7-9=1116/244
 BOT CHORD 1-14=65/411, 13-14=380/349, 12-13=549/2422, 11-12=97/1073, 10-11=140/521
 WEBS 2-13=339/2051, 2-14=1203/421, 6-10=1075/356, 7-10=289/1039, 5-12=237/1708,
 5-11=322/152, 6-11=30/476, 3-12=515/311

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 18-9-4, Exterior(2) 18-9-4 to 23-2-1 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 14=107.



September 25, 2018

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



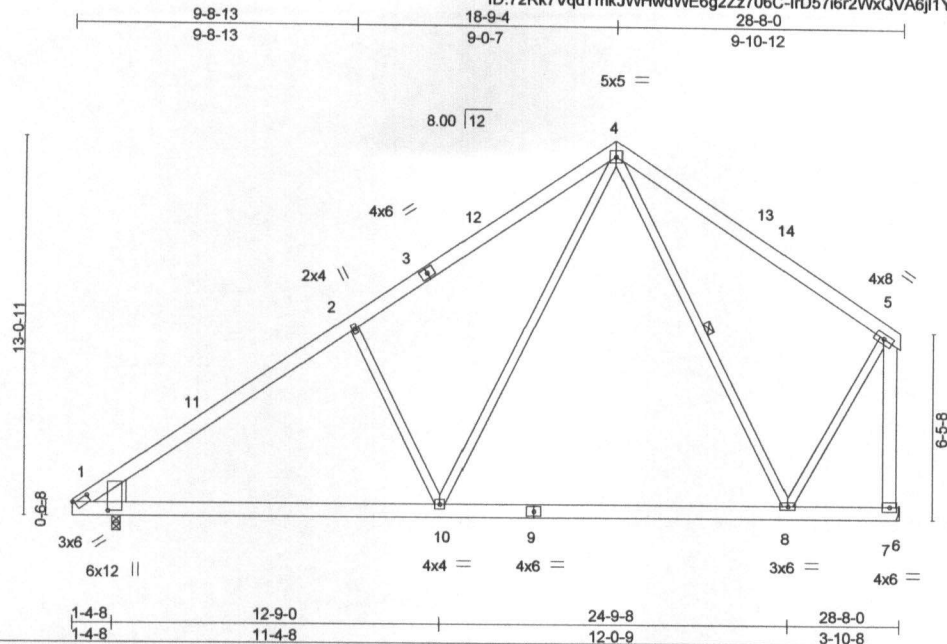
818 Soundside Road
 Edenton, NC 27932

Job J1018-4523	Truss A3	Truss Type COMMON	Qty 11	Ply 1	Watermark/Lot 29 South Creek/Hamett E12241714
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MITek Industries, Inc. Tue Sep 25 13:21:46 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-IrD57i6r2VxQVA6j11YoEgEm9hqgmizPmiwepya4L3



Scale = 1:77.5

Plate Offsets (X,Y)- [1:0-6-8,0-0-13], [1:0-3-8,1-2-11]

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 0.63	Vert(LL) -0.27 8-10 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.57	Vert(TL) -0.39 8-10 >849 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.63	Horz(TL) 0.03 7 n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	Matrix-S	Wind(LL) 0.05 1-10 >999 240	Weight: 227 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3 *Except*
 5-7: 2x6 SP No.1, 4-10,4-8: 2x4 SP No.2
 WEDGE
 Left: 2x10 SP No.1

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-2-13 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 4-8

REACTIONS. (lb/size) 7=1443/Mechanical, 1=1283/0-3-8
 Max Horz 1=341(LC 6)
 Max Uplift 7=-63(LC 7), 1=-47(LC 7)

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

TOP CHORD 1-2=-1815/282, 2-4=-1602/396, 4-5=-826/217, 5-7=-1574/224
 BOT CHORD 1-10=-314/1408, 8-10=-80/726
 WEBS 2-10=-510/357, 4-10=-184/1100, 4-8=-386/129, 5-8=0/1061

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-4-5 to 4-9-1, Interior(1) 4-9-1 to 18-9-4, Exterior(2) 18-9-4 to 23-2-1 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 7, 1.



September 25, 2018

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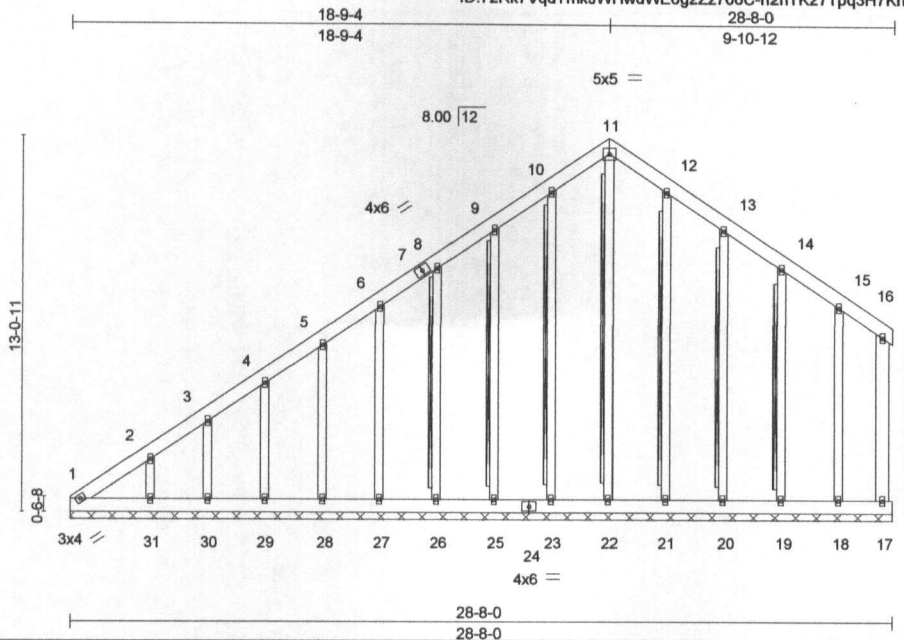


818 Soundside Road
 Edenton, NC 27932

Job J1018-4523	Truss A3GE	Truss Type GABLE	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Harnett	E12241715
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MITek Industries, Inc. Tue Sep 25 13:21:47 2018 Page 1
 ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-n2nTK27Tpq3H7Khvk31ntm4r5HIPKk6eQRUFya4L2



Scale = 1:78.0

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.19	Vert(TL) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(TL) 0.00 17 n/a n/a		
	Code IRC2009/TPI2007			Weight: 305 lb	FT = 20%

LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x6 SP No.1
 OTHERS 2x4 SP No.3 *Except*
 11-22,10-23,12-21: 2x4 SP No.2

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.
 WEBS T-Brace: 2x4 SPF No.2 - 11-22, 10-23, 9-25, 8-26, 12-21, 13-20, 14-19
 Fasten (2X) T and l 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 28-8-0.
 (lb) - Max Horz 1=412(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 17, 22, 23, 25, 26, 27, 28, 29, 30, 21, 19, 18 except 1=142(LC 5), 31=135(LC 7), 20=101(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 17, 22, 23, 25, 26, 27, 28, 29, 30, 31, 21, 20, 19, 18 except 1=269(LC 6)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-480/304, 2-3=-403/285, 3-4=-356/280, 4-5=-306/273, 5-6=-257/267, 6-8=-207/261, 8-9=-158/255, 9-10=-108/287, 10-11=-56/310, 11-12=-38/299, 12-13=-36/254

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) 0-1-12 to 4-9-4, Exterior(2) 4-9-4 to 18-9-4, Corner(3) 18-9-4 to 23-2-1 zone; cantilever left 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) 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 17, 22, 23, 25, 26, 27, 28, 29, 30, 21, 19, 18 except (jt=lb) 1=142, 31=135, 20=101.
 - 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 25, 2018

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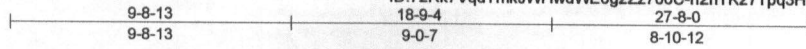
ENGINEERING BY
TRENCO
 A MITEK AFFILIATE
 818 Soundside Road
 Edenton, NC 27932

Job J1018-4523	Truss A4	Truss Type COMMON	Qty 2	Ply 1	Watermark/Lot 29 South Creek/Harnett	E12241716
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MITEK Industries, Inc. Tue Sep 25 13:21:47 2018 Page 1

ID:72Rk7VqdTmkJWl-hwdWE6g2Zz706C-n2nTK27Tpg3H7KhvIk31ntmxI5BNPDk6eQRUAFya4L2



Scale = 1:77.5

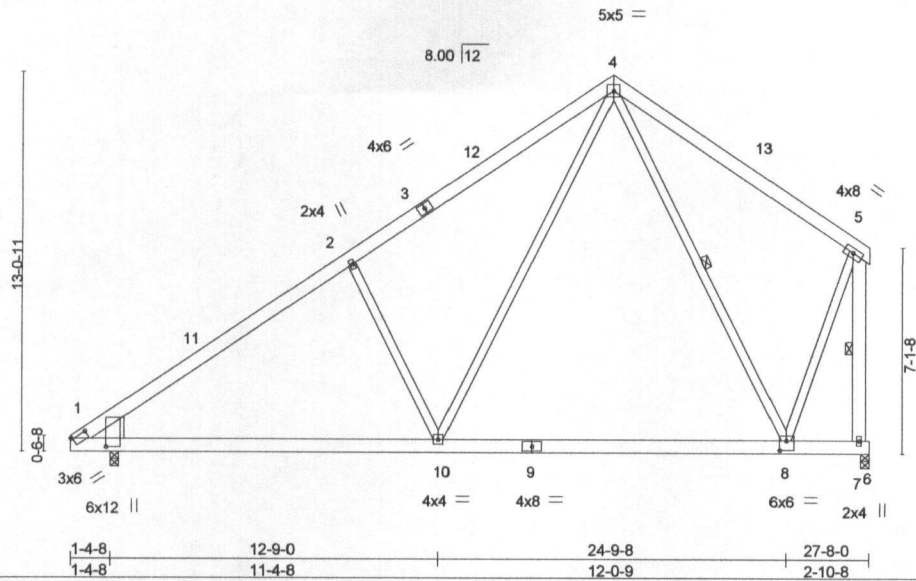


Plate Offsets (X,Y)- [1:0-3-8,1-2-11], [1:0-6-8,0-0-13], [8:0-2-12,0-4-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.31 8-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(TL)	-0.42 8-10	>774	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(TL)	0.02 7	n/a	n/a		
BCDL 10.0	Code IRC2009/TP12007		Matrix-S	Wind(LL)	0.05 1-10	>999	240		
								Weight: 223 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP 2400F 2.0E
 WEBS 2x4 SP No.3 *Except*
 5-7: 2x6 SP No.1, 4-10,4-8: 2x4 SP No.2
 WEDGE
 Left: 2x10 SP No.1

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-10 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 5-7, 4-8

REACTIONS. (lb/size) 7=1723/0-3-8, 1=1314/0-3-8
 Max Horz 1=340(LC 6)
 Max Uplift 7=73(LC 7), 1=-41(LC 7)

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

TOP CHORD 1-2=-1919/260, 2-4=-1673/374, 4-5=-769/190, 5-7=-1953/203
 BOT CHORD 1-10=-321/1465, 8-10=-83/727
 WEBS 2-10=-505/360, 4-10=-189/1227, 4-8=-463/148, 5-8=0/1443

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-4-5 to 4-9-1, Interior(1) 4-9-1 to 18-9-4, Exterior(2) 18-9-4 to 23-2-1 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 1.



September 25, 2018

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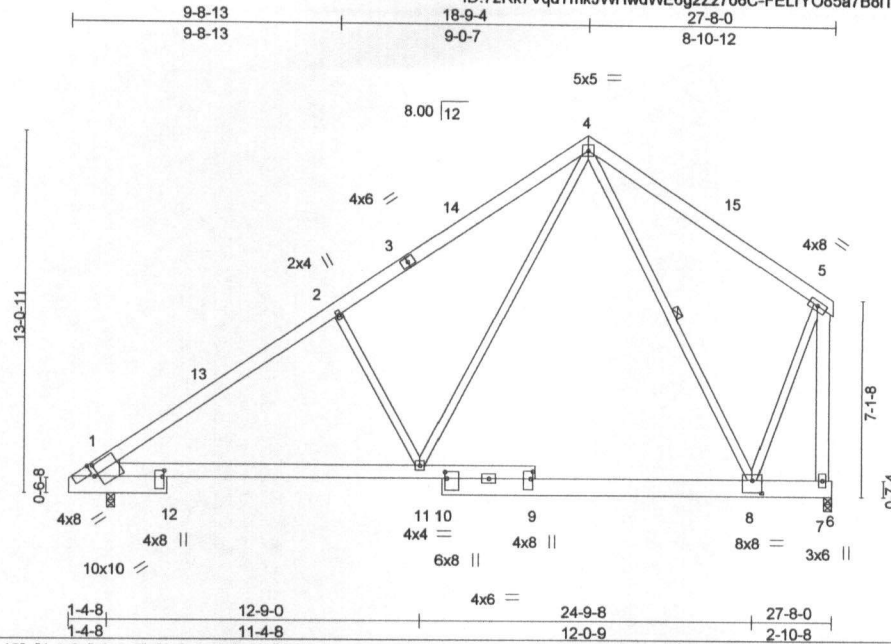
618 Soundside Road
 Edenton, NC 27932

Job J1018-4523	Truss A4A	Truss Type COMMON	Qty 3	Ply 1	Watermark/Lot 29 South Creek/Harnett	E12241717
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:48 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-FELrYO85a7B8ITG5sRaGJ5J1UUXZ8gTGt3B1jya4L1



Scale = 1:81.1

Plate Offsets (X,Y) - [1:0-4-2,0-2-12], [1:1-2-5,0-9-8], [1:0-1-12,0-4-6], [1:0-0-4,Edge], [8:0-4-0,0-5-8], [9:0-3-4,0-1-0], [10:0-2-14,0-0-13], [12:0-2-10,0-0-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.94	Vert(LL)	-0.16	8-11	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.43	Vert(TL)	-0.33	1-11	>974		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.61	Horz(TL)	0.03	7	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.08	1-11	>999		
	Code IRC2009/TPI2007						Weight: 244 lb	FT = 20%

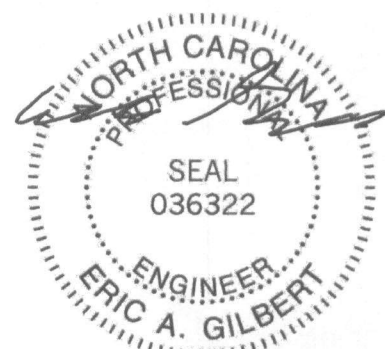
LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP No.1 *Except*
1-9: 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except*
5-7: 2x6 SP No.1, 4-11,4-8: 2x4 SP No.2
WEDGE
Left: 2x8 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-2-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-8

REACTIONS. (lb/size) 1=1290/0-3-8, 7=1552/0-3-8
Max Horz 1=332(LC 6)
Max Uplift 1=41(LC 7), 7=69(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1915/279, 2-4=-1695/378, 4-5=-721/184, 5-7=-1789/186
BOT CHORD 1-11=-338/1489, 8-11=-83/767
WEBS 2-11=-478/344, 4-11=-195/1257, 4-8=-511/156, 5-8=0/1300

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-10-15 to 5-3-12, Interior(1) 5-3-12 to 18-9-4, Exterior(2) 18-9-4 to 23-2-1 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.



September 25, 2018

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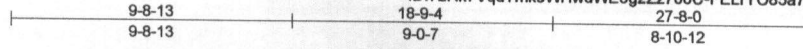


Job J1018-4523	Truss A5	Truss Type COMMON	Qty 4	Ply 1	Watermark/Lot 29 South Creek/Harnett E12241718
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:48 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-FELrYO85a7B8ITG5sRaGJ5J6MUT18hsGt3B1jya4L1



Scale = 1:77.5

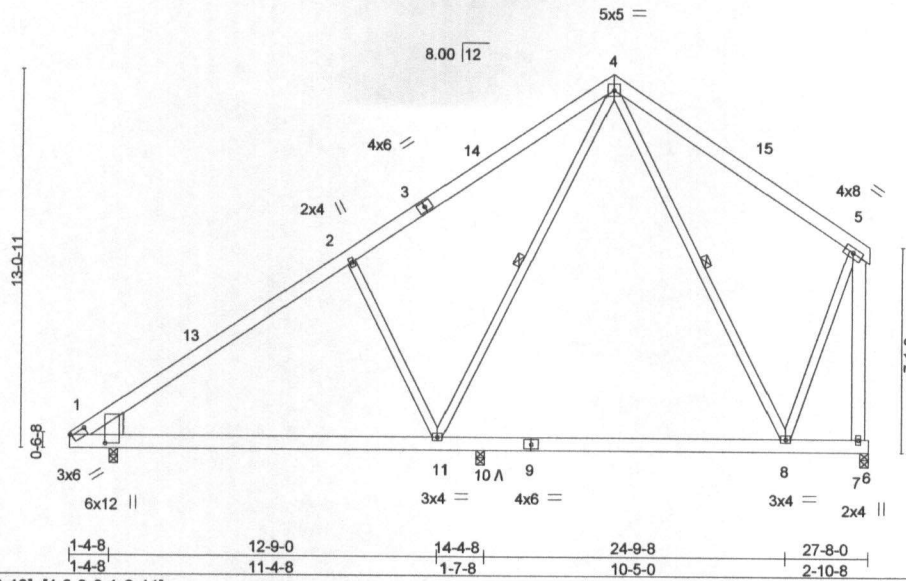


Plate Offsets (X,Y)-- [1:0-6-8,0-0-13], [1:0-3-8,1-2-11]

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 0.58	Vert(LL) -0.16	8-10	>987	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.67	Vert(TL) -0.45	1-11	>370	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.52	Horz(TL) 0.02	7	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	Matrix-S	Wind(LL) 0.09	1-11	>999	240		
							Weight: 223 lb	FT = 20%

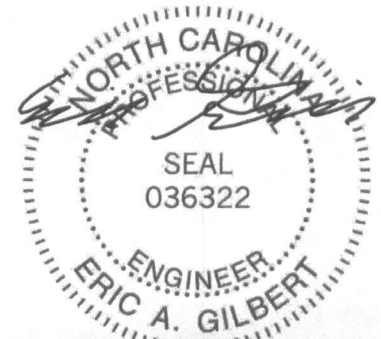
LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3 *Except*
 5-7: 2x6 SP No.1, 4-11,4-8: 2x4 SP No.2
 WEDGE
 Left: 2x10 SP No.1

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.
 WEBS 1 Row at midpt 4-11, 4-8

REACTIONS. (lb/size) 7=1217/0-3-8, 1=837/0-3-8, 10=984/0-3-8
 Max Horz 1=410(LC 6)
 Max Uplift 7=263(LC 7), 1=211(LC 7), 10=REL

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=985/296, 2-4=777/428, 4-5=537/190, 5-7=1298/225
 BOT CHORD 1-11=482/732, 10-11=136/405, 8-10=136/405
 WEBS 2-11=540/484, 4-11=313/521, 5-8=66/883

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-05; 100mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) 0-4-5 to 4-9-1, Interior(1) 4-9-1 to 18-9-4, Exterior(2) 18-9-4 to 23-2-1 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 with a clearance greater than 6-0-0 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) except (jt=lb) 7=263, 1=211.
 - 6) "A" indicates Released bearing: allow for upward movement at joint(s) 10.



September 25, 2018

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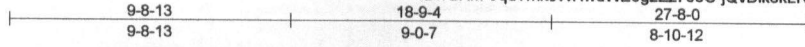
818 Soundside Road
 Edenton, NC 27932

Job J1018-4523	Truss A5A	Truss Type COMMON	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Harnett	E12241719
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:49 2018 Page 1

ID:72RK7VqdTmkJWHwdWE6g2Zz706C-jQvDlk8kLRJ?MdqIQ95VslspuoRt84P5jwbF8ya4L0



Scale = 1:77.5

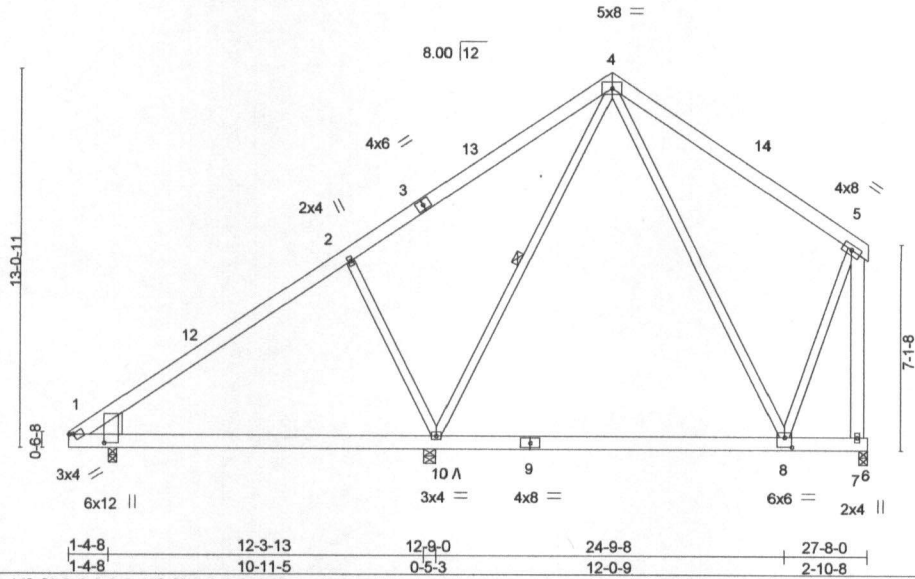


Plate Offsets (X,Y) - [1:0-3-8, 1-2-11], [1:0-1-8, 0-0-13], [8:0-3-0, 0-4-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.53	Vert(LL)	-0.34	8-10	>510	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.71	Vert(TL)	-0.43	8-10	>407		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.52	Horz(TL)	0.01	7	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.04	1-10	>999		
	Code IRC2009/TPI2007						Weight: 223 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3 *Except*
 5-7: 2x6 SP No.1, 4-10, 4-8: 2x4 SP No.2
 WEDGE
 Left: 2x10 SP No.1

BRACING-

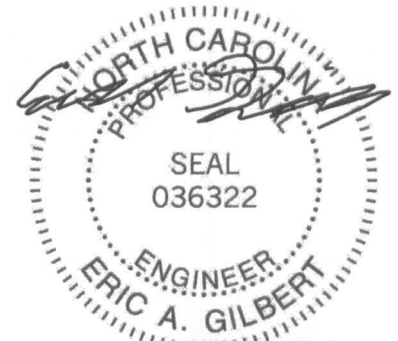
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 4-10

REACTIONS. (lb/size) 10=1587/0-4-15, 7=994/0-3-8, 1=457/0-3-8
 Max Horz 1=340(LC 6)
 Max Uplift 10=REL, 7=-73(LC 7), 1=-41(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-429/260, 2-4=-189/374, 4-5=-508/190, 5-7=-1234/202
 BOT CHORD 1-10=-321/245
 WEBS 2-10=-542/361, 4-10=-500/25, 5-8=0/832

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-4-5 to 4-9-1, Interior(1) 4-9-1 to 18-9-4, Exterior(2) 18-9-4 to 23-2-1 zone; cantilever left 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 with a clearance greater than 6-0-0 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) 7, 1.
- 6) "Λ" indicates Released bearing: allow for upward movement at joint(s) 10.



September 25, 2018

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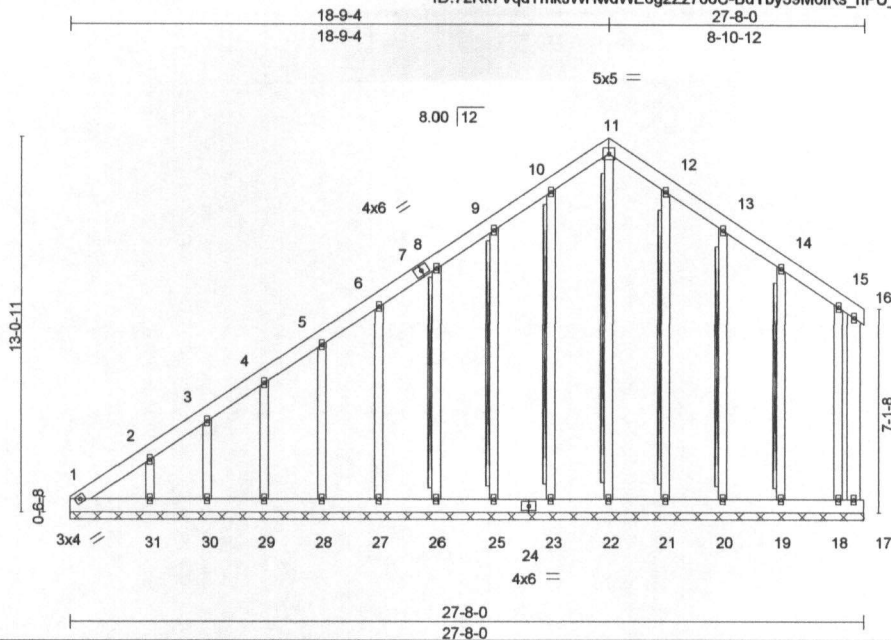


818 Soundside Road
 Edenton, NC 27932

Job J1018-4523	Truss A5GE	Truss Type GABLE	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Hamett	E12241720
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:50 2018 Page 1
ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-BdTby39M6iRs_nPU_sckOWObAIJSchvZKng8naya4L7



Scale = 1:78.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.05	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(TL) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(TL) 0.00	17	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	Matrix-S					Weight: 302 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1
OTHERS 2x4 SP No.3 *Except*
11-22,10-23,12-21: 2x4 SP No.2

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.
WEBS T-Brace: 2x4 SPF No.2 - 11-22, 10-23, 9-25, 8-26, 12-21, 13-20, 14-19
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 27-8-0.
(lb) - Max Horz 1=410(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 17, 22, 23, 25, 26, 27, 28, 29, 30, 21, 19, 18 except 1=128(LC 5), 31=136(LC 7), 20=101(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 17, 22, 23, 25, 26, 27, 28, 29, 30, 31, 21, 20, 18 except 1=268(LC 6), 19=250(LC 12)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-477/280, 2-3=-401/261, 3-4=-353/256, 4-5=-304/250, 5-6=-254/243, 9-10=-106/251, 10-11=-53/276, 11-12=-38/266

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) 0-1-12 to 4-9-4, Exterior(2) 4-9-4 to 18-9-4, Corner(3) 18-9-4 to 23-2-1 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 17, 22, 23, 25, 26, 27, 28, 29, 30, 21, 19, 18 except (jt=lb) 1=128, 31=136, 20=101.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 25, 2018

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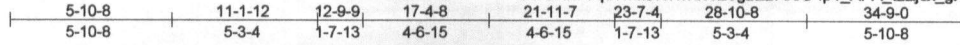
818 Soundside Road
Edenton, NC 27932

Job J1018-4523	Truss B1	Truss Type ATTIC	Qty 7	Ply 1	Watermark/Lot 29 South Creek/Harnett	E12241721
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:51 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-fp1_APA_t2Zjcx_gXa8zjxXAiT1L35iZ1PhJ1ya4L_



Scale = 1:81.1

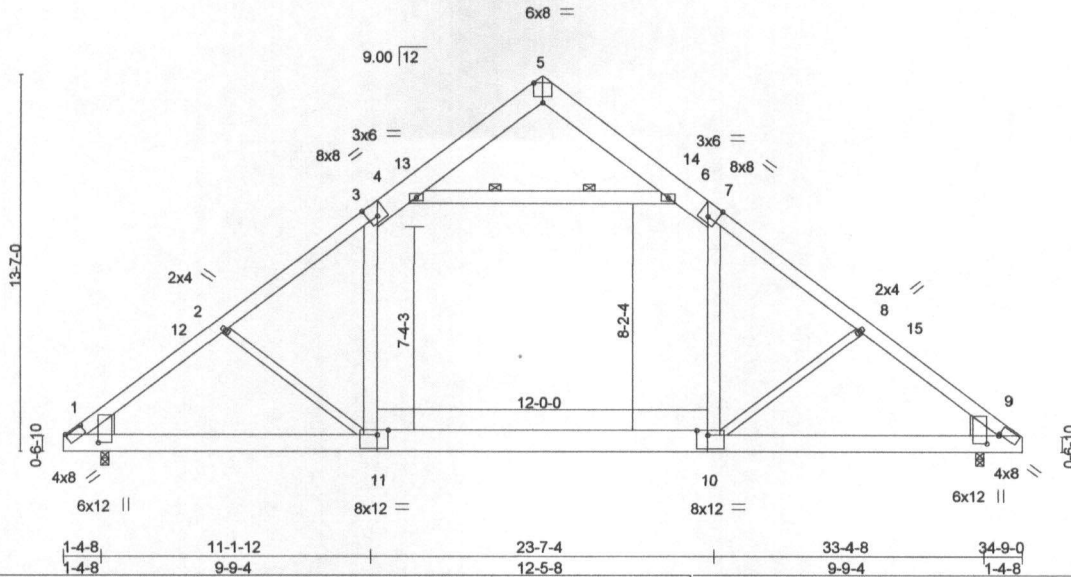


Plate Offsets (X,Y) - [1:0-3-8, 1-2-6], [1:0-7-11, 0-0-12], [3:0-4-0, Edge], [5:0-4-0, Edge], [7:0-4-0, Edge], [9:0-0-5, 0-0-12], [9:0-3-8, 0-5-4], [10:0-4-12, Edge], [11:0-4-12, Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.99	Vert(LL)	-0.25	10-11	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.83	Vert(TL)	-0.41	10-11	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.49	Horz(TL)	0.07	9	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.21	1-11	>999		
	Code IRC2009/TPI2007						Weight: 333 lb	FT = 20%

LUMBER-
 TOP CHORD 2x10 SP No.1 *Except*
 1-3,7-9: 2x6 SP No.1
 BOT CHORD 2x8 SP No.1 *Except*
 10-11: 2x10 SP No.1
 WEBS 2x6 SP No.1 *Except*
 2-11,8-10: 2x4 SP No.3
 WEDGE
 Left: 2x10 SP No.1, Right: 2x10 SP No.1

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-3-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 2 Rows at 1/3 pts 4-6

REACTIONS. (lb/size) 1=2159/0-3-8, 9=2159/0-3-8
 Max Horz 1=356(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=3269/36, 2-3=3021/11, 3-4=2227/114, 6-7=2227/114, 7-8=3021/11,
 8-9=3269/36
 BOT CHORD 1-11=0/2481, 10-11=0/2336, 9-10=0/2481
 WEBS 4-6=2378/55, 3-11=0/1018, 7-10=0/1018, 2-11=272/255, 8-10=272/256

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2)
 0-5-3 to 4-9-15, Interior(1) 4-9-15 to 17-4-8, Exterior(2) 17-4-8 to 21-9-5 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s).3-11, 7-10
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 10-11
 - Attic room checked for L/360 deflection.



September 25, 2018

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

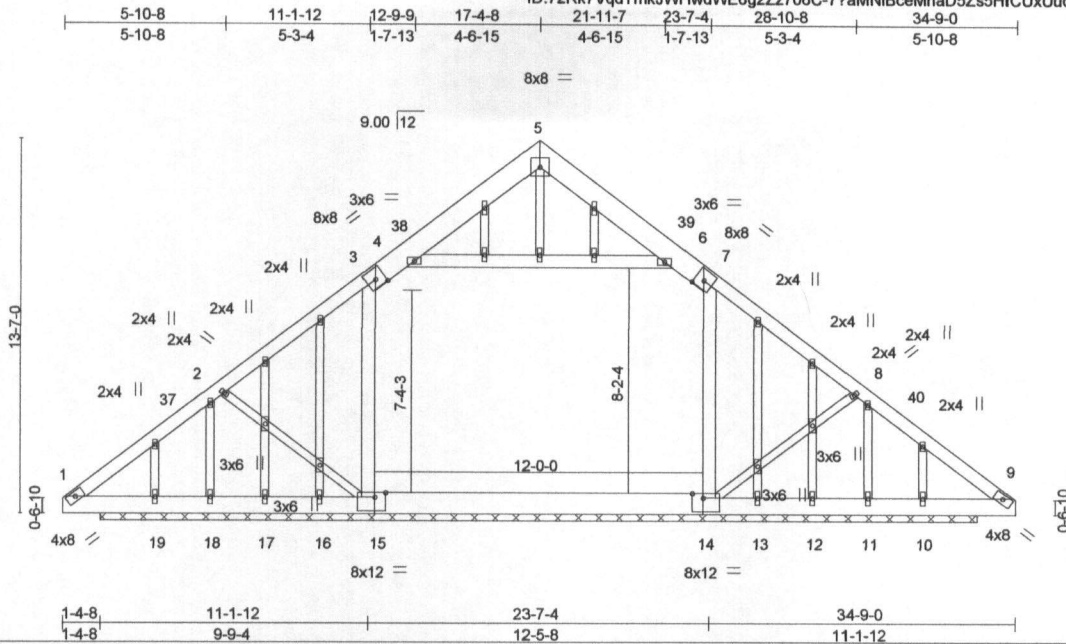
Job J1018-4523	Truss B1GE	Truss Type GABLE	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Harnett	E12241722
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 Mitek Industries, Inc. Tue Sep 25 13:21:52 2018 Page 1

ID:72Rk7VqdTmkJWtWdWE6g2Zz706C-7?amNIBceMhaD5Zs5HfCUxJuq6x?4W3roh9FrTya4Kz

Job Reference (optional)



Scale = 1:81.6

Plate Offsets (X,Y) - [3:0-4-0,0-3-8], [7:0-4-0,0-3-8], [14:0-4-12,Edge], [15:0-4-12,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.23	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.27	Vert(TL)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.51	Horz(TL)	0.00	10	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 385 lb	FT = 20%
	Code IRC2009/TPI2007							

LUMBER-

TOP CHORD 2x10 SP No.1 *Except*
1-3,7-9: 2x6 SP No.1
BOT CHORD 2x8 SP No.1 *Except*
14-15: 2x10 SP No.1
WEBS 2x6 SP No.1 *Except*
2-15,8-14: 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

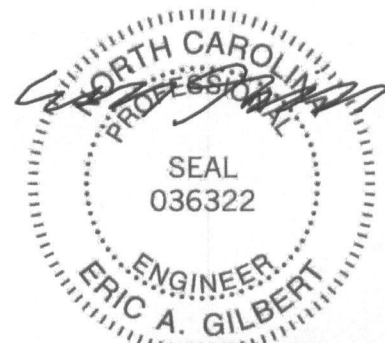
All bearings 32-0-0.
(lb) - Max Horz 19=356(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 19, 10 except 15=139(LC 7),
14=132(LC 8), 16=464(LC 12), 18=378(LC 12), 13=464(LC 13), 11=378(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 18, 11 except 15=1715(LC 1),
14=1715(LC 1), 17=271(LC 12), 19=554(LC 12), 12=271(LC 13), 10=554(LC 13)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=86/524, 4-5=410/160, 5-6=410/160, 7-8=81/524
BOT CHORD 18-19=257/270, 17-18=257/270, 16-17=257/270, 15-16=256/272, 14-15=333/277
WEBS 4-6=0/638, 3-15=792/266, 7-14=792/266, 2-15=280/237, 8-14=280/237

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-0-13 to 4-5-10, Interior(1) 4-5-10 to 17-4-8, Exterior(2) 17-4-8 to 21-9-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x6 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 10 except (jt=lb) 15=139, 14=132, 16=464, 18=378, 13=464, 11=378.
- Non Standard bearing condition. Review required.
- Attic room checked for L/360 deflection.



September 25, 2018

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Design valid for use only with Mitek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



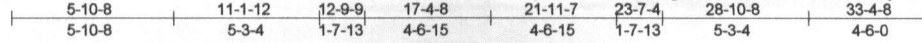
818 Soundside Road
Edenton, NC 27932

Job J1018-4523	Truss B3	Truss Type ATTIC	Qty 1	Ply 2	Watermark/Lot 29 South Creek/Hamett E12241724
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MITek Industries, Inc. Tue Sep 25 13:21:54 2018 Page 1

ID:72Rk7VqdTmkJW-hwdWE6g2Zz706C-3OI6oRCsAzxHTOjFDihgZMZ55vWVYMO8F7eL.vLya4Kx



Scale = 1:81.1

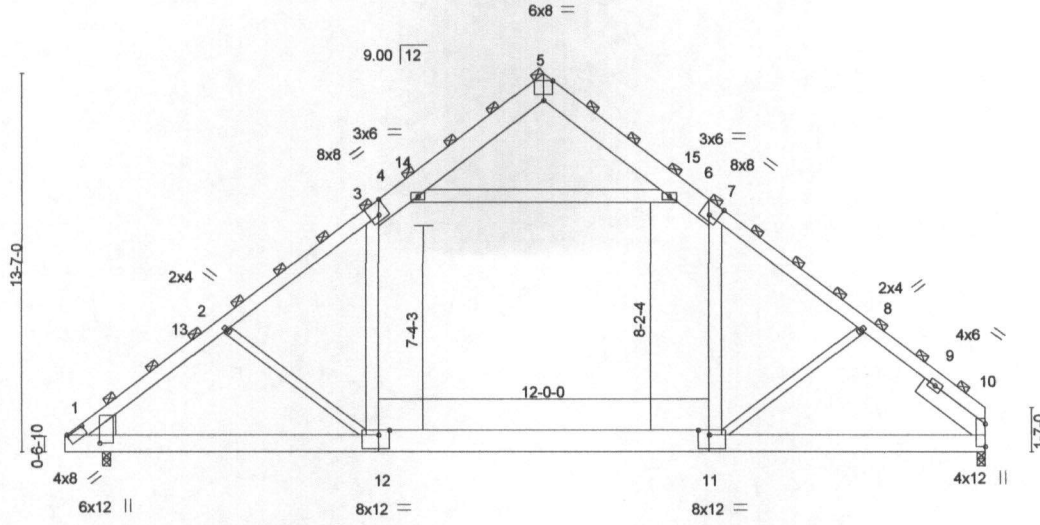


Plate Offsets (X,Y) - [1:0-3-8,1-2-6], [1:0-7-11,0-0-12], [3:0-4-0,Edge], [5:0-4-0,Edge], [7:0-4-0,Edge], [11:0-4-12,Edge], [12:0-4-12,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.82	Vert(LL) -0.20	11-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.71	Vert(TL) -0.33	11-12	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.64	Horz(TL) 0.04	10	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	Matrix-S	Wind(LL) 0.16	1-12	>999	240	Weight: 663 lb	FT = 20%

LUMBER-
 TOP CHORD 2x10 SP No.1 *Except*
 1-3,7-10: 2x6 SP No.1
 BOT CHORD 2x8 SP No.1 *Except*
 11-12: 2x10 SP No.1
 WEBS 2x6 SP No.1 *Except*
 2-12,8-11: 2x4 SP No.3

BRACING-
 TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
 (Switched from sheeted: Spacing > 2-0-0).
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEDGE
 Left: 2x10 SP No.1
SLIDER Right 2x8 SP No.1 2-11-12

REACTIONS. (lb/size) 1=3147/0-3-8, 10=3217/0-3-8
 Max Horz 1=-534(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-4732/56, 2-3=-4342/18, 3-4=-3166/173, 5-6=-252/216, 6-7=-3215/174,
 7-8=-4187/16, 8-10=-4364/57
 BOT CHORD 1-12=0/3597, 11-12=0/3331, 10-11=0/3018
 WEBS 4-6=-3398/90, 3-12=0/1494, 7-11=0/1205, 2-12=-451/363, 8-11=-114/643

- NOTES-**
- 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, 2x10 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
 - 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.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-5-3 to 4-9-15, Interior(1) 4-9-15 to 17-4-8, Exterior(2) 17-4-8 to 21-9-5 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s).3-12, 7-11
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-12
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Attic room checked for L/360 deflection.



September 25, 2018

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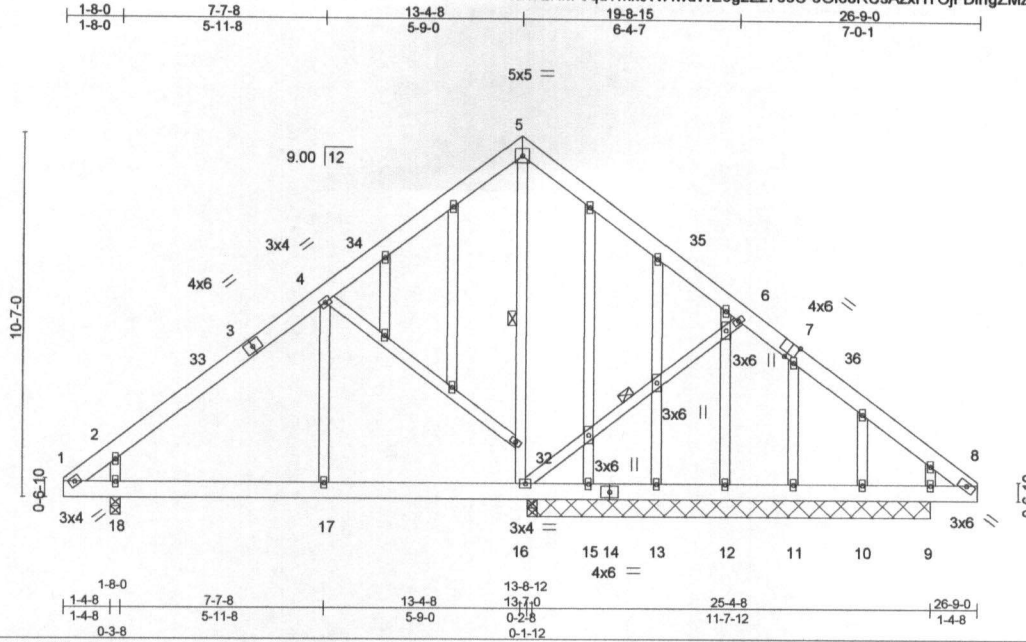
818 Soundside Road
 Edenton, NC 27932

Job J1018-4523	Truss C1GE	Truss Type GABLE	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Harrett E12241725
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:54 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-3OioRCsAzxHTOJFDihgZMZf8vbKYLR8F?eLVLya4Kx



Scale = 1:65.5

Plate Offsets (X,Y)- [7:0-2-13,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.18	Vert(LL)	-0.06	17	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.34	Vert(TL)	-0.15	17-18	>954		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.71	Horz(TL)	0.01	9	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.11	17-18	>999		
	Code IRC2009/TPI2007						Weight: 237 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3 *Except*
 5-16: 2x4 SP No.2
 OTHERS 2x4 SP No.3

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 6-16, 5-16

REACTIONS.

All bearings 11-9-8 except (jt=length) 18=0-3-8.
 (lb) - Max Horz 18=350(LC 5)
 Max Uplift All uplift 100 lb or less at joint(s) 13, 12, 11 except 18=266(LC 7), 16=237(LC 8), 15=204(LC 11),
 10=300(LC 1), 9=375(LC 7)
 Max Grav All reactions 250 lb or less at joint(s) 15, 13, 12, 11, 10 except 18=657(LC 11), 16=1041(LC 1),
 16=1041(LC 1), 9=753(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-261/0, 2-4=-453/192, 4-5=-177/279, 5-6=-183/335, 6-8=-518/344
 BOT CHORD 1-18=0/260, 17-18=-298/411, 16-17=-296/411, 15-16=-173/318, 13-15=-173/318,
 12-13=-173/318, 11-12=-173/318, 10-11=-173/318, 9-10=-173/318, 8-9=-173/318
 WEBS 2-18=-400/312, 6-16=-360/367, 16-32=-470/15, 5-32=-335/74

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 13-4-8, Exterior(2) 13-4-8 to 17-9-5 zone; cantilever 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) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 12, 11 except (jt=lb) 18=266, 16=237, 15=204, 10=300, 9=375.



September 25, 2018

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 10/03/2016 BEFORE USE.

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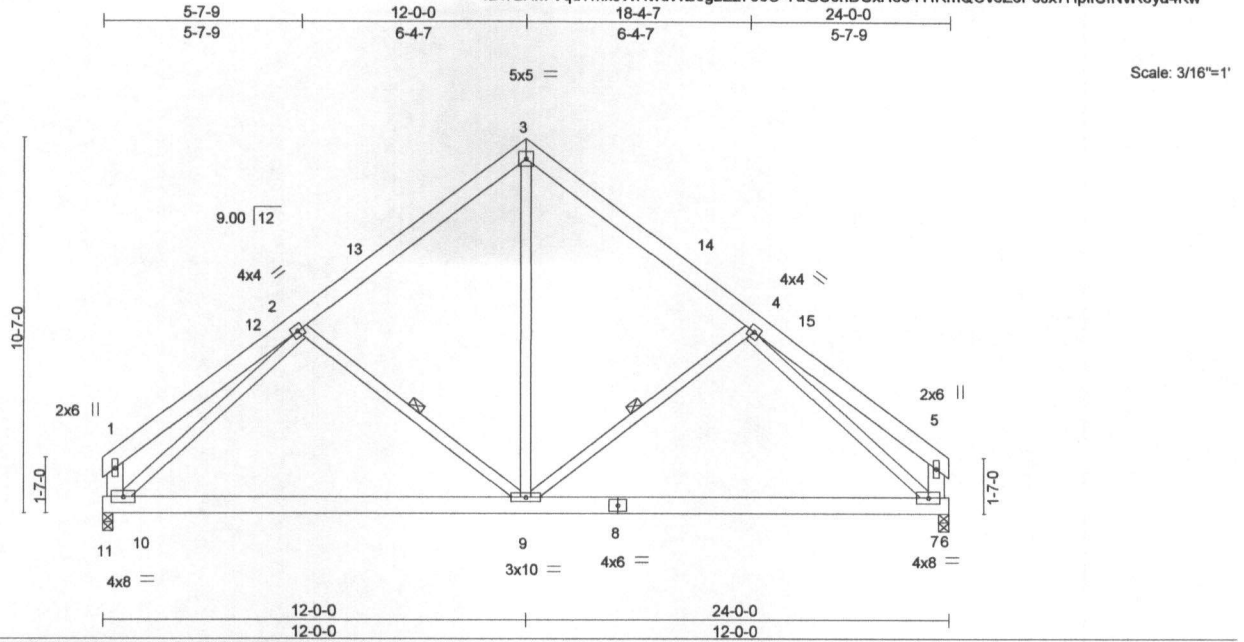


818 Soundside Road
 Edenton, NC 27932

Job J1018-4523	Truss C2	Truss Type QUEENPOST	Qty 3	Ply 1	Watermark/Lot 29 South Creek/Harnett	E12241726
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:55 2018 Page 1
 ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-YaGU0nDUxH384YIRmQCv5Z6PsJx7HplUfNvRoya4Kw



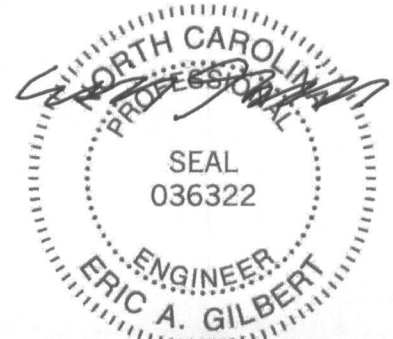
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) -0.07 9-10 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.37	Vert(TL) -0.17 9-10 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.70	Horz(TL) 0.02 7 n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	Matrix-S	Wind(LL) 0.01 9 >999 240	Weight: 190 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 1-10,5-7: 2x6 SP No.1	WEBS 1 Row at midpt 2-9, 4-9

REACTIONS. (lb/size) 10=939/0-3-8, 7=939/0-3-8
 Max Horz 10=-243(LC 5)
 Max Uplift 10=-31(LC 7), 7=-31(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-410/72, 2-3=-839/278, 3-4=-839/278, 4-5=-410/72, 1-10=-309/98, 5-7=-309/98
 BOT CHORD 9-10=-127/732, 7-9=-125/732
 WEBS 3-9=-126/555, 2-10=-711/237, 4-7=-711/237

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-05; 100mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-4-4 to 4-9-1, Interior(1) 4-9-1 to 12-0-0, Exterior(2) 12-0-0 to 16-4-13 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7.



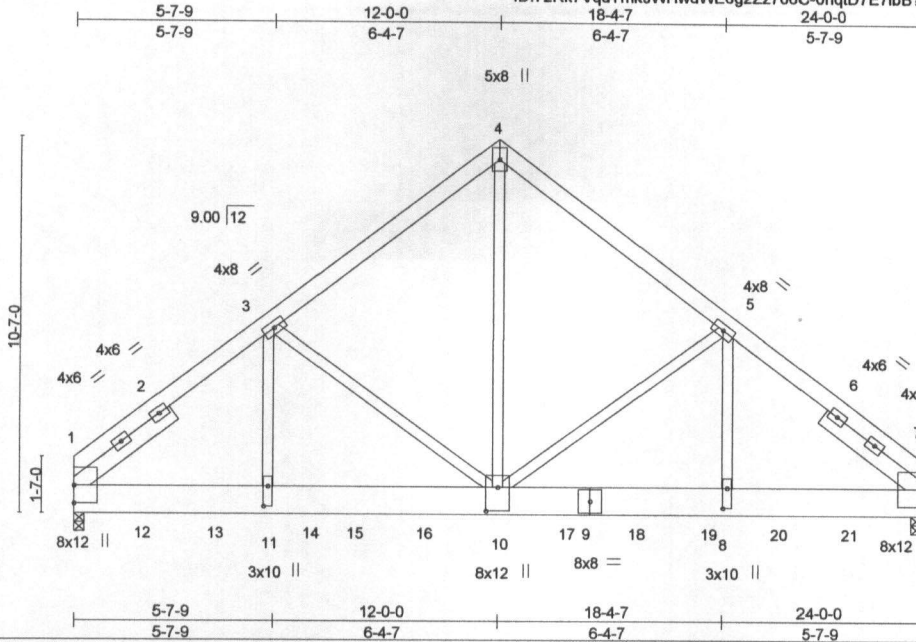
September 25, 2018

Job J1018-4523	Truss C3GDR	Truss Type Common Girder	Qty 1	Ply 2	Watermark/Lot 29 South Creek/Harnett	E12241727
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:56 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-0nqtD7E7ibB?iiteK7jBeneQMjHM0F?RIJ7S_Eya4Kv



Scale = 1:63.3

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.77	Vert(LL)	-0.11 8-10	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.37	Vert(TL)	-0.23 8-10	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.77	Horz(TL)	0.05 7	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Wind(LL)	0.05 10-11	>999	240		
	Code IRC2009/TPI2007						Weight: 464 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E
 BOT CHORD 2x10 SP 2400F 2.0E
 WEBS 2x4 SP No.3 *Except*
 4-10: 2x4 SP No.1
 SLIDER Left 2x6 SP No.1 3-5-12, Right 2x6 SP No.1 3-5-12

BRACING-

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

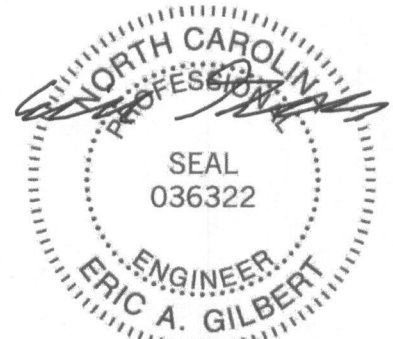
REACTIONS. (lb/size) 1=8822/0-3-8 (req. 0-3-10), 7=8748/0-3-8 (req. 0-3-10)
 Max Horz 1=-276(LC 3)
 Max Uplift 1=-454(LC 5), 7=-450(LC 6)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-3=-10623/572, 3-4=-7626/503, 4-5=-7626/503, 5-7=-10624/573
 BOT CHORD 1-11=-478/7885, 10-11=-478/7885, 8-10=-357/7884, 7-8=-357/7884
 WEBS 4-10=-461/8347, 5-10=-2278/269, 5-8=-134/3696, 3-10=-2280/268, 3-11=-132/3694

NOTES-

- 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: 2x10 - 2 rows staggered at 0-7-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 1, 7 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 1=454, 7=450.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1423 lb down and 75 lb up at 1-11-4, 1423 lb down and 75 lb up at 3-11-4, 1423 lb down and 75 lb up at 5-11-4, 1423 lb down and 75 lb up at 7-11-4, 1423 lb down and 75 lb up at 9-11-4, 1423 lb down and 75 lb up at 11-11-4, 1423 lb down and 75 lb up at 13-11-4, 1423 lb down and 75 lb up at 15-11-4, 1423 lb down and 75 lb up at 17-11-4, and 1423 lb down and 75 lb up at 19-11-4, and 1423 lb down and 75 lb up at 21-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



September 25, 2018

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.
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ENGINEERING BY
TRENCO
 A MITEK COMPANY
 818 Soundside Road
 Edenton, NC 27932

Job J1018-4523	Truss C3GDR	Truss Type Common Girder	Qty 1	Ply 2	Watermark/Lot 29 South Creek/Harnett E12241727
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:56 2018 Page 2
ID:72Rk7VqdTrmkJWHwdWE6g2Zz706C-0nqtD7E7ibB?iiteK7jBeneQMjHM0F?RIJ7S_Eya4Kv

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced) + Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 1-7=-20

Concentrated Loads (lb)

Vert: 10=-1423(B) 12=-1423(B) 13=-1423(B) 14=-1423(B) 15=-1423(B) 16=-1423(B) 17=-1423(B) 18=-1423(B) 19=-1423(B) 20=-1423(B) 21=-1423(B)

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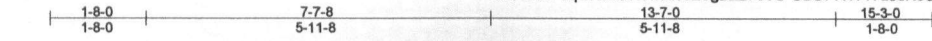
818 Soundside Road
Edenton, NC 27932

Job J1018-4523	Truss D1	Truss Type ROOF SPECIAL	Qty 2	Ply 1	Watermark/Lot 29 South Creek/Hamett E12241728
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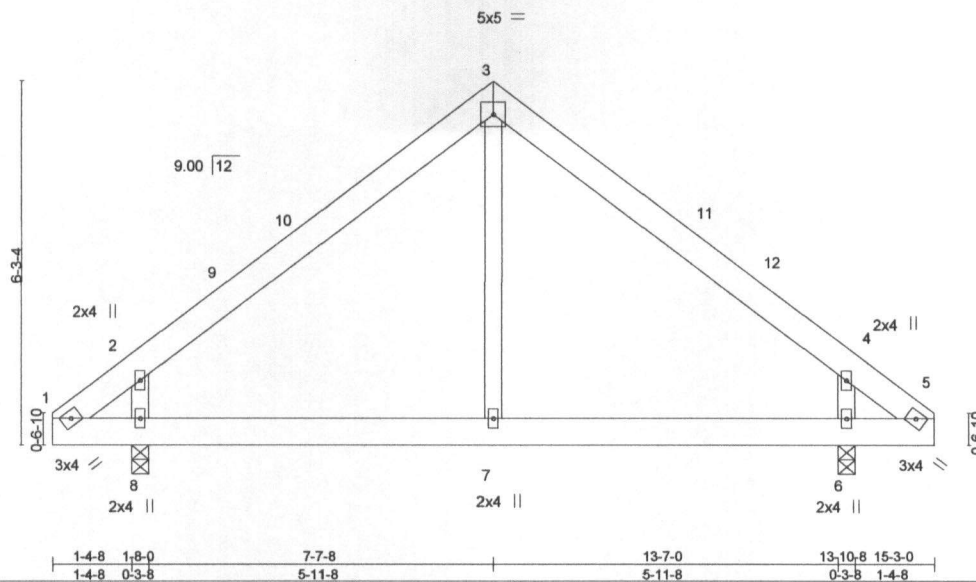
Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:57 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-UzOFRTFITuJsKsSqquENB_BIV7g8lrbxzs0Wgya4Ku



Scale = 1:38.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0 1.15	TC 0.17	Vert(LL) -0.01	7	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(TL) -0.02	6-7	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(TL) 0.00	6	n/a	n/a			
BCDL 10.0	Code IRC2009/TPI2007	Matrix-S	Wind(LL) 0.01	7-8	>999	240		Weight: 91 lb	FT = 20%

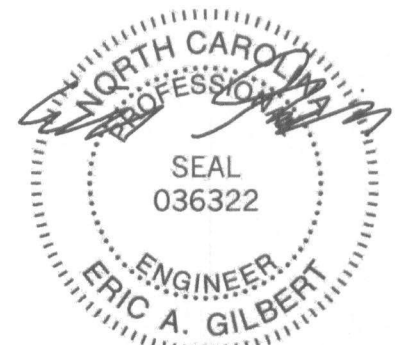
LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3

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. (lb/size) 6=610/0-3-8, 8=610/0-3-8
 Max Horz 8=-160(LC 5)
 Max Uplift 6=-29(LC 8), 8=-29(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-446/153, 3-4=-446/153
 BOT CHORD 1-8=-13/255, 7-8=-12/255, 6-7=-12/255, 5-6=-12/255
 WEBS 4-6=-420/291, 2-8=-420/291

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 7-7-8, Exterior(2) 7-7-8 to 12-0-5 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8.



September 25, 2018

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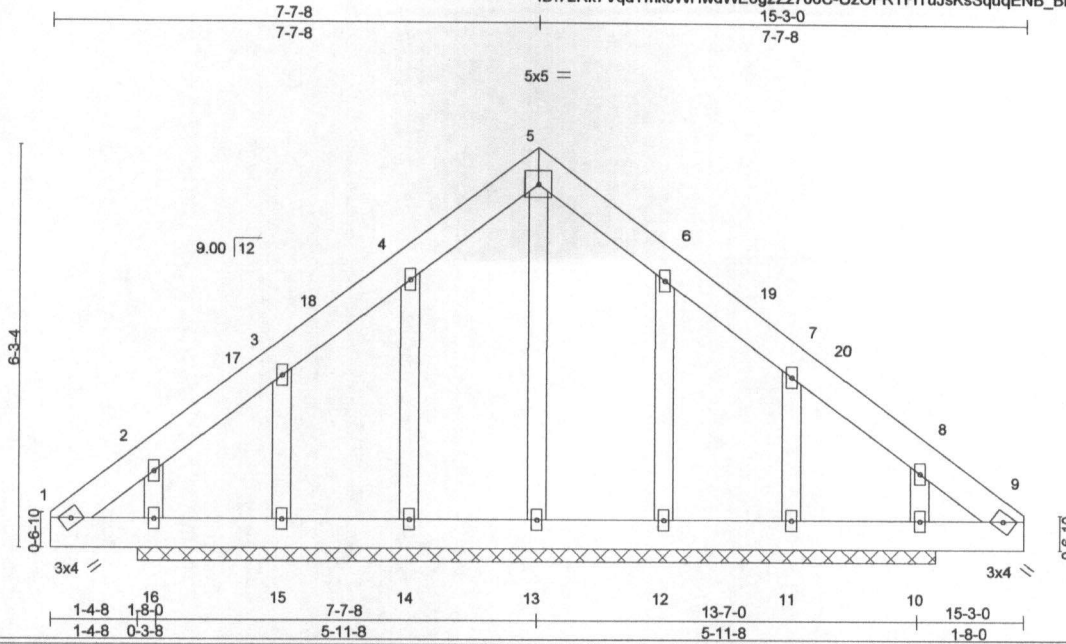
Job J1018-4523	Truss D1GE	Truss Type GABLE	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Hamett E12241729
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:57 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-UzOFRTFITuJsKsSquqENB_Bnb7iYIsobxzs0Wgya4Ku

Job Reference (optional)



Scale = 1:35.1

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.04	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.09	Vert(TL) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(TL) 0.00 10 n/a n/a		
	Code IRC2009/TPI2007			Weight: 109 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.3

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

REACTIONS. All bearings 12-6-0.
(lb) - Max Horz 16=200(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 14, 12, 10 except 15=155(LC 6), 16=104(LC 5), 11=143(LC 5)
Max Grav All reactions 250 lb or less at joint(s) 13, 14, 15, 16, 12, 11, 10

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 7-7-8, Exterior(2) 7-7-8 to 12-0-5 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 12, 10 except (jt=lb) 15=155, 16=104, 11=143.
 - Non Standard bearing condition. Review required.



September 25, 2018

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Edenton, NC 27932

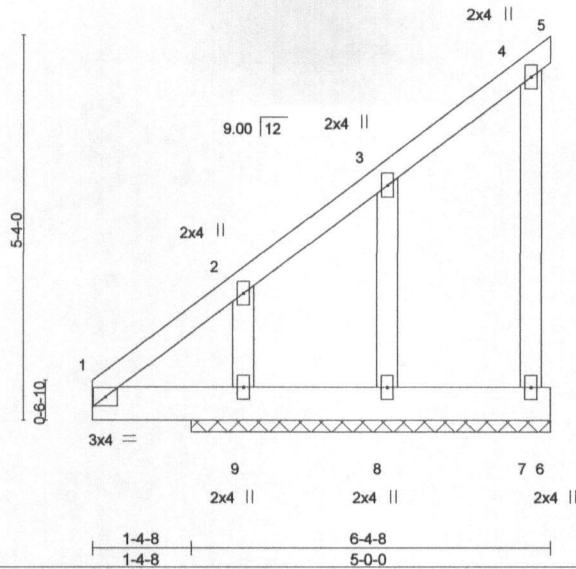
Job J1018-4523	Truss M1GE	Truss Type MONOPITCH SUPPORTED	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Harnett Job Reference (optional)	E12241730
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8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:58 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-y9ydeoFNDcRjx010SYmcjCkxgW1mUKjkAdcZ27ya4Kt
6-4-8
6-4-8

Scale = 1:31.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.08	Vert(LL) 0.00	4	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(TL) 0.00	4	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Horz(TL) -0.00	7	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2009/TPI2007						Weight: 40 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

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, Except: 10-0-0 oc bracing: 6-7.

REACTIONS. (lb/size) 7=93/5-0-0, 8=68/5-0-0, 9=338/5-0-0
Max Horz 9=226(LC 7)
Max Uplift 7=-32(LC 7), 8=-258(LC 7), 9=-10(LC 5)
Max Grav 7=93(LC 1), 8=95(LC 5), 9=338(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-259/52

- NOTES-**
- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) 0-0-0 to 4-1-4, Exterior(2) 4-1-4 to 6-4-8 zone; cantilever 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 studs spaced at 2-0-0 oc.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 7, 9 except (jt=lb) 8=258.
 - 7) Non Standard bearing condition. Review required.



September 25, 2018

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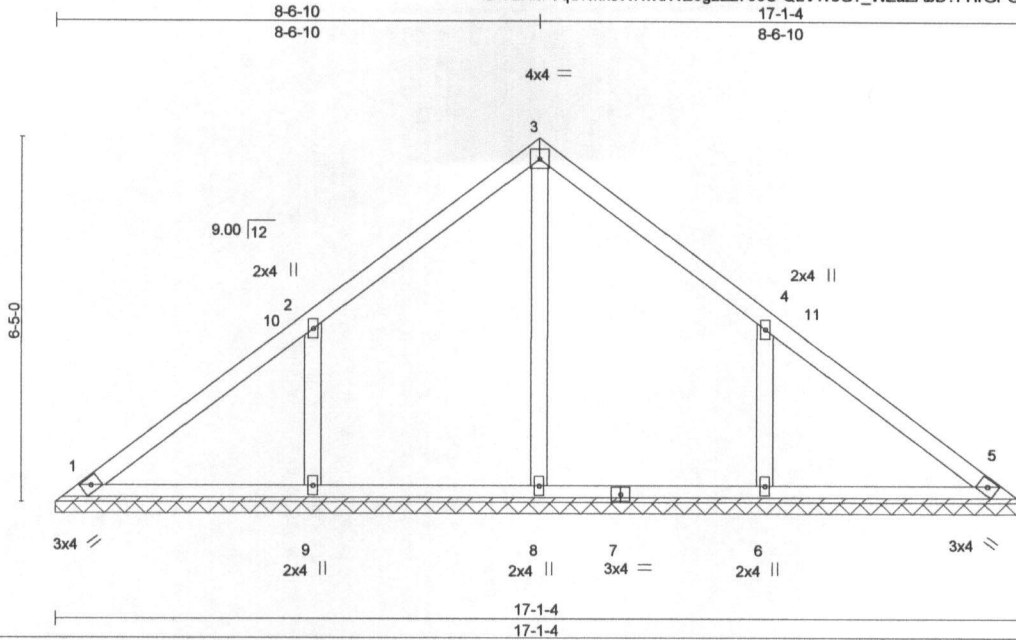
Job J1018-4523	Truss VB1	Truss Type VALLEY	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Hamett	E12241731
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:59 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-QLV?r8G?_WZaZAbD?FhrGPG5rWNCdm0tPHL6bZya4Ks

Job Reference (optional)



Scale = 1:39.5

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.18	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(TL)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Horz(TL)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2009/TPI2007						Weight: 73 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 OTHERS 2x4 SP No.3

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.

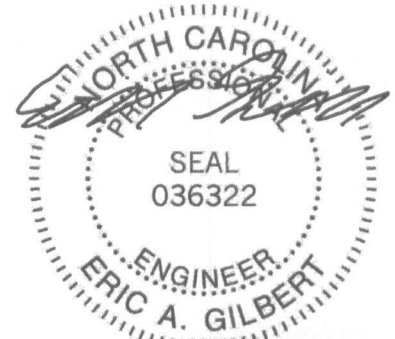
All bearings 17-1-4.
 (lb) - Max Horz 1--169(LC 5)
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 9--131(LC 7), 6--131(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 8 except 9--389(LC 11), 6--388(LC 12)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-9--288/239, 4-6--288/239

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-5-4 to 4-6-10, Interior(1) 4-6-10 to 8-6-10, Exterior(2) 8-6-10 to 12-11-7 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=131, 6=131.



September 25, 2018

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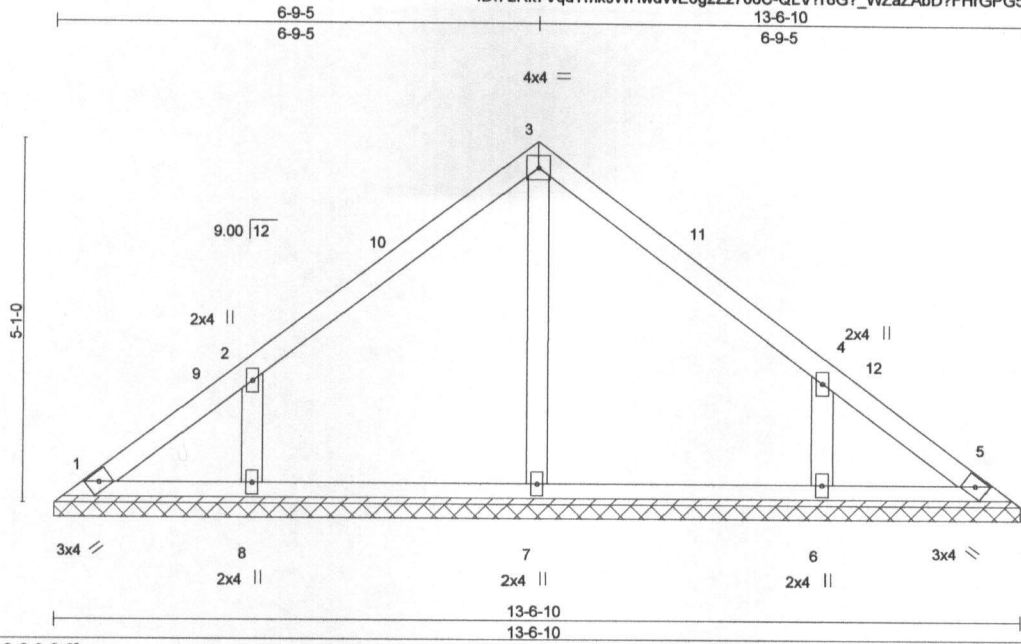
818 Soundside Road
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Job J1018-4523	Truss VB2	Truss Type VALLEY	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Harnett	E12241732
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8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:21:59 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-QLV?r8G?_WZaZAbD?FhrGPG5ewNRDmXiPHL6bZya4Ks
13-6-10
6-9-5



Scale = 1:31.4

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

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(TL)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(TL)	0.00	5	n/a		
BCDL 10.0	Code IRC2009/TPI2007	Matrix-S					Weight: 55 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.3

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 13-6-10.
(lb) - Max Horz 1=132(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=107(LC 7), 6=107(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=307(LC 11), 6=307(LC 12)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-5-4 to 4-10-1, Interior(1) 4-10-1 to 6-9-5, Exterior(2) 6-9-5 to 11-2-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=107, 6=107.
- Non Standard bearing condition. Review required.



September 25, 2018

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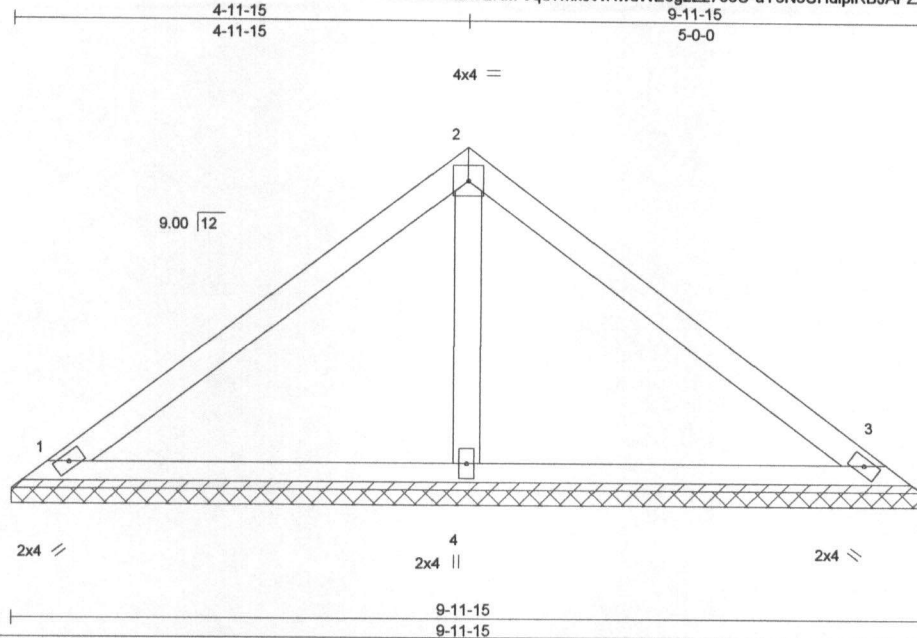
818 Soundside Road
Edenton, NC 27932

Job J1018-4523	Truss VB3	Truss Type VALLEY	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Harnett E12241733
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8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:22:00 2018 Page 1

ID:72Rk7VqdTmkJWWhdWE6g2Zz706C-uY3N3UHdipiRBJAPZzo4odpF?KhfyE?1dx5g7?ya4Kr
9-11-15
5-0-0



Scale = 1:24.6

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.22	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Vert(TL) n/a - n/a 999		
BCDL 10.0	Code IRC2009/TPI2007	Matrix-S	Horz(TL) 0.00 3 n/a n/a		
				Weight: 37 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.3

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. (lb/size) 1=190/9-11-15, 3=190/9-11-15, 4=349/9-11-15
Max Horz 1=-95(LC 5)
Max Uplift 1=-22(LC 7), 3=-29(LC 8)

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 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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.



September 25, 2018

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY
TRENCO
A MITEK AFFILIATE

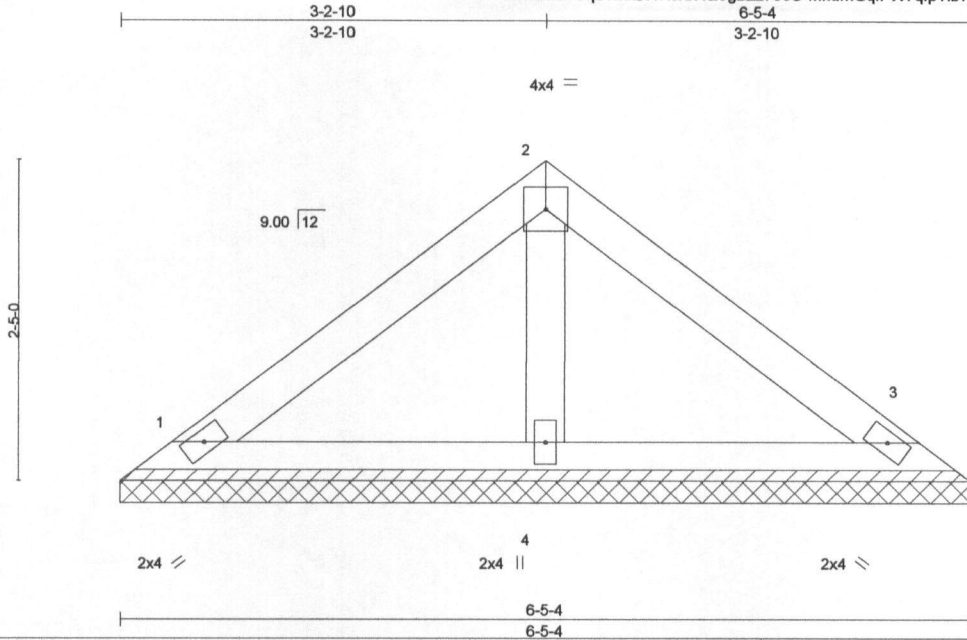
818 Soundside Road
Edenton, NC 27932

Job J1018-4523	Truss VB4	Truss Type VALLEY	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Hamett E12241734
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:22:01 2018 Page 1
 ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-MkdmGqIFW7qipTlb7gJLqMSWk3OhhnAsbqDfSya4Kq

Job Reference (optional)



Scale = 1:16.9

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.10	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) n/a - n/a 999		
BCLL 10.0 *	Lumber DOL 1.15	WB 0.03	Vert(TL) n/a - n/a 999		
BCDL 0.0	Rep Stress Incr YES	Matrix-P	Horz(TL) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007			Weight: 23 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 OTHERS 2x4 SP No.3

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. (lb/size) 1=126/6-5-4, 3=126/6-5-4, 4=193/6-5-4
 Max Horz 1=-58(LC 5)
 Max Uplift 1=-19(LC 7), 3=-23(LC 8)

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 7-05; 100mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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.



September 25, 2018

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ENGINEERING BY
TRENCO
 A MITEK AFFILIATE
 818 Soundside Road
 Edenton, NC 27932

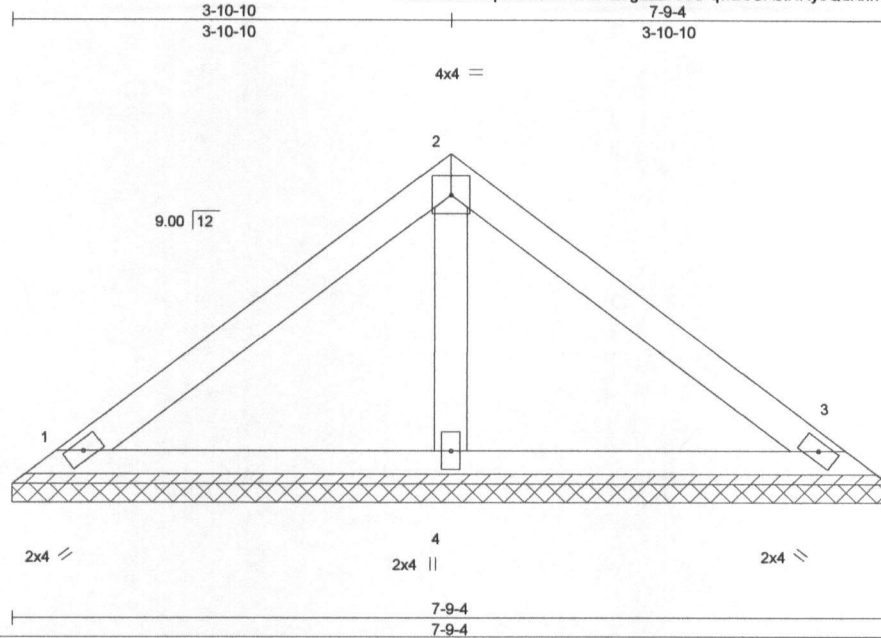
Job J1018-4523	Truss VC1	Truss Type VALLEY	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Harnett	E12241736
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:22:02 2018 Page 1

ID:72Rk7VqdTmkJWtHwdWE6g2Zz706C-qwB8UAJtHRy9QdKnhOqZu1ucl8O8Q8vK5FanBuya4Kp

Job Reference (optional)



Scale = 1:19.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.17	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(TL)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(TL)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2009/TPI2007						Weight: 28 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.3

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. (lb/size) 1=156/7-9-4, 3=156/7-9-4, 4=239/7-9-4
Max Horz 1=-72(LC 5)
Max Uplift 1=-23(LC 7), 3=-29(LC 8)

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 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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.



September 25, 2018

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road
Edenton, NC 27932

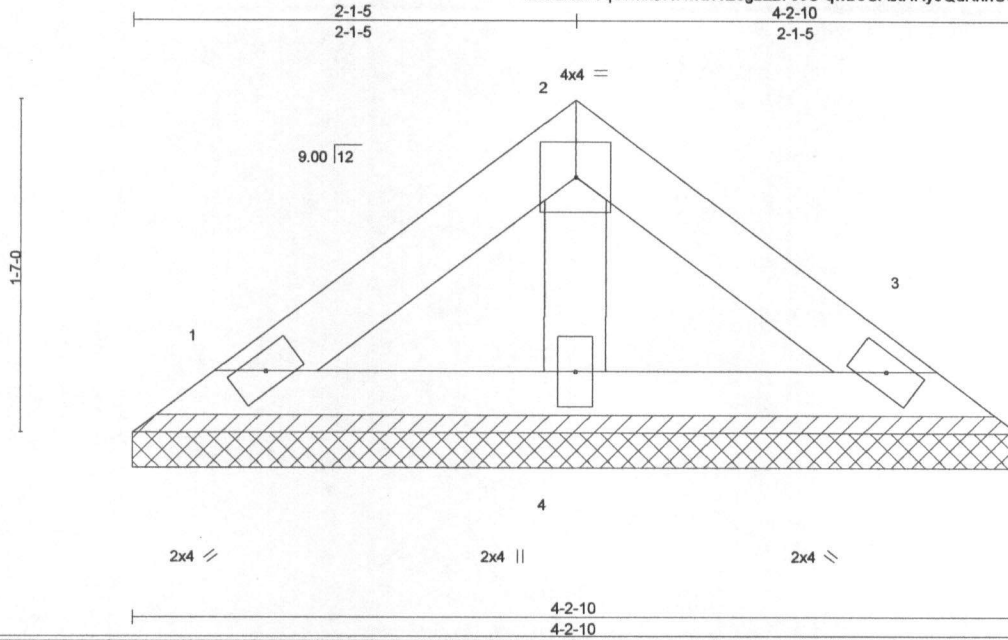
Job J1018-4523	Truss VC2	Truss Type VALLEY	Qty 1	Ply 1	Watermark/Lot 29 South Creek/Hamett E12241737
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue Sep 25 13:22:02 2018 Page 1

ID:72Rk7VqdTmkJWHwdWE6g2Zz706C-qwB8UAJHRY9QdKnhOqZu1ueL8PBQ8DK5FanBuya4Kp

Job Reference (optional)



Scale = 1:10.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.03	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(TL)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(TL)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2009/TPI2007						Weight: 14 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 OTHERS 2x4 SP No.3

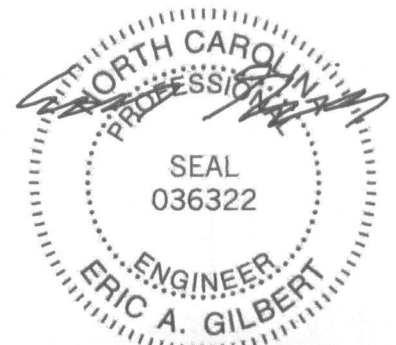
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-2-10 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=76/4-2-10, 3=76/4-2-10, 4=116/4-2-10
 Max Horz 1=-35(LC 5)
 Max Uplift 1=-11(LC 7), 3=-14(LC 8)

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 7-05; 100mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) Non Standard bearing condition. Review required.



September 25, 2018

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.

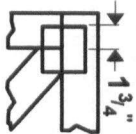
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



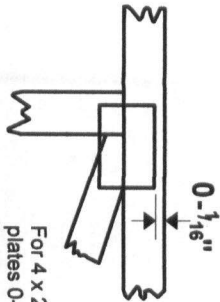
818 Soundside Road
 Edenton, NC 27932

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 20/20 software or upon request.

PLATE SIZE

4 X 4

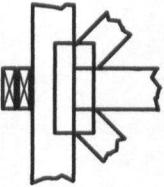
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

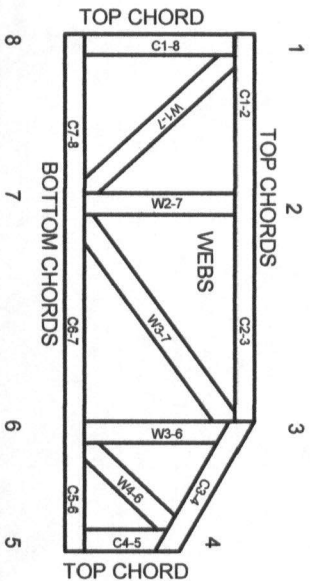


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

- ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
- DSB-89: Design Standard for Bracing.
- BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988
- ER-3907, ESR-2362, ESR-1397, ESR-3282

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.

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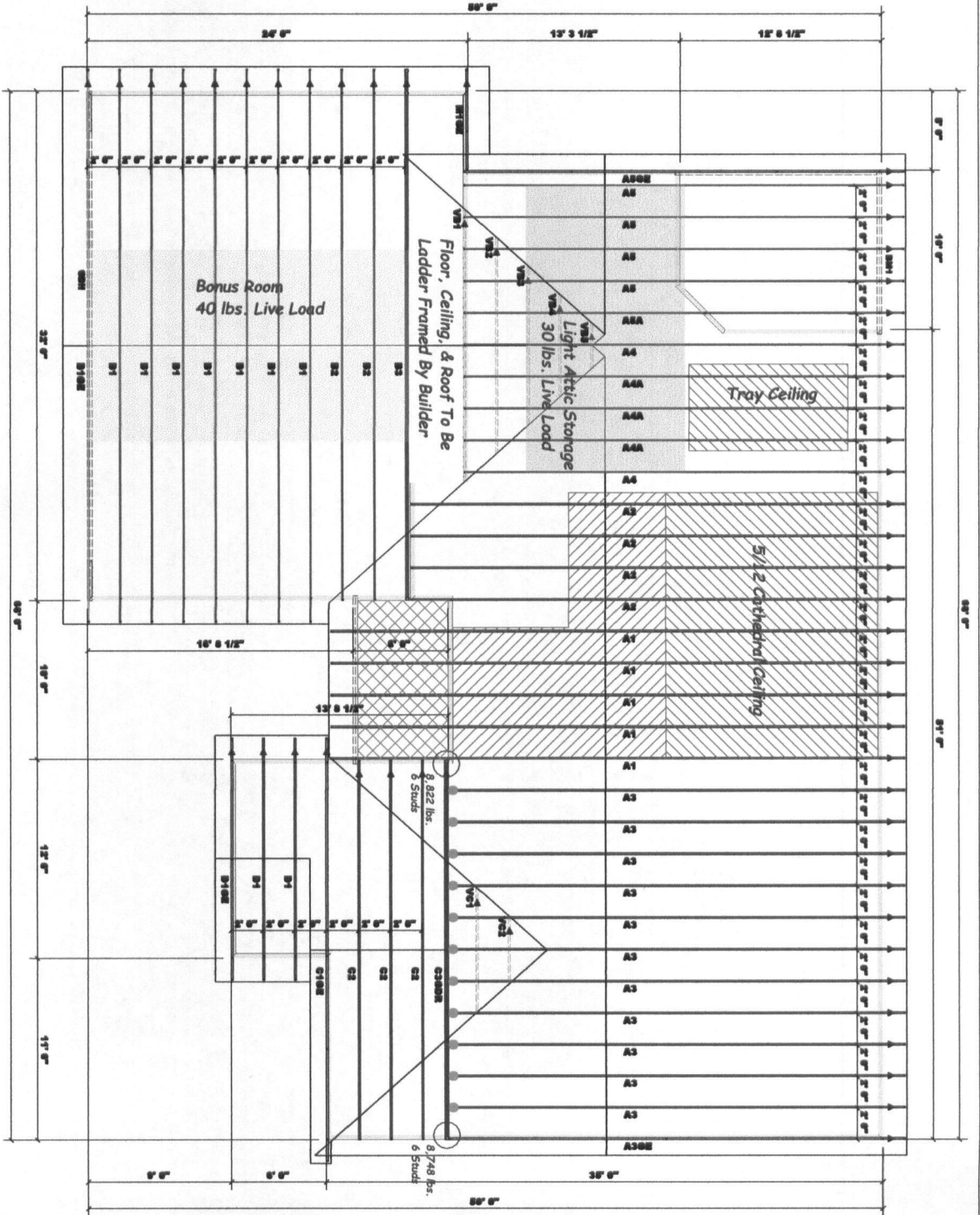


MITek Engineering Reference Sheet: MIL-7473 rev. 10/03/2015

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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



HANGER LEGEND

●	= USP HUS26 / Single 2x Hanger
---	--------------------------------

Beam Legend	Beam Legend	Piles	Net Qty	
PlotID	Length	Product	Piles	Net Qty
BM1	11' 0"	1-3/4" x 9-1/4" LVL Kerto-S	2	2
GDH	32' 0"	1-3/4" x 11-7/8" LVL Kerto-S	2	2

All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.
○ -- Denotes Reaction Greater than 3,000 lbs.

Truss Placement Plan
SCALE: NTS

Hatch Legend

	Ceiling Height @ 10' 1-1/2"
--	-----------------------------

▲ = Denotes Left End of Truss
(Reference Engineered Truss Drawing)
Do Not Erect Trusses Backwards

LOAD CHART FOR 2x6 STUDS

Span	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'	34'	36'
12000	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10000	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8000	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6000	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4000	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2000	1	1	1	1	1	1	1	1	1	1	1	1	1	1

BUILDER	Watermark-Homes
JOB NAME	Lot 29 South Creek
PLAN	The Pinon III
SEAL DATE	9/12/18
QUOTE #	80617-2934
JOB #	J1018-4523

COUNTY	Harris
ADDRESS	Lot 29 South Creek
MODEL	Model
DATE REV.	10/02/18
DRAWN BY	Curtis Quick
SALESMAN	Anthony Williams

THIS DRAWING IS THE PROPERTY OF CONTECH TRUSSES & BEAMS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF CONTECH TRUSSES & BEAMS IS STRICTLY PROHIBITED. CONTECH TRUSSES & BEAMS ASSUMES NO LIABILITY FOR ANY DAMAGE OR INJURY RESULTING FROM THE USE OF THIS DRAWING. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

CONTECH
ROOF & FLOOR TRUSSES & BEAMS
1601 Road Industrial Park
Fayetteville, NC 28309
Phone: (910) 864-8372
Fax: (910) 864-4444

Reaction Summary of Order



REQ. QUOTE DATE	//	ORDER #	J1018-4523
ORDER DATE	10/02/18	QUOTE #	
DELIVERY DATE	//	CUSTOMER ACCT #	000030
DATE OF INVOICE	//	CUSTOMER PO #	
ORDERED BY	Justin Thomas	INVOICE #	
COUNTY	Harnett	TERMS	Net 10 Days
SUPERINTENDANT	Justin Thomas	SALES REP	Anthony Williams
JOBSITE PHONE #	(910) 759-1307	SALES AREA	Curtis Quick

SOLID FLOOR Watermark Homes, Inc. 1308 Ft Bragg Road Suite 201 Fayetteville, NC 28305 (910) 483-2229	JOB NAME: Lot 29 South Creek MODEL: TAG: The Pinion III DELIVERY INSTRUCTIONS:	LOT # 29 SUBDIV: South Creek JOB CATEGORY: Residential - Roof
	SPECIAL INSTRUCTIONS: Like Lot 1 Reserve (J0617-2934)	
BRICK FLOOR Watermark Homes Lot 29 South Creek Harnett Co., NC		

PLAN SEAL DATE: 9/12/18
BY DATE

BUILDING DEPARTMENT	OVERHANG INFO	HEEL HEIGHT	00-06-08	REQ. LAYOUTS	REQ. ENGINEERING	QUOTE	//
Roof Order	END CUT RETURN					LAYOUT	CQ 10/02/18
	PLUMB	GABLE STUDS	24 IN. OC	JOBSITE 1	JOBSITE 1	CUTTING	CQ 10/02/18

ROOF TRUSSES **LOADING INFORMATION** TCLL-TCDL-BCLL-BCDL STRESS INCR. **ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.)**

20.0,10.0,0.0,10.0 1.15

PROFILE	QTY	PITCH		TYPE ID	BASE O/A	LUMBER		OVERHANG		REACTIONS
		TOP	BOT			TOP	BOT	LEFT	RIGHT	
	5	8.00	5.00	ROOF A1	36-00-08 36-00-08	2 X 6	2 X 6			Joint 10 1769.7 lbs. -303.8 lbs. Joint 14 1113.7 lbs. -114.3 lbs.
	4	8.00	5.00	ROOF A2	31-00-08 31-00-08	2 X 6	2 X 6			Joint 9 1164.1 lbs. -39.7 lbs. Joint 14 1298.0 lbs. -106.8 lbs.
	11	8.00	0.00	COMMON A3	28-08-00 28-08-00	2 X 6	2 X 6			Joint 1 1282.6 lbs. -47.3 lbs. Joint 7 1442.7 lbs. -63.2 lbs.
	1	8.00	0.00	GABLE A3GE	28-08-00 28-08-00	2 X 6	2 X 6			Joint 1 269.4 lbs. -141.6 lbs. Joint 17 82.3 lbs. -16.8 lbs. Joint 18 219.8 lbs. -87.0 lbs. Joint 19 246.1 lbs. -89.9 lbs. Joint 20 240.9 lbs. -101.5 lbs.
	2	8.00	0.00	COMMON A4	27-08-00 27-08-00	2 X 6	2 X 6			Joint 1 1314.3 lbs. -41.5 lbs. Joint 7 1723.1 lbs. -72.7 lbs.
	3	8.00	0.00	COMMON A4A	27-08-00 27-08-00	2 X 6	2 X 8			Joint 1 1289.8 lbs. -41.0 lbs. Joint 7 1552.0 lbs. -68.7 lbs.
	4	8.00	0.00	COMMON A5	27-08-00 27-08-00	2 X 6	2 X 6			Joint 1 836.7 lbs. -210.9 lbs. Joint 7 1216.8 lbs. -262.8 lbs. Joint 10 983.9 lbs. 0.0 lbs.
	1	8.00	0.00	COMMON A5A	27-08-00 27-08-00	2 X 6	2 X 6			Joint 1 457.0 lbs. -41.5 lbs. Joint 7 993.8 lbs. -72.7 lbs. Joint 10 1586.6 lbs. 0.0 lbs.
	1	8.00	0.00	GABLE A5GE	27-08-00 27-08-00	2 X 6	2 X 6			Joint 1 267.8 lbs. -127.6 lbs. Joint 17 19.0 lbs. -14.9 lbs. Joint 18 159.3 lbs. -53.8 lbs. Joint 19 250.2 lbs. -94.5 lbs. Joint 20 241.4 lbs. -100.7 lbs.
	7	9.00	0.00	ATTIC B1	34-09-00 34-09-00	2 X	2 X 8			Joint 1 2159.1 lbs. 168.3 lbs. Joint 9 2159.1 lbs. 168.3 lbs.

Reaction Summary of Order



REQ. QUOTE DATE	/ /	ORDER #	J1018-4523
ORDER DATE	10/02/18	QUOTE #	
DELIVERY DATE	/ /	CUSTOMER ACCT #	000030
DATE OF INVOICE	/ /	CUSTOMER PO #	
ORDERED BY	Justin Thomas	INVOICE #	
COUNTY	Harnett	TERMS	Net 10 Days
SUPERINTENDANT	Justin Thomas	SALES REP	Anthony Williams
JOBSITE PHONE #	(910) 759-1307	SALES AREA	Curtis Quick

SOLD TO	Watermark Homes, Inc. 1308 Ft Bragg Road Suite 201 Fayetteville, NC 28305 (910) 483-2229	JOB NAME: Lot 29 South Creek MODEL: TAG: The Pinion III DELIVERY INSTRUCTIONS:	LOT # 29 SUBDIV: South Creek JOB CATEGORY: Residential - Roof
	Watermark Homes Lot 29 South Creek Harnett Co., NC	SPECIAL INSTRUCTIONS: Like Lot 1 Reserve (J0617-2934)	

PLAN SEAL DATE: 9/12/18
BY DATE

BUILDING DEPARTMENT	OVERHANG INFO	HEEL HEIGHT	00-06-08	REQ. LAYOUTS	REQ. ENGINEERING	QUOTE	/ /
Roof Order	END CUT RETURN					LAYOUT	CQ 10/02/18
	PLUMB	GABLE STUDS	24 IN. OC	JOBSITE 1	JOBSITE 1	CUTTING	CQ 10/02/18

ROOF TRUSSES

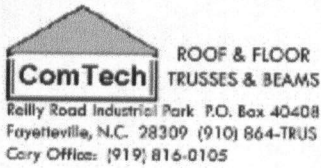
LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
20.0,10.0,0.0,10.0	1.15

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

PROFILE	QTY	PITCH		TYPE ID	BASE O/A	LUMBER		OVERHANG		REACTIONS				
		TOP	BOT			TOP	BOT	LEFT	RIGHT	Joint 10	Joint 11	Joint 12	Joint 13	Joint 14
	1	9.00	0.00	GABLE B1GE	34-09-00 34-09-00	2 X	2 X 8			Joint 10 553.9 lbs. -47.6 lbs.	Joint 11 101.0 lbs. -377.6 lbs.	Joint 12 270.6 lbs. 40.5 lbs.	Joint 13 -66.9 lbs. -464.3 lbs.	Joint 14 1715.4 lbs. -132.4 lbs.
	2	9.00	0.00	ATTIC B2	33-04-08 33-04-08	2 X	2 X 8			Joint 1 2098.3 lbs. 162.3 lbs.	Joint 10 2144.4 lbs. 180.9 lbs.			
	1 2 Ply	9.00	0.00	ATTIC B3	33-04-08 33-04-08	2 X	2 X 8			Joint 1 3147.4 lbs. 243.4 lbs.	Joint 10 3216.6 lbs. 271.3 lbs.			
	1	9.00	0.00	GABLE C1GE	26-09-00 26-09-00	2 X 6	2 X 6			Joint 9 753.0 lbs. -375.4 lbs.	Joint 10 209.2 lbs. -299.8 lbs.	Joint 11 135.4 lbs. -27.7 lbs.	Joint 12 53.3 lbs. -1.6 lbs.	Joint 13 140.4 lbs. -10.5 lbs.
	3	9.00	0.00	QUEENPOST C2	24-00-00 24-00-00	2 X 6	2 X 6			Joint 7 938.8 lbs. -30.9 lbs.	Joint 10 938.8 lbs. -30.9 lbs.			
	1 2 Ply	9.00	0.00	COMMON C3GDR	24-00-00 24-00-00	2 X 6	2 X 10			Joint 1 8822.0 lbs. -453.5 lbs.	Joint 7 8747.9 lbs. -449.6 lbs.			
	2	9.00	0.00	ROOF D1	15-03-00 15-03-00	2 X 6	2 X 6			Joint 6 610.0 lbs. -29.1 lbs.	Joint 8 610.0 lbs. -29.1 lbs.			
	1	9.00	0.00	GABLE D1GE	15-03-00 15-03-00	2 X 6	2 X 6			Joint 10 223.2 lbs. -84.2 lbs.	Joint 11 133.9 lbs. -143.0 lbs.	Joint 12 178.8 lbs. -69.6 lbs.	Joint 13 184.5 lbs. 70.3 lbs.	Joint 14 178.8 lbs. -69.3 lbs.
	1	9.00	0.00	MONOPITCH M1GE	06-04-08 06-04-08	2 X 4	2 X 6			Joint 7 92.8 lbs. -31.8 lbs.	Joint 8 95.1 lbs. -257.9 lbs.	Joint 9 338.1 lbs. -10.2 lbs.		
	1	9.00	0.00	VALLEY VB1	17-01-04 17-01-04	2 X 4	2 X 4			Joint 1 155.1 lbs. -12.8 lbs.	Joint 5 155.1 lbs. 14.6 lbs.	Joint 6 388.5 lbs. -131.0 lbs.	Joint 8 219.5 lbs. 50.5 lbs.	Joint 9 388.5 lbs. -131.1 lbs.

Reaction Summary of Order



REQ. QUOTE DATE	//	ORDER #	J1018-4523
ORDER DATE	10/02/18	QUOTE #	
DELIVERY DATE	//	CUSTOMER ACCT #	000030
DATE OF INVOICE	//	CUSTOMER PO #	
ORDERED BY	Justin Thomas	INVOICE #	
COUNTY	Harnett	TERMS	Net 10 Days
SUPERINTENDANT	Justin Thomas	SALES REP	Anthony Williams
JOBSITE PHONE #	(910) 759-1307	SALES AREA	Curtis Quick

Watermark Homes, Inc. 1308 Ft Bragg Road Suite 201 Fayetteville, NC 28305 (910) 483-2229	JOB NAME: Lot 29 South Creek MODEL: TAG: The Pinion III DELIVERY INSTRUCTIONS:	LOT # 29 SUBDIV: South Creek JOB CATEGORY: Residential - Roof
	Watermark Homes Lot 29 South Creek Harnett Co., NC	SPECIAL INSTRUCTIONS: Like Lot 1 Reserve (J0617-2934)

BUILDING DEPARTMENT	OVERHANG INFO	HEEL HEIGHT	00-06-08	REQ. LAYOUTS	REQ. ENGINEERING	QUOTE	/ /
Roof Order	END CUT RETURN					LAYOUT	CQ 10/02/18
	PLUMB	GABLE STUDS	24 IN. OC	JOBSITE 1	JOBSITE 1	CUTTING	CQ 10/02/18

PROFILE	QTY	PITCH		TYPE ID	BASE O/A	LUMBER		OVERHANG		REACTIONS				
		TOP	BOT			TOP	BOT	LEFT	RIGHT	Joint 1	Joint 5	Joint 6	Joint 7	Joint 8
	1	9.00	0.00	VALLEY VB2	13-06-10 13-06-10	2 X 4	2 X 4			Joint 1 82.7 lbs. -28.2 lbs.	Joint 5 82.8 lbs. -3.1 lbs.	Joint 6 307.1 lbs. -106.9 lbs.	Joint 7 248.5 lbs. 49.1 lbs.	Joint 8 307.1 lbs. -107.0 lbs.
	1	9.00	0.00	VALLEY VB3	09-11-15 09-11-15	2 X 4	2 X 4			Joint 1 190.1 lbs. -21.6 lbs.	Joint 3 190.1 lbs. -29.2 lbs.	Joint 4 349.4 lbs. 11.0 lbs.		
	1	9.00	0.00	VALLEY VB4	06-05-04 06-05-04	2 X 4	2 X 4			Joint 1 126.0 lbs. -18.8 lbs.	Joint 3 126.0 lbs. -23.5 lbs.	Joint 4 193.0 lbs. 18.1 lbs.		
	1	9.00	0.00	VALLEY VB5	02-10-10 02-10-10	2 X 4	2 X 4			Joint 1 80.4 lbs. -3.5 lbs.	Joint 3 80.4 lbs. -3.5 lbs.			
	1	9.00	0.00	VALLEY VC1	07-09-04 07-09-04	2 X 4	2 X 4			Joint 1 156.2 lbs. -23.4 lbs.	Joint 3 156.2 lbs. -29.1 lbs.	Joint 4 239.3 lbs. 22.4 lbs.		
	1	9.00	0.00	VALLEY VC2	04-02-10 04-02-10	2 X 4	2 X 4			Joint 1 75.7 lbs. -11.3 lbs.	Joint 3 75.8 lbs. -14.1 lbs.	Joint 4 116.0 lbs. 10.9 lbs.		

ITEMS

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES
11	Hangers, USP	HUS 26			SIMPSON (HUS26)
2	LVL Beams (Sized)	LVL, 1-3/4" x 9-1/4" (S)	11-00-00		BM1
2	LVL Beams (Sized)	LVL, 1-3/4" x 11-7/8" (S)	32-00-00		GDH

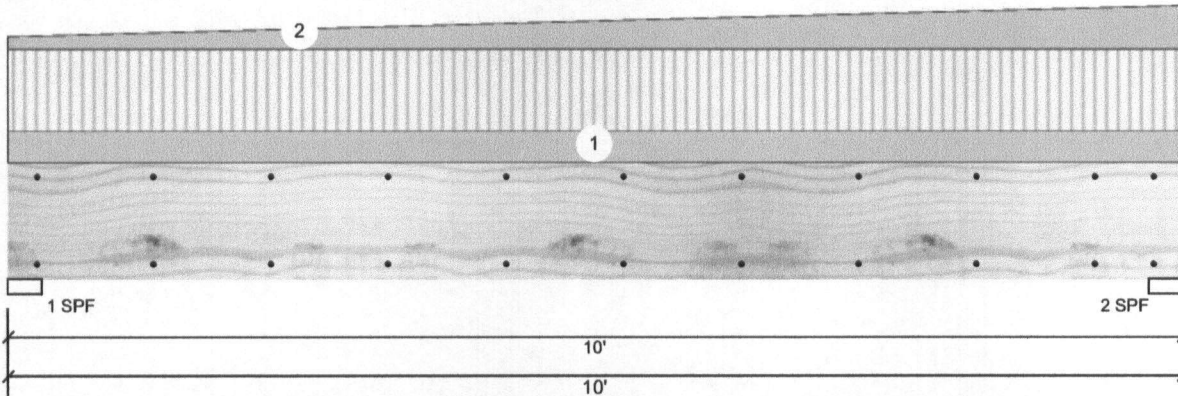


Client: Watermark Homes
 Project: Lot 29 South Creek
 Address:

Date: 10/5/2018
 Designer: Curtis Quick
 Job Name: The Pinion III Beams
 Project #: J1018-4523

GDH (PT 1) Kerto-S LVL 1.750" X 11.875" 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		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	2000	1341	0	0	0
2	2000	1602	0	0	0

Bearings

Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF	3.500"	64% 1341 / 2000	3341 L	D+L
2 - SPF	3.500"	69% 1602 / 2000	3602 L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7903 ft-lb	5'1"	19911 ft-lb	0.397 (40%)	D+L	L
Unbraced	7903 ft-lb	5'1"	9628 ft-lb	0.821 (82%)	D+L	L
Shear	2675 lb	8'9 3/8"	8867 lb	0.302 (30%)	D+L	L
LL Defl inch	0.089 (L/1287)	5'	0.239 (L/480)	0.370 (37%)	L	L
TL Defl inch	0.154 (L/741)	5' 5/16"	0.318 (L/360)	0.490 (49%)	D+L	L

Design Notes

- 1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 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	Tie-In	0-0-0 to 10-0-0	(Span)20-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	Roof
2	Tapered Start	0-0-0		Top	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	B1GE
	End	10-0-0			210 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF					

Notes Calculated Structural 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 Job# PER181969 P. E. Robbins, P.E. - #309-240-6424 1777 State Rt 167 Victoria IL 61485 This design is valid until 7/10/2021	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633



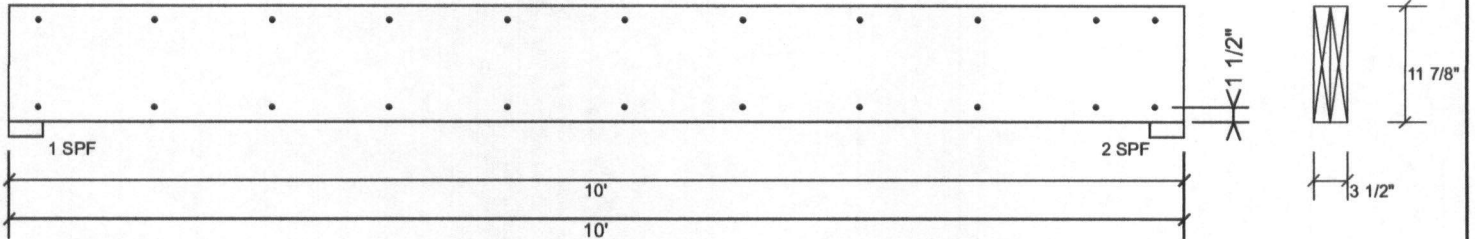


Client: Watermark Homes
 Project: Lot 29 South Creek
 Address:

Date: 10/5/2018
 Designer: Curtis Quick
 Job Name: The Pinion III Beams
 Project #: J1018-4523

GDH (PT 1) Kerto-S LVL 1.750" X 11.875" 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.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00



Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Job# PER181969
 P. E. Robbins, P.E. - #309-240-6424
 1777 State Rt 167 Victoria IL 61485

This design is valid until 7/10/2021

Manufacturer Info

Metsä Wood
 301 Merritt 7 Building, 2nd Floor
 Norwalk, CT 06851
 (800) 622-5850
 www.metsawood.com/us
 ICC-ES: ESR-3633



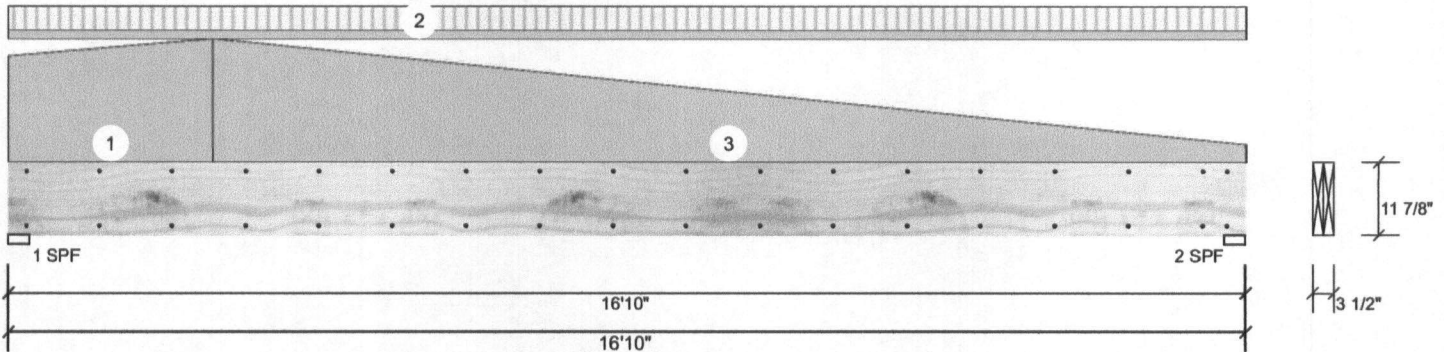


Client: Watermark Homes
 Project: Lot 29 South Creek
 Address:

Date: 10/5/2018
 Designer: Curtis Quick
 Job Name: The Pinion III Beams
 Project #: J1018-4523

GDH (PT 2) Kerto-S LVL 1.750" X 11.875" 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		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	337	1588	0	0	0
2	337	1051	0	0	0

Bearings

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	37%	1588 / 337	1925	L	D+L
2 - SPF	3.500"	27%	1051 / 337	1387	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6794 ft-lb	7'8 7/8"	19911 ft-lb	0.341 (34%)	D+L	L
Unbraced	6794 ft-lb	7'8 7/8"	6805 ft-lb	0.998 (100%)	D+L	L
Shear	1619 lb	1'2 5/8"	8867 lb	0.183 (18%)	D+L	L
LL Defl inch	0.070 (L/2809)	8'5 1/16"	0.409 (L/480)	0.170 (17%)	L	L
TL Defl inch	0.352 (L/558)	8'2 13/16"	0.546 (L/360)	0.640 (64%)	D+L	L

Design Notes

- 1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 14'6 3/8" o.c.
- 6 Bottom braced at bearings.
- 7 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	Tapered Start	0-0-0		Top	180 PLF	0 PLF	0 PLF	0 PLF	0 PLF	B1GE
	End	2-9-12			210 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
2	Tie-In	0-0-0 to 16-10-0	(Span)2-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	Roof
3	Tapered Start	2-9-12		Top	210 PLF	0 PLF	0 PLF	0 PLF	0 PLF	B1GE
	End	16-10-0			30 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 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 Job# PER181969 P. E. Robbins, P.E. - #309-240-6424 1777 State Rt 167 Victoria IL 61485 This design is valid until 7/10/2021	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633



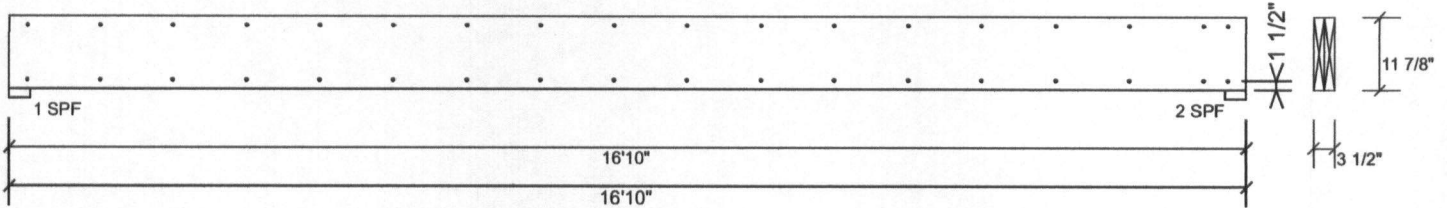


Client: Watermark Homes
 Project: Lot 29 South Creek
 Address:

Date: 10/5/2018
 Designer: Curtis Quick
 Job Name: The Pinion III Beams
 Project #: J1018-4523

GDH (PT 2) Kerto-S LVL 1.750" X 11.875" 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.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00



Notes

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

Lumber

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

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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Job# PER181969

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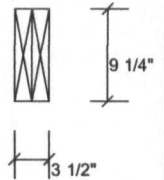
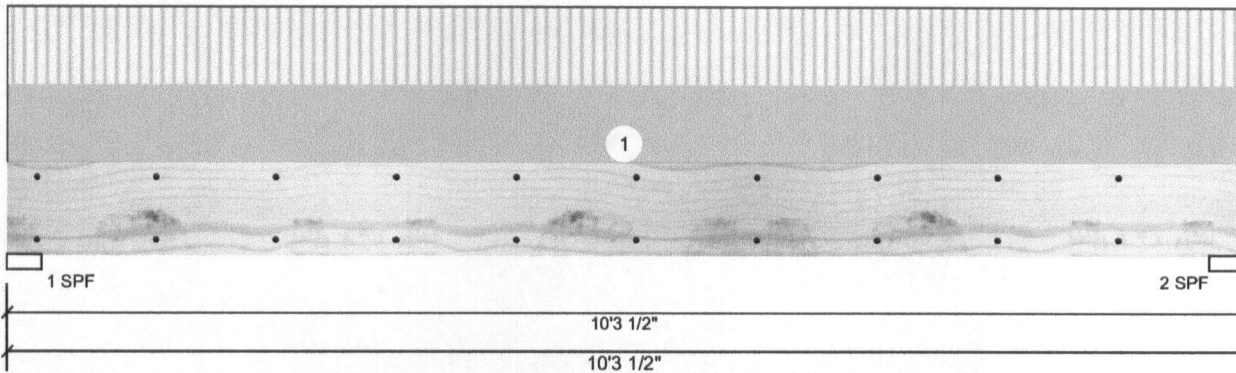
This design is valid until 7/10/2021





BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type: Girder
 Plies: 2
 Moisture Condition: Dry
 Deflection LL: 480
 Deflection TL: 360
 Importance: Normal
 Temperature: Temp <= 100°F

Application: Floor
 Design Method: ASD
 Building Code: IBC 2012
 Load Sharing: No
 Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	1410	1447	0	0	0
2	1410	1447	0	0	0

Bearings

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	55%	1447 / 1410	2857	L	D+L
2 - SPF	3.500"	55%	1447 / 1410	2857	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6711 ft-lb	5'1 3/4"	12542 ft-lb	0.535 (54%)	D+L	L
Unbraced	6711 ft-lb	5'1 3/4"	7397 ft-lb	0.907 (91%)	D+L	L
Shear	2302 lb	1'	6907 lb	0.333 (33%)	D+L	L
LL Defl inch	0.137 (L/864)	5'1 3/4"	0.246 (L/480)	0.560 (56%)	L	L
TL Defl inch	0.277 (L/426)	5'1 3/4"	0.328 (L/360)	0.840 (84%)	D+L	L

Design Notes

- 1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 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 Self Weight			Top	274 PLF 7 PLF	274 PLF	0 PLF	0 PLF	0 PLF	A4

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

Job# PER181969
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 This design is valid until 7/10/2021

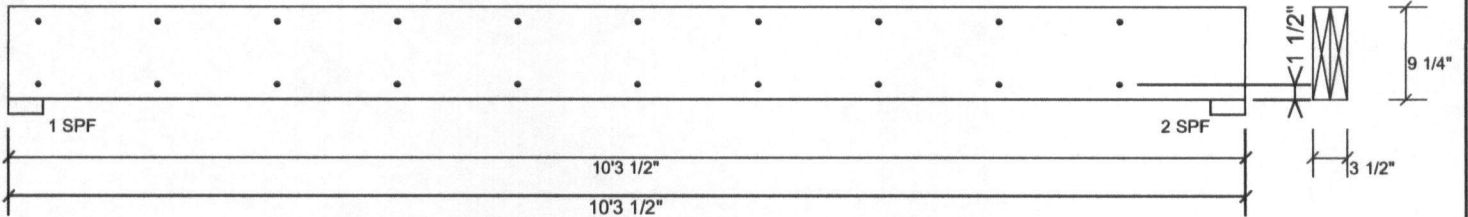
Manufacturer Info
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 www.metsawood.com/us
 ICC-ES: ESR-3633





BM1 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.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00



Notes

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

Lumber

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
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Manufacturer Info

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Job# PER181969

P. E. Robbins, P.E. - #309-240-6424
1777 State Rt 167 Victoria IL 61485

This design is valid until 7/10/2021

