ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 20-079179T
LOCUST SP - BRAD CUMMINGS

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by BMC (Monroe, NC).

Pages or sheets covered by this seal: T20774591 thru T20774626

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844

July 20,2020

Magid, Michael

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

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	A01	Piggyback Base	11	1	T20774591
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:02 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-XM8h_1bZvQJDcDa8gO0Kq47IiLix3N6Q85zYvsywDKx

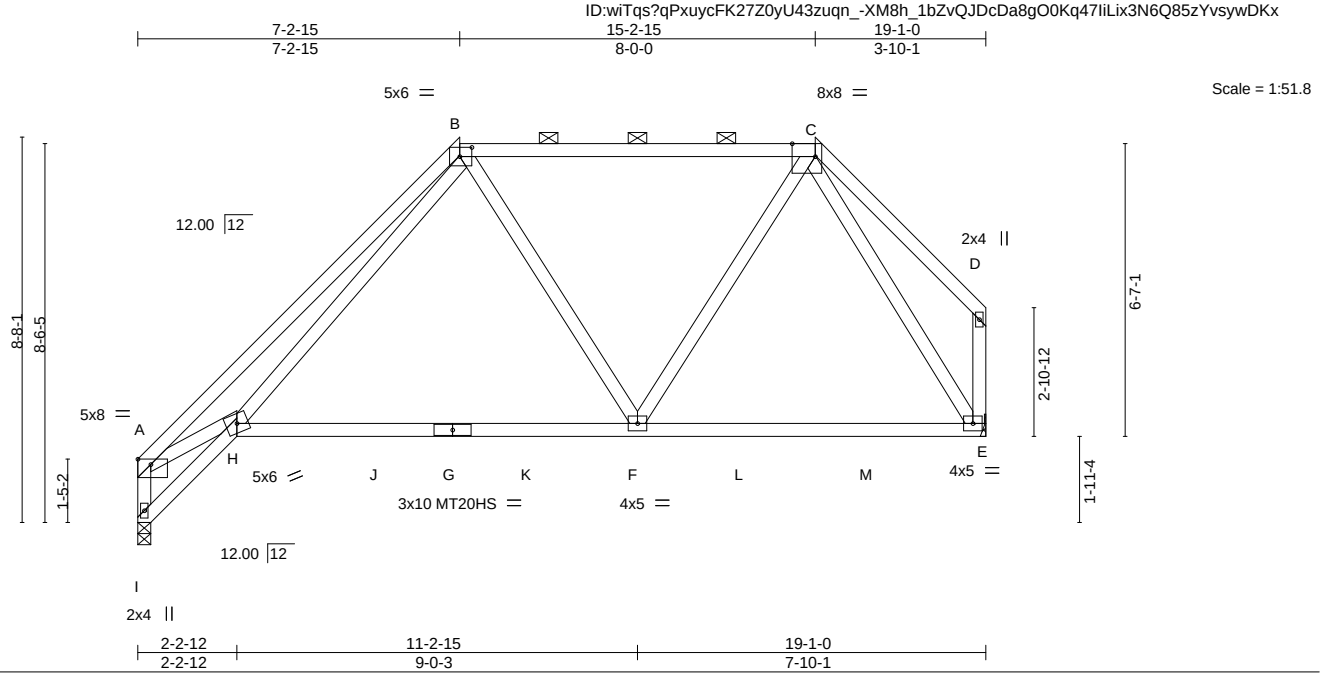


Plate Offsets (X,Y)-- [A:Edge,0-1-7], [B:0-3-4,0-2-8], [C:0-6-4,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.81	Vert(LL)	-0.20	F-H	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.39	F-H	>577	180	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.70	Horz(CT)	-0.08	I	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 118 lb	FT = 20%

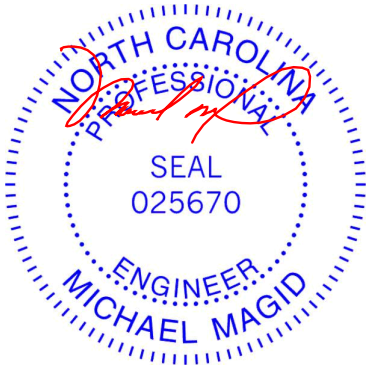
LUMBER-
TOP CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS *Except* C-D: 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* D-E: 2x4 SP No.2

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

REACTIONS. (size) I=0-3-8, E=Mechanical
Max Horz E=183(LC 7)
Max Grav I=752(LC 1), E=763(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-I=-839/122, A-B=-1494/4, B-C=-556/101
BOT CHORD F-H=-14/543, E-F=-79/400
WEBS A-H=0/955, B-H=0/704, C-F=0/374, C-E=-690/74

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) I considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 20,2020

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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 ***ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information*** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	A02	GABLE	2	1	T20774592
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:04 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-UkGRPicpR2axsWkWnp2ovVCeK9O6XItjcPSfzkywDKv

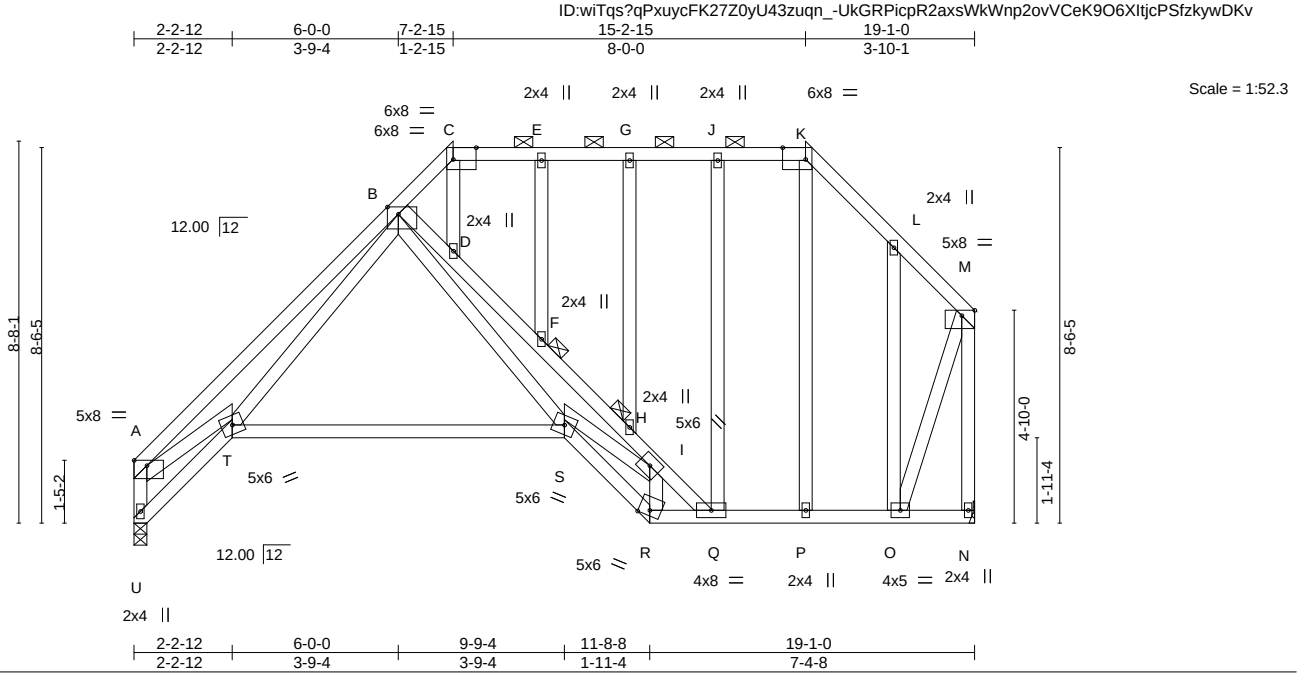


Plate Offsets (X,Y)-- [A:Edge,0-1-7], [B:0-3-0,Edge], [C:0-6-4,Edge], [K:0-6-4,Edge], [M:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	-0.19	S-T	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.45	S-T	>502	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.62	Horz(CT)	-0.16	U	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 176 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2 *Except*
	N-R: 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS
WEBS	2x4 SP No.3 *Except*
	M-N: 2x4 SP No.2
OTHERS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-6-3 oc purlins, except end verticals, and 2-0-0 oc purlins: C-K, B-Q.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: N-O.
JOINTS	1 Brace at Jt(s): F, H

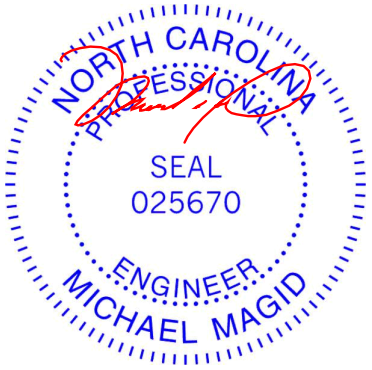
REACTIONS. (size) U=0-3-8, N=Mechanical
Max Horz N=207(LC 7)
Max Grav U=752(LC 1), N=752(LC 1)

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

TOP CHORD	A-U=-807/86, A-B=-1453/0, B-C=-426/186, C-E=-297/141, E-G=-297/141, G-J=-297/141, J-K=-296/141, K-L=-524/150, L-M=-318/118, M-N=-971/42, B-D=-1719/0, D-F=-1642/0, F-H=-1678/0, H-I=-1840/0, I-Q=-915/232
BOT CHORD	S-T=-7/594, R-S=-73/1265, Q-R=-62/1052, P-Q=-80/298, O-P=-80/298
WEBS	L-O=-394/43, A-T=0/931, I-R=-723/34, I-S=0/645, B-T=0/643, B-S=0/1486, M-O=-78/859

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Bearing at joint(s) U considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 20,2020

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	A03	Piggyback Base	3	1	T20774593
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:06 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-Q7NCqOe3zfqf5quvvE4G_wHyVy3C?82?3jxl2dywDKt

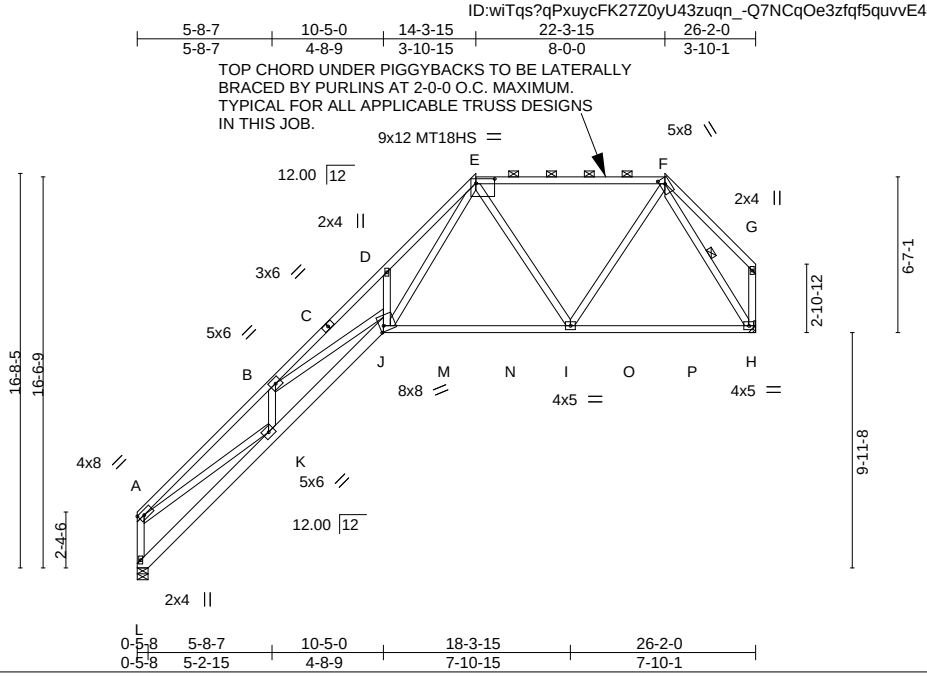

Plate Offsets (X,Y)-- [A:0-2-15,Edge], [E:0-9-8,0-2-4], [F:0-3-0,0-2-8], [J:0-2-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	0.32	J	>969	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.62	I-J	>500	180	MT18HS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.61	H	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 183 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
E-F,A-C: 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS
BOT CHORD 2x4 SP No.2 *Except*
J-L: 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
A-K,E-J,G-H: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: E-F.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt F-H

REACTIONS. (size) L=0-5-8, H=Mechanical
Max Horz L=329(LC 10)
Max Uplift H=-64(LC 10)
Max Grav L=1044(LC 1), H=1034(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-3162/776, B-D=-4002/824, D-E=-3948/1003, E-F=-877/195
BOT CHORD K-L=-446/254, J-K=-1076/3146, I-J=-209/1120, H-I=-84/534
WEBS A-K=-564/2632, B-K=-641/213, B-J=-16/694, E-J=-951/3280, E-I=-397/201, F-I=-77/727, F-H=-1011/162, A-L=-958/277

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) L considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) H.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	A04	Half Hip	4	1	T20774594
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:11 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-m5B5t6iCoBSxCbnsingRh_?p8zqtgVWlD?eWjqywDKo

3-9-4 | 7-7-6 | 15-3-0 | 16-0-0
3-9-4 | 3-10-2 | 7-10 | 0-9-0

Scale = 1:65.4

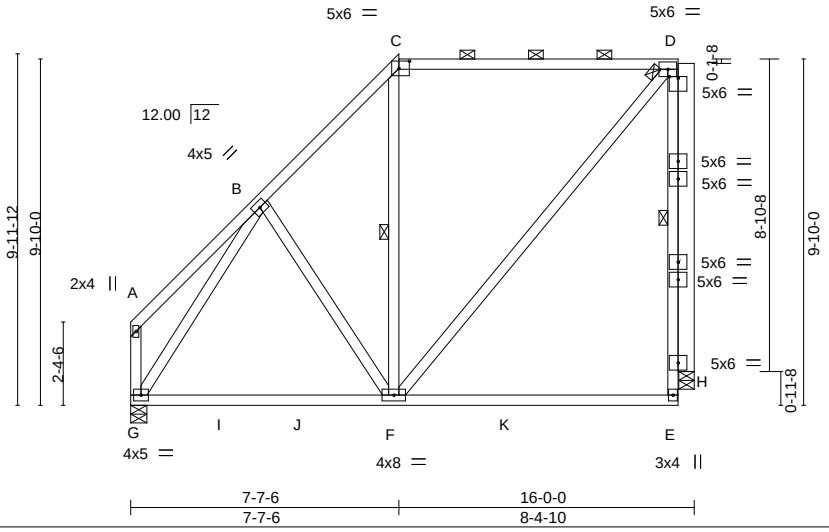

Plate Offsets (X,Y)-- [C:0-3-9,0-2-8], [D:0-3-0,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.13	E-F	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.22	E-F	>830	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.43	Horz(CT)	-0.02	H	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 139 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except*
B-F,B-G: 2x4 SP No.3
OTHERS 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt D-E, C-F

REACTIONS. (size) G=0-5-8, H=0-5-4
Max Horz G=279(LC 7)
Max Uplift H=-112(LC 7)
Max Grav G=618(LC 20), H=669(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-461/154, C-D=-311/152, D-H=-539/151
BOT CHORD F-G=-179/376
WEBS D-F=-103/432, B-G=-515/3

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) H considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) H=112.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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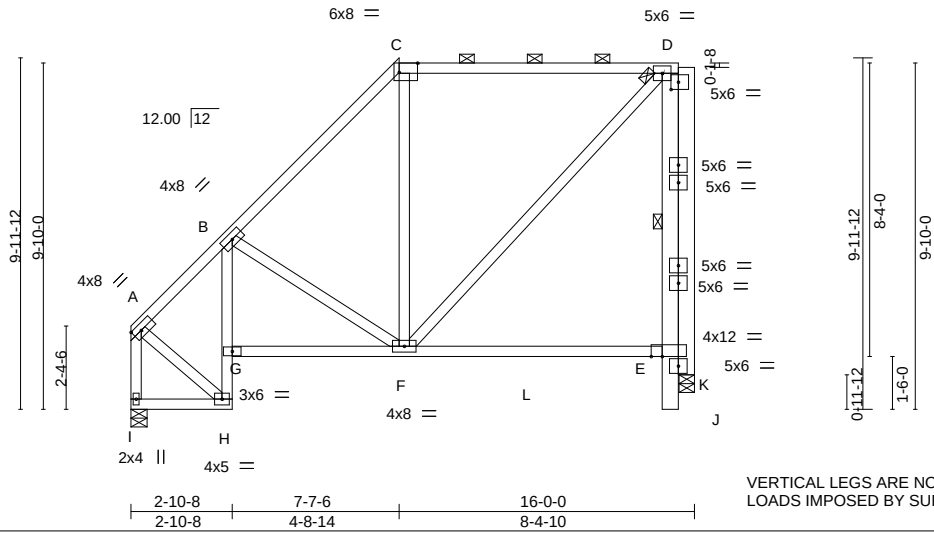
Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	A05	Roof Special	6	1	T20774595
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:13 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-jTJrInjSKpifRvwFpCivmP49znUC8S31gJ7dojywDKm

2-10-8 7-7-6 16-0-0
2-10-8 4-8-14 8-4-10

Scale = 1:65.4



VERTICAL LEGS ARE NOT DESIGNED FOR LATERAL LOADS IMPOSED BY SUPPORTS (BEARINGS).

Plate Offsets (X,Y)-- [A:0-2-15,Edge], [C:0-6-4,Edge], [D:0-2-8,0-2-8], [E:0-3-12,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.87	Vert(LL)	-0.12	E-F	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.20	E-F	>890	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.12	K	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 143 lb	FT = 20%

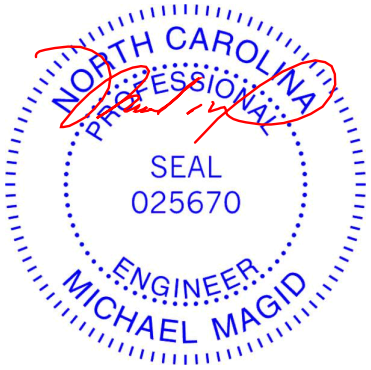
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
D-J: 2x6 SP No.2, D-F,A-I: 2x4 SP No.2
OTHERS 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: J-K, C-D.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: G-H.
WEBS 1 Row at midpt D-J

REACTIONS. (size) I=0-5-8, K=0-5-4
Max Horz I=282(LC 9)
Max Uplift K=-109(LC 7)
Max Grav I=607(LC 1), K=646(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-488/76, B-C=-535/113, E-K=-611/107, D-E=-540/152, A-I=-637/49, C-D=-316/131
BOT CHORD H-I=-268/183, F-G=-262/505
WEBS D-F=-112/430, A-H=0/384

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) K considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) K=109.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 20,2020

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

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	ABP1	GABLE	28	1	T20774596
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:15 2020 Page 1
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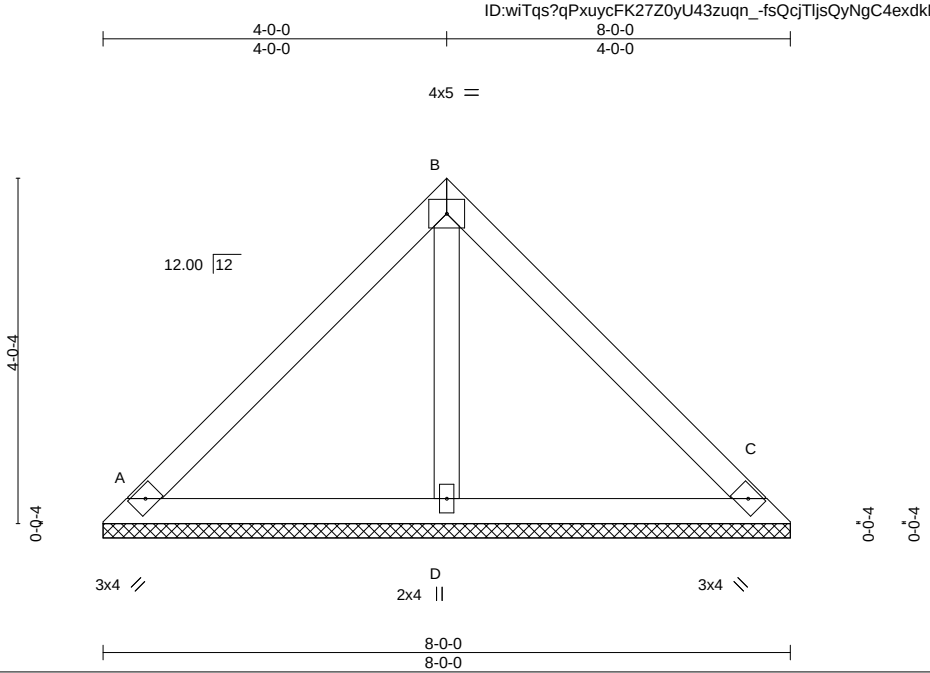

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	C	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 32 lb	FT = 20%

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

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

REACTIONS. (size) A=8-0-0, C=8-0-0, D=8-0-0
Max Horz A=-71(LC 6)
Max Uplift A=-24(LC 11), C=-24(LC 11)
Max Grav A=177(LC 1), C=177(LC 1), D=233(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, C.

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

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	ABP2	GABLE	4	1	T20774597
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:17 2020 Page 1
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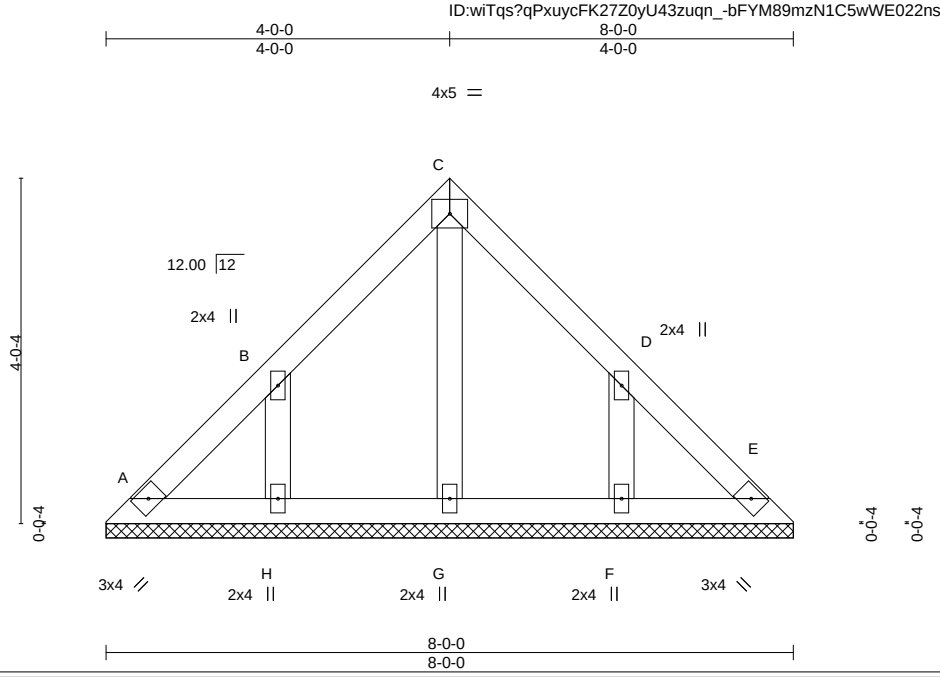

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	E	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 37 lb	FT = 20%

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

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

REACTIONS. All bearings 8-0-0.
(lb) - Max Horz A=-71(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) A, H, F
Max Grav All reactions 250 lb or less at joint(s) A, E, G, H, F

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, H, F.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

July 20,2020

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	ABP3	GABLE	10	1	T20774598
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:20 2020 Page 1
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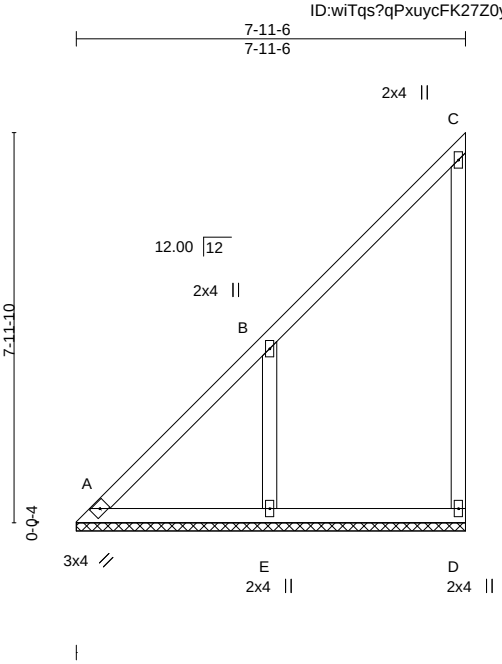

Scale = 1:47.1

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.82	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.00	D	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 44 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) A=7-11-6, D=7-11-6, E=7-11-6
Max Horz A=221(LC 7)
Max Uplift A=-38(LC 6), D=-61(LC 7), E=-170(LC 10)
Max Grav A=175(LC 18), D=198(LC 17), E=476(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-329/241

NOTES-

1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, D except (jt=lb) E=170.

July 20,2020

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

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	B01	PIGGYBACK ATTIC	3	1	T20774599
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:23 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-QOvdPCrkztzEeRhAPluGAWUtwpsdUosWzsY988ywDKc

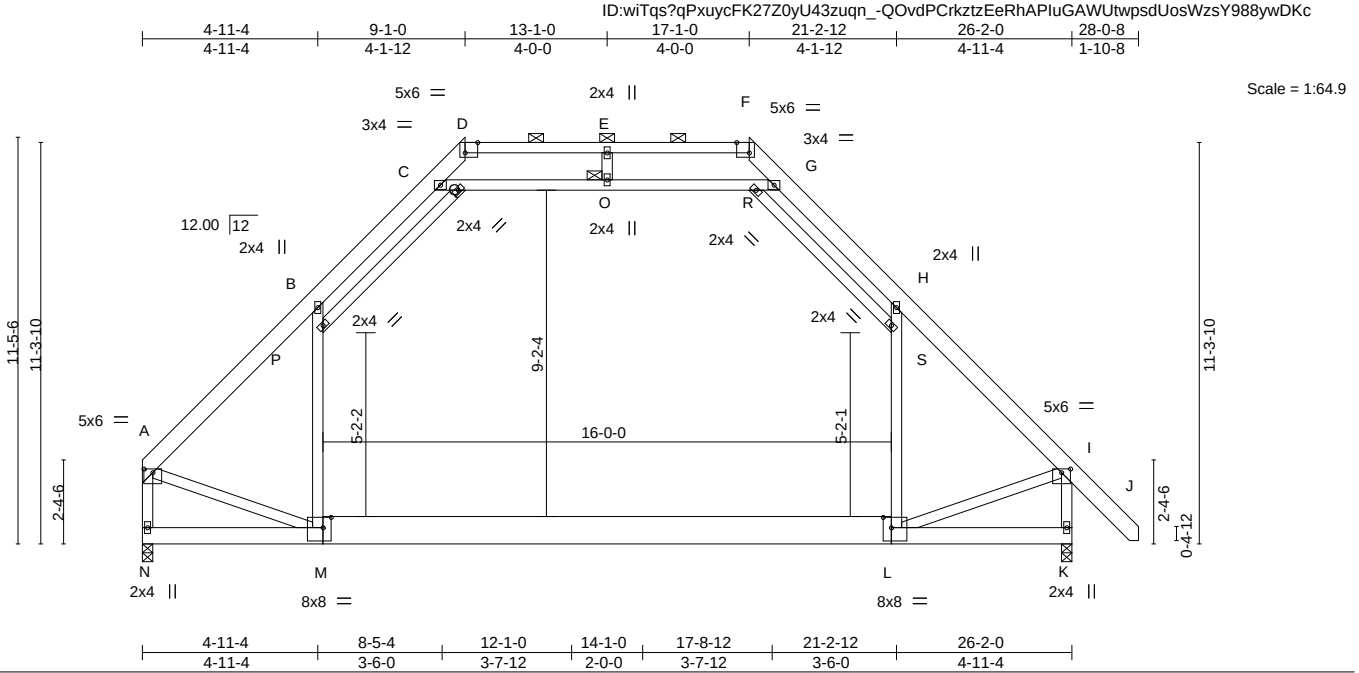


Plate Offsets (X,Y)-- [A:0-3-0,0-1-4], [D:0-4-4,Edge], [F:0-4-4,Edge], [I:0-3-0,0-1-4], [L:0-2-12,0-3-8], [M:0-2-12,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.78	Vert(LL)	-0.61	L-M	>513	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.86	L-M	>360	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.01	K	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.45	L-M	426	360	Weight: 236 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31 *Except* D-F: 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31 *Except* L-M: 2x10 SP 2250F 1.9E or 2x10 SP DSS or 2x10 SP SS
WEBS 2x4 SP No.2 *Except* A-M,I-L,E-O,P-Q,R-S: 2x4 SP No.3

BRACING-

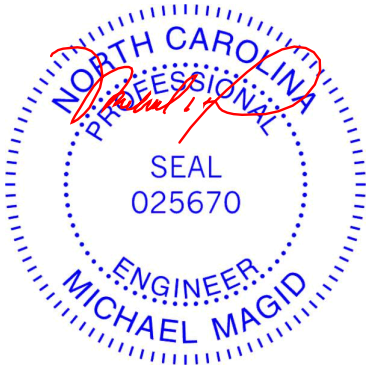
TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): D-F.
BOT CHORD Rigid ceiling directly applied or 4-10-4 oc bracing.
JOINTS 1 Brace at Jt(s): O

REACTIONS. (size) N=0-3-8, K=0-3-8
Max Horz N=-253(LC 6)
Max Grav N=1571(LC 2), K=1672(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-1614/0, B-C=-989/105, C-D=-201/542, F-G=-207/542, G-H=-980/107, H-I=-1625/0, D-E=-26/890, E-F=-26/890, A-N=-1668/0, I-K=-1780/0
BOT CHORD M-N=-226/292, L-M=0/1043
WEBS M-P=0/818, B-P=-4/832, L-S=0/828, H-S=-3/845, C-Q=-1771/63, O-Q=-1782/62, O-R=-1782/62, G-R=-1769/63, A-M=0/1018, I-L=0/1034

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Ceiling dead load (5.0 psf) on member(s). B-C, G-H, C-Q, O-Q, O-R, G-R; Wall dead load (2.0psf) on member(s).M-P, B-P, L-S, H-S
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. L-M
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Attic room checked for L/360 deflection.



July 20,2020

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	B02	GABLE	2	1	T20774600
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:27 2020 Page 1
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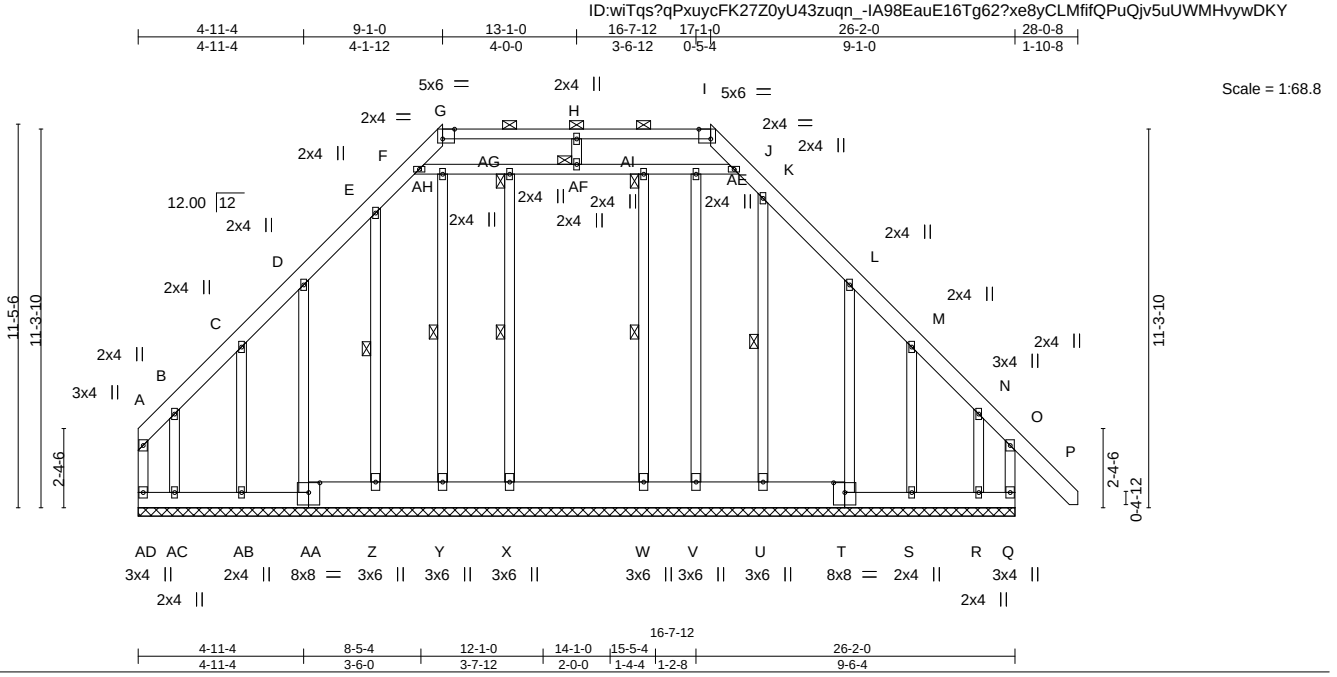

Plate Offsets (X,Y)-- [G:0-4-4,Edge], [I:0-4-4,Edge], [T:0-4-0,0-3-8], [AA:0-4-0,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.22	Vert(LL)	-0.01	P	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	P	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	-0.00	Q	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.01	P	n/r	90	Weight: 306 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2 *Except* G-I: 2x4 SP No.2
BOT CHORD	2x6 SP No.2 *Except* T-AA: 2x10 SP 2250F 1.9E or 2x10 SP DSS or 2x10 SP SS
WEBS	2x4 SP No.2 *Except* H-AF: 2x4 SP No.3
OTHERS	2x4 SP No.3 *Except* X-AG,Y-AH,W-AI: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: G-I.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt X-AG, Y-AH, W-AI, E-Z, K-U
JOINTS	1 Brace at Jt(s): AF, AG, AI

REACTIONS. All bearings 26-2-0.
(lb) - Max Horz AD=-253(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) V, X, Y, AB, W, S, Z except AD=-322(LC 6), AA=-106(LC 10), Q=-282(LC 7), T=-104(LC 11), AC=-244(LC 7), R=-270(LC 6)
Max Grav All reactions 250 lb or less at joint(s) AA, V, T, Y, AB, S except AD=329(LC 9), Q=438(LC 18), X=280(LC 25), AC=358(LC 8), W=320(LC 24), R=299(LC 9), Z=346(LC 21), U=389(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD D-E=-211/309, F-G=-291/57, I-J=-293/59, K-L=-219/307, O-Q=-307/170
WEBS F-AH=-122/282, AG-AH=-122/282, AF-AG=-122/282, AF-AI=-122/282, AE-AI=-122/282, J-AE=-122/282, H-AF=-253/73, E-Z=-298/30, K-U=-288/26

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) V, X, Y, AB, W, S, Z except (jt=lb) AD=322, AA=106, Q=282, T=104, AC=244, R=270.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Attic room checked for L/360 deflection.

July 20,2020

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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	B03	PIGGYBACK ATTIC	3	1	T20774601
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:31 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-BxOf4xxl4Lz6bglit_18VCqF11bXMQLhp6UaRgywDKU

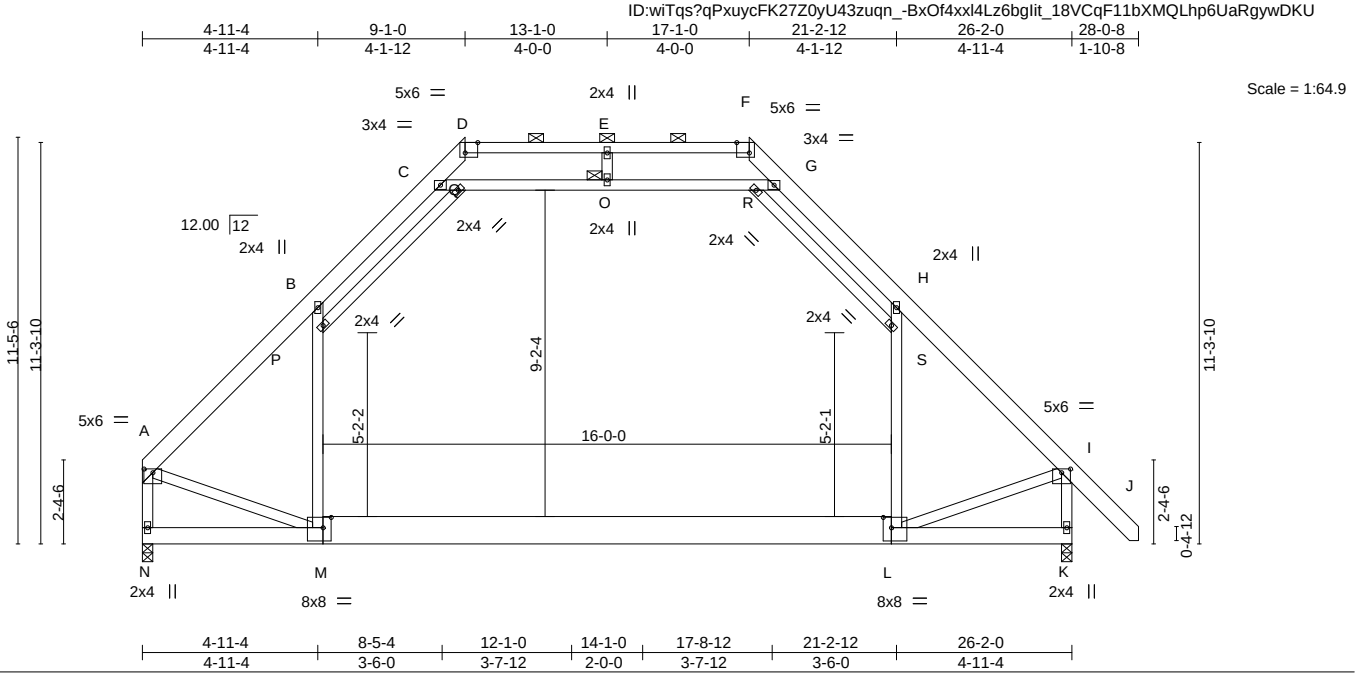


Plate Offsets (X,Y)-- [A:0-3-0,0-1-4], [D:0-4-4,Edge], [F:0-4-4,Edge], [I:0-3-0,0-1-4], [L:0-2-12,0-3-8], [M:0-2-12,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.61	L-M	>513	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.85	L-M	>363	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.01	K	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.45	L-M	426	360	Weight: 236 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31 *Except* D-F: 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31 *Except* L-M: 2x10 SP 2250F 1.9E or 2x10 SP DSS or 2x10 SP SS
WEBS 2x4 SP No.2 *Except* A-M,I-L,E-O,P-Q,R-S: 2x4 SP No.3

BRACING-

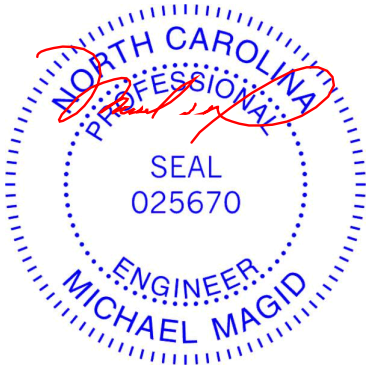
TOP CHORD Structural wood sheathing directly applied or 5-5-11 oc purlins, except end verticals, and 2-0-0 oc purlins: D-F.
BOT CHORD Rigid ceiling directly applied or 4-10-7 oc bracing.
JOINTS 1 Brace at Jt(s): O

REACTIONS. (size) N=0-3-8, K=0-3-8
Max Horz N=-253(LC 6)
Max Grav N=1544(LC 2), K=1645(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-1589/0, B-C=-977/118, C-D=-215/527, F-G=-222/527, G-H=-967/120, H-I=-1600/0, D-E=-47/868, E-F=-47/868, A-N=-1643/0, I-K=-1755/13
BOT CHORD M-N=-229/289, L-M=0/1029
WEBS M-P=0/802, B-P=-19/814, L-S=0/812, H-S=-18/826, C-Q=-1733/101, O-Q=-1746/99, O-R=-1746/99, G-R=-1730/101, A-M=0/1005, I-L=0/1021, R-S=-251/134

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Ceiling dead load (5.0 psf) on member(s). B-C, G-H, C-Q, O-Q, O-R, G-R
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. L-M
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Attic room checked for L/360 deflection.



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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	B04	PIGGYBACK ATTIC	7	1	T20774602 Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:34 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-bW4nizzdNGLgS71HY6ar7qSm9FdEZn?7V4jE1?ywDKR

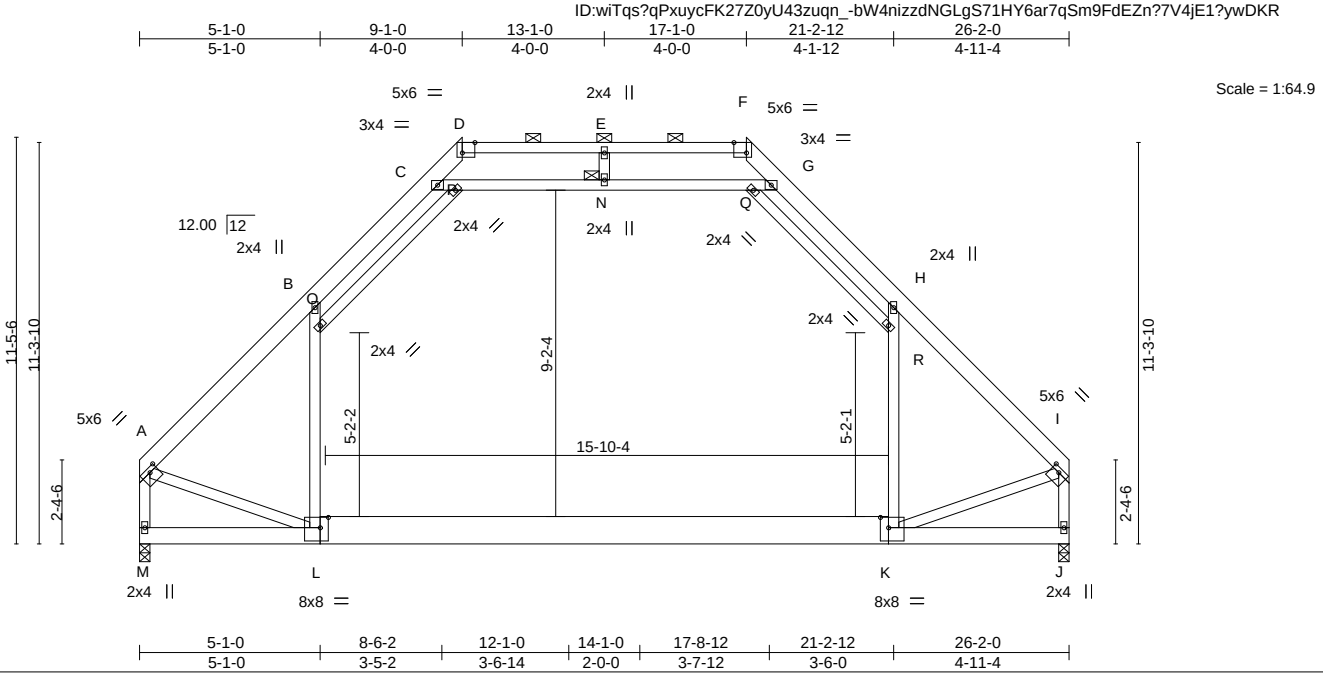


Plate Offsets (X,Y)-- [A:0-2-12,0-1-8], [D:0-4-4,Edge], [F:0-4-4,Edge], [I:0-2-12,0-1-8], [K:0-2-12,0-3-8], [L:0-2-12,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.78	Vert(LL)	-0.61	K-L	>512	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.86	K-L	>362	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.01	J	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.45	K-L	426	360	Weight: 231 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31 *Except* D-F: 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31 *Except* K-L: 2x10 SP 2250F 1.9E or 2x10 SP DSS or 2x10 SP SS
WEBS 2x4 SP No.3 *Except* H-K,C-G,A-M,I-J: 2x4 SP No.2

BRACING-

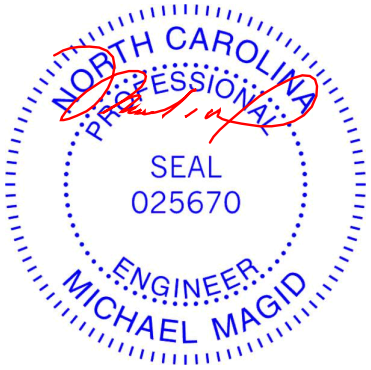
TOP CHORD Structural wood sheathing directly applied or 5-5-9 oc purlins, except end verticals, and 2-0-0 oc purlins: D-F.
BOT CHORD Rigid ceiling directly applied or 4-10-4 oc bracing.
JOINTS 1 Brace at Jt(s): N

REACTIONS. (size) M=0-3-8, J=0-3-8
Max Horz M=-229(LC 6)
Max Grav M=1547(LC 2), J=1547(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-1596/0, B-C=-976/119, C-D=-213/532, F-G=-214/532, G-H=-977/119, H-I=-1596/0, D-E=-35/874, E-F=-35/874, A-M=-1651/0, I-J=-1650/0
BOT CHORD L-M=-232/265, K-L=0/1016
WEBS K-R=0/804, H-R=-17/817, C-P=-1741/99, N-P=-1754/101, N-Q=-1754/101, G-Q=-1741/99, A-L=0/1012, I-K=0/1012, L-O=0/804, B-O=-14/816

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Ceiling dead load (5.0 psf) on member(s). B-C, G-H, C-P, N-P, N-Q, G-Q
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. K-L
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Attic room checked for L/360 deflection.



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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	B05	PIGGYBACK ATTIC	1	3	T20774603
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:38 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-UHJIYL08RUs6xIL3nyfnHgcSts3nVkejQihSAmywDKN

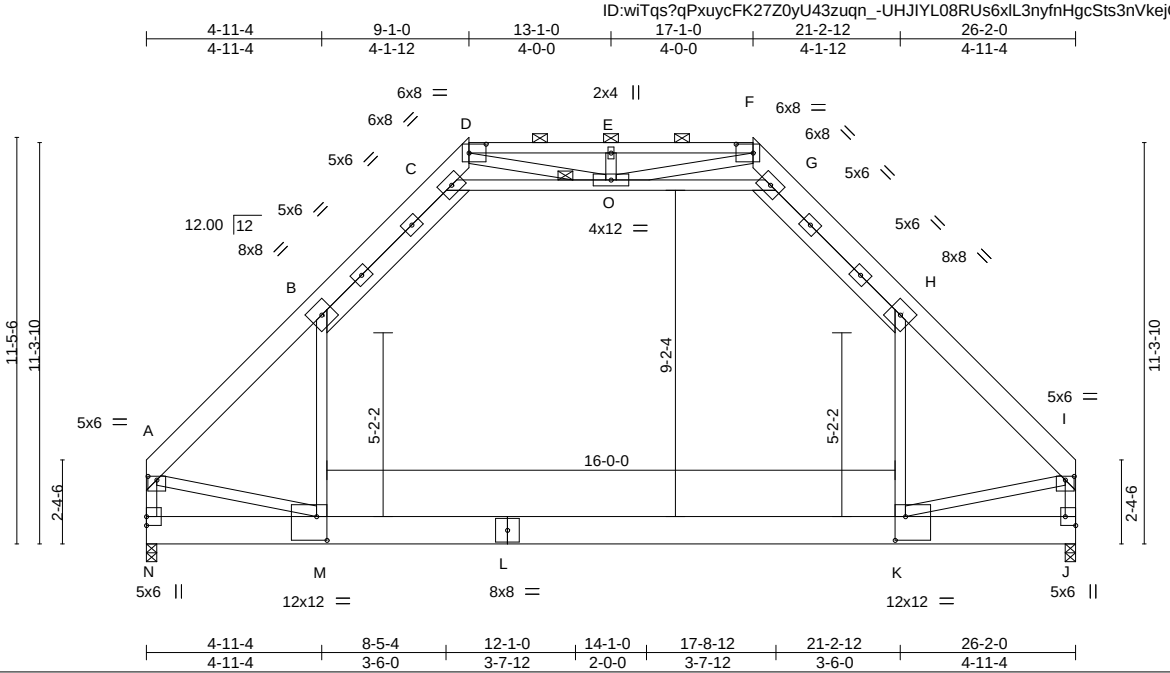

Plate Offsets (X,Y)-- [A:0-3-0,0-1-4], [D:0-5-12,0-3-0], [F:0-5-12,0-3-0], [I:0-3-0,0-1-4], [J:Edge,0-3-8], [K:0-3-8,0-8-0], [M:0-3-8,0-8-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.25	K-M	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.36	K-M	>851	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.01	J	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.18	K-M	1107	360	Weight: 854 lb	FT = 20%

LUMBER-

TOP CHORD	2x8 SP 2250F 1.9E or 2x8 SP DSS or 2x8 SP SS *Except* D-F: 2x4 SP No.2
BOT CHORD	2x10 SP 2250F 1.9E or 2x10 SP DSS or 2x10 SP SS
WEBS	2x4 SP No.2 *Except* A-M,I-K,E-O,D-O,F-O: 2x4 SP No.3, B-C,G-H: 2x6 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: D-F.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): O

REACTIONS. (size) N=0-3-8, J=0-3-8
Max Horz N=224(LC 9)
Max Uplift N=-42(LC 10)
Max Grav N=5223(LC 18), J=2336(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-4212/63, B-C=-1723/158, C-D=-57/1265, F-G=-103/2370, G-H=-2169/178, H-I=-3512/29, D-E=-70/2360, E-F=-70/2360, A-N=-4326/54, I-J=-3452/8
BOT CHORD M-N=-230/637, K-M=-8/2376
WEBS B-M=0/3371, H-K=0/1723, C-O=-4140/203, G-O=-6638/317, A-M=-8/1964, I-K=-31/2495, D-O=-651/184, F-O=-265/2036

NOTES- Continued on page 2
1) 3-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 2 rows staggered at 0-4-0 oc, Except member K-H 2x4 - 1 row at 0-9-0 oc, member C-G 2x4 - 1 row at 0-9-0 oc, member M-A 2x4 - 1 row at 0-9-0 oc, member I-K 2x4 - 1 row at 0-9-0 oc, member E-O 2x4 - 1 row at 0-9-0 oc, member D-O 2x4 - 1 row at 0-9-0 oc, member O-F 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Ceiling dead load (5.0 psf) on member(s). B-C, G-H, C-O, G-O
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. K-M
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) N.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4556 lb down and 218 lb up at 4-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

July 20,2020

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NOTES-

13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (plf)
   Vert: A-B=-60, B-C=-70, C-D=-60, F-G=-60, G-H=-70, H-I=-60, D-F=-60, C-G=-10, M-N=-20, K-M=-30, J-K=-20
   Concentrated Loads (lb)
   Vert: M=-2500(F)

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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	C01	GABLE	6	1	T20774604
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:41 2020 Page 1
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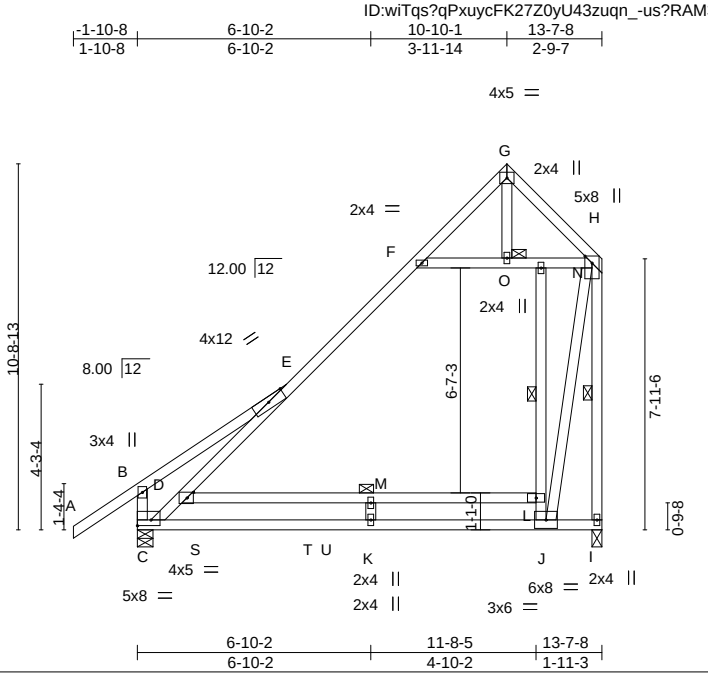

Plate Offsets (X,Y)-- [C:Edge,0-2-0], [D:0-2-4,0-2-0]

LOADING (psf)		SPACING-	2-2-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.93	Vert(LL)	-0.47	C-K	>336	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.86	C-K	>185	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.01	I	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 122 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
C-G: 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS
BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP M 31
WEBS 2x4 SP No.2 *Except*
H-J,K-M,G-O: 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 6-8-6 oc bracing. Except:
6-0-0 oc bracing: D-L
WEBS 1 Row at midpt J-N, H-I
JOINTS 1 Brace at Jt(s): O

REACTIONS. (size) I=0-3-8, C=0-5-8
Max Horz C=320(LC 9)
Max Uplift I=-6(LC 10)
Max Grav I=962(LC 17), C=929(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-E=-568/0, C-D=-556/136, D-E=-223/277, E-F=-450/82, F-G=-232/455, G-H=-210/496, B-C=-517/61, H-I=-1390/0
BOT CHORD C-K=-77/878, J-K=-77/878, D-M=-510/53, L-M=-510/53
WEBS J-L=-1155/340, L-N=-881/386, H-J=-219/1951, F-O=-644/281, N-O=-644/281, H-N=-686/284, G-O=-679/298

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) I.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	D01	Roof Special	4	1	T20774605 Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:43 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-qF7Bb24HF1UP1WD0aVFy_kJNZteiAtdSZzODszywDKI

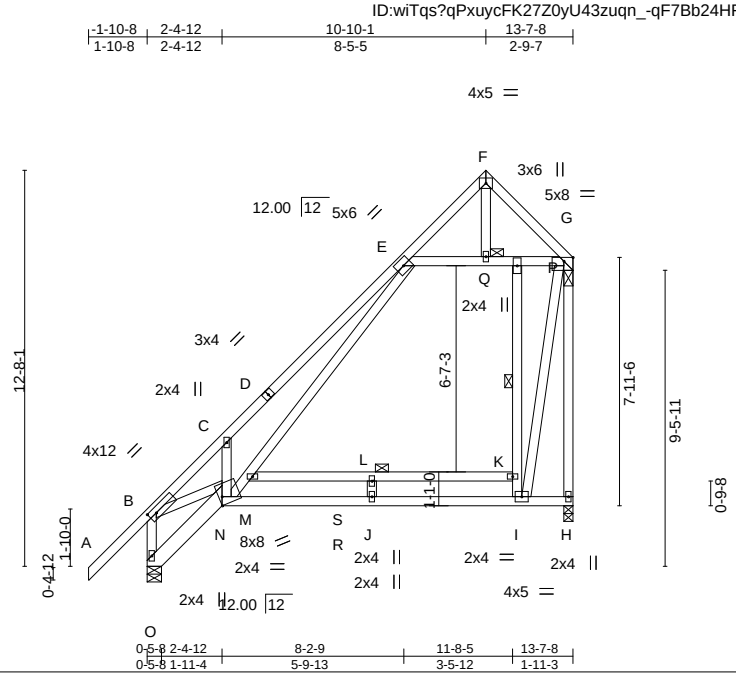


Plate Offsets (X,Y)-- [B:0-2-15,0-2-0], [G:0-3-8,Edge], [N:0-1-4,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.33	K-L	>488	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.57	K-L	>278	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.21	G	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 139 lb	FT = 20%

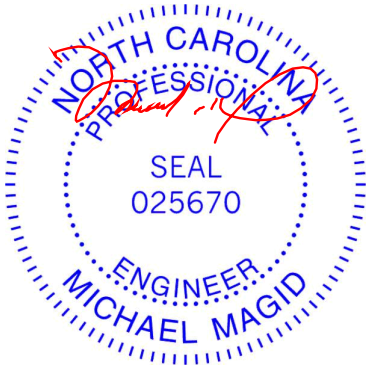
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
N-O: 2x6 SP No.2
H-N: 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS
WEBS 2x4 SP No.3 *Except*
G-H,E-G,E-N: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
6-0-0 oc bracing: K-M
WEBS 1 Row at midpt I-P
JOINTS 1 Brace at Jt(s): Q

REACTIONS. (size) O=0-5-8, H=0-3-8, G=0-3-8
Max Horz O=311(LC 7)
Max Uplift H=-346(LC 16), G=-7(LC 10)
Max Grav O=818(LC 18), G=1179(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-1256/69, C-E=-1380/280, E-F=-285/437, F-G=-261/433
BOT CHORD N-O=-396/309, J-N=-91/374, I-J=-91/374
WEBS B-N=0/850, C-N=-379/215, I-K=-1028/412, K-P=-875/460, G-I=-291/1688, B-O=-927/122, E-Q=-591/317, P-Q=-594/319, G-P=-584/314, M-N=-329/990, E-M=-290/1079, F-Q=-657/356

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Bearing at joint(s) O 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) G except (jt=lb) H=346.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



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TRENCO
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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	D02	Roof Special Girder	2	2	T20774606
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:46 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-FqoKD479YyszuzybFdofcMxzM4naNGFuGxdtSlywDKF

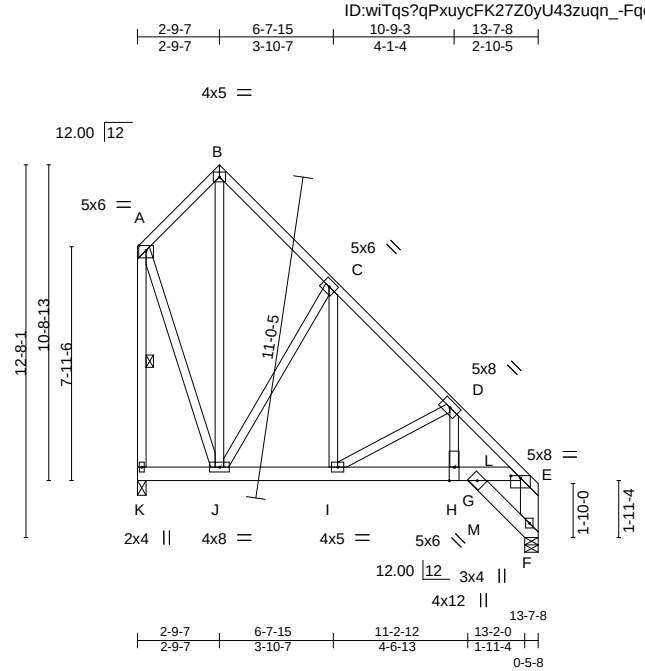

Plate Offsets (X,Y)-- [E:0-4-0,0-0-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.19	Vert(LL)	-0.03	H-I	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.06	H-I	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.68	Horz(CT)	-0.06	K	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 278 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
B-J,A-K: 2x4 SP No.2, E-F: 2x8 SP No.2

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

REACTIONS. (size) K=0-3-8, F=0-5-8
Max Horz F=-281(LC 4)
Max Grav K=1135(LC 1), F=3332(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-425/79, B-C=-470/40, C-D=-1363/0, D-E=-4476/0, A-K=-1097/0
BOT CHORD I-J=0/911, H-I=0/3153, G-H=0/3153, E-G=0/3186, F-G=-430/268
WEBS B-J=-32/377, C-J=-1250/0, C-I=0/1442, D-I=-2575/0, D-H=0/3289, A-J=0/806, E-F=-3217/0

NOTES-
1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member H-D 2x4 - 2 rows staggered at 0-2-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) F considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2919 lb down at 10-9-0, and 499 lb down and 47 lb up at 12-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00

July 20,2020

Continued on page 2

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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: A-B=-60, B-E=-60, G-K=-20, F-G=-20

Concentrated Loads (lb)

Vert: H=-2919(B) L=-493(B)

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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	E01	Roof Special	2	1	T20774607
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:50 2020 Page 1
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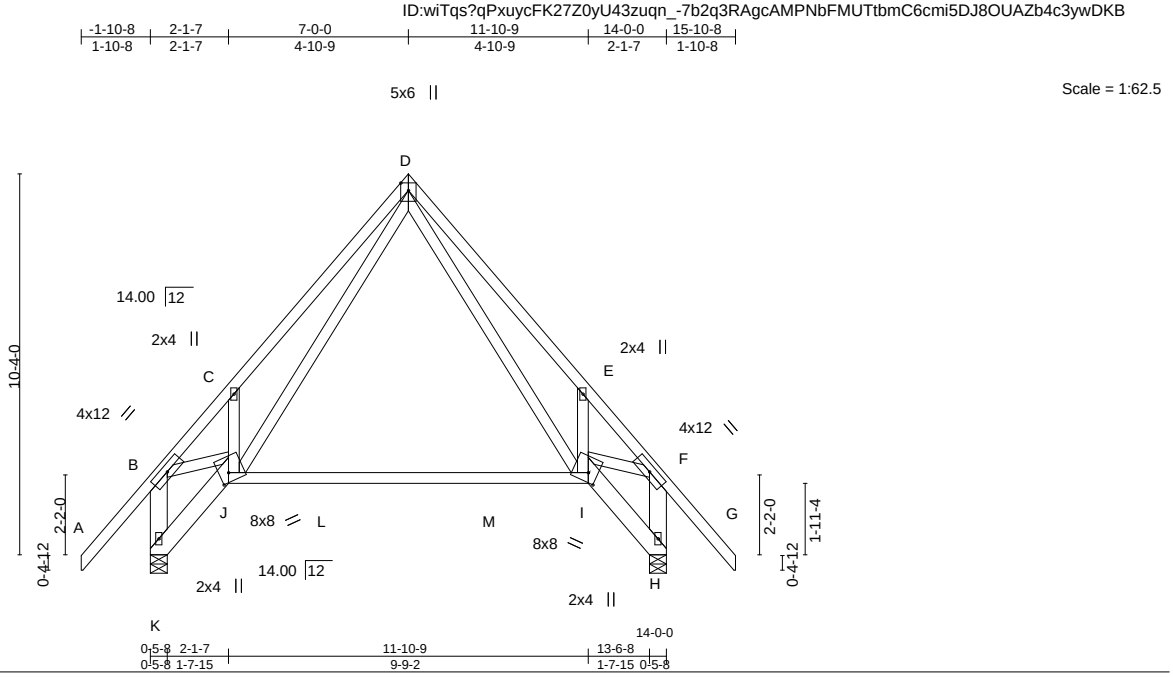

Plate Offsets (X,Y)-- [D:Edge,0-2-8], [I:0-3-0,0-3-0], [J:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.35	Vert(LL)	-0.36	I-J	>447	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.64	I-J	>255	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.06	H	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 120 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
I-J: 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS
WEBS 2x4 SP No.3 *Except*
D-I,D-J: 2x4 SP No.2, B-K,F-H: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-3-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) K=0-5-8, H=0-5-8
Max Horz K=-209(LC 8)
Max Uplift K=-24(LC 11), H=-24(LC 10)
Max Grav K=667(LC 1), H=667(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-905/105, C-D=-1008/314, D-E=-864/165, E-F=-793/9
BOT CHORD J-K=-276/352, I-J=-29/319
WEBS D-I=-140/613, E-I=-389/214, F-I=0/514, D-J=-291/745, C-J=-389/209, B-J=0/526, B-K=-881/122, F-H=-744/96

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Bearing at joint(s) K, H 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) K, H.

July 20,2020

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TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	E02	GABLE	2	1	T20774608
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:51 2020 Page 1
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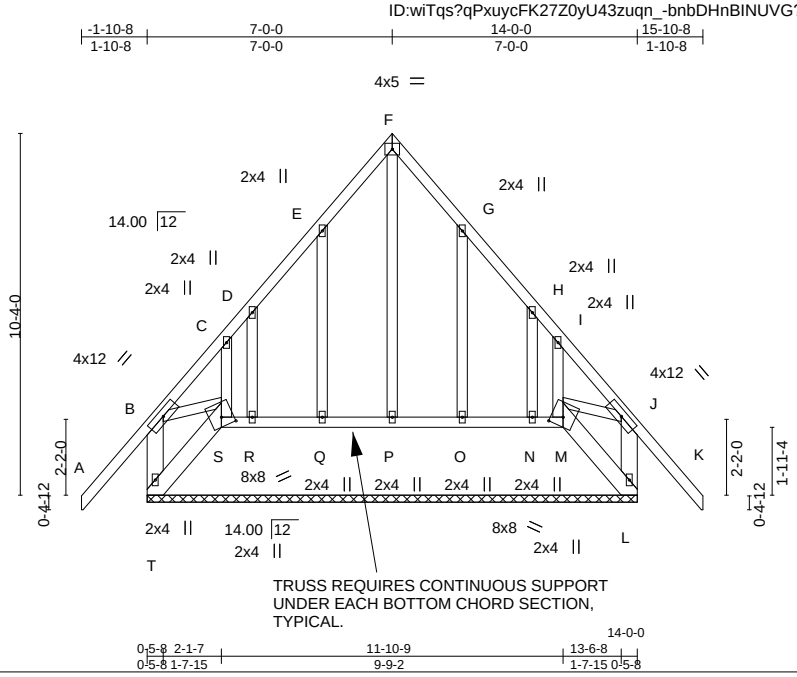


Plate Offsets (X,Y)-- [M:0-4-0,0-3-3], [S:0-4-0,0-3-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.35	Vert(LL)	-0.05	K	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.08	K	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	L	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.10	K	n/r	90	Weight: 131 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.2 *Except* M-S: 2x4 SP No.2
WEBS	2x4 SP No.3 *Except* B-T,J-L: 2x6 SP No.2
OTHERS	2x4 SP No.3

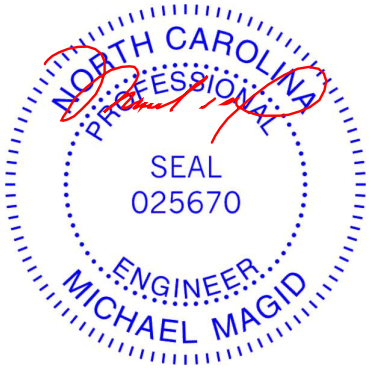
BRACING-

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.

REACTIONS. All bearings 14-0-0.
(lb) - Max Horz T=209(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) M, L, Q, O except T=-230(LC 6), S=-187(LC 9), R=-113(LC 10), N=-126(LC 11)
Max Grav All reactions 250 lb or less at joint(s) M, P, Q, R, O, N except T=424(LC 18), S=268(LC 6), L=289(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD S-T=-322/324
WEBS B-T=-271/106, J-L=-271/106

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) M, L, Q, O except (jt=lb) T=230, S=187, R=113, N=126.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) S, M, P, Q, R, O, N.



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	E03	Roof Special	2	1	T20774609
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:53 2020 Page 1
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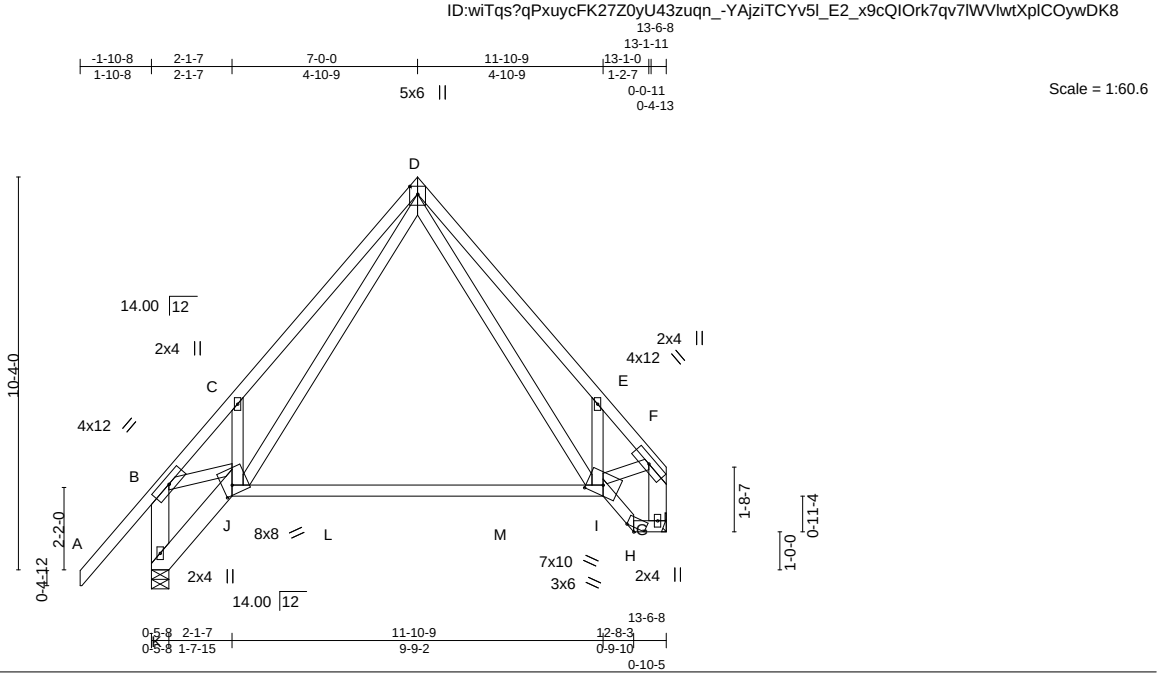

Plate Offsets (X,Y)-- [D:Edge,0-2-8], [I:0-5-0,0-3-3], [J:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.37	I-J	>424	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.65	I-J	>242	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.04	G	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 108 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
J-K: 2x6 SP No.2
I-J: 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS
WEBS 2x4 SP No.3 *Except*
F-G,B-K: 2x6 SP No.2, D-J,D-I: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: G-H.

REACTIONS. (size) G=Mechanical, K=0-5-8
Max Horz K=218(LC 9)
Max Uplift G=-27(LC 10), K=-18(LC 11)
Max Grav G=561(LC 17), K=658(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-870/124, C-D=-974/333, D-E=-765/298, E-F=-624/25, F-G=-685/0
BOT CHORD J-K=-288/318, I-J=-59/274
WEBS B-J=0/503, C-J=-394/208, D-J=-309/732, D-I=-219/524, E-I=-369/291, F-I=0/508, B-K=-852/181

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) K considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) G, K.

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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	E04	Roof Special Girder	2	2	T20774610

Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:56 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-ylP6KUERC07Z5WjWqk_?0TMcx645jsHNZV2PpjywDK5

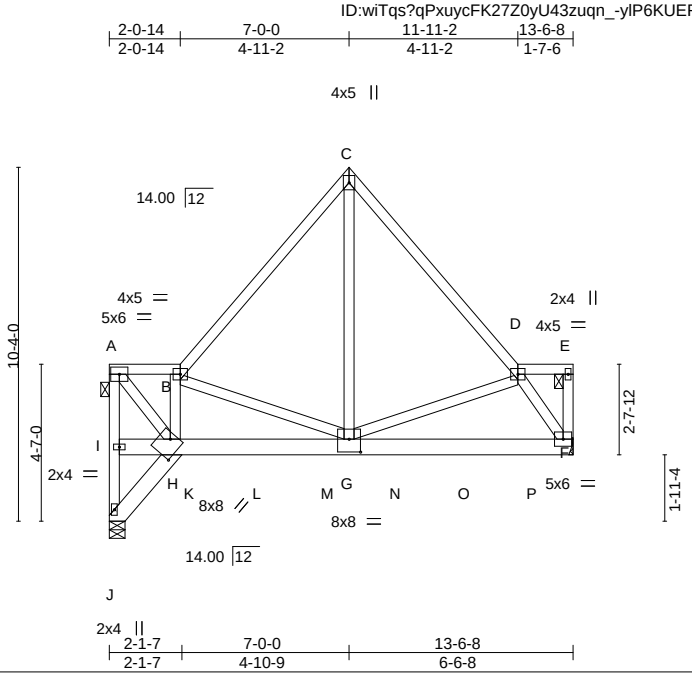

Plate Offsets (X,Y)-- [G:0-4-0,0-4-8], [H:0-6-0,0-4-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	-0.07	F-G	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.15	F-G	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.05	F	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 223 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): A-B, D-E.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) J=0-5-8, F=Mechanical
Max Horz J=-225(LC 6)
Max Grav J=3224(LC 1), F=2939(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD I-J=-3176/0, A-I=-3275/0, A-B=-2019/0, B-C=-2254/0, C-D=-2256/0
BOT CHORD H-J=-332/315, G-H=0/2115, F-G=0/1349
WEBS A-H=0/3178, B-H=-1494/0, B-G=-798/21, C-G=0/2954, D-F=-2163/0

NOTES-
1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-3-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Bearing at joint(s) J considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 750 lb down at 0-1-12 on top chord, and 743 lb down at 2-5-0, 743 lb down at 4-5-0, 743 lb down at 6-5-0, 743 lb down at 8-5-0, and 743 lb down at 10-5-0, and 743 lb down at 12-5-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00

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Continued on page 2

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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: A-B=-60, B-C=-60, C-D=-60, D-E=-60, H-J=-20, F-H=-20

Concentrated Loads (lb)

Vert: A=-714(B) K=-732(B) L=-732(B) M=-732(B) N=-732(B) O=-732(B) P=-732(B)

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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	G01	PIGGYBACK ATTIC	12	1	T20774611
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:08:59 2020 Page 1
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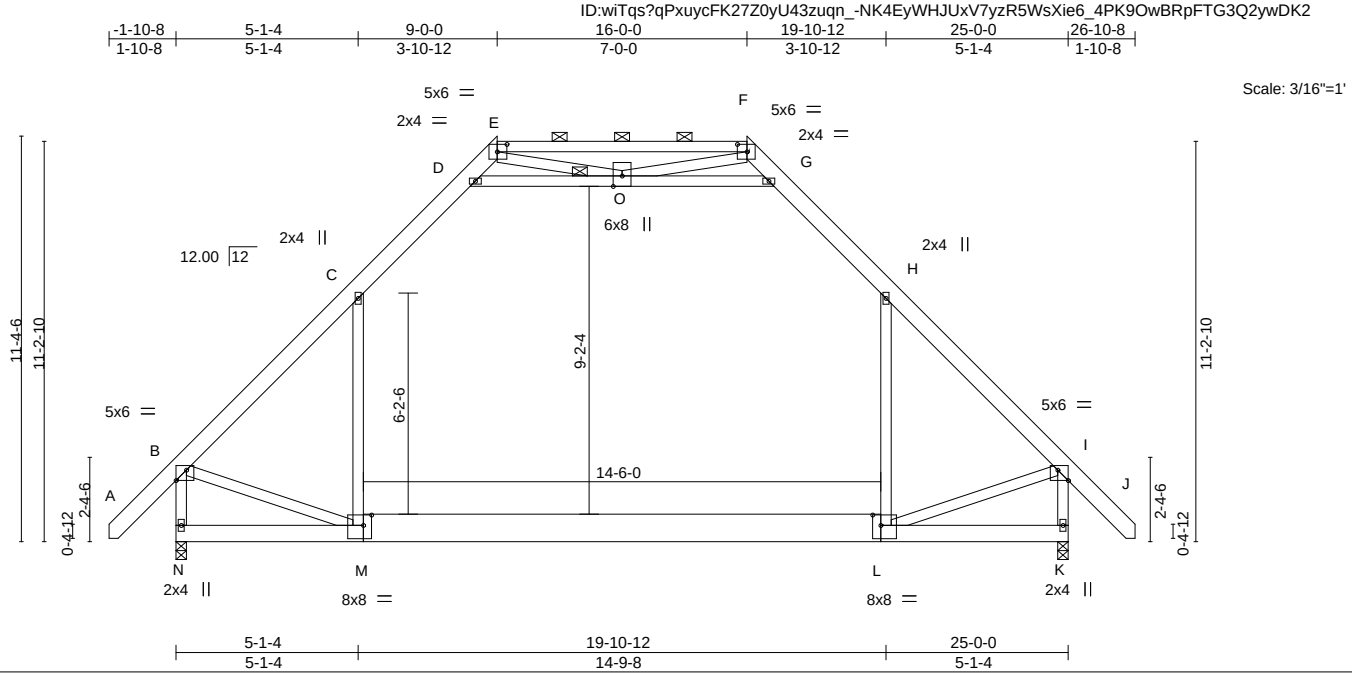


Plate Offsets (X,Y)-- [B:0-3-8,Edge], [E:0-3-4,0-2-8], [F:0-3-4,0-2-8], [I:0-3-8,Edge], [L:0-2-12,0-3-8], [M:0-2-12,0-3-8], [O:0-3-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.46	L-M	>645	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.65	L-M	>453	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.01	K	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.33	L-M	520	360	Weight: 227 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31 *Except* E-F: 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* L-M: 2x10 SP 2250F 1.9E or 2x10 SP DSS or 2x10 SP SS
WEBS 2x4 SP No.2 *Except* E-O,F-O,B-M,I-L: 2x4 SP No.3

BRACING-

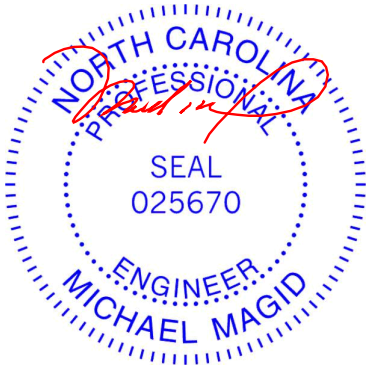
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: E-F.
BOT CHORD Rigid ceiling directly applied or 6-2-6 oc bracing.
JOINTS 1 Brace at Jt(s): O

REACTIONS. (size) N=0-3-8, K=0-3-8
Max Horz N=264(LC 9)
Max Grav N=1569(LC 2), K=1569(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-1478/0, C-D=-952/124, D-E=-267/543, F-G=-267/543, G-H=-952/124, H-I=-1478/0, E-F=-111/758, B-N=-1614/8, I-K=-1614/8
BOT CHORD M-N=-252/312, L-M=0/954
WEBS C-M=0/717, H-L=0/717, D-O=-1699/111, G-O=-1699/111, B-M=0/960, I-L=0/962

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Ceiling dead load (5.0 psf) on member(s). C-D, G-H, D-O, G-O; Wall dead load (2.0psf) on member(s).C-M, H-L
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. L-M
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Attic room checked for L/360 deflection.



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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	G02	GABLE	1	1	T20774612
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:03 2020 Page 1
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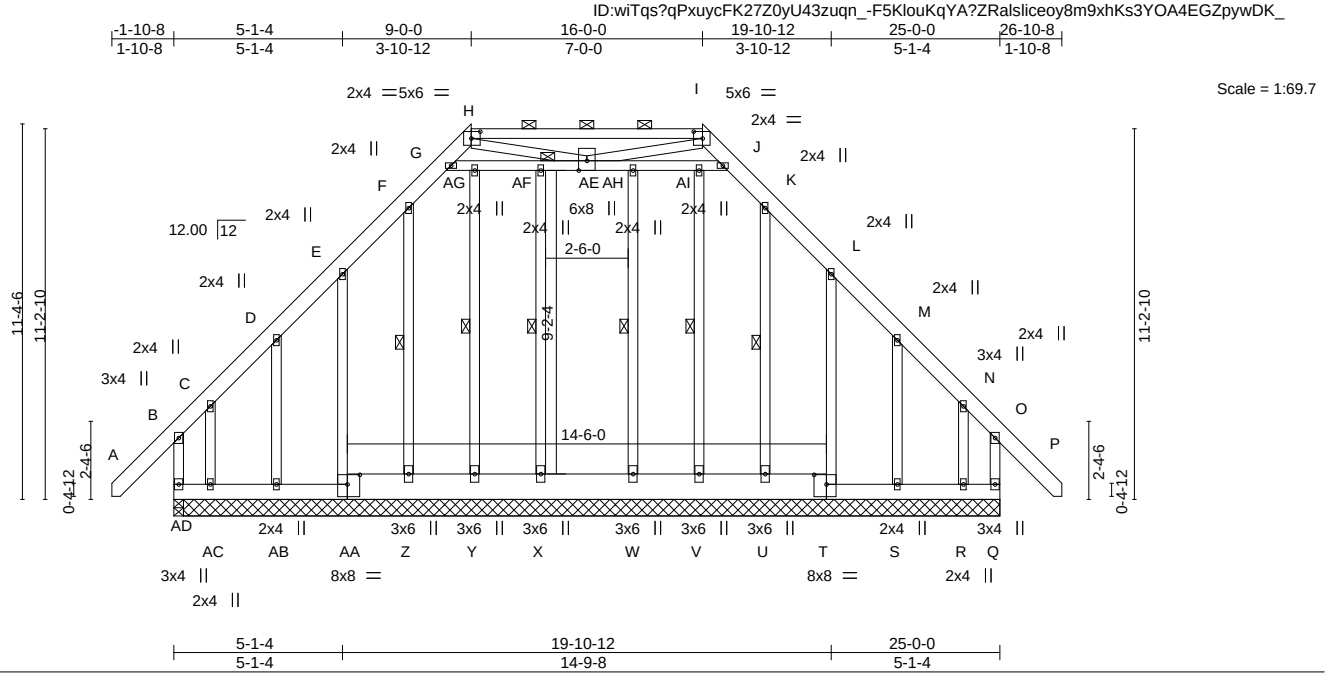

Plate Offsets (X,Y)-- [H:0-3-4,0-2-8], [I:0-3-4,0-2-8], [T:0-4-8,0-3-8], [AA:0-4-8,0-3-8], [AE:0-3-8,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.00	AD	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.00	AB	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.29	Horz(CT)	-0.00	Q	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 312 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2 *Except*
	H-I: 2x4 SP No.2
BOT CHORD	2x6 SP No.2 *Except*
	T-AA: 2x10 SP 2250F 1.9E or 2x10 SP DSS or 2x10 SP SS
WEBS	2x4 SP No.2 *Except*
	H-AE,I-AE: 2x4 SP No.3
OTHERS	2x4 SP No.2 *Except*
	D-AB,C-AC,M-S,N-R: 2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: H-I.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt X-AF, Y-AG, F-Z, W-AH, V-AI, K-U
JOINTS	1 Brace at Jt(s): AE

REACTIONS. All bearings 24-8-8 except (jt=length) AD=0-3-8, AD=0-3-8.
(lb) - Max Horz AD=-264(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) AA, AB, S except AD=-316(LC 6), T=-103(LC 11), Q=-303(LC 7), AC=-245(LC 7), R=-235(LC 6)
Max Grav All reactions 250 lb or less at joint(s) Y, V except AD=464(LC 19), AD=309(LC 1), AA=296(LC 18), T=312(LC 19), Q=453(LC 18), X=327(LC 16), Z=472(LC 21), AB=308(LC 18), AC=342(LC 8), W=327(LC 16), U=466(LC 20), S=309(LC 19), R=331(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD E-F=-170/331, F-G=-212/271, G-H=-425/113, I-J=-425/112, J-K=-212/272, K-L=-169/329, B-AD=-318/196, O-Q=-311/224
WEBS G-AG=-29/422, AF-AG=-29/422, AE-AF=-29/422, AE-AH=-24/421, AH-AI=-24/421, J-AI=-24/420, H-AE=-283/49, I-AE=-283/46, F-Z=-303/26, K-U=-303/22

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) Gable studs spaced at 2-0-0 oc.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Ceiling dead load (5.0 psf) on member(s). G-AG, AF-AG, AE-AF, AE-AH, AH-AI, J-AI
8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. AC-AD, AB-AC, AA-AB, Z-AA , Y-Z, X-Y, W-X, V-W, U-V, T-U, S-T, R-S, Q-R
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) AA, AB, S except (jt=lb) AD=316, T=103, Q=303, AC=245, R=235.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Continued on page 2

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NOTES-

11) Attic room checked for L/360 deflection.

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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	G03	PIGGYBACK ATTIC	3	1	T20774613
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:06 2020 Page 1
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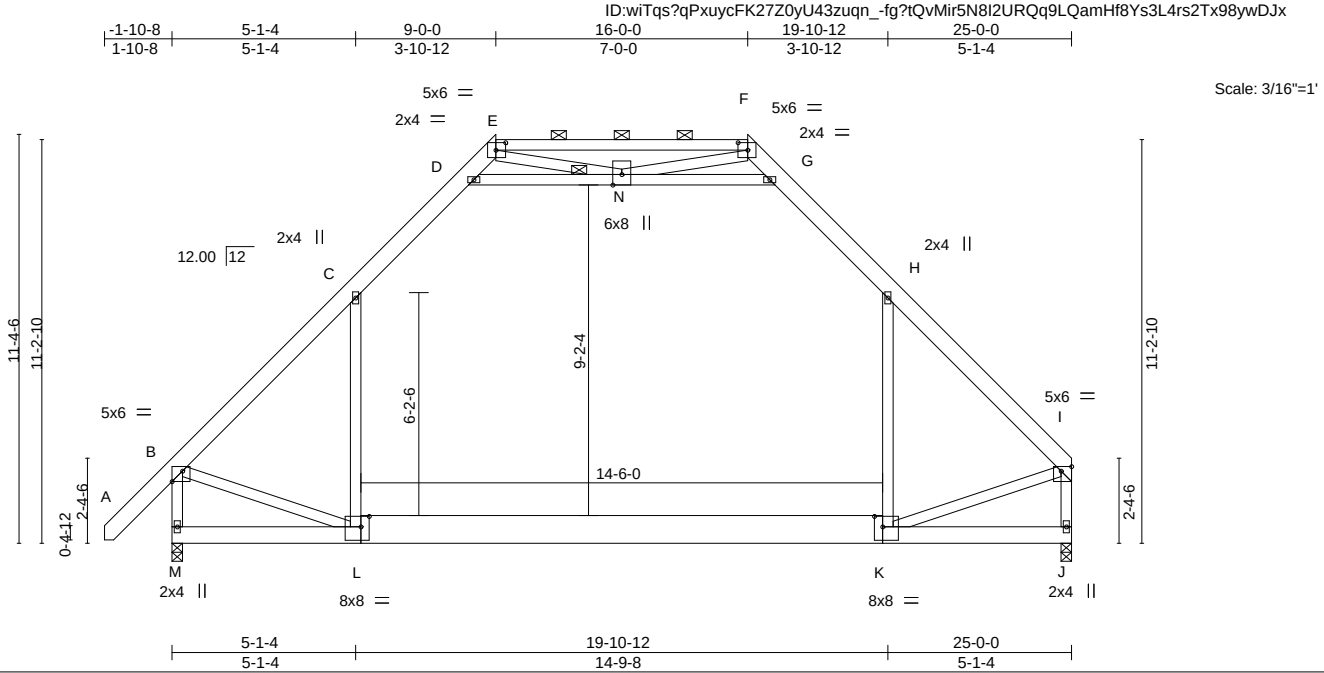

Plate Offsets (X,Y)-- [B:0-3-8,Edge], [E:0-3-4,0-2-8], [F:0-3-4,0-2-8], [I:Edge,0-1-8], [K:0-2-12,0-3-8], [L:0-2-12,0-3-8], [N:0-3-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.46	K-L	>645	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.66	K-L	>452	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.01	J	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.33	K-L	520	360	Weight: 221 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31 *Except* E-F: 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* K-L: 2x10 SP 2250F 1.9E or 2x10 SP DSS or 2x10 SP SS
WEBS 2x4 SP No.2 *Except* E-N,F-N,B-L,I-K: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: E-F.
BOT CHORD Rigid ceiling directly applied or 6-2-6 oc bracing.
JOINTS 1 Brace at Jt(s): N

REACTIONS. (size) M=0-3-8, J=0-3-8
Max Horz M=252(LC 9)
Max Grav M=1572(LC 2), J=1470(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-1486/0, C-D=-957/122, D-E=-262/549, F-G=-255/548, G-H=-956/124, H-I=-1475/0, E-F=-105/765, B-M=-1622/7, I-J=-1510/0
BOT CHORD L-M=-258/287, K-L=0/942
WEBS C-L=0/719, H-K=0/709, D-N=-1719/108, G-N=-1712/111, B-L=0/968, I-K=0/950

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Ceiling dead load (5.0 psf) on member(s). C-D, G-H, D-N, G-N; Wall dead load (2.0psf) on member(s).C-L, H-K
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. K-L
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Attic room checked for L/360 deflection.

July 20,2020

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

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	G05	PIGGYBACK ATTIC	1	3	T20774614
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:08 2020 Page 1
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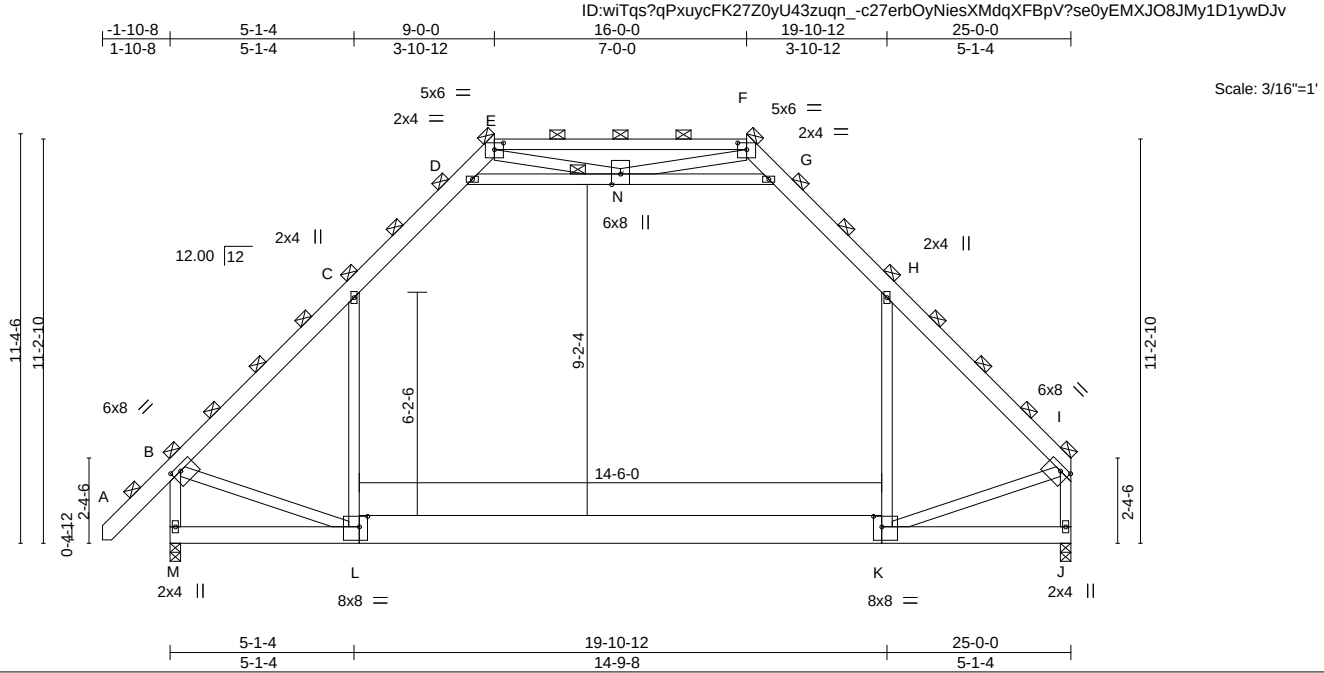


Plate Offsets (X,Y)-- [B:0-3-0,0-1-12], [E:0-3-0,0-2-4], [F:0-3-0,0-2-4], [I:0-3-0,0-1-12], [K:0-2-12,0-3-8], [L:0-2-12,0-3-8], [N:0-3-8,0-3-0]

LOADING (psf)		SPACING-	5-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.38	K-L	>774	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.55	K-L	>542	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.32	Horz(CT)	0.01	J	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.28	K-L	624	360	Weight: 663 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31 *Except*
E-F: 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
K-L: 2x10 SP 2250F 1.9E or 2x10 SP DSS or 2x10 SP SS
WEBS 2x4 SP No.2 *Except*
E-N,F-N,B-L,I-K: 2x4 SP No.3

BRACING-

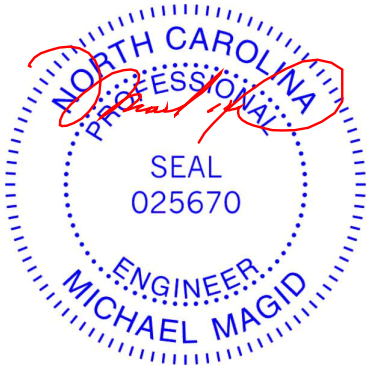
TOP CHORD 2-0-0 oc purlins, except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): E, F, N, B, I

REACTIONS. (size) M=0-3-8, J=0-3-8
Max Horz M=629(LC 7)
Max Grav M=3931(LC 2), J=3676(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-3715/0, C-D=-2391/305, D-E=-656/1371, F-G=-639/1371, G-H=-2390/310, H-I=-3687/0, E-F=-263/1913, B-M=-4055/18, I-J=-3774/0
BOT CHORD L-M=-644/718, K-L=0/2354
WEBS C-L=0/1797, H-K=0/1773, D-N=-4298/271, G-N=-4281/276, E-N=-139/624, F-N=-146/619, B-L=0/2420, I-K=0/2376

NOTES-

1) 3-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Ceiling dead load (5.0 psf) on member(s). C-D, G-H, D-N, G-N; Wall dead load (2.0psf) on member(s).C-L, H-K
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. K-L
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Attic room checked for L/360 deflection.



July 20,2020

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ENGINEERING BY TRENCO
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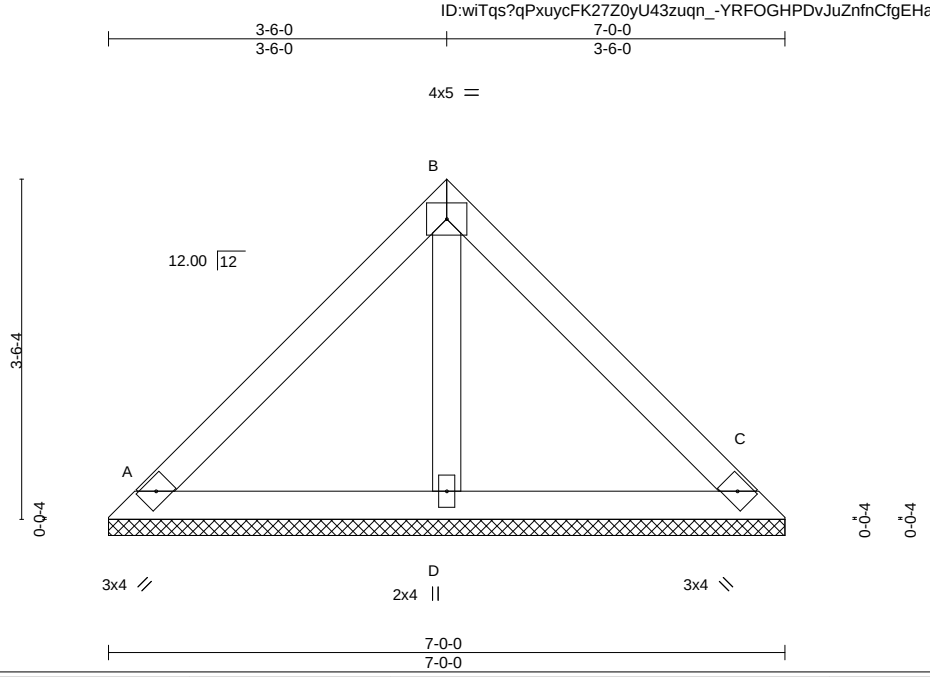
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	GP1	Piggyback	19	1	T20774615 Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:10 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-YRFOGHPDvJuZnfnCfgEHaQx3Cm4s?HKQngR8IvywDJt



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	C	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 28 lb	FT = 20%

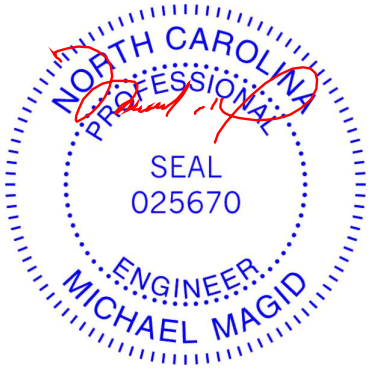
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. (size) A=7-0-0, C=7-0-0, D=7-0-0
Max Horz A=-61(LC 6)
Max Uplift A=-21(LC 11), C=-21(LC 11)
Max Grav A=153(LC 1), C=153(LC 1), D=201(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, C.



July 20,2020

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	H01	Monopitch	21	1	T20774616
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:11 2020 Page 1
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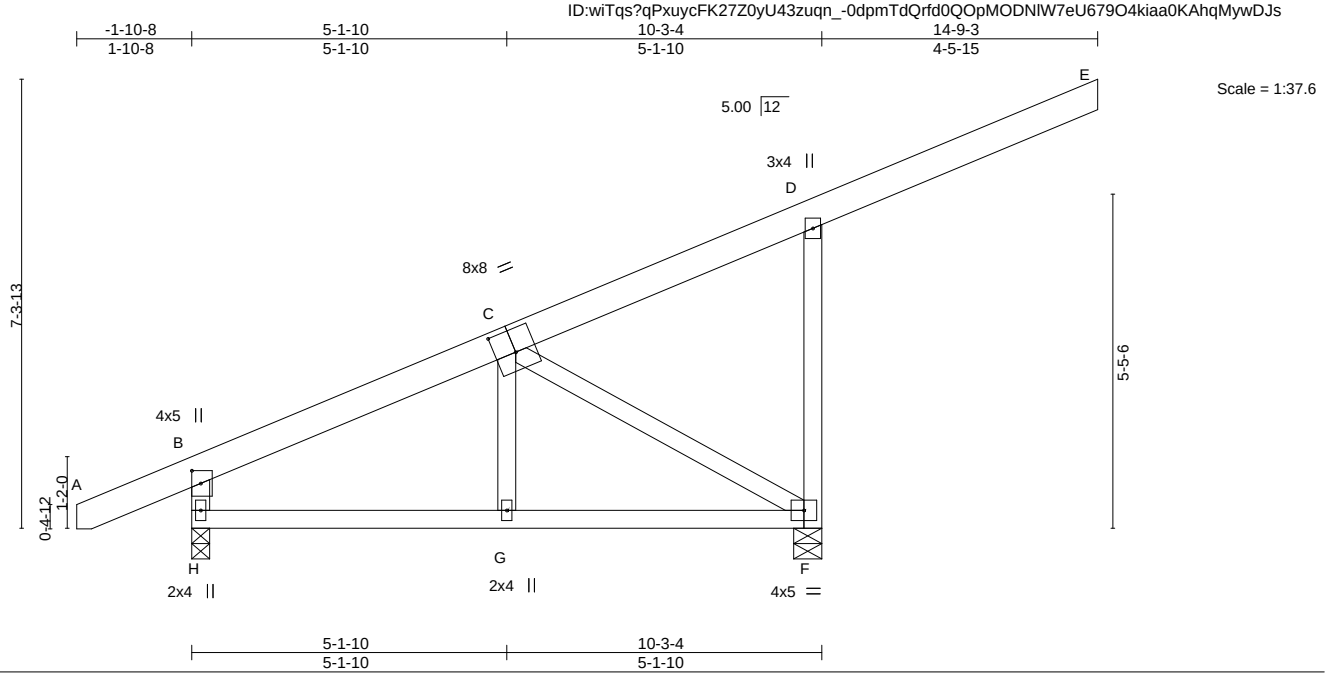

Plate Offsets (X,Y)-- [B:0-2-8,0-1-12], [C:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.69	Vert(LL)	0.03	F-G	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.04	F-G	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	F	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 77 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
B-H: 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.

REACTIONS. (size) H=0-3-8, F=0-5-8
Max Horz H=229(LC 7)
Max Uplift H=-69(LC 6), F=-159(LC 7)
Max Grav H=459(LC 1), F=732(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-332/77, D-F=-560/404, B-H=-408/186
WEBS C-F=-252/246

NOTES-
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) F considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) H except (jt=lb) F=159.

July 20,2020

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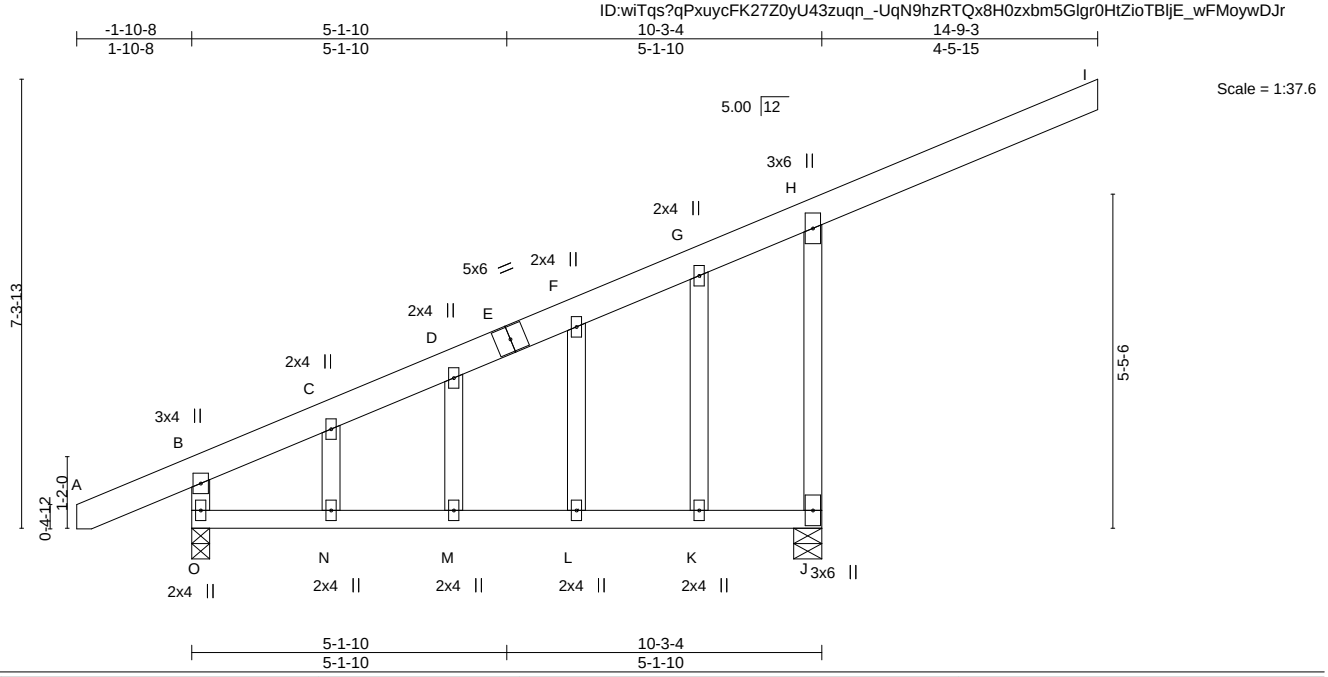
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	H02	GABLE	1	1	T20774617
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:12 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-UqN9hzRTQx8H0zxbm5Glgr0HtZioTBljE_wFMoywDJr



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.69	Vert(LL)	0.21	L-M	>568	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.24	L-M	>507	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	J	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 81 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* B-O: 2x4 SP No.2
OTHERS	2x4 SP No.3

BRACING-

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

REACTIONS. (size) J=0-5-8, O=0-3-8
Max Horz O=229(LC 7)
Max Uplift J=-230(LC 7), O=-69(LC 6)
Max Grav J=732(LC 1), O=459(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD H-J=-686/549, B-O=-392/193

NOTES-

1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) O except (jt=lb) J=230.

July 20,2020

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TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	J01	Roof Special	7	1	T20774618
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:14 2020 Page 1
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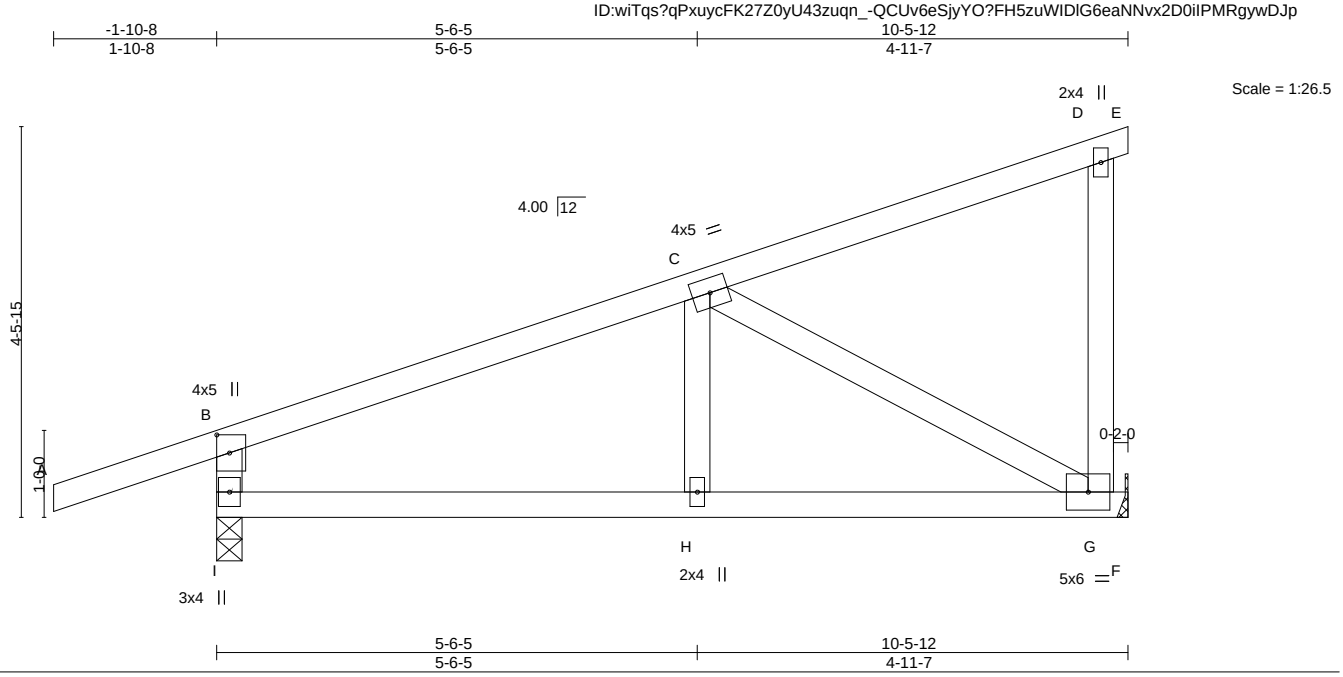


Plate Offsets (X,Y)-- [B:0-2-8,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	0.04	G-H	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.06	G-H	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	G	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 52 lb	FT = 20%

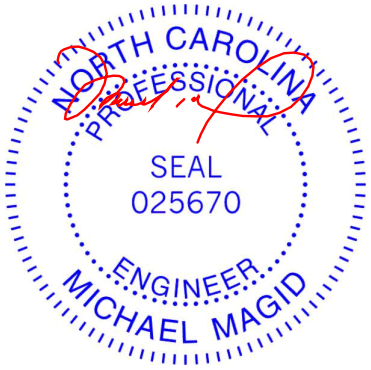
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
B-I: 2x4 SP No.2

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.

REACTIONS. (size) I=0-3-8, G=Mechanical
Max Horz I=146(LC 7)
Max Uplift I=-153(LC 6), G=-111(LC 6)
Max Grav I=534(LC 1), G=414(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-479/308, B-I=-456/272
BOT CHORD H-I=-258/393, G-H=-258/393
WEBS C-G=-424/345

NOTES-
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) I=153, G=111.



July 20,2020

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

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	J02	ROOF SPECIAL	16	1	T20774619
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:15 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-vP2HJ_TLjsWstRgASDpSHUenpngLgY39wy8vz7ywDJo

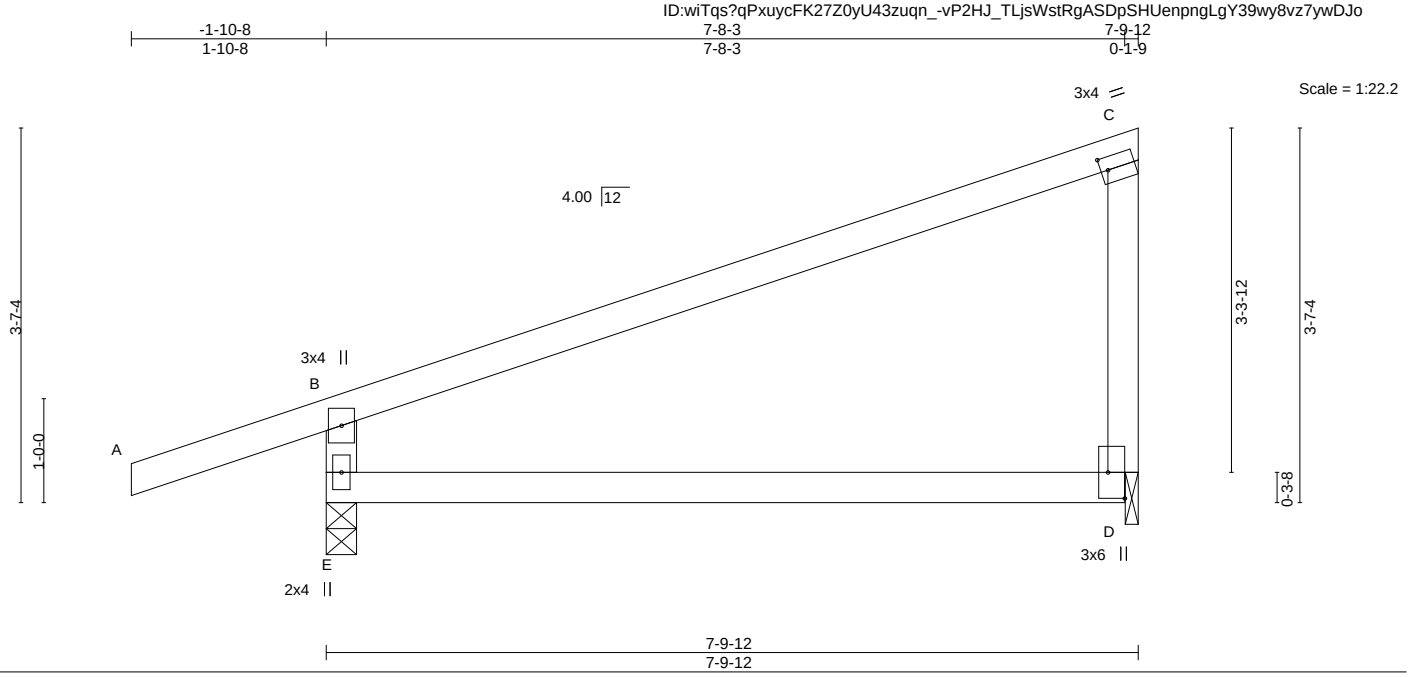


Plate Offsets (X,Y)-- [C:0-0-13,0-1-8], [D:Edge,0-1-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.71	Vert(LL)	0.19	D-E	>483	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.24	D-E	>377	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	D	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 32 lb	FT = 20%

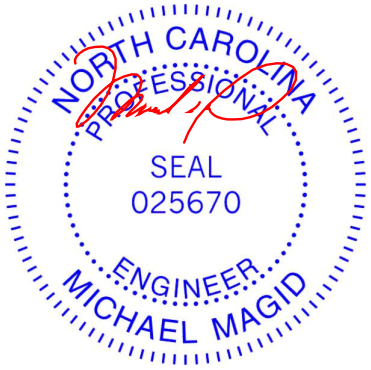
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except*
C-D: 2x4 SP No.3

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

REACTIONS. (size) E=0-3-8, D=0-1-8
Max Horz E=115(LC 7)
Max Uplift E=-132(LC 6), D=-80(LC 6)
Max Grav E=438(LC 1), D=285(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-E=-378/208

NOTES-
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) D considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) D.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D except (jt=lb) E=132.



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

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	J03	Half Hip	2	1	T20774620
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:16 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-NbcfWKUzU9ejVaFM?xKhqhB_kA52P_TJ9cuSVZywDJn

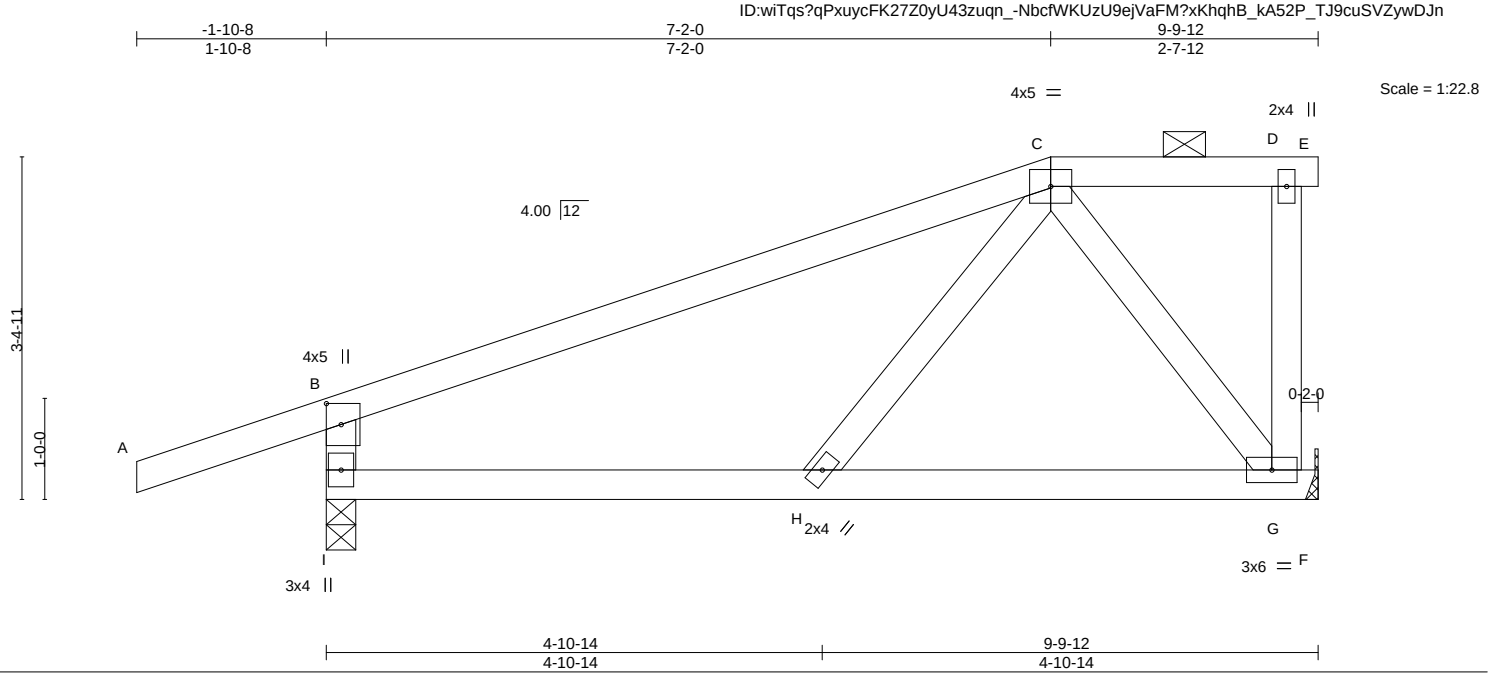

Plate Offsets (X,Y)-- [B:0-2-8,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.64	Vert(LL)	0.03	G-H	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.05	G-H	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	G	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 49 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
B-I: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): C-E.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) I=0-3-8, G=Mechanical
Max Horz I=110(LC 7)
Max Uplift I=-153(LC 6), G=-94(LC 6)
Max Grav I=508(LC 21), G=386(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-386/285, B-I=-460/282
BOT CHORD H-I=-209/294
WEBS C-G=-357/223

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) G except (jt=lb) I=153.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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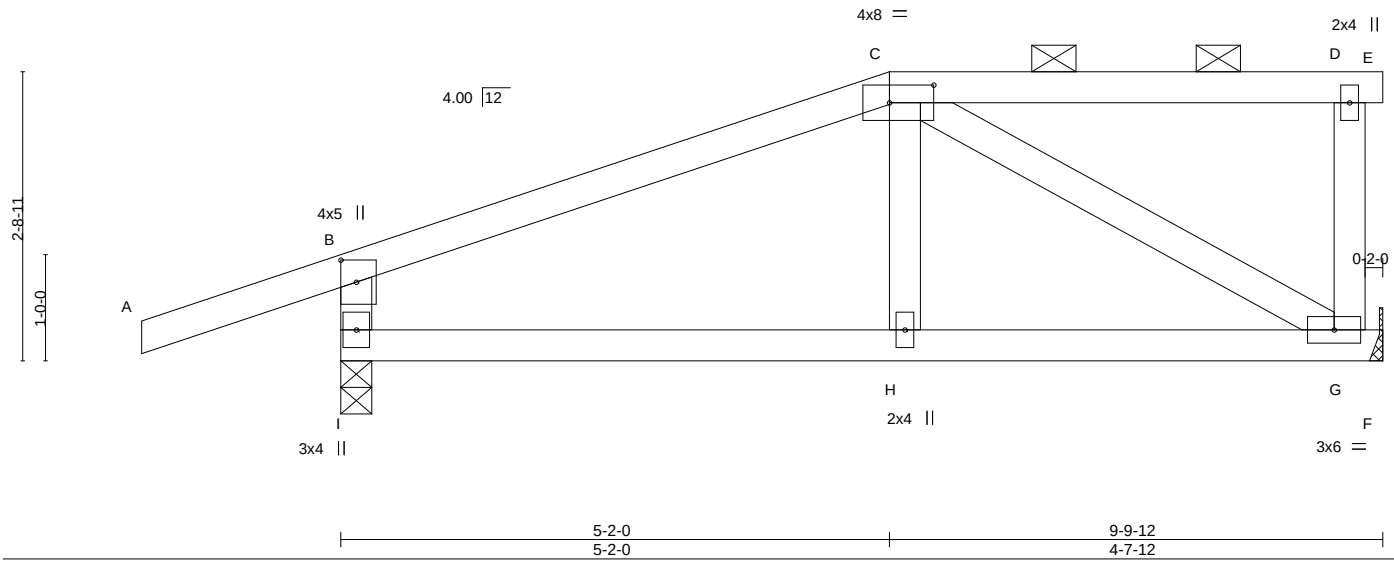
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	J04	Half Hip	2	1	T20774621
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:18 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-J_kQx0VE0nuRkuOl7MN9v6GLL_mattKcdwNZaSywDJl

-1-10-8 / 1-10-8 | 5-2-0 / 5-2-0 | 9-9-12 / 4-7-12

Scale = 1:21.7



5-2-0 / 5-2-0 | 9-9-12 / 4-7-12

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.57	Vert(LL)	0.04	H-I	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.05	H	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	G	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 46 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
B-I: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): C-E.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) I=0-3-8, G=Mechanical
Max Horz I=88(LC 7)
Max Uplift I=-155(LC 6), G=-91(LC 6)
Max Grav I=508(LC 21), G=386(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-422/287, B-I=-434/267
BOT CHORD H-I=-219/340, G-H=-227/344
WEBS C-G=-346/272

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) G except (jt=lb) I=155.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 20,2020

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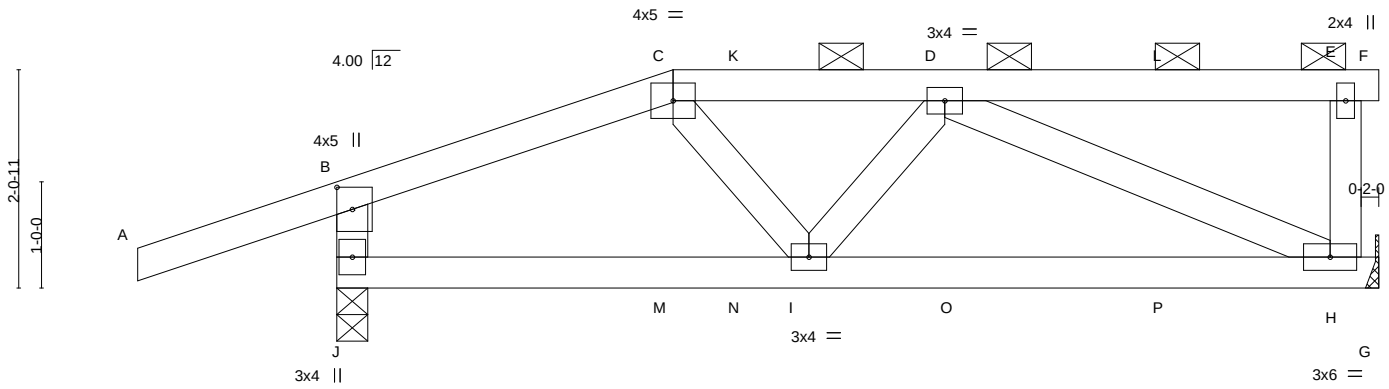
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	J05	Half Hip Girder	2	1	T20774622
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:20 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-FMsAMiXUYO89zCY7EmPd_XMeLoRzLnAv4EsgeKywDJj

-1-10-8 3-2-0 5-8-11 9-9-12
1-10-8 3-2-0 2-6-11 4-1-1

Scale = 1:21.7



4-5-6 9-9-12
4-5-6 5-4-6

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	0.04	H-I	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.06	H-I	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.01	H	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 47 lb	FT = 20%

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

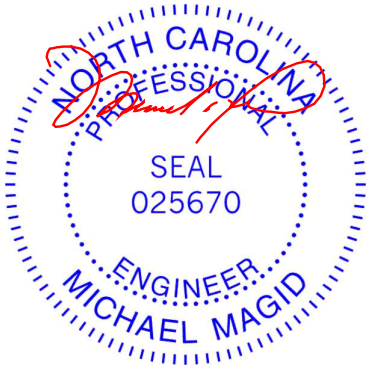
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): C-F.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) H=Mechanical, J=0-3-8
Max Horz J=66(LC 7)
Max Uplift H=-128(LC 4), J=-199(LC 4)
Max Grav H=379(LC 1), J=488(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-395/178, C-D=-401/186, B-J=-421/179
BOT CHORD I-J=-160/316, H-I=-178/445
WEBS D-H=-429/181

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) H=128, J=199.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 51 lb down and 108 lb up at 3-2-0, 20 lb down and 31 lb up at 3-10-8, and 20 lb down and 31 lb up at 5-10-8, and 20 lb down and 31 lb up at 7-10-8 on top chord, and 48 lb down and 37 lb up at 3-2-0, 14 lb down and 23 lb up at 3-10-8, and 14 lb down and 23 lb up at 5-10-8, and 14 lb down and 23 lb up at 7-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (plf)
Vert: A-B=-60, B-C=-60, C-E=-60, E-F=-60, G-J=-20
Concentrated Loads (lb)
Vert: C=29(F) D=-1(F) K=-1(F) L=-1(F) M=4(F) N=-1(F) O=-1(F) P=-1(F)



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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	J06	Roof Special Girder	2	1	T20774623
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:21 2020 Page 1
ID:wiTqs?qPxuycFK27Z0yU43zuqn_-jZPYa2Y6JiG0bM7JoUwsXluw4Bkk4CJ2JubDBmywDJi

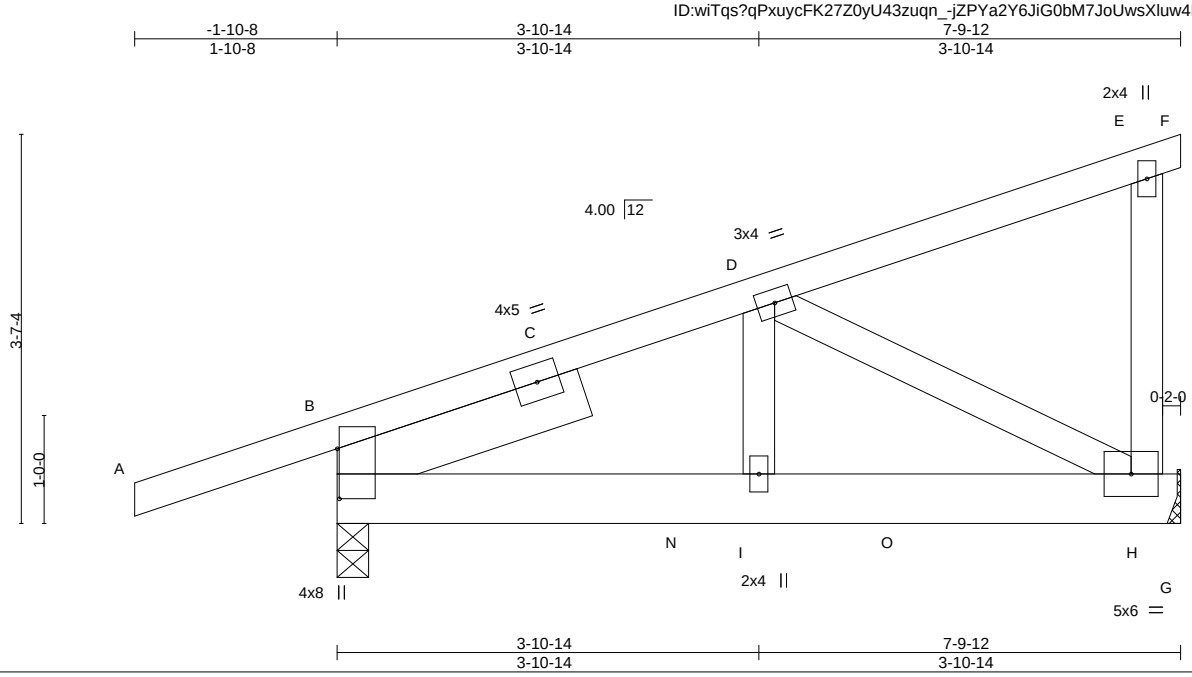

Plate Offsets (X,Y)-- [B:0-5-9,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.02	H-I	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.03	H-I	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.01	H	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 51 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 -x 2-5-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) B=0-3-8, H=Mechanical
Max Horz B=107(LC 22)
Max Uplift B=-226(LC 4), H=-293(LC 4)
Max Grav B=741(LC 1), H=1092(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-913/257
BOT CHORD B-I=-239/844, H-I=-239/844
WEBS D-I=-165/582, D-H=-957/300

NOTES-
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.33
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=226, H=293.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 359 lb down and 150 lb up at 3-2-12, and 366 lb down and 111 lb up at 5-2-12, and 371 lb down and 110 lb up at 7-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (plf)
Vert: A-E=-60, E-F=-60, G-J=-20
Concentrated Loads (lb)
Vert: H=-371(B) N=-359(B) O=-366(B)

July 20,2020

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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 ***ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information*** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	J07	Jack-Open	4	1	T20774624
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:22 2020 Page 1
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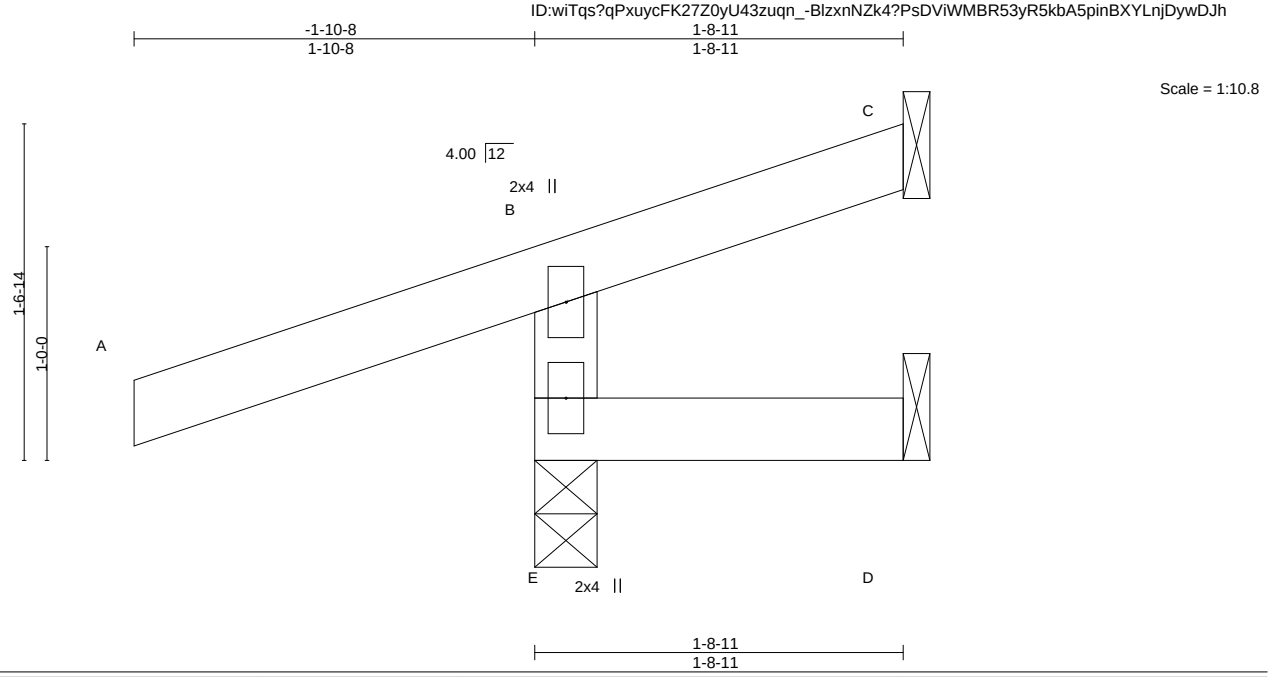

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	0.00	E	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	E	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	C	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 9 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-8-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) E=0-3-8, C=Mechanical, D=Mechanical
Max Horz E=34(LC 7)
Max Uplift E=-95(LC 6), C=-10(LC 1), D=-9(LC 18)
Max Grav E=262(LC 1), C=5(LC 6), D=22(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E, C, D.

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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	J08	Jack-Open	6	1	T20774625
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:23 2020 Page 1
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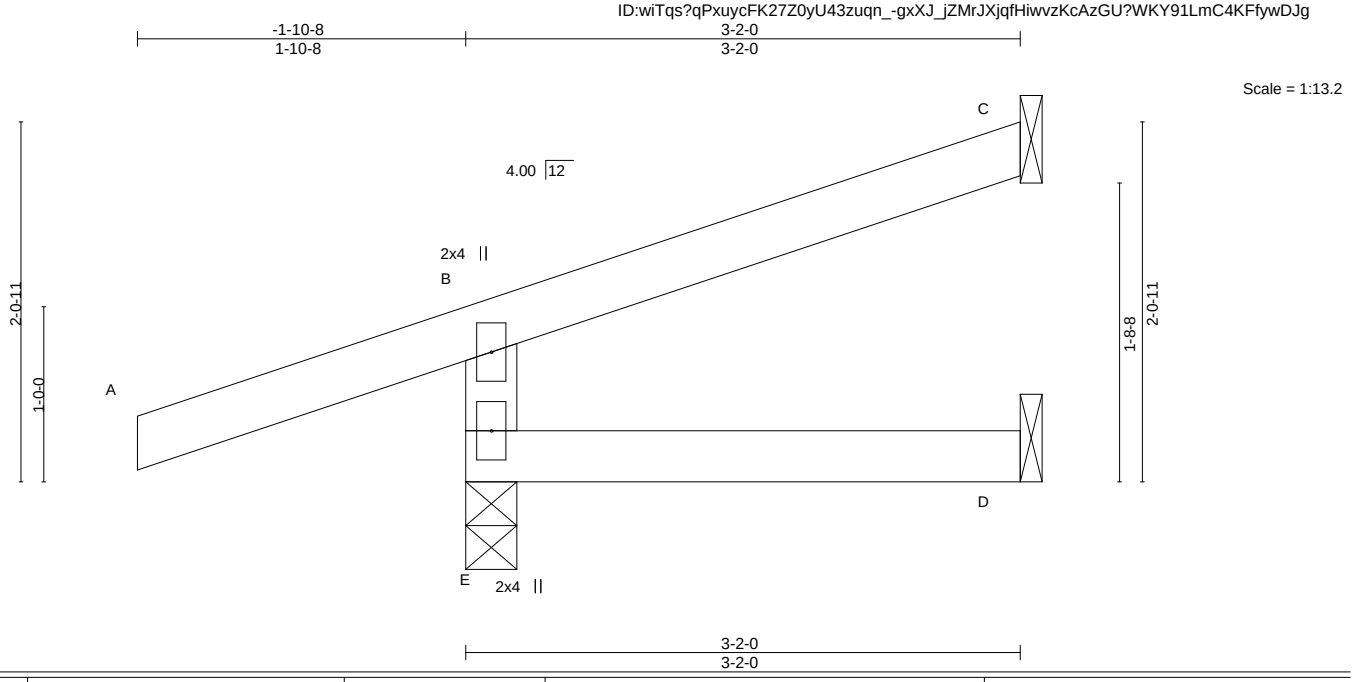


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	0.01	D-E	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	D-E	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	C	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 13 lb	FT = 20%

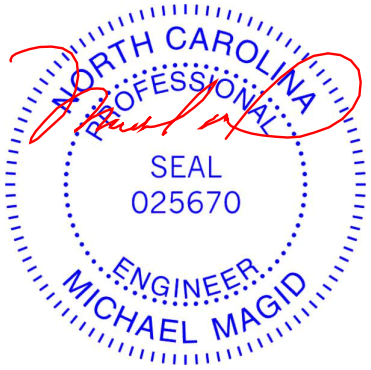
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) E=0-3-8, C=Mechanical, D=Mechanical
Max Horz E=48(LC 6)
Max Uplift E=-92(LC 6), C=-26(LC 10), D=-8(LC 7)
Max Grav E=281(LC 1), C=57(LC 1), D=51(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E, C, D.



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Job	Truss	Truss Type	Qty	Ply	LOCUST SP - BRAD CUMMINGS
20-079179T	JH1	DIAGONAL HIP GIRDER	2	1	T20774626
					Job Reference (optional)

BMC (Monroe, NC), Monroe, NC - 28110, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 09:09:24 2020 Page 1
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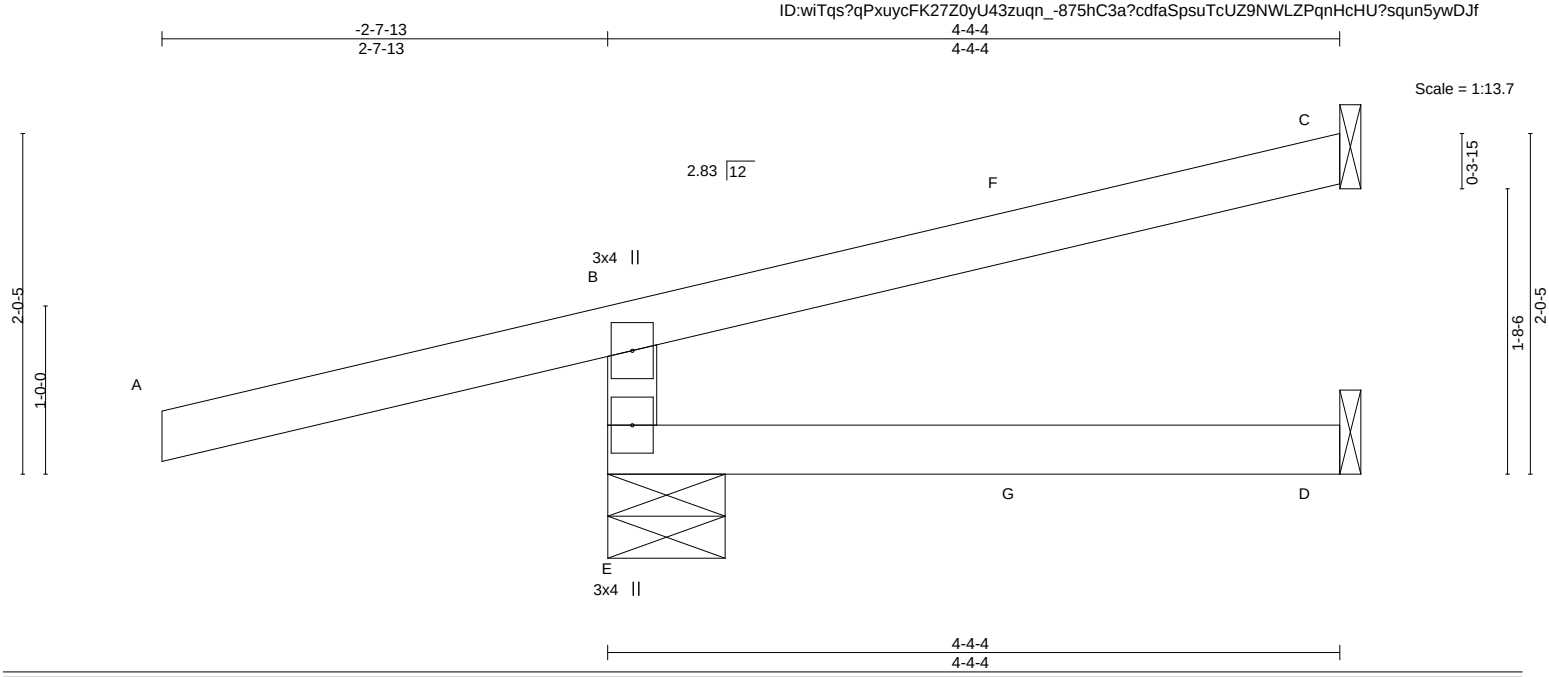


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.65	Vert(LL)	0.02	D-E	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.02	D-E	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.03	C	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 18 lb	FT = 20%

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

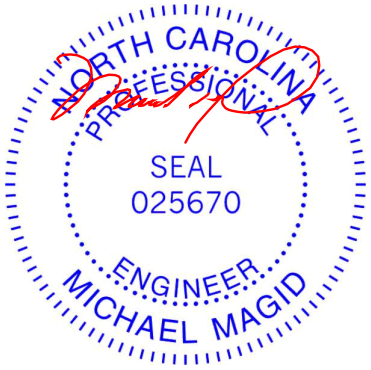
BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) E=0-8-6, C=Mechanical, D=Mechanical
Max Horz E=47(LC 4)
Max Uplift E=-156(LC 4), C=-51(LC 8), D=-12(LC 5)
Max Grav E=364(LC 1), C=52(LC 35), D=67(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-E=-304/149

NOTES-
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.33
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) C, D except (jt=lb) E=156.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 39 lb down and 95 lb up at 2-6-5, and 39 lb down and 95 lb up at 2-6-5 on top chord, and 25 lb down and 16 lb up at 2-6-5, and 25 lb down and 16 lb up at 2-6-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (plf)
Vert: A-B=-60, B-C=-60, D-E=-20
Concentrated Loads (lb)
Vert: F=62(F=31, B=31)



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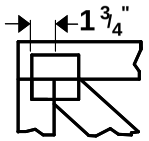
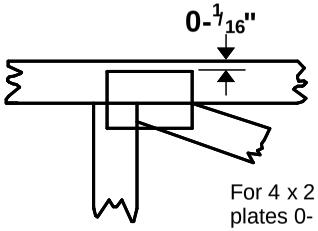
Symbols

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.

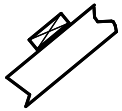
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

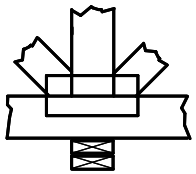
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

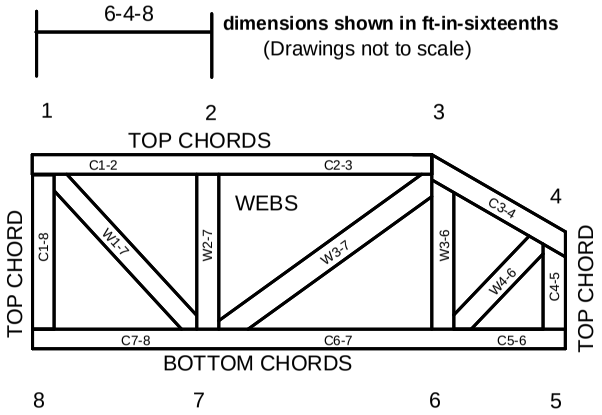


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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: MII-7473 rev. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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