ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 1719437
H&H/Dogwood/

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

Pages or sheets covered by this seal: E12810565 thru E12810743

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844

March 15,2019

Gilbert, Eric

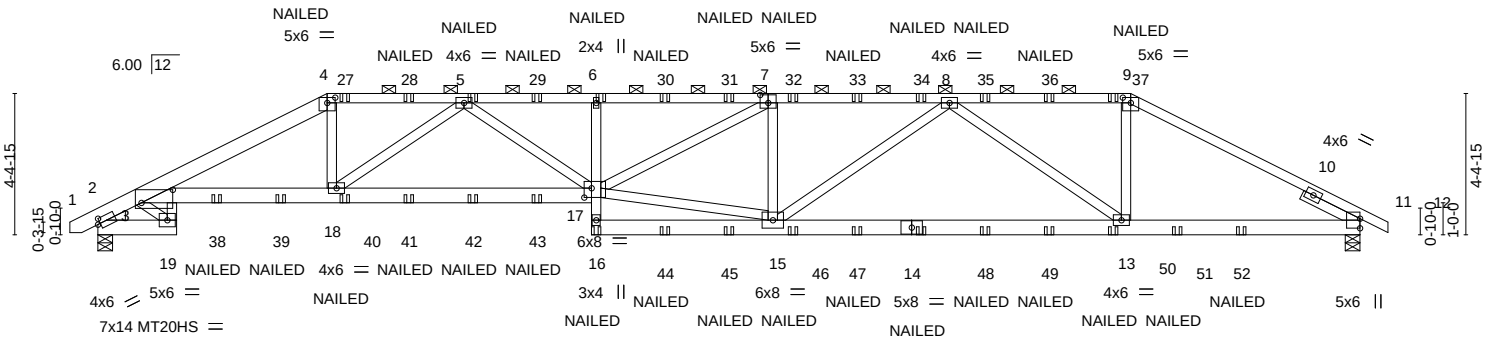
IMPORTANT NOTE: Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A01	HIP GIRDER	1	2	E12810565
					Job Reference (optional)

Builders FirstSource (Albemarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:32 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-ItCrG_6Rbqqtvq0TT4LmyRon14qMJshzyRtDeozajuj

-0-10-8	2-5-8	7-1-15	11-5-3	15-5-0	21-0-15	26-7-2	32-3-1	39-5-0	40-3-8
0-10-8	2-5-8	4-8-7	4-3-5	3-11-13	5-7-15	5-6-3	5-7-15	7-1-15	0-10-8

Scale = 1:72.0



2-5-8	7-1-15	15-5-0	21-0-15	32-3-1	39-5-0
2-5-8	4-8-7	8-3-1	5-7-15	11-2-2	7-1-15

Plate Offsets (X,Y)-- [2:0-1-0,0-2-0], [3:0-3-4,0-0-0], [3:0-11-12,0-4-14], [4:0-3-0,0-2-0], [7:0-3-0,0-3-0], [9:0-3-0,0-2-0], [17:0-2-12,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	0.51	6	>920	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.56	17	>841	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.59	Horz(CT)	0.25	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 487 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
1-4: 2x6 SP DSS
BOT CHORD 2x6 SP No.2 *Except*
3-19,6-16: 2x4 SP No.2, 3-17: 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 1-11-12

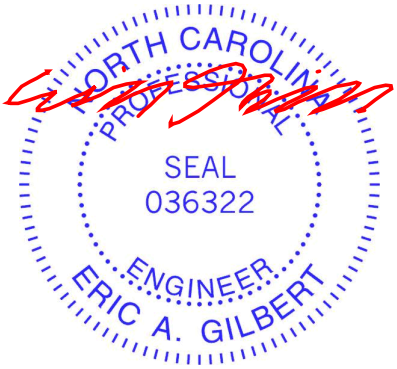
BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins, except
2-0-0 oc purlins (4-6-5 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-11-5 oc bracing: 17-18
9-4-12 oc bracing: 13-15.

REACTIONS. (lb/size) 2=2269/0-5-8, 11=2245/0-5-8
Max Horz 2=78(LC 8)
Max Uplift 2=-1150(LC 8), 11=-1167(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-21=-967/554, 3-4=-5048/2898, 4-5=-4602/2709, 5-6=-6744/4227, 6-7=-6678/4197, 7-8=-5375/3388, 8-9=-3308/1986, 9-11=-3741/2173
BOT CHORD 3-18=-2603/4523, 17-18=-3654/5922, 6-17=-368/344, 15-16=-461/679, 13-15=-2903/4671, 11-13=-1852/3260
WEBS 4-18=-951/1666, 5-18=-1710/1300, 5-17=-680/1069, 15-17=-2962/4847, 7-17=-873/1414, 7-15=-1126/832, 8-15=-522/941, 8-13=-1757/1312, 9-13=-761/1322

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=1150, 11=1167.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

Continued on page 2



March 15,2019

LOAD CASE(S) Standard

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

LOAD CASE(S) Standard

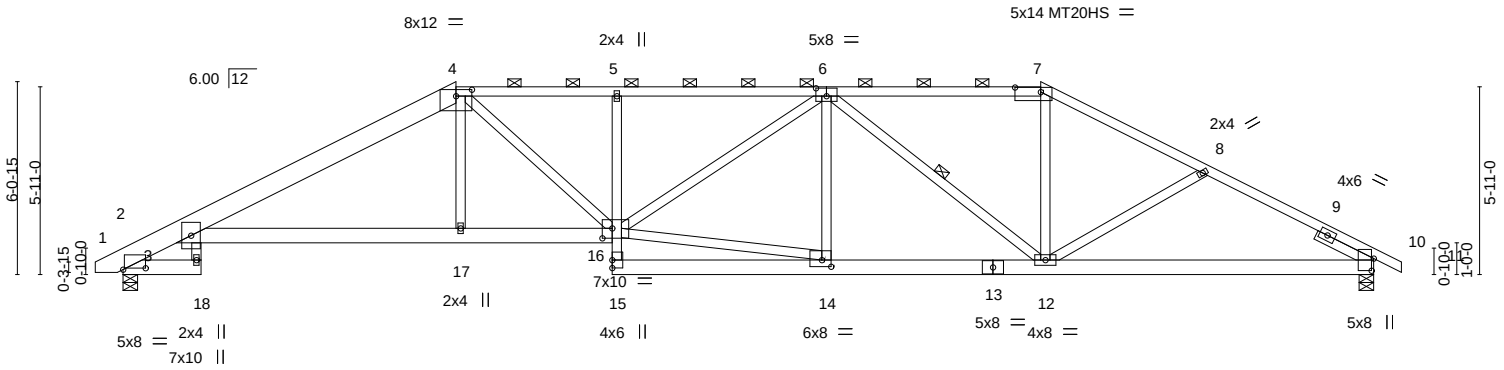
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-4=-60, 4-9=-60, 9-12=-60, 19-20=-20, 3-17=-20, 16-23=-20
   Concentrated Loads (lb)
   Vert: 17=-21(F) 6=-33(F) 14=-21(F) 5=-64(F) 27=-64(F) 28=-64(F) 29=-64(F) 30=-33(F) 31=-33(F) 32=-33(F) 33=-33(F) 34=-33(F) 35=-33(F) 36=-33(F) 37=-33(F) 38=-138(F) 39=-115(F) 44=-21(F) 45=-21(F) 46=-21(F) 47=-21(F) 48=-21(F) 49=-21(F) 50=-21(F) 51=-115(F) 52=-138(F)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A02	HIP	1	1	E12810566
					Job Reference (optional)

Builders FirstSource (Albemarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:36 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-AeRM6M9xf3LIORKEiwQi6HzUdhBzFazZt3rRnazajuf

-0-10-8	2-5-8	10-5-15	15-5-0	22-2-1	28-11-1	34-0-5	39-5-0	40-3-8
0-10-8	2-5-8	8-0-7	4-11-1	6-9-1	6-9-1	5-1-3	5-4-11	0-10-8

Scale = 1:72.6



2-5-8	10-5-15	15-5-0	22-2-1	28-11-1	39-5-0
2-5-8	8-0-7	4-11-1	6-9-1	6-9-1	10-5-15

Plate Offsets (X,Y)-- [2:0-8-8,0-0-9], [3:0-0-0,0-1-12], [4:0-6-0,0-2-7], [6:0-4-0,0-3-0], [7:0-9-12,0-1-12], [10:0-4-9,0-0-13], [14:0-3-8,0-2-8], [16:0-3-12,0-3-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.26	17-24	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.54	17-24	>879	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.28	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.25	17-24	>999	240	Weight: 264 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 1-4: 2x8 SP DSS
BOT CHORD	2x6 SP No.2 *Except* 3-16: 2x6 SP No.1, 5-15: 2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-8-9 max.): 4-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-12

REACTIONS. (lb/size) 2=1623/0-5-8, 10=1630/0-5-8
Max Horz 2=-109(LC 17)
Max Uplift 2=-196(LC 12), 10=-214(LC 13)

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

TOP CHORD	3-20=-670/247, 3-4=-3141/894, 4-5=-3228/1019, 5-6=-3229/1023, 6-7=-2180/742, 7-8=-2483/771, 8-10=-2678/853
BOT CHORD	3-17=-629/2805, 16-17=-629/2819, 5-16=-333/193, 14-15=-106/516, 12-14=-657/2810, 10-12=-648/2326
WEBS	4-17=-6/495, 4-16=-258/694, 14-16=-556/2320, 6-16=-118/550, 6-12=-899/268, 7-12=-127/709

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=196, 10=214.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A03	HIP	1	1	E12810567
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:40 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-3PhtxjCSiIrkt2d0xmVeG78BlIZ6BRC8nhpfwLzajub

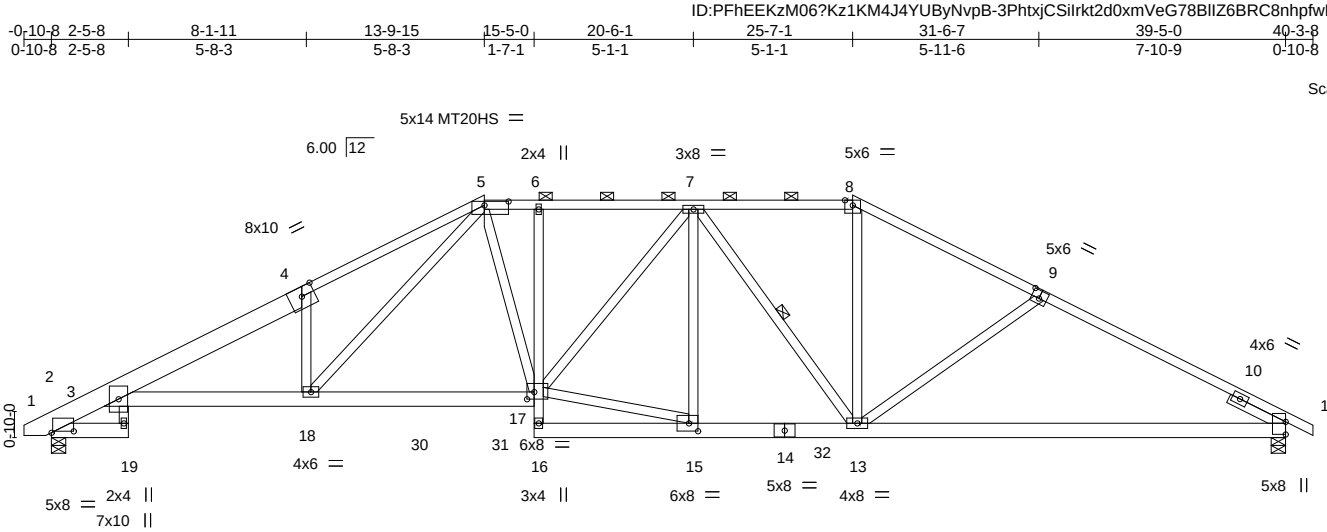


Plate Offsets (X,Y)-- [2:0-8-8,0-0-9], [3:0-0-0,0-1-12], [5:0-9-4,0-1-8], [9:0-3-0,0-3-0], [15:0-3-8,0-3-0], [17:0-2-12,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.21	13-28	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.45	13-28	>999	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.23	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.20	18-25	>999	240	Weight: 278 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 1-4: 2x8 SP DSS
BOT CHORD 2x6 SP No.2 *Except* 3-17: 2x6 SP No.1, 6-16: 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-6-12 max.): 5-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-13

REACTIONS. (lb/size) 2=1623/0-5-8, 11=1630/0-5-8
Max Horz 2=141(LC 12)
Max Uplift 2=-235(LC 12), 11=-253(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-21=-670/252, 3-4=-3379/996, 4-5=-3447/1173, 5-6=-2389/839, 6-7=-2384/841, 7-8=-1978/731, 8-9=-2295/759, 9-11=-2622/868
BOT CHORD 3-18=-766/3044, 17-18=-467/2254, 6-17=-273/126, 13-15=-459/2168, 11-13=-629/2268
WEBS 4-18=-520/349, 5-17=-145/629, 15-17=-406/1972, 7-17=-86/399, 7-15=-350/110, 7-13=-456/196, 8-13=-147/673, 9-13=-358/309, 5-18=-423/1144

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=235, 11=253.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A04	HIP	1	1	E12810568
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:42 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-?opdMPEiEv5S6MnO3BX6MYDRi6DRfMIRF?II_DzajuZ

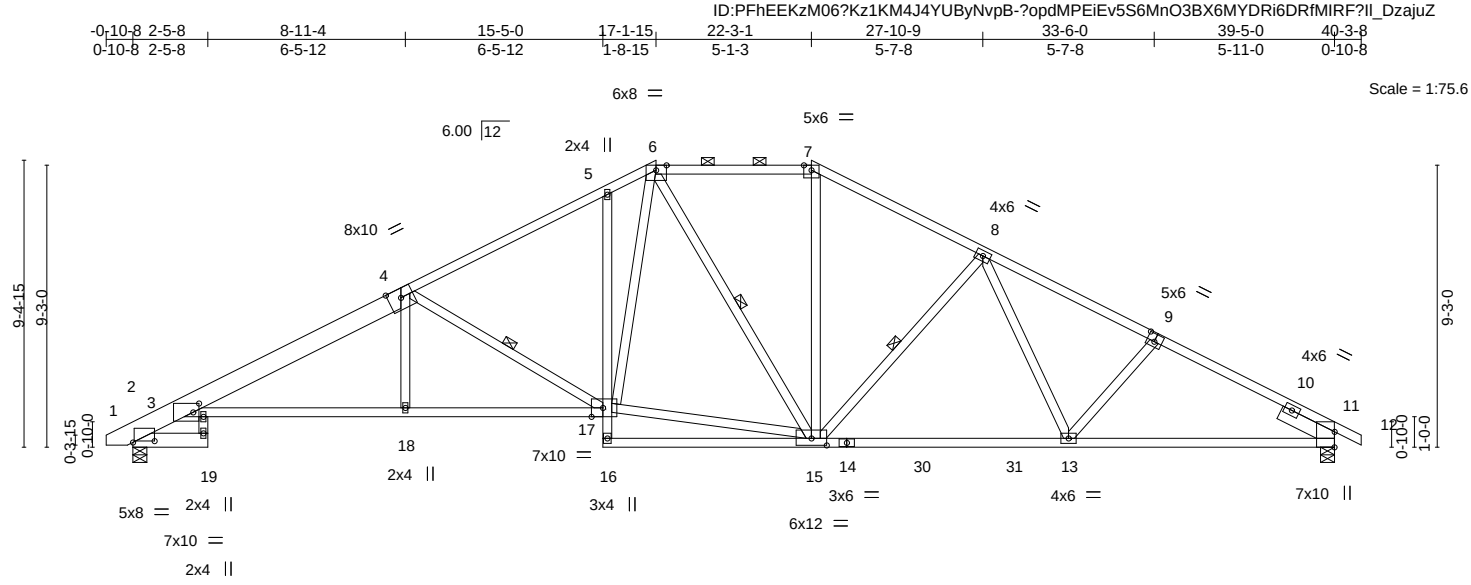


Plate Offsets (X,Y)-- [2:0-8-8,0-0-9], [3:0-2-5,0-3-8], [6:0-4-2,Edge], [9:0-3-0,0-3-0], [11:0-6-1,Edge], [15:0-6-0,0-2-12], [17:0-4-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.28	13-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.55	13-15	>864	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.31	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.24	18-25	>999	240	Weight: 259 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except*
	1-4: 2x8 SP DSS, 9-12: 2x4 SP No.1
BOT CHORD	2x4 SP No.2 *Except*
	2-19: 2x6 SP No.2, 11-14: 2x4 SP No.1
WEBS	2x4 SP No.3
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (4-1-5 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-17, 6-15, 8-15

REACTIONS. (lb/size) 2=1623/0-5-8, 11=1630/0-5-8
Max Horz 2=173(LC 12)
Max Uplift 2=-268(LC 12), 11=-285(LC 13)

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

TOP CHORD	3-21=-670/258, 3-4=-3174/976, 4-5=-2397/830, 5-6=-2242/906, 6-7=-1717/735,
	7-8=-1995/764, 8-9=-2464/845, 9-11=-2628/859
BOT CHORD	3-18=-744/2867, 17-18=-742/2874, 13-15=-500/2062, 11-13=-642/2255
WEBS	4-18=0/322, 4-17=-953/392, 15-17=-296/1725, 6-17=-342/945, 6-15=-393/140,
	7-15=-141/533, 8-15=-531/302, 8-13=-50/341

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=268, 11=285.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

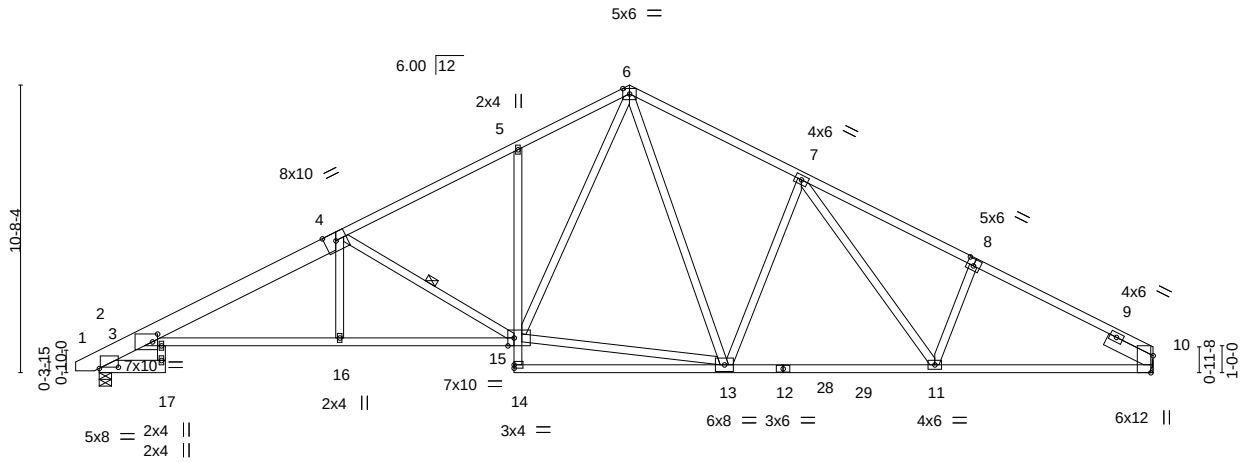
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A05	ROOF SPECIAL	22	1	E12810569 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:45 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-QNUm?RGbXqT0zqWzkJ4pzAr?FJHssgztxzWQbYzajuW

-0-10-8 2-5-8 8-11-4 15-5-0 19-8-8 26-1-3 32-5-13 39-2-0
0-10-8 2-5-8 6-5-12 6-5-12 4-3-8 6-4-11 6-4-11 6-8-3

Scale = 1:85.6



2-5-8 8-11-4 15-5-0 23-2-13 31-0-11 39-2-0
2-5-8 6-5-12 6-5-12 7-9-13 7-9-13 8-1-5

Plate Offsets (X,Y)-- [2:0-8-8,0-0-9], [3:0-2-5,0-3-8], [8:0-3-0,0-3-0], [10:0-7-9,Edge], [15:0-2-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.29	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.55	11-13	>858	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.32	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.20	16-23	>999	240	Weight: 251 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
1-4: 2x8 SP DSS, 8-10: 2x4 SP SS
BOT CHORD 2x4 SP No.2 *Except*
2-17: 2x6 SP No.2, 3-15,10-12: 2x4 SP No.1
WEBS 2x4 SP No.3
SLIDER Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-15

REACTIONS. (lb/size) 2=1613/0-5-8, 10=1567/Mechanical
Max Horz 2=131(LC 9)
Max Uplift 2=-63(LC 12), 10=-63(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-19=-666/225, 3-4=-3154/998, 4-5=-2375/849, 5-6=-2306/976, 6-7=-2030/853, 7-8=-2401/899, 8-10=-2539/840
BOT CHORD 3-16=-790/2847, 15-16=-787/2854, 5-15=-307/249, 11-13=-478/1930, 10-11=-635/2165
WEBS 4-16=0/328, 4-15=-950/396, 13-15=-245/1406, 6-15=-432/1153, 6-13=-242/626, 7-13=-579/378, 7-11=-133/358

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

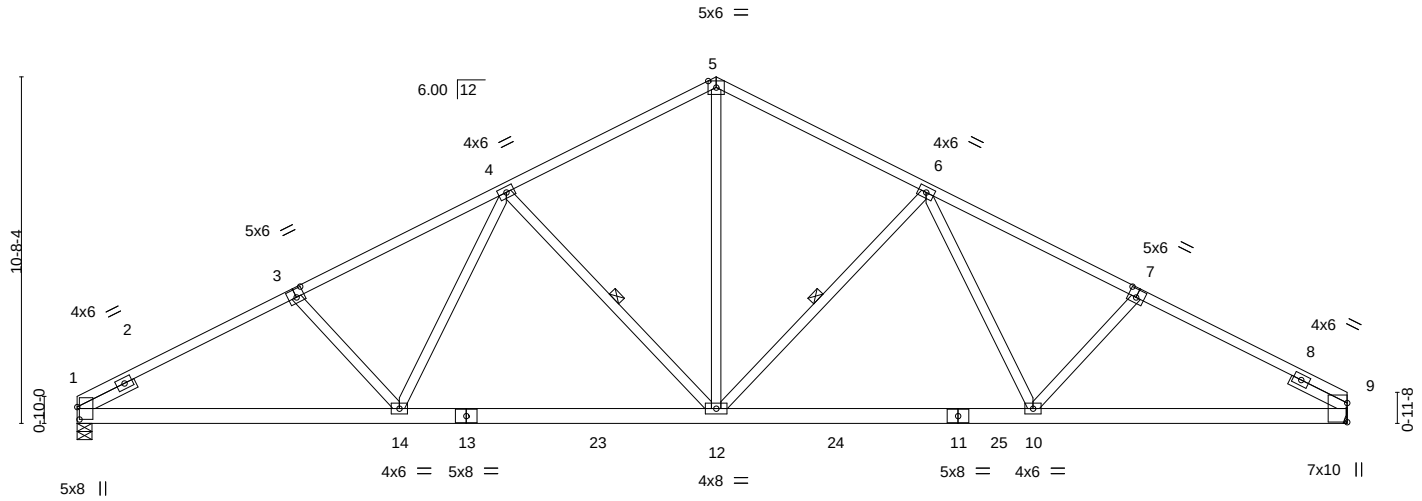
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A06	Common	3	1	E12810570
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:47 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-MmcWP6Ir3RjkC7gMsk7H3bwID7ytKaKAOH?WgRzajuU

6-9-3	13-2-13	19-8-8	26-2-3	32-7-14	39-2-0
6-9-3	6-5-11	6-5-11	6-5-11	6-5-11	6-6-2

Scale = 1:71.1



9-11-4	19-8-8	29-5-12	39-2-0
9-11-4	9-9-4	9-9-4	9-8-4

Plate Offsets (X,Y)-- [1:0-4-9,0-0-13], [3:0-3-0,0-3-0], [7:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.22	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.41	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.11	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.14	10-12	>999	240	Weight: 241 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-12, 6-12

REACTIONS. (lb/size) 1=1567/0-5-8, 9=1567/Mechanical
Max Horz 1=123(LC 9)
Max Uplift 1=-65(LC 12), 9=-64(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2658/892, 3-4=-2452/864, 4-5=-1800/742, 5-6=-1801/742, 6-7=-2394/845, 7-9=-2586/871
BOT CHORD 1-14=-694/2307, 12-14=-492/1961, 10-12=-485/1940, 9-10=-671/2235
WEBS 3-14=-295/264, 4-14=-73/456, 4-12=-670/364, 5-12=-426/1223, 6-12=-642/353, 6-10=-52/408, 7-10=-264/252

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A07	GABLE	4	1	E12810571
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:49 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-I8kGqoJ5b3_SSRpkz99I800rIwqgogHTsbUdkJzajuS

-0-10-8 13-0-8 26-4-8 39-2-0
0-10-8 13-0-8 13-4-0 12-9-8

Scale = 1:65.2

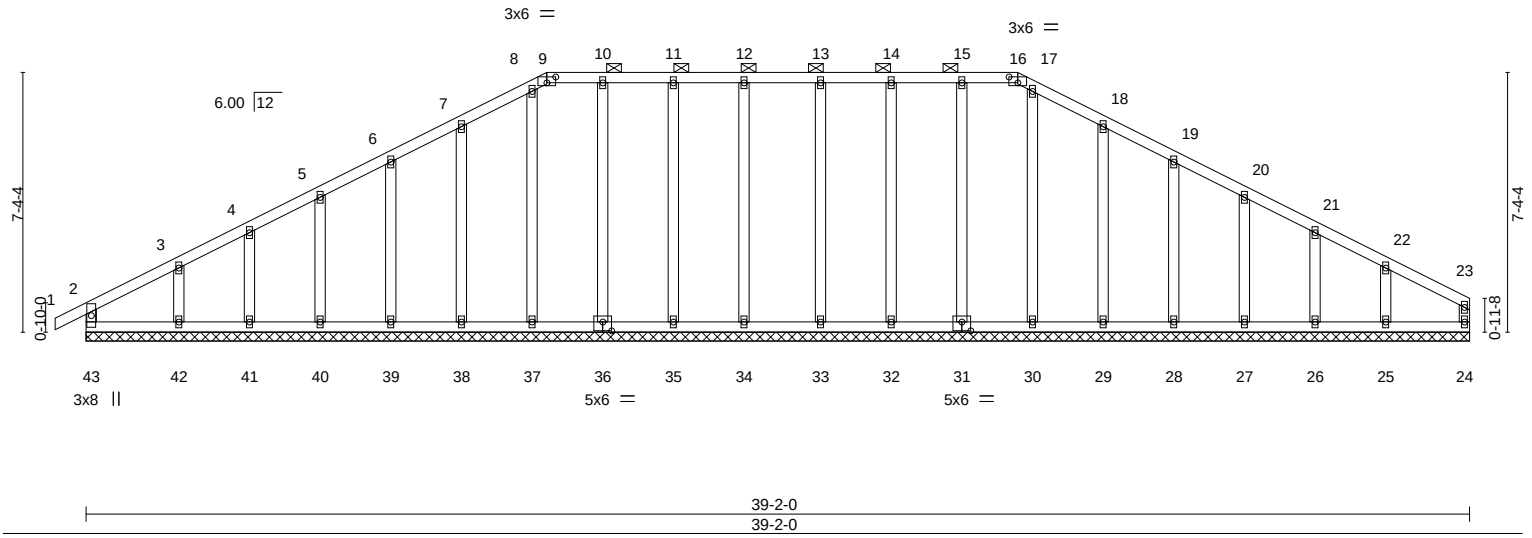


Plate Offsets (X,Y)-- [9:0-3-0,0-2-0], [16:0-3-0,0-2-0], [31:0-3-0,0-3-0], [36:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	24	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 258 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, and 2-0-0 oc purlins (6-0-0 max.): 9-16.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 39-2-0.
(lb) - Max Horz 43=130(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 43, 24, 34, 35, 36, 38, 39, 40, 41, 33, 32, 31, 29, 28, 27, 26 except 42=-127(LC 12), 25=-117(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 43, 24, 34, 35, 36, 37, 38, 39, 40, 41, 42, 33, 32, 31, 30, 29, 28, 27, 26, 25

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 7-8=-116/267, 8-9=-111/254, 9-10=-106/265, 10-11=-106/265, 11-12=-106/265, 12-13=-106/265, 13-14=-106/265, 14-15=-106/265, 15-16=-106/265, 16-17=-111/254, 17-18=-116/267

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 43, 24, 34, 35, 36, 38, 39, 40, 41, 33, 32, 31, 29, 28, 27, 26 except (jt=lb) 42=127, 25=117.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

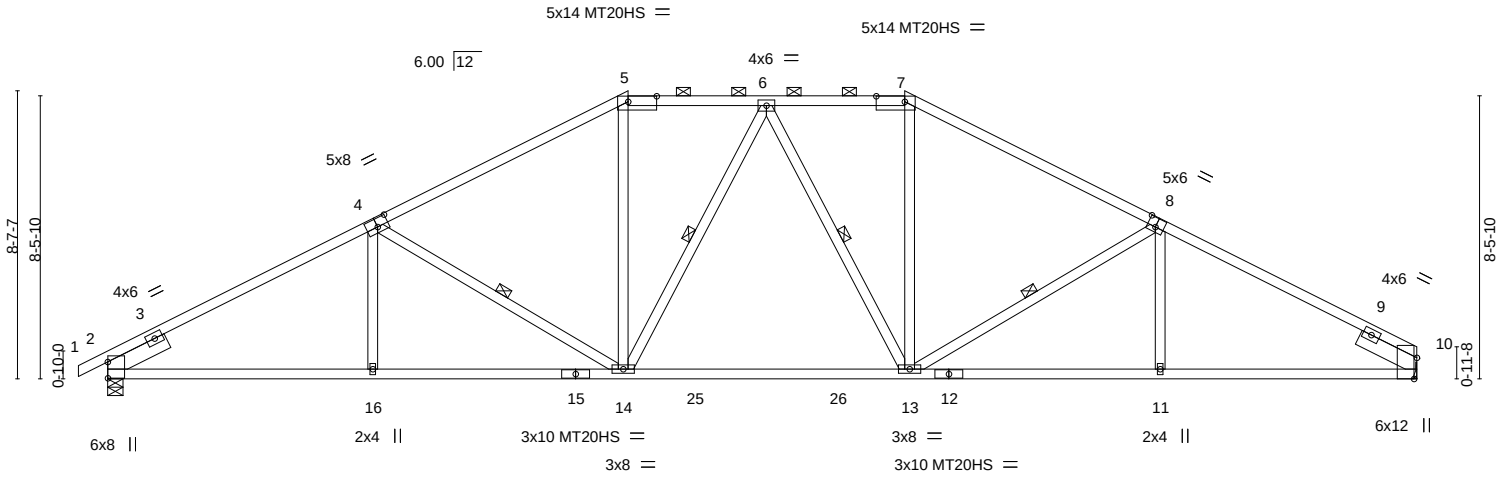
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A08	Hip	4	1	E12810572
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:51 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-EXr1FULL7gEAhlz75aBDDR5zOkJqGYBmJuzkpCzajuQ

-0-10-8	7-11-3	15-6-13	19-8-8	23-10-3	31-5-14	39-2-0
0-10-8	7-11-3	7-7-11	4-1-11	4-1-11	7-7-11	7-8-2

Scale = 1:68.9



7-11-3	15-6-13	23-10-3	31-5-14	39-2-0
7-11-3	7-7-11	8-3-5	7-7-11	7-8-2

Plate Offsets (X,Y)-- [2:0-5-13,0-0-1], [4:0-4-0,0-3-0], [5:0-10-4,0-2-0], [7:0-10-4,0-2-0], [8:0-3-0,0-3-4], [10:0-7-9,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.30	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.55	13-14	>856	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.17	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.15	11-13	>999	240	Weight: 221 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except*
	1-4: 2x4 SP No.1, 8-10: 2x4 SP SS
BOT CHORD	2x4 SP No.1 *Except*
	12-15: 2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (3-11-1 max.): 5-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-14, 6-14, 6-13, 8-13

REACTIONS. (lb/size) 2=1620/0-5-8, 10=1566/Mechanical
Max Horz 2=168(LC 12)
Max Uplift 2=-270(LC 12), 10=-244(LC 13)

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

TOP CHORD	2-4=-2607/826, 4-5=-2134/750, 5-6=-1819/738, 6-7=-1812/735, 7-8=-2122/746, 8-10=-2543/808
BOT CHORD	2-16=-620/2239, 14-16=-622/2238, 13-14=-392/1870, 11-13=-601/2171, 10-11=-599/2172
WEBS	4-14=-509/297, 5-14=-105/549, 6-14=-278/146, 6-13=-291/146, 7-13=-101/537, 8-13=-446/277

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=270, 10=244.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A09	HIP	4	1	E12810573
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:52 2019 Page 1

ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-ijPPTqL_u_M1JuYJeHiSmfdAU8et?uuvYYjHLezajuP

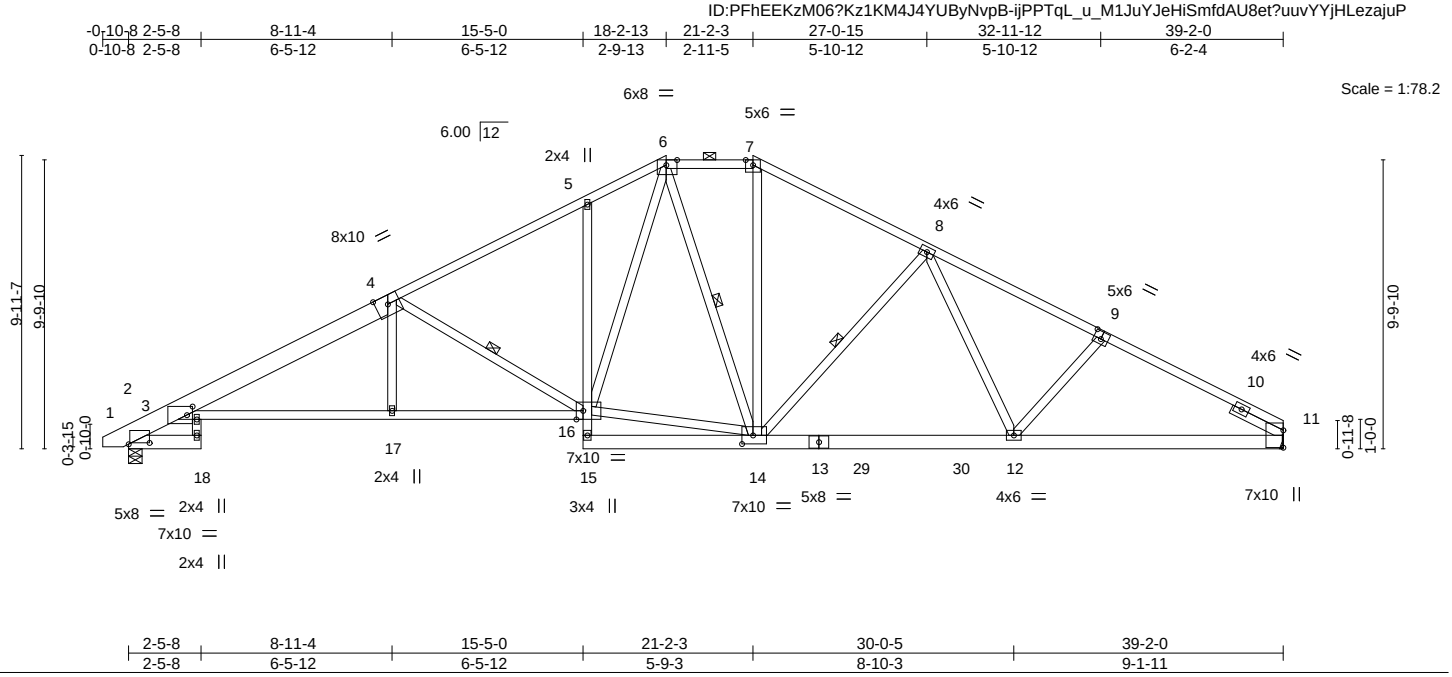


Plate Offsets (X,Y)-- [2:0-8-8,0-0-9], [3:0-2-5,0-3-8], [6:0-4-6,Edge], [9:0-3-0,0-3-0], [14:0-4-8,0-3-8], [16:0-2-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.23	17-24	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.49	17-24	>967	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.29	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.25	17-24	>999	240	Weight: 276 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except*
	1-4: 2x8 SP DSS
BOT CHORD	2x4 SP No.2 *Except*
	2-18,13-15,11-13: 2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (4-5-7 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-16, 6-14, 8-14

REACTIONS. (lb/size) 2=1613/0-5-8, 11=1567/Mechanical
Max Horz 2=195(LC 12)
Max Uplift 2=-276(LC 12), 11=-268(LC 13)

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

TOP CHORD	3-20=-666/222, 3-4=-3149/984, 4-5=-2375/836, 5-6=-2272/939, 6-7=-1633/727, 7-8=-1911/756, 8-9=-2396/835, 9-11=-2583/855
BOT CHORD	3-17=-778/2844, 16-17=-775/2852, 12-14=-499/1991, 11-12=-660/2232
WEBS	4-17=0/321, 4-16=-948/395, 14-16=-239/1553, 6-16=-408/1070, 6-14=-346/142, 7-14=-155/530, 8-14=-557/314, 8-12=-51/356

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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) 2=276, 11=268.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

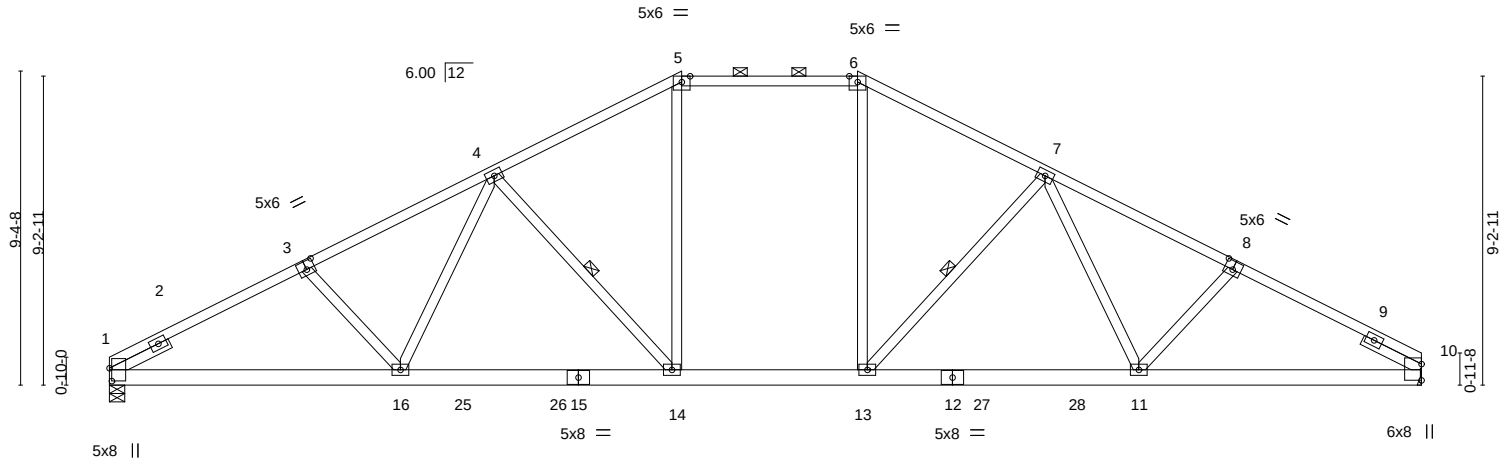
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A10	Hip	2	1	E12810574
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:54 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-f6X9tVNEPbclYCiimilwr4jWtxLITvSC?sCOQXzajuN

5-10-11	11-5-13	17-1-0	22-4-0	27-11-3	33-6-5	39-2-0
5-10-11	5-7-3	5-7-3	5-3-0	5-7-3	5-7-3	5-7-11

Scale = 1:68.8



8-8-4	17-1-0	22-4-0	30-8-12	39-2-0
8-8-4	8-4-12	5-3-0	8-4-12	8-5-4

Plate Offsets (X,Y)-- [1:0-4-9,0-0-13], [3:0-3-0,0-3-0], [8:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.30	14-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.47	14-16	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.11	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.25	14-16	>999	240	Weight: 242 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-1-2 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-14, 7-13

REACTIONS. (lb/size) 1=1567/0-5-8, 10=1567/Mechanical
Max Horz 1=166(LC 12)
Max Uplift 1=-261(LC 12), 10=-259(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2668/871, 3-4=-2519/849, 4-5=-2060/765, 5-6=-1782/734, 6-7=-2060/766, 7-8=-2447/826, 8-10=-2580/845
BOT CHORD 1-16=-685/2319, 14-16=-526/2100, 13-14=-325/1782, 11-13=-517/2071, 10-11=-657/2232
WEBS 4-16=-87/369, 4-14=-594/315, 5-14=-148/615, 6-13=-148/614, 7-13=-555/308, 7-11=-74/305

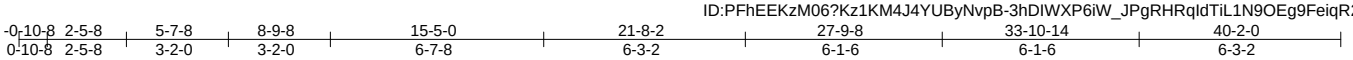
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 4x6 MT20 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=261, 10=259.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

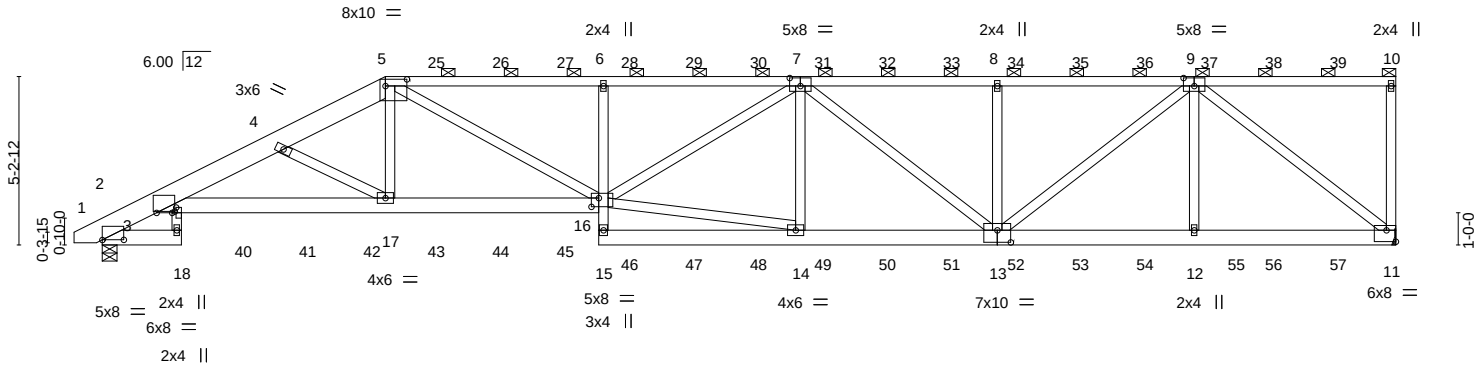
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A11	HALF HIP GIRDER	2	2	E12810575
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:57 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-3hDlWXP6iW_JPgRHRqIdTiL1N9OEg9FeiqR20szajuK



Scale = 1:71.5



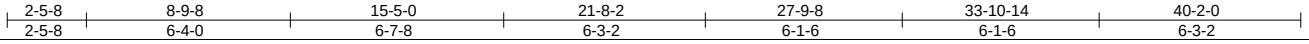


Plate Offsets (X,Y)-- [2:0-8-0,0-0-1], [3:0-6-13,0-0-8], [3:0-2-0,0-1-8], [5:0-8-0,0-2-8], [7:0-4-0,0-3-0], [9:0-4-0,0-3-0], [11:Edge,0-4-4], [13:0-5-0,0-4-8], [16:0-2-12,0-3-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	0.46	6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.42	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.70	Horz(CT)	-0.20	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 566 lb	FT = 20%

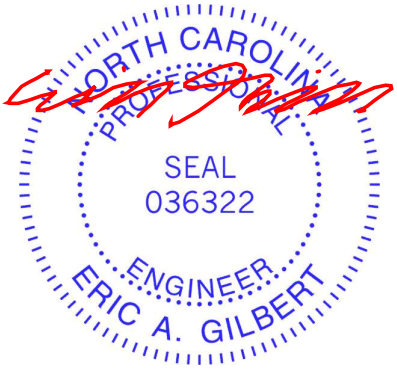
LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 1-5: 2x8 SP DSS
BOT CHORD 2x6 SP No.2 *Except* 6-15: 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-0 max.): 5-10.
BOT CHORD Rigid ceiling directly applied or 7-9-13 oc bracing.

REACTIONS. (lb/size) 11=2166/Mechanical, 2=2389/0-5-8
Max Horz 2=214(LC 8)
Max Uplift 11=-1835(LC 5), 2=-1508(LC 8)
Max Grav 11=2261(LC 32), 2=2389(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-20=-970/557, 3-4=-5803/4138, 4-5=-4889/3685, 5-6=-5714/4574, 6-7=-5646/4518, 7-8=-4076/3320, 8-9=-4076/3320
BOT CHORD 3-17=-3995/5528, 16-17=-3288/4280, 6-16=-591/653, 14-15=-542/646, 13-14=-3853/4768, 12-13=-2070/2529, 11-12=-2070/2529
WEBS 4-17=-1468/954, 5-17=-753/1233, 5-16=-1519/1717, 14-16=-3355/4177, 7-16=-786/1081, 7-14=-490/518, 7-13=-885/680, 8-13=-454/515, 9-13=-1597/1975, 9-12=-55/364, 9-11=-3195/2611

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"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: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row 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) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=1835, 2=1508.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 15,2019

Continued on page 2

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

NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 171 lb down and 187 lb up at 10-4-4, 171 lb down and 187 lb up at 12-4-4, 171 lb down and 187 lb up at 14-4-4, 126 lb down and 148 lb up at 16-4-4, 126 lb down and 148 lb up at 18-4-4, 126 lb down and 148 lb up at 20-4-4, 126 lb down and 148 lb up at 22-4-4, 126 lb down and 148 lb up at 24-4-4, 126 lb down and 148 lb up at 26-4-4, 126 lb down and 148 lb up at 28-4-4, 126 lb down and 148 lb up at 30-4-4, 126 lb down and 148 lb up at 32-4-4, 126 lb down and 148 lb up at 34-4-4, and 126 lb down and 148 lb up at 36-4-4, and 126 lb down and 148 lb up at 38-4-4 on top chord, and 120 lb down and 71 lb up at 2-5-8, 115 lb down and 78 lb up at 4-4-4, 115 lb down and 115 lb up at 6-4-4, 148 lb down and 187 lb up at 8-4-4, 3 lb down at 10-4-4, 3 lb down at 12-4-4, 3 lb down at 14-4-4, 47 lb down and 50 lb up at 16-4-4, 47 lb down and 50 lb up at 18-4-4, 47 lb down and 50 lb up at 20-4-4, 47 lb down and 50 lb up at 22-4-4, 47 lb down and 50 lb up at 24-4-4, 47 lb down and 50 lb up at 26-4-4, 47 lb down and 50 lb up at 28-4-4, 47 lb down and 50 lb up at 30-4-4, 47 lb down and 50 lb up at 32-4-4, 47 lb down and 50 lb up at 34-4-4, and 47 lb down and 50 lb up at 36-4-4, and 47 lb down and 50 lb up at 38-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

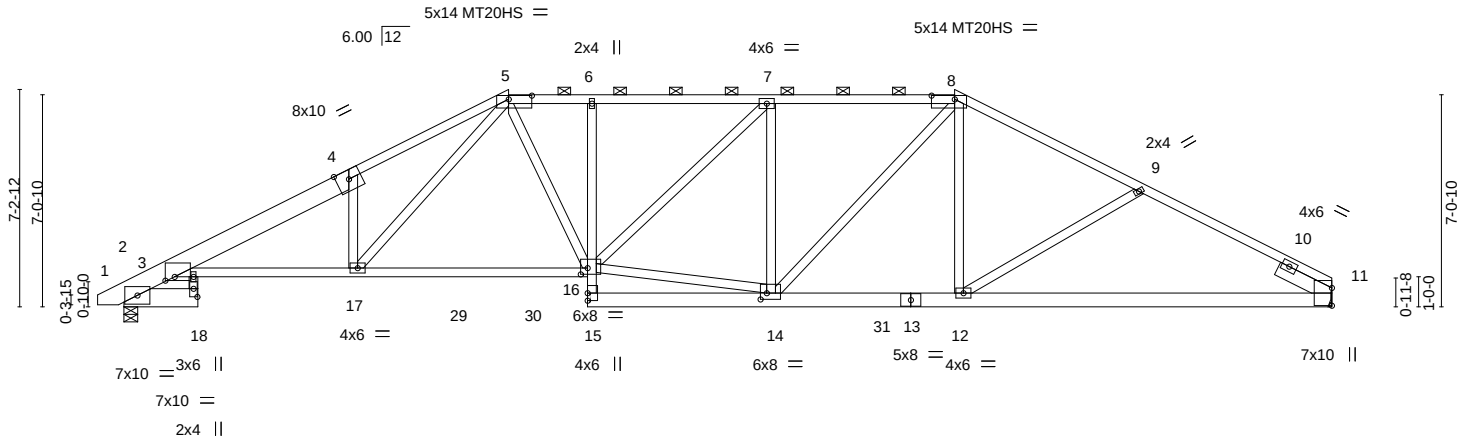
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-5=-60, 5-10=-60, 18-19=-20, 16-22=-20, 11-15=-20
   Concentrated Loads (lb)
   Vert: 18=-120(F) 25=-64(F) 26=-64(F) 27=-64(F) 28=-32(F) 29=-32(F) 30=-32(F) 31=-32(F) 32=-32(F) 33=-32(F) 34=-32(F) 35=-32(F) 36=-32(F) 37=-32(F) 38=-32(F) 39=-32(F) 40=-115(F) 41=-115(F) 42=-115(F) 46=-22(F) 47=-22(F) 48=-22(F) 49=-22(F) 50=-22(F) 51=-22(F) 52=-22(F) 53=-22(F) 54=-22(F) 55=-22(F) 56=-22(F) 57=-22(F)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A12	HIP	2	1	E12810576
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:44:59 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-?3K2xDRNE7E1fzafZFK5Y7QLiy2H8?7x98w95kzajuI

-0-10-8	2-5-8	7-7-8	12-9-8	15-5-0	21-6-4	27-7-8	33-9-0	40-2-0
0-10-8	2-5-8	5-2-0	5-2-0	2-7-8	6-1-4	6-1-4	6-1-8	6-5-0

Scale = 1:76.6



2-5-8	7-7-8	15-5-0	21-6-4	27-7-8	40-2-0
2-5-8	5-2-0	7-9-8	6-1-4	6-1-4	12-6-8

Plate Offsets (X,Y)-- [3:0-3-11,0-1-8], [5:0-9-4,0-1-8], [8:0-9-4,0-1-8], [14:0-2-8,0-2-8], [16:0-2-12,0-2-8], [18:0-3-4,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.27	16-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.57	16-17	>851	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.27	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.21	16-17	>999	240	Weight: 269 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 1-4: 2x8 SP DSS
BOT CHORD	2x6 SP No.2 *Except* 2-18: 2x8 SP DSS, 3-16: 2x4 SP No.1, 6-15: 2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-2-7 max.): 5-8.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (lb/size) 11=1607/Mechanical, 2=1653/0-5-8
Max Horz 2=142(LC 12)
Max Uplift 11=-217(LC 13), 2=-226(LC 12)

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

TOP CHORD	3-24=-677/218, 3-4=-3412/996, 4-5=-3501/1171, 5-6=-2684/903, 6-7=-2670/905, 7-8=-2436/863, 8-9=-2395/764, 9-11=-2657/876
BOT CHORD	3-17=-810/3103, 16-17=-546/2400, 6-16=-339/162, 12-14=-444/2081, 11-12=-673/2298
WEBS	4-17=-556/351, 5-16=-171/755, 14-16=-496/2247, 7-16=-82/374, 7-14=-681/257, 8-14=-215/636, 8-12=-6/412, 9-12=-259/271, 5-17=-374/1023

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=217, 2=226.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

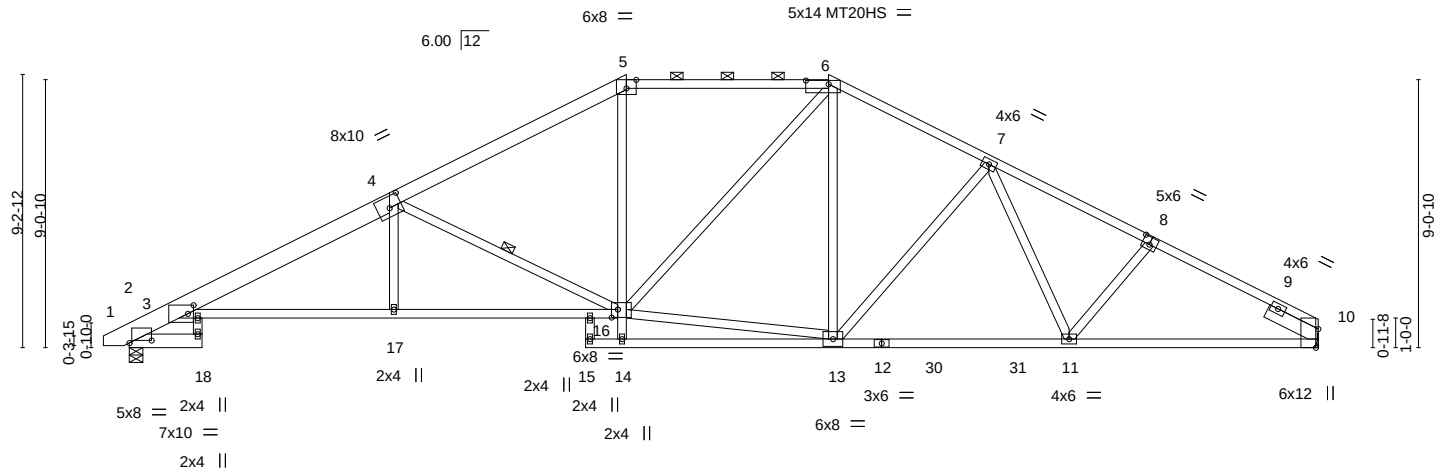
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A13	HIP	2	1	E12810577
					Job Reference (optional)

Builders FirstSource (Albemarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:00 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-TGuR8ZS??RMuG79s6yrK4LzZNMOatVL5OofidBzajuH

-0-10-8	2-5-8	8-11-4	16-9-8	23-7-8	29-0-8	34-5-8	40-2-0
0-10-8	2-5-8	6-5-12	7-10-4	6-10-0	5-5-0	5-5-0	5-8-8

Scale = 1:77.8



2-5-8	8-11-4	15-5-0	16-9-8	23-7-8	31-9-0	40-2-0
2-5-8	6-5-12	6-5-12	1-4-8	6-10-0	8-1-8	8-5-0

Plate Offsets (X,Y)-- [2:0-9-0,0-1-1], [3:0-2-5,0-3-8], [4:0-5-0,0-4-8], [5:0-4-0,Edge], [6:0-9-4,0-1-8], [8:0-3-0,0-3-0], [10:0-7-9,Edge], [16:0-2-8,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.27	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.52	11-13	>921	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.33	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.24	17-25	>999	240	Weight: 260 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except*
	4-5: 2x6 SP No.2, 1-4: 2x8 SP DSS, 8-10: 2x4 SP SS
BOT CHORD	2x4 SP No.2 *Except*
	2-18: 2x6 SP No.2, 3-16,10-12: 2x4 SP No.1
WEBS	2x4 SP No.3 *Except*
	5-14: 2x4 SP No.2
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (2-10-9 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-16

REACTIONS. (lb/size) 2=1666/0-5-8, 10=1616/Mechanical
Max Horz 2=179(LC 12)
Max Uplift 2=-259(LC 12), 10=-253(LC 13)

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

TOP CHORD	3-21=-690/221, 3-4=-3388/1016, 4-5=-2462/819, 5-6=-2074/799, 6-7=-2108/774, 7-8=-2473/830, 8-10=-2615/837
BOT CHORD	3-17=-819/3081, 16-17=-815/3089, 11-13=-521/2114, 10-11=-639/2224
WEBS	4-17=0/366, 4-16=-1105/460, 5-16=-99/644, 13-16=-343/1788, 6-13=-107/382, 7-13=-460/278, 7-11=-47/258, 6-16=-145/492

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=259, 10=253.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

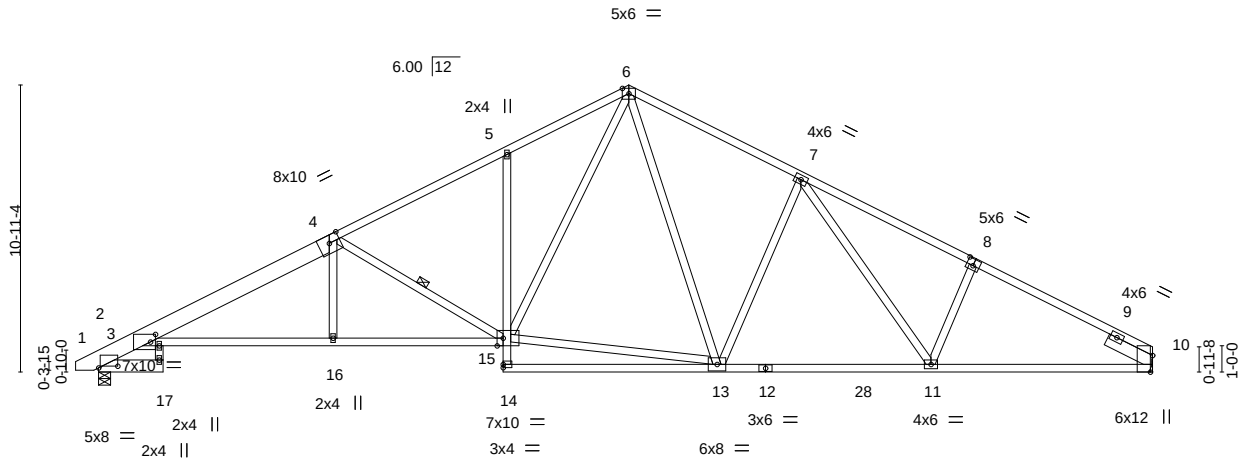
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A14	ROOF SPECIAL	2	1	E12810578 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:01 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-ySSpLvSdmlUluHk2ggNZdYVjWmjicu3EdSPG9dzajuG

-0-10-8	2-5-8	8-11-4	15-5-0	20-2-8	26-9-3	33-3-13	40-2-0
0-10-8	2-5-8	6-5-12	6-5-12	4-9-8	6-6-11	6-6-11	6-10-3

Scale = 1:87.8



2-5-8	8-11-4	15-5-0	23-6-13	31-8-11	40-2-0
2-5-8	6-5-12	6-5-12	8-1-13	8-1-13	8-5-5

Plate Offsets (X,Y)-- [2:0-8-12,0-0-13], [3:0-2-5,0-3-8], [8:0-3-0,0-3-0], [10:0-7-9,Edge], [15:0-2-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.33	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.60	11-13	>801	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.33	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.26	16-23	>999	240	Weight: 257 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except*
	1-4: 2x8 SP DSS, 8-10: 2x4 SP SS
BOT CHORD	2x4 SP No.2 *Except*
	2-17: 2x6 SP No.2, 3-15,10-12: 2x4 SP No.1
WEBS	2x4 SP No.3
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-15

REACTIONS. (lb/size) 2=1653/0-5-8, 10=1607/Mechanical
Max Horz 2=215(LC 12)
Max Uplift 2=-293(LC 12), 10=-286(LC 13)

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

TOP CHORD	3-19=-684/248, 3-4=-3252/1029, 4-5=-2470/879, 5-6=-2410/1016, 6-7=-2064/864, 7-8=-2468/919, 8-10=-2616/866
BOT CHORD	3-16=-817/2936, 15-16=-815/2943, 5-15=-324/264, 11-13=-492/1982, 10-11=-656/2231
WEBS	4-16=0/329, 4-15=-954/396, 13-15=-255/1430, 6-15=-452/1192, 6-13=-238/647, 7-13=-598/385, 7-11=-139/374

NOTES-

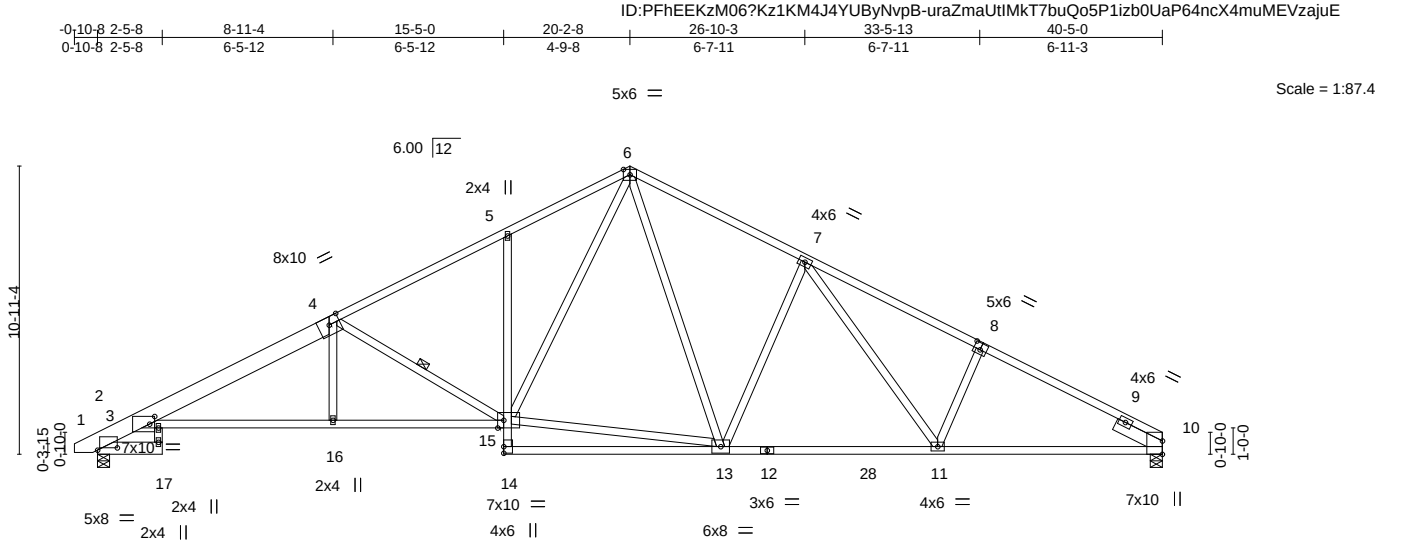
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=293, 10=286.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A15	ROOF SPECIAL	2	1	E12810579
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:03 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-uraZmaUtlMkT7buQo5P1izb0UaP64ncX4muMEVzajuE



2-5-8	8-11-4	15-5-0	23-7-13	31-10-11	40-5-0
2-5-8	6-5-12	6-5-12	8-2-13	8-2-13	8-6-5

Plate Offsets (X,Y)-- [2:0-9-0,0-1-1], [3:0-2-5,0-3-8], [8:0-3-0,0-3-0], [10:0-6-1,Edge], [15:0-2-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.32	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.58	11-13	>836	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.31	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.26	16-23	>999	240	Weight: 257 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
1-4: 2x8 SP DSS, 8-10: 2x4 SP No.1
BOT CHORD 2x4 SP No.2 *Except*
2-17: 2x6 SP No.2, 3-15,10-12: 2x4 SP No.1
WEBS 2x4 SP No.3
SLIDER Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-15

REACTIONS. (lb/size) 2=1663/0-5-8, 10=1617/0-5-8
Max Horz 2=212(LC 12)
Max Uplift 2=-294(LC 12), 10=-289(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-19=-689/254, 3-4=-3277/1035, 4-5=-2494/885, 5-6=-2433/1022, 6-7=-2099/875, 7-8=-2566/948, 8-10=-2713/896
BOT CHORD 3-16=-817/2959, 15-16=-814/2966, 5-15=-323/263, 11-13=-501/2024, 10-11=-685/2333
WEBS 4-16=0/329, 4-15=-956/396, 13-15=-255/1445, 6-15=-451/1192, 6-13=-245/668, 7-13=-619/395, 7-11=-152/432, 8-11=-252/252

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=294, 10=289.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

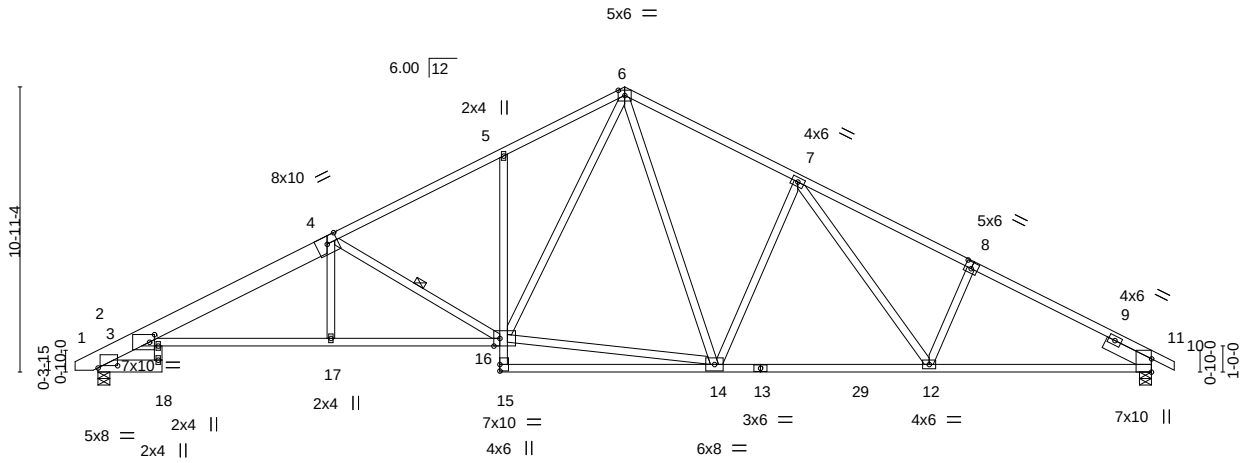
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A16	ROOF SPECIAL	2	1	E12810580 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:04 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-M18x_wVV3gsKlkTdLowGFB7BxzlJpFzgJQdwmyzajuD

-0-10-8	2-5-8	8-11-4	15-5-0	20-2-8	26-10-3	33-5-13	40-5-0	41-3-8
0-10-8	2-5-8	6-5-12	6-5-12	4-9-8	6-7-11	6-7-11	6-11-3	0-10-8

Scale = 1:88.4



2-5-8	8-11-4	15-5-0	23-7-13	31-10-11	40-5-0
2-5-8	6-5-12	6-5-12	8-2-13	8-2-13	8-6-5

Plate Offsets (X,Y)-- [2:0-9-0,0-1-1], [3:0-2-5,0-3-8], [8:0-3-0,0-3-0], [10:0-6-1,Edge], [16:0-2-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.32	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.58	12-14	>833	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.31	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.26	17-24	>999	240	Weight: 259 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except*
	1-4: 2x8 SP DSS, 8-11: 2x4 SP No.1
BOT CHORD	2x4 SP No.2 *Except*
	2-18: 2x6 SP No.2, 3-16,10-13: 2x4 SP No.1
WEBS	2x4 SP No.3
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-16

REACTIONS. (lb/size) 2=1663/0-5-8, 10=1670/0-5-8
Max Horz 2=203(LC 12)
Max Uplift 2=-294(LC 12), 10=-312(LC 13)

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

TOP CHORD	3-20=-688/268, 3-4=-3275/1030, 4-5=-2492/882, 5-6=-2431/1019, 6-7=-2098/875, 7-8=-2560/947, 8-10=-2708/895
BOT CHORD	3-17=-792/2957, 16-17=-790/2965, 5-16=-323/264, 12-14=-481/2022, 10-12=-665/2327
WEBS	4-17=0/329, 4-16=-956/393, 14-16=-237/1444, 6-16=-447/1192, 6-14=-249/667, 7-14=-617/395, 7-12=-150/427, 8-12=-249/251

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=294, 10=312.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

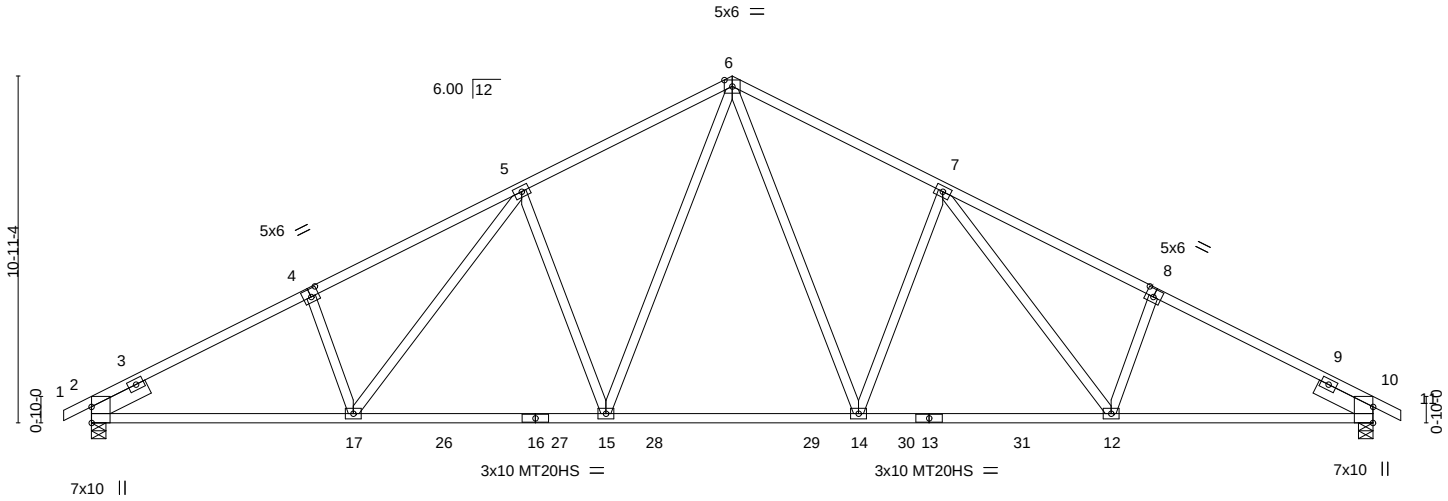
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A17	Common	2	1	E12810581
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:05 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-qDhKBGV7qz?BNu2pvWRVnOgRGN40YlZqX4NTIOzajuC

-0-10-8	6-11-3	13-6-13	20-2-8	26-10-3	33-5-13	40-5-0	41-3-8
0-10-8	6-11-3	6-7-11	6-7-11	6-7-11	6-7-11	6-11-3	0-10-8

Scale = 1:72.7



8-3-2	16-2-11	24-2-5	32-1-14	40-5-0
8-3-2	7-11-10	7-11-10	7-11-10	8-3-2

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.28	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.52	12-14	>929	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.15	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.17	15-17	>999	240	Weight: 233 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 1-4,8-11: 2x4 SP SS
BOT CHORD 2x4 SP No.1 *Except* 13-16: 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

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

REACTIONS. (lb/size) 2=1669/0-5-8, 10=1669/0-5-8
Max Horz 2=202(LC 16)
Max Uplift 2=-312(LC 12), 10=-312(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2729/893, 4-5=-2614/961, 5-6=-2219/893, 6-7=-2219/893, 7-8=-2614/961, 8-10=-2729/893
BOT CHORD 2-17=-661/2351, 15-17=-480/2088, 14-15=-242/1609, 12-14=-480/2088, 10-12=-663/2351
WEBS 6-14=-297/878, 7-14=-616/394, 7-12=-167/437, 8-12=-249/256, 6-15=-297/878, 5-15=-616/394, 5-17=-167/437, 4-17=-249/256

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 4x6 MT20 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=312, 10=312.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

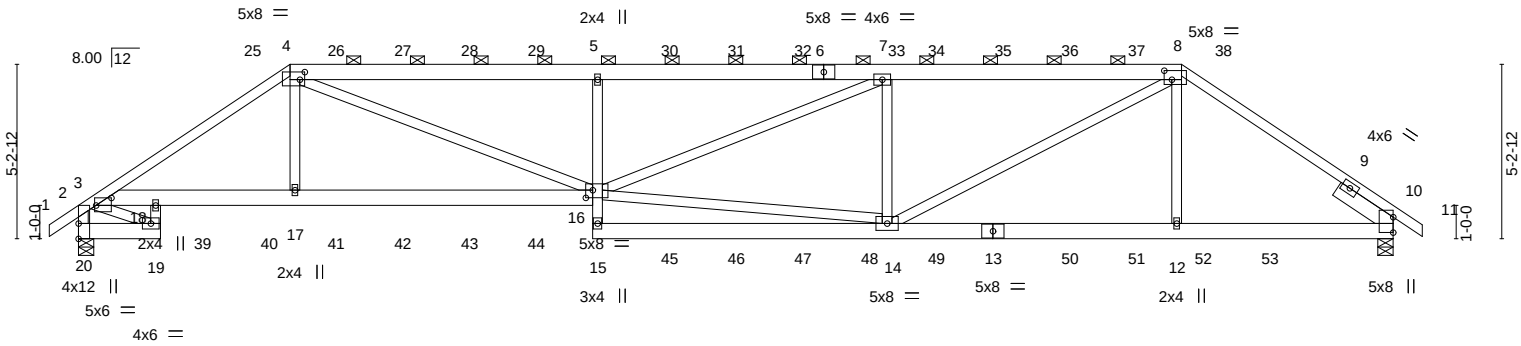
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A18	Hip Girder	1	2	E12810582
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:08 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-EoNSqIY06uNmEMmOae?CP1IzUbA?k4NGE2b7vjzaju9

-0-10-8 6-4-2 15-5-0 24-2-15 33-0-14 39-5-0 40-3-8
0-10-8 6-4-2 9-0-14 8-9-15 8-9-15 6-4-2 0-10-8

Scale = 1:69.1



2-5-8 6-4-2 15-5-0 24-2-15 33-0-14 39-5-0
2-5-8 3-10-10 9-0-14 8-9-15 8-9-15 6-4-2

Plate Offsets (X,Y)-- [2:0-1-3,0-1-12], [3:0-5-8,0-2-11], [4:0-1-12,0-2-12], [8:0-2-12,0-3-4], [16:0-2-8,0-2-12], [20:0-0-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	0.39	5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.34	5	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.87	Horz(CT)	-0.15	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 545 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 4-6,6-8: 2x6 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 5-15: 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-12 oc purlins, except end verticals, and 2-0-0 oc purlins (5-8-14 max.): 4-8.
BOT CHORD Rigid ceiling directly applied or 9-11-9 oc bracing.

REACTIONS. (lb/size) 20=2118/0-5-8, 10=2175/0-5-8
Max Horz 20=-158(LC 25)
Max Uplift 20=-1446(LC 8), 10=-1507(LC 9)
Max Grav 20=2131(LC 33), 10=2175(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1671/1179, 3-4=-3823/2833, 4-5=-5625/4532, 5-7=-5531/4458, 7-8=-4431/3582, 8-10=-3021/2288, 2-20=-2049/1420
BOT CHORD 19-20=-582/778, 3-18=-2431/3242, 17-18=-2431/3242, 16-17=-2435/3259, 5-16=-851/940, 14-15=-571/691, 12-14=-1817/2471, 10-12=-1819/2467
WEBS 4-17=-115/546, 4-16=-2419/2755, 14-16=-3044/3902, 7-16=-951/1178, 7-14=-1222/1223, 8-14=-1992/2353, 8-12=0/298, 18-19=-290/418, 3-19=-902/674

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=1446, 10=1507.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

Continued on page 2

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

NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 165 lb down and 201 lb up at 5-8-8, 171 lb down and 187 lb up at 7-8-8, 171 lb down and 187 lb up at 9-8-8, 171 lb down and 187 lb up at 11-8-8, 171 lb down and 187 lb up at 13-8-8, 126 lb down and 148 lb up at 15-8-8, 126 lb down and 148 lb up at 17-8-8, 126 lb down and 148 lb up at 19-8-8, 126 lb down and 148 lb up at 21-8-8, 126 lb down and 148 lb up at 23-8-8, 126 lb down and 148 lb up at 25-8-8, 126 lb down and 148 lb up at 27-8-8, 126 lb down and 148 lb up at 29-8-8, and 126 lb down and 148 lb up at 31-8-8, and 134 lb down and 190 lb up at 33-8-8 on top chord, and 34 lb down and 46 lb up at 3-8-8, 3 lb down at 5-8-8, 3 lb down at 7-8-8, 3 lb down at 9-8-8, 3 lb down at 11-8-8, 3 lb down at 13-8-8, 47 lb down and 50 lb up at 15-6-12, 47 lb down and 50 lb up at 17-8-8, 47 lb down and 50 lb up at 19-8-8, 47 lb down and 50 lb up at 21-8-8, 47 lb down and 50 lb up at 23-8-8, 47 lb down and 50 lb up at 25-8-8, 47 lb down and 50 lb up at 27-8-8, 47 lb down and 50 lb up at 29-8-8, 47 lb down and 50 lb up at 31-8-8, and 31 lb down and 24 lb up at 33-8-8, and 141 lb down and 125 lb up at 35-8-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-4=-60, 4-8=-60, 8-11=-60, 19-20=-20, 16-18=-20, 15-21=-20
   Concentrated Loads (lb)
   Vert: 16=-22(F) 5=-32(F) 13=-22(F) 25=-66(F) 26=-64(F) 27=-64(F) 28=-64(F) 29=-64(F) 30=-32(F) 31=-32(F) 32=-32(F) 33=-32(F) 34=-32(F) 35=-32(F) 36=-32(F) 37=-32(F) 38=-45(F) 39=-28(F) 45=-22(F) 46=-22(F) 47=-22(F) 48=-22(F) 49=-22(F) 50=-22(F) 51=-22(F) 52=-16(F) 53=-141(F)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A19	HIP	1	1	E12810583
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:10 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-BBVDE_ZGeWdTTfwni31gUSNDVOn1CyBZhM4E_bzaju7

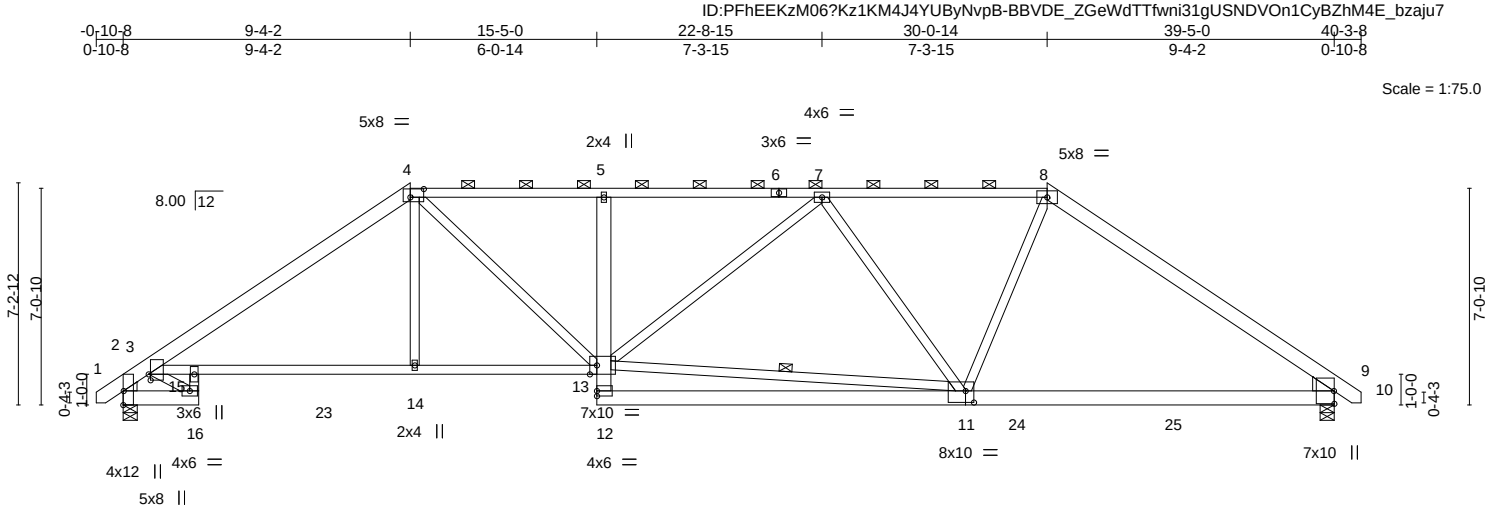


Plate Offsets (X,Y)-- [2:0-0-1,0-0-1], [2:0-0-2,0-3-11], [2:Edge,0-0-3], [3:0-2-5,0-0-12], [4:0-5-4,0-3-4], [9:0-0-2,0-3-11], [9:0-0-1,0-0-1], [11:0-3-4,0-4-8], [13:0-2-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.26	14-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.57	14-15	>824	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.26	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.32	14-15	>999	240	Weight: 264 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 4-6,6-8: 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 3-13: 2x4 SP No.1
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3, Right: 2x6 SP No.2

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

REACTIONS. (lb/size) 2=1620/0-5-8, 9=1620/0-5-8
Max Horz 2=189(LC 11)
Max Uplift 2=-191(LC 12), 9=-191(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-18=-1485/518, 3-4=-2491/646, 4-5=-2594/791, 5-7=-2547/782, 7-8=-1977/614, 8-9=-2208/595
BOT CHORD 2-16=-315/735, 3-15=-424/2105, 14-15=-405/2036, 13-14=-404/2043, 5-13=-395/237, 11-12=-79/715, 9-11=-312/1707
WEBS 4-13=-342/857, 11-13=-438/1676, 7-13=-70/261, 7-11=-772/372, 8-11=-102/779, 15-16=-245/658, 3-16=-938/402, 4-14=0/390

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=191, 9=191.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

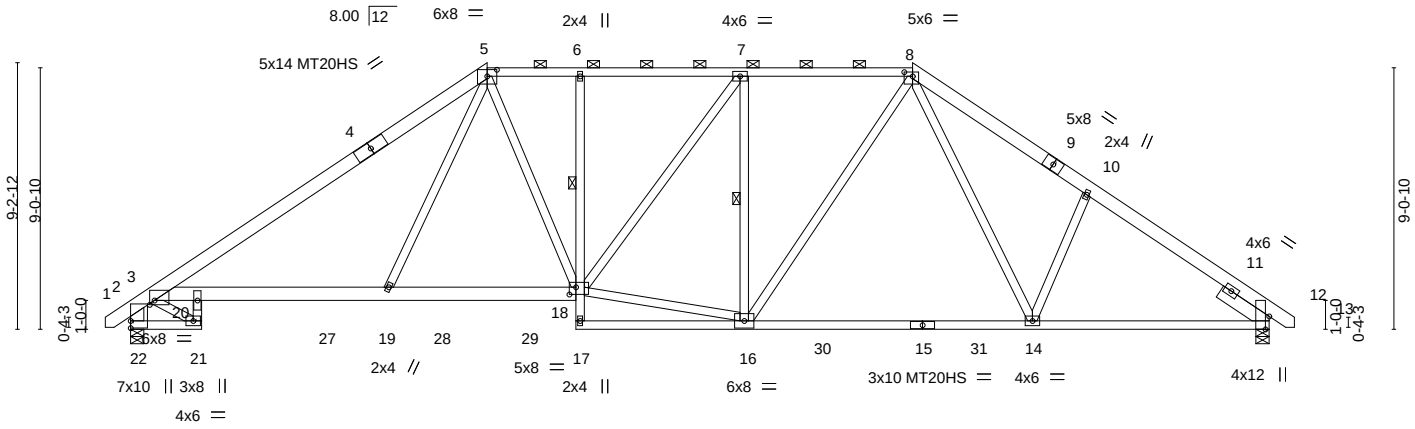
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A20	HIP	1	1	E12810584
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:11 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-fN3bSJauPpIK5pVzGmYv1fwU1o9QxTRiw0qoW2zaju6

-0-10-8	12-4-2	15-5-0	21-2-15	27-0-14	33-1-3	39-5-0	40-3-8
0-10-8	12-4-2	3-0-14	5-9-15	5-9-15	6-0-5	6-3-13	0-10-8

Scale = 1:79.8



2-5-8	8-11-4	15-5-0	21-2-15	31-2-11	39-5-0
2-5-8	6-5-12	6-5-12	5-9-15	9-11-12	8-2-5

Plate Offsets (X,Y)-- [2:0-1-13,0-2-12], [3:0-2-0,0-1-13], [5:0-4-0,0-2-12], [8:0-3-8,0-1-12], [12:0-5-6,Edge], [18:0-2-12,0-3-0], [22:0-0-0,0-2-12]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.37	14-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.63	14-16	>745	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.20	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.19	19-20	>999	240	Weight: 286 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP DSS *Except*
	5-8: 2x4 SP No.2, 8-9,9-13: 2x6 SP No.2
BOT CHORD	2x4 SP No.2 *Except*
	3-18: 2x6 SP No.1, 15-17,12-15: 2x4 SP No.1
WEBS	2x4 SP No.3 *Except*
	2-22: 2x6 SP No.2
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-5-15 max.): 5-8.
BOT CHORD	Rigid ceiling directly applied. Except:
	1 Row at midpt 6-18
WEBS	1 Row at midpt 7-16

REACTIONS. (lb/size) 22=1625/0-5-8, 12=1611/0-5-8
Max Horz 22=-268(LC 10)
Max Uplift 22=-227(LC 12), 12=-224(LC 13)

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

TOP CHORD	2-3=-1408/521, 3-5=-2460/599, 5-6=-1891/627, 6-7=-1895/632, 7-8=-1780/622, 8-10=-2063/670, 10-12=-2216/584, 2-22=-1588/435
BOT CHORD	21-22=-434/830, 3-20=-284/1950, 19-20=-284/1950, 18-19=-290/1740, 14-16=-213/1514, 12-14=-354/1731
WEBS	5-19=-33/580, 5-18=-268/559, 16-18=-214/1731, 7-16=-577/299, 8-16=-191/574, 8-14=-178/546, 10-14=-283/293, 20-21=-287/586, 3-21=-1012/529

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 22=227, 12=224.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

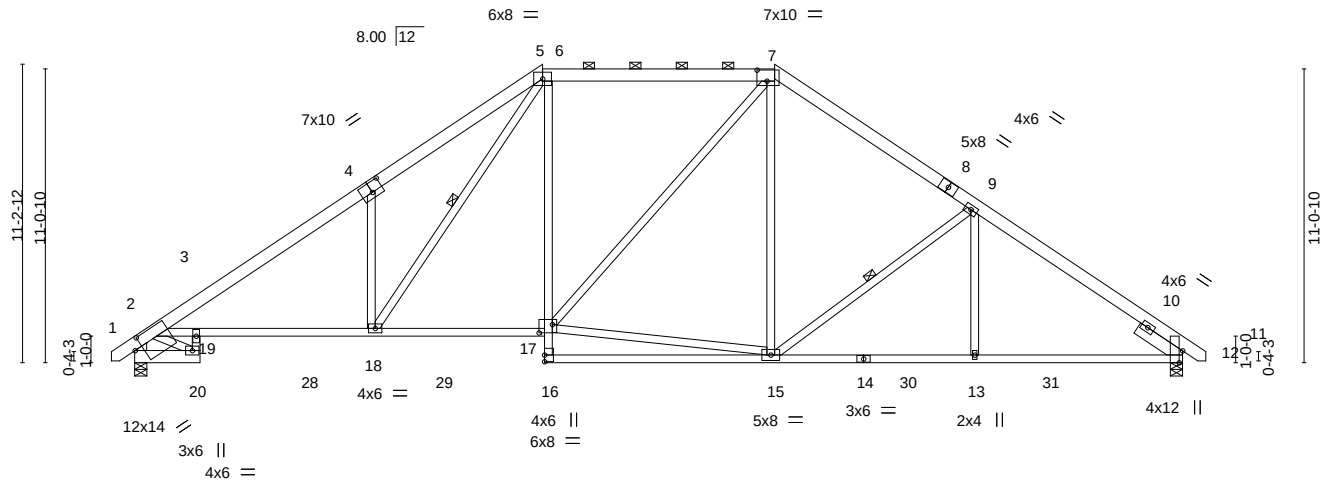
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A21	HIP	1	1	E12810585
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:12 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-7ZdzffbXA7tBiz49pU38ZtSbKCS4gzFs8gZL2Uzaju5

-0-10-8 8-10-13 15-4-2 24-0-14 31-7-3 39-5-0 40-3-8
0-10-8 8-10-13 6-5-5 8-8-12 7-6-5 7-9-13 0-10-8

Scale = 1:86.7



2-5-8 8-10-13 15-5-0 24-0-14 31-7-3 39-5-0
2-5-8 6-5-5 6-6-3 8-7-14 7-6-5 7-9-13

Plate Offsets (X,Y)-- [2:0-0-2,0-0-0], [2:0-3-2,0-1-15], [2:0-3-10,0-4-9], [4:0-5-0,0-4-8], [6:0-1-12,0-0-0], [7:0-4-8,0-5-0], [11:0-5-6,Edge], [17:0-6-0,0-3-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.23	18-19	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.49	18-19	>963	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.26	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.29	18-19	>999	240	Weight: 291 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
2-20: 2x6 SP No.2, 3-17: 2x4 SP No.1
WEBS 2x4 SP No.3 *Except*
7-17: 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (5-0-10 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 9-15, 5-18

REACTIONS. (lb/size) 2=1620/0-5-8, 11=1620/0-5-8
Max Horz 2=-302(LC 10)
Max Uplift 2=-253(LC 12), 11=-253(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-22=-1245/456, 3-4=-2552/623, 4-5=-2643/874, 5-6=-1465/561, 6-7=-1573/585, 7-9=-1803/580, 9-11=-2225/565
BOT CHORD 2-20=-304/530, 3-19=-366/2250, 18-19=-366/2250, 17-18=-147/1574, 6-17=-42/319, 13-15=-319/1747, 11-13=-319/1747
WEBS 4-18=-676/453, 15-17=-138/1334, 7-17=-198/378, 7-15=-98/400, 9-15=-613/312, 9-13=0/320, 19-20=-177/370, 3-20=-604/346, 5-18=-474/1208

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=253, 11=253.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

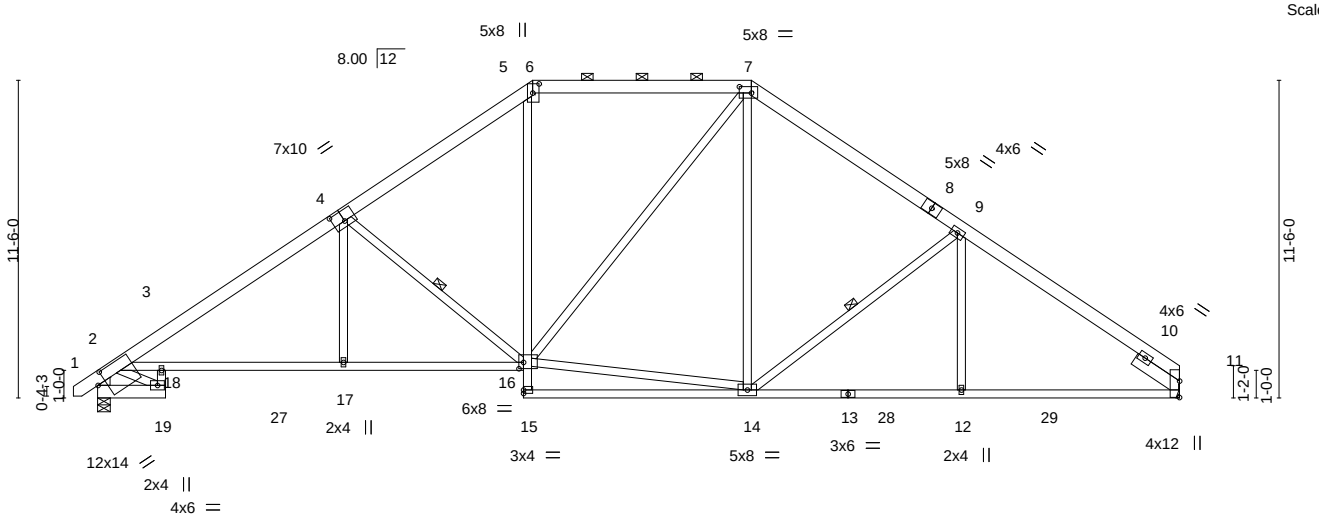
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A22	PIGGYBACK BASE	2	1	E12810586 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:14 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-3ykj4Lcnik7vyHEYxv6cfIYxB?9_8uW9cz2S7Nzaju3

-0-10-8 8-10-13 15-5-0 15-9-0 23-8-0 31-3-4 39-2-0
0-10-8 8-10-13 6-6-3 0-4-0 7-11-0 7-7-4 7-10-12

Scale = 1:83.4



2-5-8 8-10-13 15-5-0 23-8-0 31-3-4 39-2-0
2-5-8 6-5-5 6-6-3 8-3-0 7-7-4 7-10-12

Plate Offsets (X,Y)-- [2:0-0-2,0-0-0], [2:0-3-2,0-1-15], [2:0-3-10,0-4-9], [4:0-5-0,0-4-8], [5:0-1-3,0-1-12], [6:0-4-0,0-2-12], [6:0-2-12,0-0-0], [7:0-5-4,0-2-12], [11:0-7-2,0-0-1], [16:0-2-0,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.22	17-18	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.47	17-18	>991	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.27	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.19	17-18	>999	240	Weight: 285 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
2-19: 2x6 SP No.2, 3-16: 2x4 SP No.1
WEBS 2x4 SP No.3 *Except*
7-16: 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-8-14 max.): 6-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-16, 9-14

REACTIONS. (lb/size) 2=1610/0-5-8, 11=1566/Mechanical
Max Horz 2=247(LC 9)
Max Uplift 2=-47(LC 12), 11=-37(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-21=-1221/430, 3-4=-2545/627, 4-5=-1927/607, 5-6=-1308/529, 6-7=-1477/573, 7-9=-1742/572, 9-11=-2155/549
BOT CHORD 2-19=-253/463, 3-18=-391/2154, 17-18=-391/2154, 16-17=-390/2160, 5-16=-109/660, 12-14=-321/1663, 11-12=-321/1663
WEBS 4-17=0/373, 4-16=-936/325, 7-14=-44/420, 9-14=-595/256, 9-12=0/338, 18-19=-145/328, 3-19=-527/288, 14-16=-121/1216, 7-16=-137/326

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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) 2, 11.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	A23	Piggyback Base	1	1	E12810587
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:15 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-X8l6IhdPT2FmZRpkVcdrBV46tPVotKOIrdo?fpzaju2

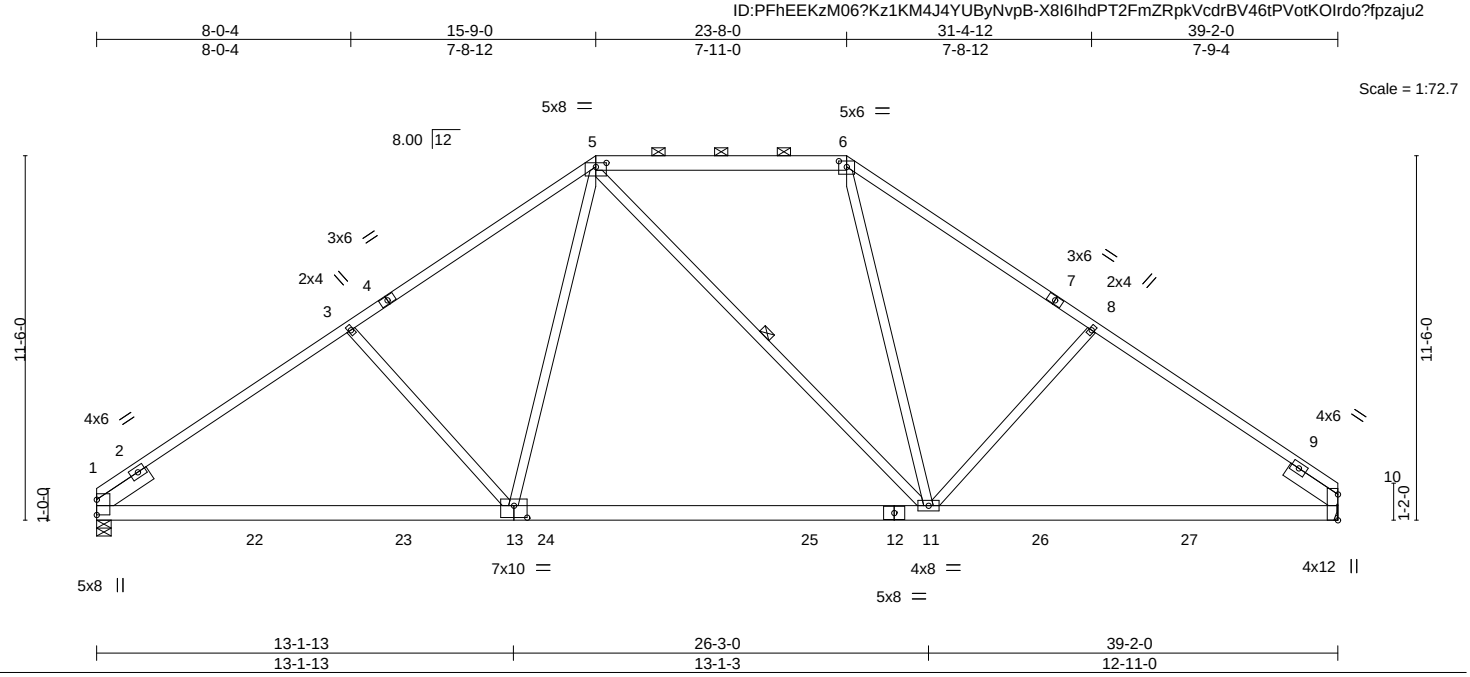


Plate Offsets (X,Y)-- [5:0-4-0,0-1-9], [6:0-3-0,0-2-3], [13:0-5-0,0-4-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.33	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.54	11-13	>865	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.10	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.10	11-13	>999	240	Weight: 253 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except*
	5-6: 2x6 SP No.2, 7-10: 2x4 SP No.1
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3 *Except*
	5-11: 2x4 SP No.2
SLIDER	Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (5-10-4 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-11

REACTIONS. (lb/size) 1=1567/0-5-8, 10=1567/Mechanical
Max Horz 1=239(LC 9)
Max Uplift 1=-38(LC 12), 10=-37(LC 13)
Max Grav 1=1674(LC 19), 10=1657(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2279/590, 3-5=-2055/598, 5-6=-1427/561, 6-8=-1994/593, 8-10=-2207/582
BOT CHORD 1-13=-358/1972, 11-13=-130/1508, 10-11=-348/1751
WEBS 3-13=-458/315, 5-13=-79/836, 6-11=-71/705, 8-11=-432/309

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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) 1, 10.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

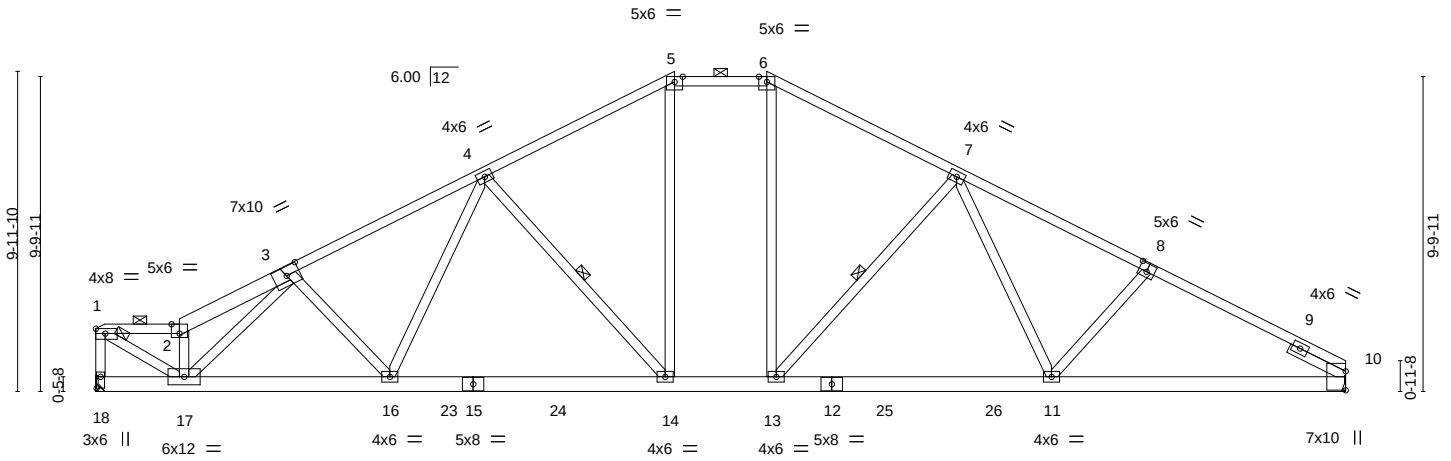
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B01	Roof Special	1	1	E12810588
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:16 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-?LsUV1e1EMNdBbOw2K84kjdF7psscgIR3HXZBFzaju1

0-7-4	2-7-4	6-2-6	12-1-5	18-0-4	20-10-12	26-9-11	32-8-9	38-11-0
0-7-4	2-0-0	3-7-2	5-10-15	5-10-15	2-10-8	5-10-15	5-10-15	6-2-7

Scale = 1:71.7



0-7-4	2-7-4	9-1-14	18-0-4	20-10-12	29-9-2	38-11-0
0-7-4	2-0-0	6-6-10	8-10-6	2-10-8	8-10-6	9-1-14

Plate Offsets (X,Y)-- [1:Edge,0-1-13], [2:0-3-0,Edge], [3:0-5-0,0-3-4], [8:0-3-0,0-3-0], [18:0-4-4,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.22	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.40	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.10	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.13	11-13	>999	240	Weight: 262 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 2-3: 2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-10-15 max.): 1-2, 5-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-14, 7-13

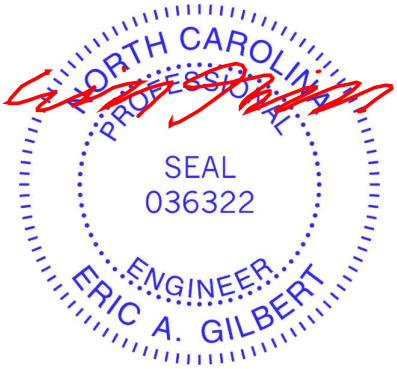
REACTIONS. (lb/size) 18=1551/Mechanical, 10=1551/Mechanical
Max Horz 18=-152(LC 10)
Max Uplift 18=-58(LC 12), 10=-58(LC 13)

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

TOP CHORD	1-2=-2094/658, 2-3=-2279/747, 3-4=-2420/829, 4-5=-1892/744, 5-6=-1629/716, 6-7=-1897/745, 7-8=-2371/826, 8-10=-2553/845, 1-18=-1457/457
BOT CHORD	16-17=-640/2178, 14-16=-490/1966, 13-14=-278/1629, 11-13=-490/1967, 10-11=-651/2205
WEBS	1-17=-724/2409, 2-17=-1139/401, 4-14=-606/319, 5-14=-172/582, 6-13=-180/610, 7-13=-606/318, 7-11=-40/368, 4-16=-45/386, 3-17=-315/138

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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) 18, 10.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B02	ROOF SPECIAL	1	1	E12810589
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:17 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-UXQsiNff?fVUpky7c1fJGwATbDDLLAkbIxH6khzaju0

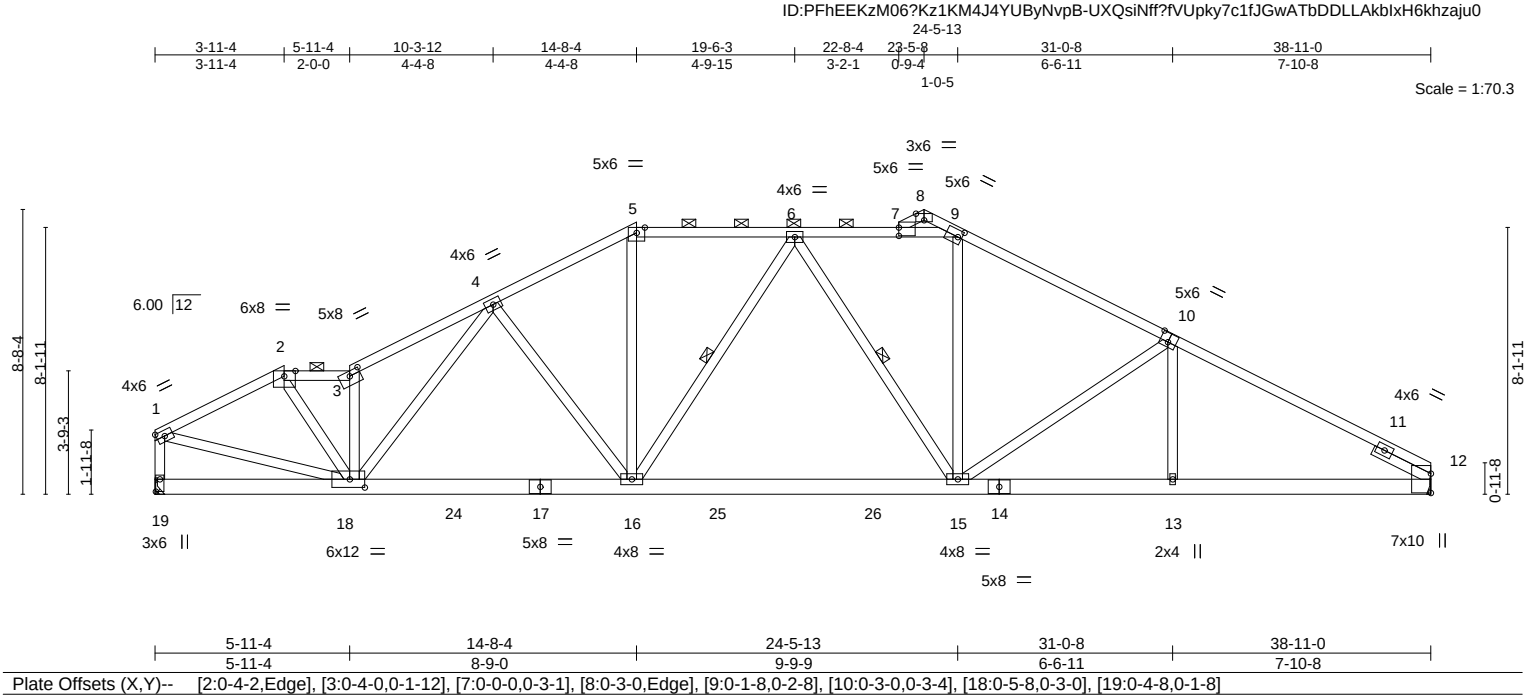


Plate Offsets (X,Y)-- [2:0-4-2,Edge], [3:0-4-0,0-1-12], [7:0-0-0,0-3-1], [8:0-3-0,Edge], [9:0-1-8,0-2-8], [10:0-3-0,0-3-4], [18:0-5-8,0-3-0], [19:0-4-8,0-1-8]

LOADING (psf)		SPACING- 2-1-8		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.18	15-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.35	15-16	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.08	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.10	15	>999	240	Weight: 267 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 10-12: 2x4 SP SS
BOT CHORD	2x6 SP No.2 *Except* 12-14: 2x6 SP No.1
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-3-6 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-4 max.): 2-3, 5-9.
BOT CHORD	Rigid ceiling directly applied or 9-3-2 oc bracing.
WEBS	1 Row at midpt 6-16, 6-15

REACTIONS. (lb/size) 19=1648/Mechanical, 12=1648/Mechanical
Max Horz 19=-116(LC 13)
Max Uplift 19=-43(LC 12), 12=-47(LC 13)

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

TOP CHORD	1-2=-2176/671, 2-3=-2300/734, 3-4=-2703/925, 4-5=-2232/801, 5-6=-1940/755, 6-7=-1969/779, 7-9=-1977/845, 9-10=-2288/799, 10-12=-2671/850, 1-19=-1578/512
BOT CHORD	16-18=-538/2163, 15-16=-446/2059, 13-15=-627/2300, 12-13=-626/2300
WEBS	2-18=-196/828, 3-18=-1393/523, 4-18=-114/350, 4-16=-377/263, 5-16=-197/736, 6-16=-363/127, 10-15=-434/273, 9-15=-117/632, 6-15=-347/128, 1-18=-538/1915

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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) 19, 12.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

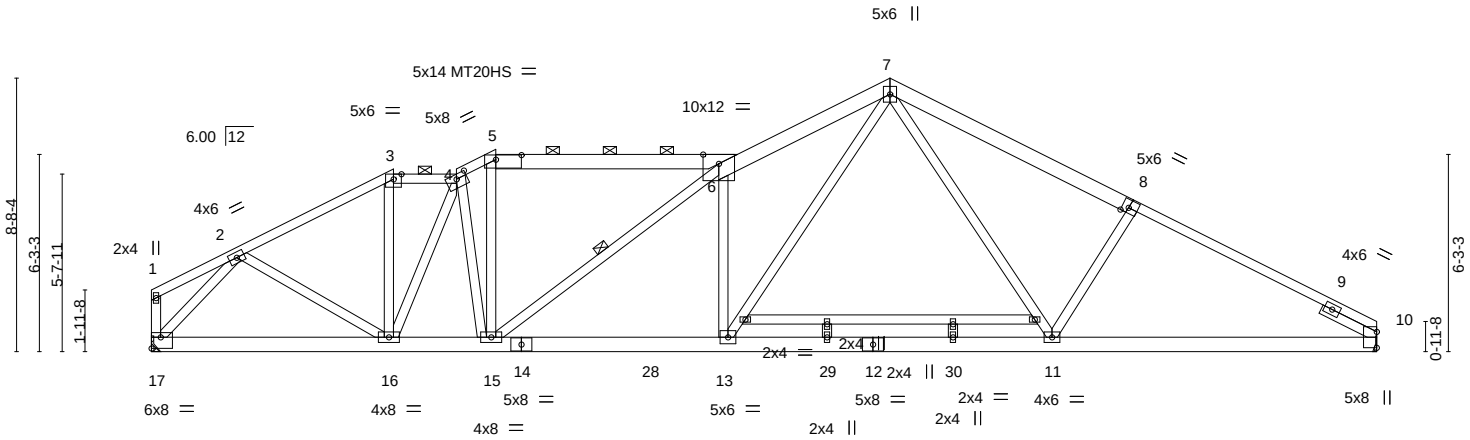
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B03	ROOF SPECIAL	1	1	E12810590 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:19 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-QwYc73gwXHIC226VkShnMLFmo0tTp4rulFmDoazaju_

2-10-6	7-8-4	9-8-4	10-11-4	18-3-12	23-5-8	31-2-0	38-11-0
2-10-6	4-9-14	2-0-0	1-3-0	7-4-8	5-1-12	7-8-8	7-9-0

Scale = 1:73.2



7-8-4	10-11-4	18-3-12	21-5-8	25-5-8	28-7-4	38-11-0
7-8-4	3-3-0	7-4-8	3-1-12	4-0-0	3-1-12	10-3-12

Plate Offsets (X,Y)-- [4:0-4-0,0-1-12], [5:0-9-12,0-1-12], [8:0-2-8,Edge], [17:Edge,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	1.15	TC	0.94	Vert(LL)	-0.17	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.53	11-13	>871	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.11	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.14	11-13	>999	240	Weight: 296 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 5-6,6-7,7-8: 2x6 SP No.2, 8-10: 2x4 SP No.1
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-0-13 max.): 3-4, 5-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-15

REACTIONS. (lb/size) 10=1671/Mechanical, 17=1631/Mechanical
Max Horz 17=-113(LC 8)
Max Uplift 17=-11(LC 12)

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

TOP CHORD	2-3=-2175/535, 3-4=-1885/526, 4-5=-2374/630, 5-6=-2195/605, 6-7=-3430/799, 7-8=-2611/596, 8-10=-2795/573
BOT CHORD	16-17=-288/1348, 15-16=-361/2213, 13-15=-395/3015, 11-13=-197/1949, 10-11=-395/2405
WEBS	2-16=-9/648, 3-16=-59/613, 4-16=-879/179, 5-15=-96/711, 6-15=-1040/59, 7-13=-369/1975, 7-11=-63/665, 8-11=-326/337, 6-13=-1320/557, 2-17=-1939/521

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
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, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

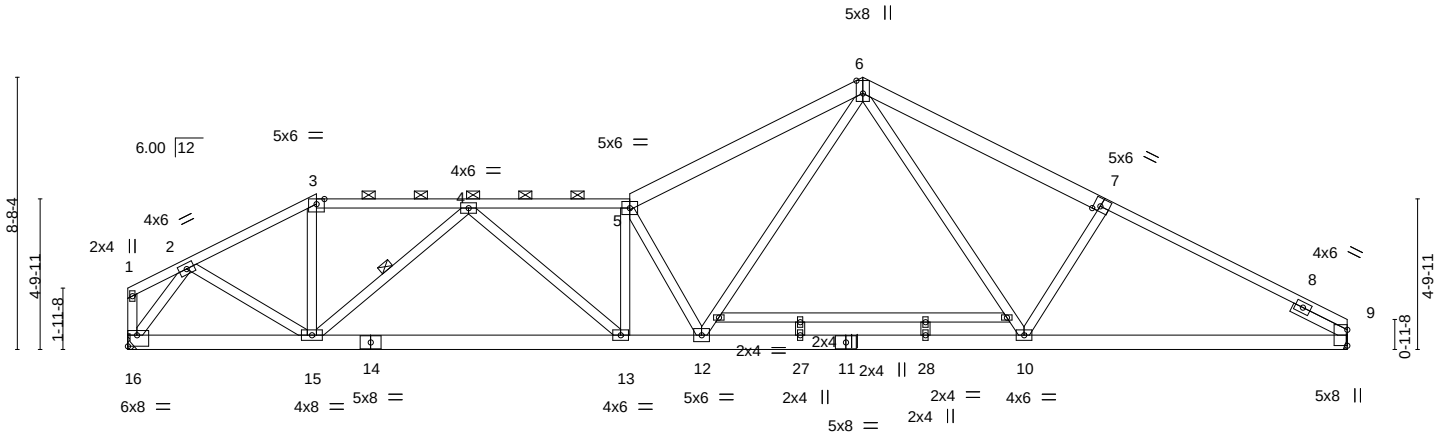
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B04	ROOF SPECIAL	1	1	E12810591 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:20 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-u65?LOhYHat3gChiH9C0uZoxjQCvYXa1_vVmJ0zajtz

2-0-6	6-0-4	10-10-8	16-0-4	23-5-8	31-2-0	38-11-0
2-0-6	3-11-14	4-10-4	5-1-12	7-5-4	7-8-8	7-9-0

Scale = 1:73.5



6-0-4	16-0-4	18-3-12	21-5-8	25-5-8	28-7-4	38-11-0
6-0-4	10-0-0	2-3-8	3-1-12	4-0-0	3-1-12	10-3-12

Plate Offsets (X,Y)-- [6:0-4-14,Edge], [7:0-2-8,Edge], [16:Edge,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	1.15	TC	0.93	Vert(LL)	-0.18	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.54	10-12	>855	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.12	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.15	13	>999	240	Weight: 272 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 5-6,6-7: 2x6 SP No.2, 7-9: 2x4 SP No.1
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

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

REACTIONS. (lb/size) 9=1671/Mechanical, 16=1631/Mechanical
Max Horz 16=-108(LC 13)
Max Uplift 16=-11(LC 12)

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

TOP CHORD	2-3=-2113/495, 3-4=-1841/482, 4-5=-3577/788, 5-6=-3415/713, 6-7=-2606/599, 7-9=-2790/576
BOT CHORD	15-16=-216/1095, 13-15=-542/2902, 12-13=-599/3597, 10-12=-203/1957, 9-10=-397/2401
WEBS	2-15=-90/903, 3-15=-61/649, 4-15=-1421/336, 4-13=-74/901, 5-13=-627/31, 6-12=-263/1900, 6-10=-63/653, 7-10=-329/328, 5-12=-1371/558, 2-16=-1854/462

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

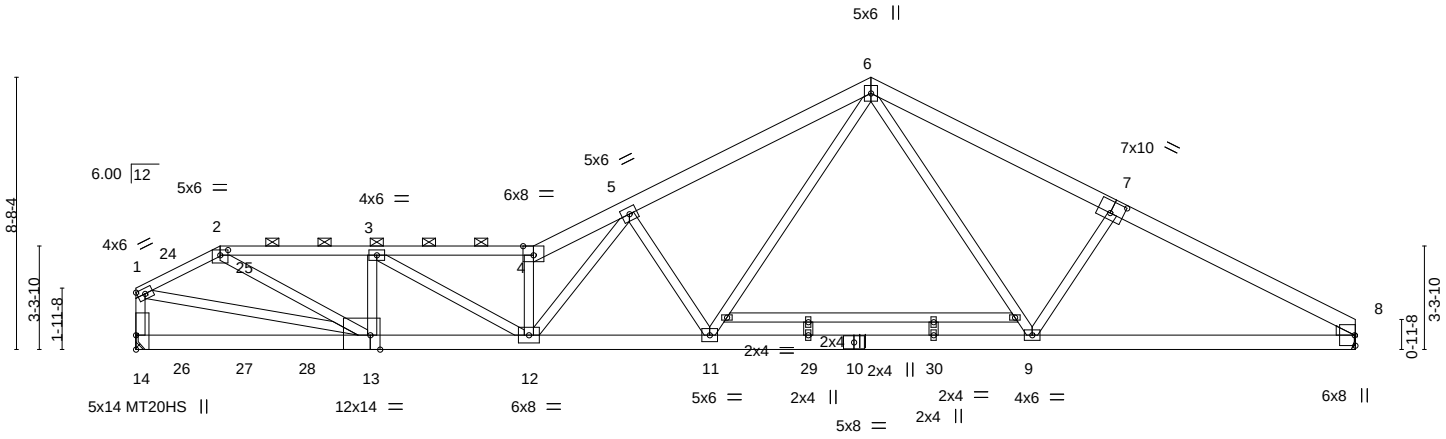
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B05	ROOF SPECIAL GIRDER	1	1	E12810592
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:22 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-qUDlm4jopC8mvWr4PaFUz_tH_EvN0StKSD_tOvzajtx

2-8-4	7-6-8	12-8-4	15-9-0	23-5-8	31-2-0	38-11-0
2-8-4	4-10-4	5-1-12	3-0-12	7-8-8	7-8-8	7-9-0

Scale = 1:73.5



7-6-8	12-8-4	18-3-12	21-5-8	25-5-8	28-7-4	38-11-0
7-6-8	5-1-12	5-7-8	3-1-12	4-0-0	3-1-12	10-3-12

Plate Offsets (X,Y)-- [2:0-3-0,0-2-0], [4:0-4-0,Edge], [7:0-5-0,0-4-8], [8:0-0-1,0-0-2], [8:0-0-2,0-4-15], [13:0-3-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.28	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.62	9-11	>745	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.19	11-12	>999	240	Weight: 281 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except*
1-2: 2x4 SP No.2, 2-4: 2x4 SP No.1
BOT CHORD 2x6 SP No.2 *Except*
10-13: 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
1-14: 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-6 oc purlins, except end verticals, and 2-0-0 oc purlins (2-1-6 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 14=2048/Mechanical, 8=1723/Mechanical
Max Horz 14=-135(LC 6)
Max Uplift 14=-133(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2714/86, 2-3=-4067/0, 3-4=-5148/0, 4-5=-5817/0, 5-6=-3622/0, 6-7=-2771/0, 7-8=-2987/0, 1-14=-1804/94
BOT CHORD 12-13=0/4088, 11-12=0/3940, 9-11=0/2046, 8-9=0/2560
WEBS 2-13=0/1971, 3-13=-982/167, 3-12=-136/1229, 4-12=-2579/0, 5-12=-34/2251, 5-11=-1566/184, 6-11=0/2068, 6-9=0/704, 7-9=-372/224, 1-13=-58/2314

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=133.
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) 77 lb down and 95 lb up at 3-8-4, and 77 lb down and 86 lb up at 5-8-4 on top chord, and 111 lb down and 66 lb up at 1-8-4, 24 lb down and 27 lb up at 3-8-4 , and 24 lb down and 27 lb up at 5-8-4, and 375 lb down at 7-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

March 15,2019

LOAD CASE(S) Standard

Continued on page 2

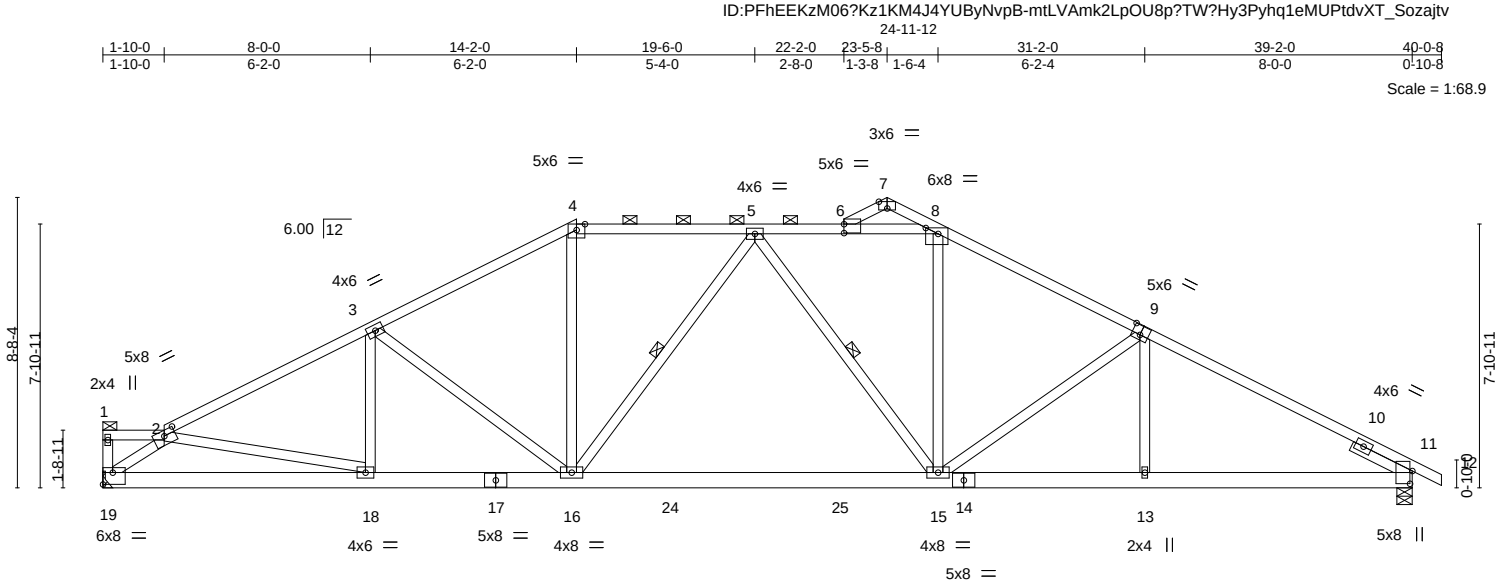
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-4=-60, 4-6=-60, 6-8=-60, 14-21=-20
   Concentrated Loads (lb)
   Vert: 14=-87(B) 24=-0(B) 25=-0(B) 26=-3(B) 27=-3(B) 28=-375(B) 29=-100 30=-100

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B06	Roof Special	2	1	E12810593
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:24 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-mtLVAmk2LpOU8p?TW?Hy3Pyhq1eMUPtdvXT_Sozajtv



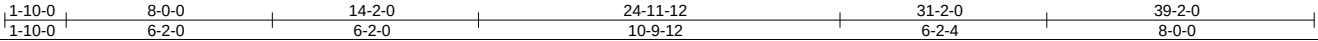


Plate Offsets (X,Y)-- [2:0-4-0,0-1-14], [6:0-0-0,0-3-3], [7:0-3-0,Edge], [8:0-4-7,0-2-2], [9:0-3-0,0-3-4], [11:0-4-9,0-0-13], [19:Edge,0-4-4]

LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC	0.67	Vert(LL)	-0.20	15-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL 1.15	BC	0.68	Vert(CT)	-0.40	15-16	>999	240		
BCLL	0.0 *	Rep Stress Incr YES	WB	0.51	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.10	15-16	>999	240	Weight: 259 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-11-15 max.): 1-2, 4-8.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-16, 5-15

REACTIONS. (lb/size) 11=1614/0-5-8, 19=1560/Mechanical
Max Horz 19=-118(LC 13)
Max Uplift 11=-56(LC 13), 19=-90(LC 12)

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

TOP CHORD	2-3=-2541/793, 3-4=-2192/757, 4-5=-1882/729, 5-6=-1917/745, 6-8=-1825/734, 8-9=-2222/770, 9-11=-2604/831
BOT CHORD	18-19=-548/1808, 16-18=-554/2196, 15-16=-436/2023, 13-15=-597/2246, 11-13=-595/2247
WEBS	2-18=-7/398, 3-16=-405/239, 4-16=-140/633, 9-15=-468/271, 8-15=-125/623, 5-15=-344/118, 2-19=-2272/833

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 19.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

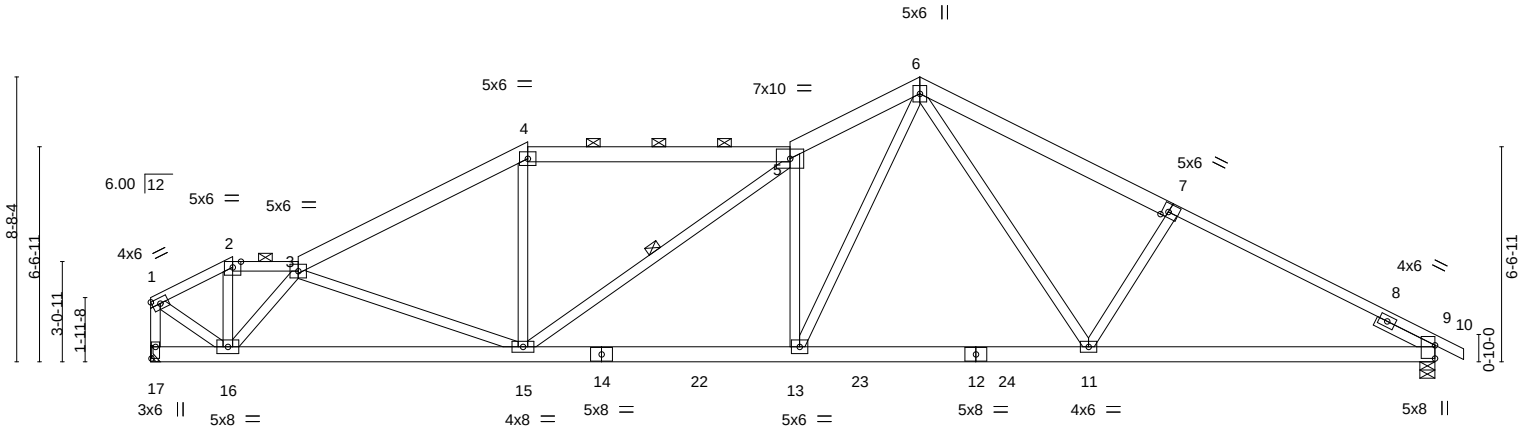
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B07	ROOF SPECIAL	2	1	E12810594
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:25 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-F3vtO6lg67WLmzaf4joBbcVrNRxfDkPm8BDX?Ezajtu

2-6-0	4-6-0	11-6-0	19-6-0	23-5-8	31-2-0	39-2-0	40-0-8
2-6-0	2-0-0	7-0-0	8-0-0	3-11-8	7-8-8	8-0-0	0-10-8

Scale = 1:70.3



2-6-0	11-6-0	19-6-0	28-7-4	39-2-0
2-6-0	9-0-0	8-0-0	9-1-4	10-6-12

Plate Offsets (X,Y)-- [7:0-2-4,Edge], [17:0-4-4,0-1-8]

LOADING (psf)		SPACING-	2-1-8	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.20	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.37	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	1.00	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.12	11-13	>999	240	Weight: 275 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2 *Except* 1-2,2-3: 2x4 SP No.2, 7-10: 2x4 SP SS
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-2-15 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-10 max.): 2-3, 4-5.
BOT CHORD	Rigid ceiling directly applied or 9-0-9 oc bracing.
WEBS	1 Row at midpt 5-15

REACTIONS. (lb/size) 17=1658/Mechanical, 9=1715/0-5-8
Max Horz 17=-130(LC 13)
Max Uplift 17=-96(LC 12), 9=-60(LC 13)

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

TOP CHORD	1-2=-1482/414, 2-3=-1287/390, 3-4=-2560/812, 4-5=-2220/804, 5-6=-3008/1104, 6-7=-2577/931, 7-9=-2782/907, 1-17=-1643/461
BOT CHORD	15-16=-644/2375, 13-15=-619/2662, 11-13=-374/1903, 9-11=-657/2404
WEBS	2-16=-132/532, 3-16=-1747/630, 4-15=-50/656, 5-15=-676/165, 5-13=-1374/602, 6-13=-548/1776, 6-11=-209/648, 7-11=-410/351, 1-16=-401/1597

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 9.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

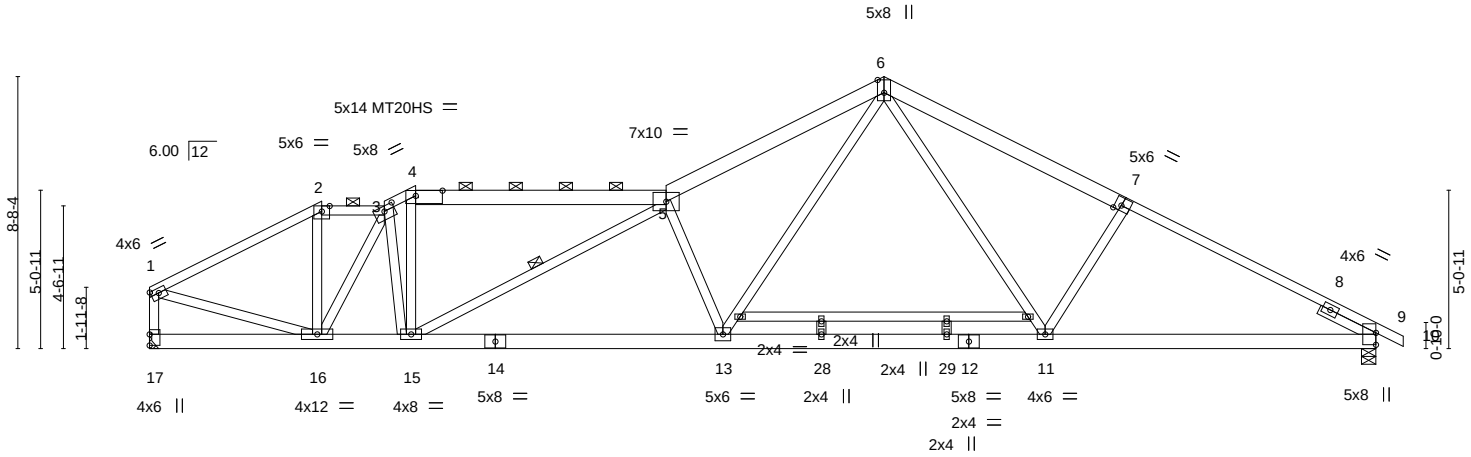
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B08	ROOF SPECIAL	2	1	E12810595
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:27 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-BS1eponxekm30Hj2C7qfg1aA7Fd6hh13bVie36zajts

5-6-0	7-6-0	8-6-0	16-6-0	23-5-8	31-2-0	39-2-0	40-0-8
5-6-0	2-0-0	1-0-0	8-0-0	6-11-8	7-8-8	8-0-0	0-10-8

Scale = 1:73.6



5-6-0	8-6-0	18-3-12	21-5-8	25-5-8	28-7-4	39-2-0
5-6-0	3-0-0	9-9-12	3-1-12	4-0-0	3-1-12	10-6-12

Plate Offsets (X,Y)-- [1:Edge,0-1-12], [3:0-4-0,0-1-14], [4:0-10-4,0-2-0], [6:0-4-14,Edge], [7:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.18	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.53	11-13	>887	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.10	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.15	11-13	>999	240	Weight: 286 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 4-5,5-6,6-7: 2x6 SP No.2, 7-10: 2x4 SP No.1
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

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

REACTIONS. (lb/size) 17=1641/Mechanical, 9=1733/0-5-8
Max Horz 17=-122(LC 13)
Max Uplift 17=-10(LC 12)

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

TOP CHORD	1-2=-2071/490, 2-3=-1779/491, 3-4=-2506/618, 4-5=-2342/612, 5-6=-3473/759, 6-7=-2689/615, 7-9=-2880/593, 1-17=-1565/403
BOT CHORD	15-16=-381/2316, 13-15=-549/3526, 11-13=-182/1981, 9-11=-390/2488
WEBS	2-16=-22/563, 3-16=-1189/211, 4-15=-31/660, 5-13=-1408/552, 6-13=-312/1944, 6-11=-77/720, 7-11=-356/340, 5-15=-1367/190, 1-16=-319/1758

NOTES-

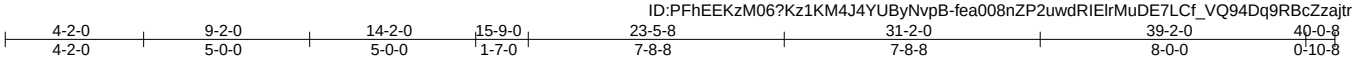
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

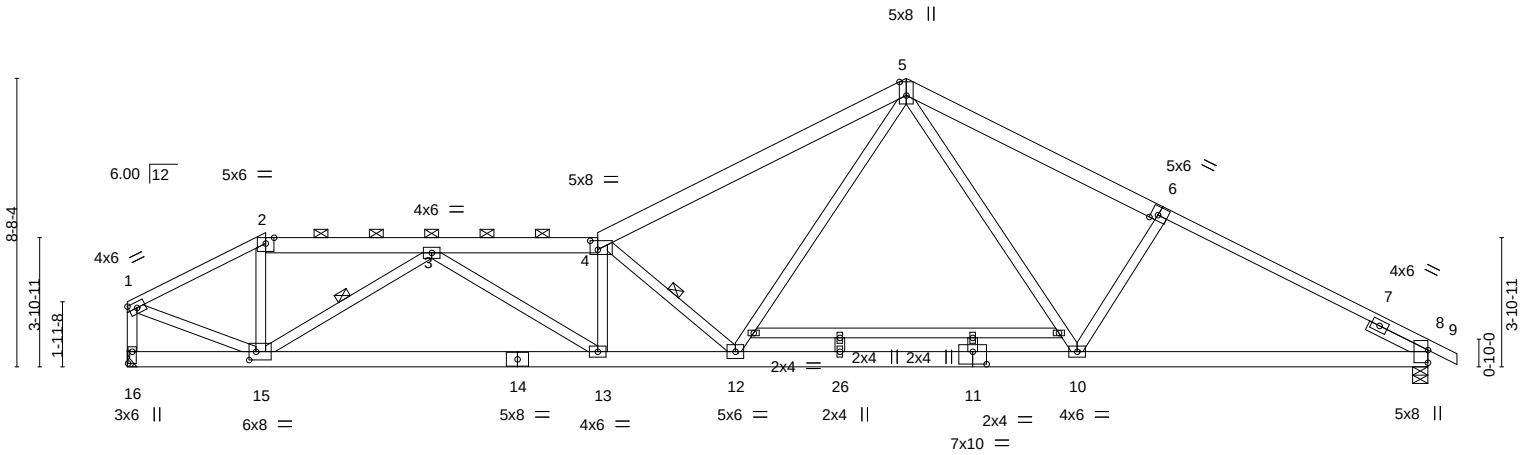
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B09	ROOF SPECIAL	2	1	E12810596
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:28 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-fea008nZP2uwdRIElrMuDE7LCf_VQ94Dq9RBcZzajtr



Scale = 1:69.4



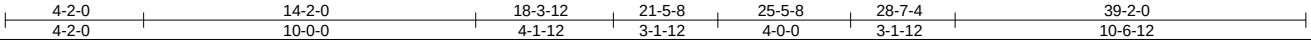


Plate Offsets (X,Y)-- [4:0-2-12,0-3-4], [5:0-4-14,Edge], [6:0-2-8,Edge], [11:0-5-0,0-4-8], [15:0-2-8,0-3-0], [16:0-4-4,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.20	13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.53	10-12	>884	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.17	13	>999	240	Weight: 277 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2 *Except*
	1-2: 2x4 SP No.2, 6-9: 2x4 SP No.1
BOT CHORD	2x6 SP No.1 *Except*
	14-16: 2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-11 max.): 2-4.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-15, 4-12

REACTIONS. (lb/size) 16=1641/Mechanical, 8=1733/0-5-8
Max Horz 16=-122(LC 13)
Max Uplift 16=-10(LC 12)

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

TOP CHORD	1-2=-1942/425, 2-3=-1686/420, 3-4=-4427/991, 4-5=-3438/692, 5-6=-2686/617, 6-8=-2877/594, 1-16=-1632/372
BOT CHORD	13-15=-648/3327, 12-13=-818/4397, 10-12=-196/1994, 8-10=-390/2485
WEBS	2-15=-22/593, 3-15=-1978/478, 3-13=-213/1321, 4-13=-687/154, 4-12=-1875/659, 5-12=-220/1819, 5-10=-64/715, 6-10=-354/326, 1-15=-313/1788

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

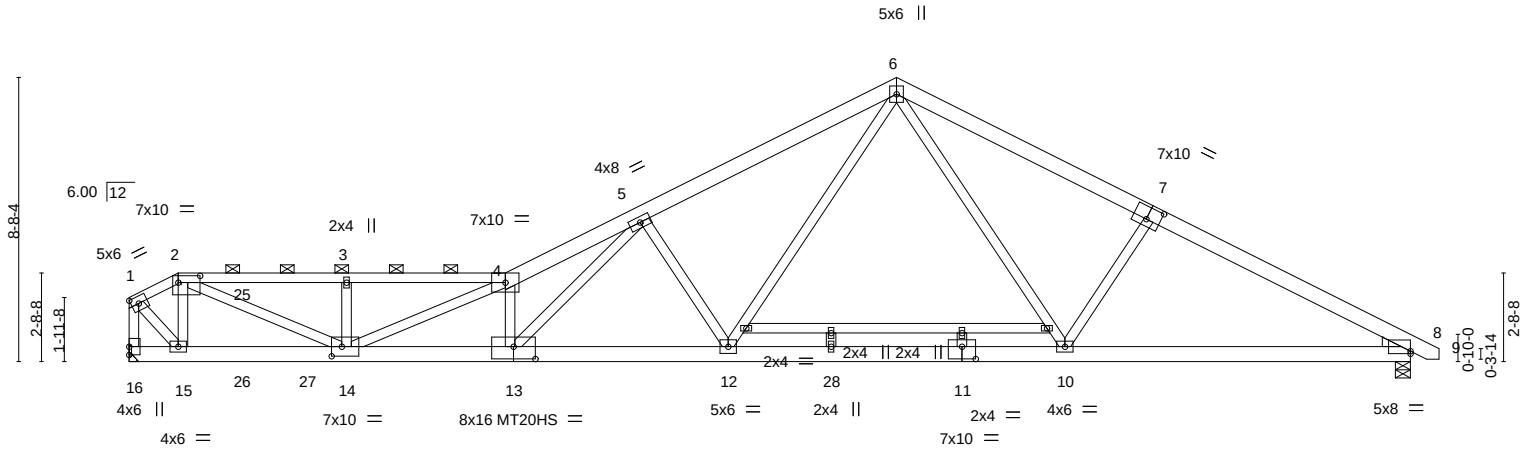
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B10	ROOF SPECIAL GIRDER	2	1	E12810597
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:35 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-y?WfUXtylBmwzVLagp_X?jvWCTJ?ZHwERle3Lfzajtk

1-6-0	6-7-12	11-6-0	15-9-0	23-5-8	31-2-0	39-2-0	40-0-8
1-6-0	5-1-12	4-10-4	4-3-0	7-8-8	7-8-8	8-0-0	0-10-8

Scale = 1:70.4



1-6-0	6-7-12	11-6-0	18-3-12	21-5-8	25-5-8	28-7-4	39-2-0
1-6-0	5-1-12	4-10-4	6-9-12	3-1-12	4-0-0	3-1-12	10-6-12

Plate Offsets (X,Y)-- [2:0-8-0,0-2-8], [7:0-5-0,0-4-8], [8:0-0-0,0-0-15], [11:0-5-0,0-4-8], [13:0-8-0,0-4-8], [14:0-3-12,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.33	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.71	12-13	>657	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.94	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.22	12-13	>999	240	Weight: 278 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except*
1-2: 2x4 SP No.2, 2-4: 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-3-13 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 16=2043/Mechanical, 8=1773/0-5-8
Max Horz 16=-142(LC 6)
Max Uplift 16=-82(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1504/0, 2-3=-4611/0, 3-4=-4611/0, 4-5=-6680/0, 5-6=-3655/0, 6-7=-2851/0, 7-8=-3086/0, 1-16=-2167/47
BOT CHORD 14-15=-32/1271, 13-14=0/6264, 12-13=0/4033, 10-12=0/2077, 8-10=0/2652
WEBS 2-15=-1052/73, 2-14=0/3667, 3-14=-341/131, 4-14=-1835/62, 4-13=-2241/0, 5-13=0/2971, 5-12=-1619/165, 6-12=0/2062, 6-10=0/764, 7-10=-409/222, 1-15=0/1935

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16.
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) 60 lb down and 66 lb up at 1-8-4, and 71 lb down and 68 lb up at 3-9-0, and 71 lb down and 68 lb up at 5-8-4 on top chord, and 38 lb down and 8 lb up at 1-8-4, 19 lb down and 18 lb up at 3-8-4, and 19 lb down and 18 lb up at 5-8-4, and 377 lb down at 7-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) 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

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

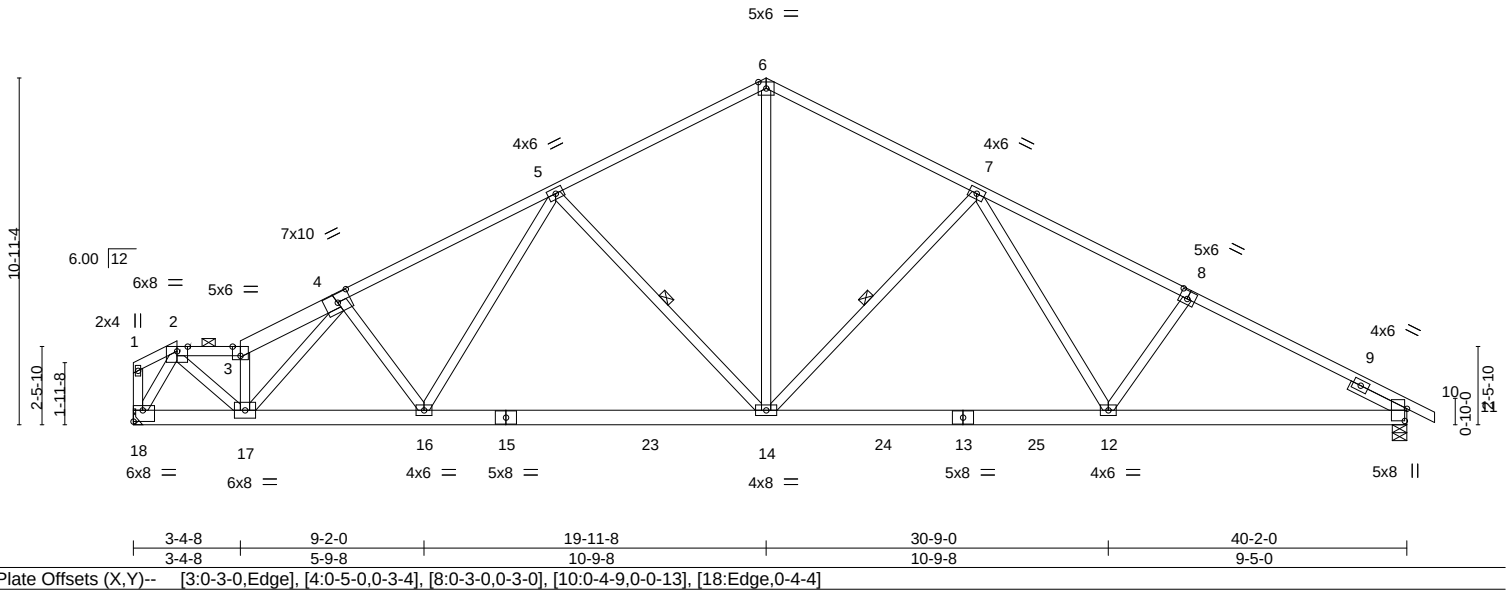
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-4=-60, 4-6=-60, 6-9=-60, 16-22=-20
   Concentrated Loads (lb)
   Vert: 2=-0(B) 16=-20(B) 15=-3(B) 11=-100 1=-49(B) 25=-0(B) 26=-3(B) 27=-377(B) 28=-100

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B11	Roof Special	2	1	E12810598
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:37 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-uNdQvCuCHp1eCpUznE0?48?t9H3T1B2Xu27AQXzajti

1-4-8	3-4-8	6-8-2	13-3-13	19-11-8	26-7-3	33-2-13	40-2-0	41-0-8
1-4-8	2-0-0	3-3-10	6-7-11	6-7-11	6-7-11	6-7-11	6-11-3	0-10-8

Scale = 1:72.7



3-4-8	9-2-0	19-11-8	30-9-0	40-2-0
3-4-8	5-9-8	10-9-8	10-9-8	9-5-0

Plate Offsets (X,Y)-- [3:0-3-0,Edge], [4:0-5-0,0-3-4], [8:0-3-0,0-3-0], [10:0-4-9,0-0-13], [18:Edge,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	1.15	TC	0.82	Vert(LL)	-0.24	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.44	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.14	12-14	>999	240	Weight: 267 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 3-4: 2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-8-4 max.): 2-3.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-14, 7-14

REACTIONS. (lb/size) 10=1654/0-5-8, 18=1600/Mechanical
Max Horz 18=-241(LC 13)
Max Uplift 10=-310(LC 13), 18=-286(LC 12)

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

TOP CHORD	2-3=-2289/727, 3-4=-2508/817, 4-5=-2515/879, 5-6=-1834/749, 6-7=-1835/748, 7-8=-2551/904, 8-10=-2727/900
BOT CHORD	17-18=-294/895, 16-17=-635/2279, 14-16=-467/1975, 12-14=-476/1997, 10-12=-674/2365
WEBS	2-17=-599/1990, 3-17=-1298/435, 5-16=-77/447, 5-14=-649/371, 6-14=-425/1260, 7-14=-677/383, 7-12=-103/484, 8-12=-293/268, 2-18=-1676/539

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=310, 18=286.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

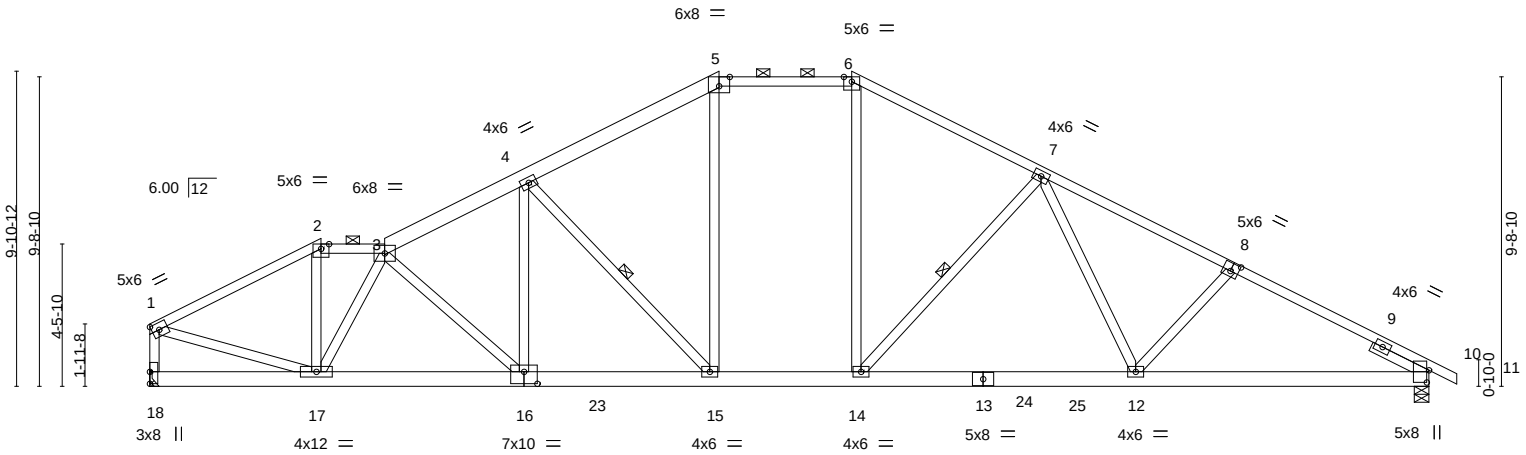
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B12	Roof Special	2	1	E12810599
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:39 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-qmlAKuwSpQHMS7eLvf2T9Z4DL4k?V7RqMMcGUQzajtg

5-4-8	7-4-8	11-9-0	17-10-8	22-0-8	27-11-13	33-11-3	40-2-0	41-0-8
5-4-8	2-0-0	4-4-8	6-1-8	4-2-0	5-11-5	5-11-5	6-2-13	0-10-8

Scale = 1:72.4



5-4-8	11-9-0	17-10-8	22-0-8	30-11-8	40-2-0
5-4-8	6-4-8	6-1-8	4-2-0	8-11-0	9-2-8

Plate Offsets (X,Y)-- [5:0-4-0,Edge], [8:0-3-0,0-3-0], [10:0-4-9,0-0-13], [16:0-5-0,0-4-8]

LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES GRIP
TCLL 20.0		Plate Grip DOL 1.15	TC 0.78	Vert(LL) -0.25 12-14 >999 360	MT20 244/190
TCDL 10.0		Lumber DOL 1.15	BC 0.73	Vert(CT) -0.42 12-14 >999 240	
BCLL 0.0	*	Rep Stress Incr YES	WB 0.71	Horz(CT) 0.09 10 n/a n/a	
BCDL 10.0		Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.20 12-14 >999 240	Weight: 282 lb FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 3-5: 2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-3-9 max.): 2-3, 5-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-15, 7-14

REACTIONS. (lb/size) 18=1600/Mechanical, 10=1654/0-5-8
Max Horz 18=-219(LC 13)
Max Uplift 18=-270(LC 12), 10=-295(LC 13)

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

TOP CHORD	1-2=-2014/627, 2-3=-1730/608, 3-4=-2401/829, 4-5=-2018/769, 5-6=-1743/742, 6-7=-2021/773, 7-8=-2547/865, 8-10=-2728/890, 1-18=-1534/503
BOT CHORD	16-17=-589/2287, 15-16=-489/2114, 14-15=-284/1741, 12-14=-500/2096, 10-12=-673/2369
WEBS	2-17=-117/654, 3-17=-1220/389, 4-16=-55/374, 4-15=-687/324, 5-15=-156/568, 6-14=-170/656, 7-14=-624/321, 7-12=-79/405, 1-17=-450/1720

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=270, 10=295.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B13	ROOF SPECIAL	1	1	E12810600
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:41 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-n8txlaxjL1X4hQok045xF_9apuQdz267pg5NZIzajte

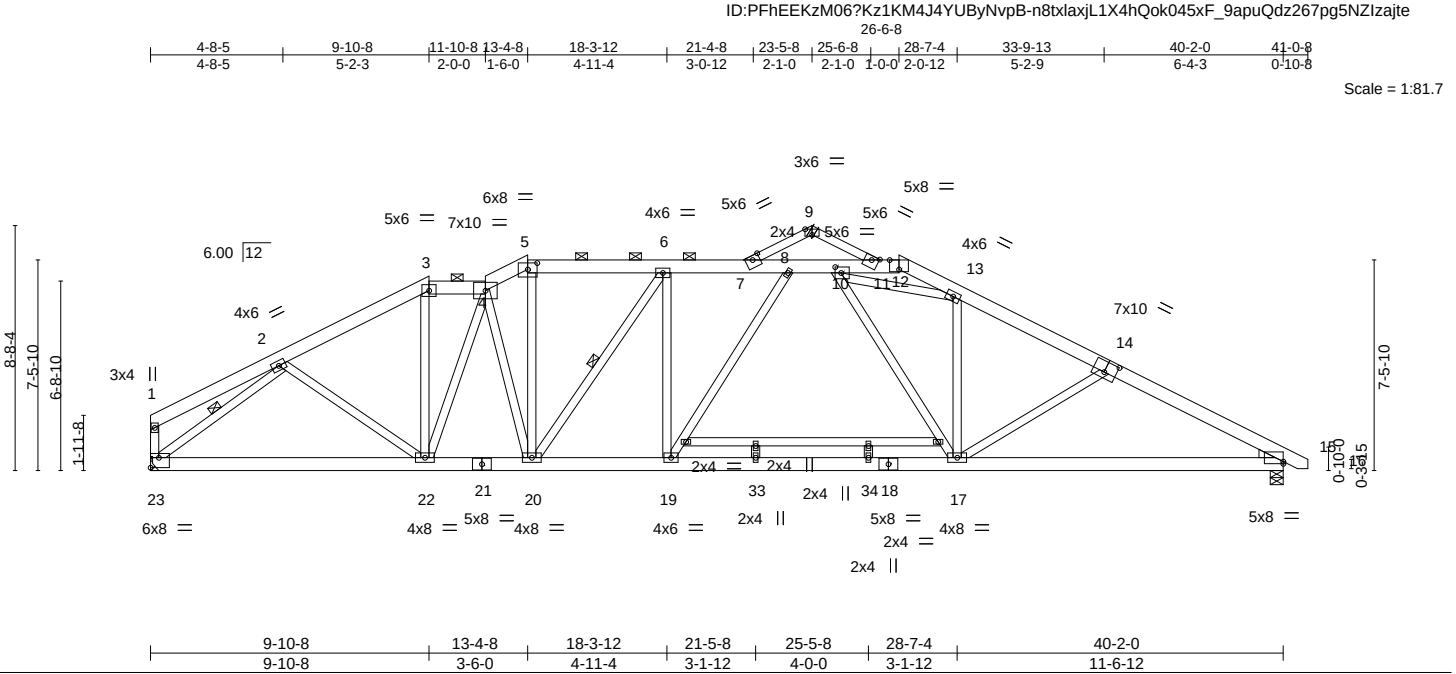


Plate Offsets (X,Y)-- [5:0-4-0,0-2-12], [9:0-3-0,Edge], [10:0-2-8,0-2-8], [12:0-4-0,Edge], [14:0-5-0,0-4-8], [15:0-0-0,0-0-15], [23:Edge,0-4-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.13	17-19	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.40	17-19	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.10	15	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.13	17-19	>999	240	Weight: 346 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 7-9,9-11: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-6 max.): 3-4, 5-12.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-20, 2-23

REACTIONS. (lb/size) 15=1759/0-5-8, 23=1684/Mechanical
Max Horz 23=-197(LC 13)
Max Uplift 15=-173(LC 13), 23=-260(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2317/595, 3-4=-2019/583, 4-5=-2338/667, 5-6=-2182/641, 6-7=-2546/627, 7-8=-2363/556, 8-10=-2215/568, 10-11=-420/155, 11-12=-586/213, 12-13=-635/225, 13-14=-2754/586, 14-15=-3054/699
BOT CHORD 22-23=-362/1754, 20-22=-321/2216, 19-20=-285/2546, 17-19=-297/2399, 15-17=-510/2623
WEBS 2-22=0/371, 3-22=-57/557, 4-22=-611/141, 5-20=-149/692, 6-20=-650/0, 6-19=-58/341, 8-19=-83/453, 10-17=-187/295, 13-17=0/502, 14-17=-294/280, 10-13=-1859/409, 2-23=-2090/561

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=173, 23=260.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

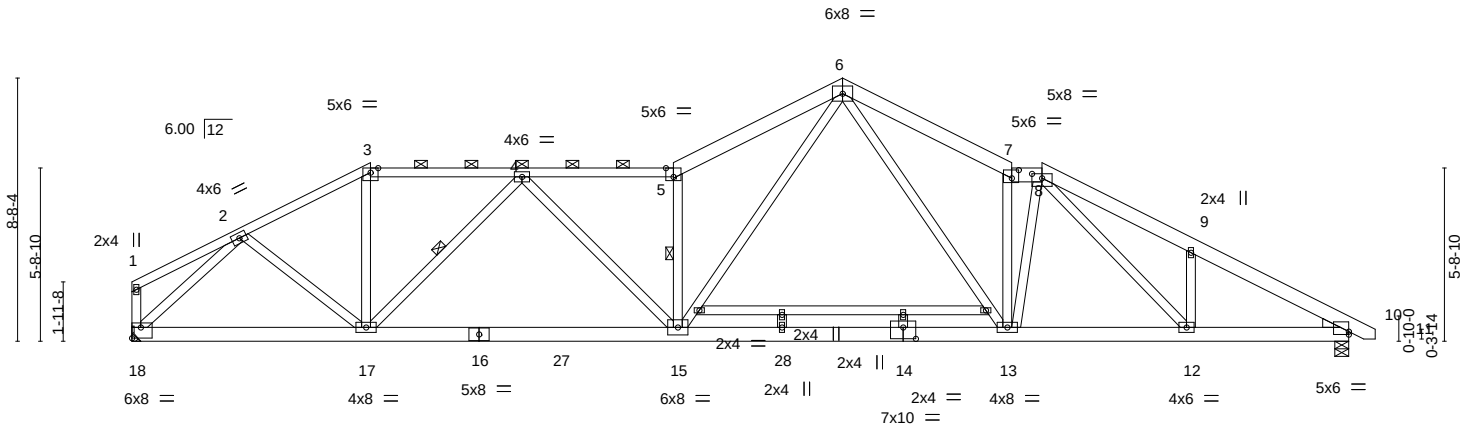
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B14	ROOF SPECIAL	1	1	E12810601
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:43 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-jX_hAGzztfnowky68U7PKPF_Ti56RuyQH_aUdBzajtc

3-8-4	7-10-8	12-10-8	17-10-8	23-5-8	29-0-8	30-0-8	34-11-8	40-2-0	41-0-8
3-8-4	4-2-4	5-0-0	5-0-0	5-7-0	5-7-0	1-0-0	4-11-0	5-2-8	0-10-8

Scale = 1:76.1



7-10-8	17-10-8	21-5-8	25-5-8	29-0-8	34-11-8	40-2-0
7-10-8	10-0-0	3-7-0	4-0-0	3-7-0	5-11-0	5-2-8

Plate Offsets (X,Y)-- [5:0-3-0,Edge], [7:0-2-12,0-3-4], [8:0-4-0,0-1-12], [10:0-0-0,0-1-3], [14:0-5-0,0-4-8], [18:Edge,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	1.15	TC	0.45	Vert(LL)	-0.19	15-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.55	13-15	>871	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.18	15	>999	240	Weight: 309 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 1-3,3-5: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-10-8 max.): 3-5, 7-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-17, 5-15

REACTIONS. (lb/size) 10=1759/0-5-8, 18=1684/Mechanical
Max Horz 18=-196(LC 13)
Max Uplift 10=-163(LC 13), 18=-244(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2256/559, 3-4=-1969/540, 4-5=-3305/682, 5-6=-3712/835, 6-7=-3050/713, 7-8=-2715/567, 8-9=-2863/767, 9-10=-2976/653
BOT CHORD 17-18=-314/1577, 15-17=-440/2812, 13-15=-201/2104, 12-13=-315/2579, 10-12=-483/2560
WEBS 2-17=0/525, 3-17=-89/708, 4-17=-1218/232, 4-15=0/711, 5-15=-1920/542, 6-15=-373/2079, 6-13=-177/1054, 7-13=-1140/363, 8-13=0/647, 8-12=-282/77, 2-18=-2085/515

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=163, 18=244.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

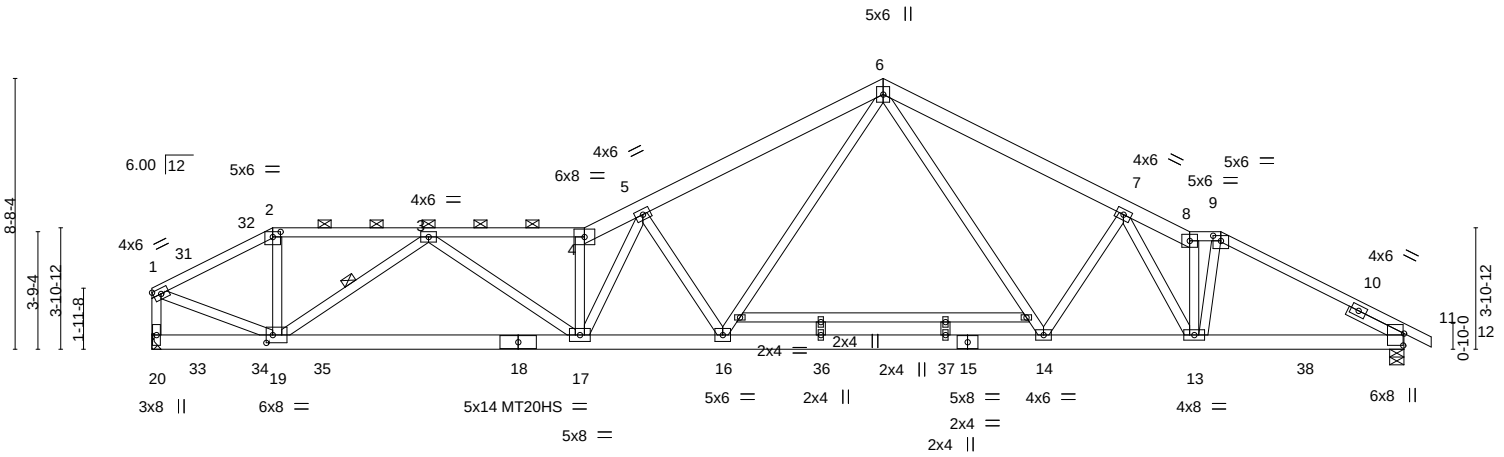
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B15	ROOF SPECIAL GIRDER	1	1	E12810602
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:44 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-BjY3Nc_beyvfYuXJhCeescn2c5QiAOIZVeJ1Adzajtb

0-10-0 3-10-8 8-10-8 13-10-8 15-9-0 23-5-8 31-2-0 33-3-8 34-3-8 40-2-0 41-0-8
0-10-0 3-0-8 5-0-0 5-0-0 1-10-8 7-8-8 7-8-8 2-1-8 1-0-0 5-10-8 0-10-8

Scale = 1:73.9



3-10-8 13-10-8 18-3-12 21-5-8 25-5-8 28-7-4 33-3-8 40-2-0
3-10-8 10-0-0 4-5-4 3-1-12 4-0-0 3-1-12 4-8-4 6-10-8

Plate Offsets (X,Y)-- [2:0-3-0,0-2-0], [9:0-3-0,0-2-0], [11:0-4-9,0-0-5], [19:0-2-8,0-3-0]

LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC	0.94	Vert(LL)	-0.24	17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL 1.15	BC	0.83	Vert(CT)	-0.60	14-16	>802	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr NO	WB	0.74	Horz(CT)	0.09	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.26	17	>999	240	Weight: 295 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 2-4: 2x4 SP No.1, 4-6,6-8: 2x6 SP No.2
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 21-22,23-24,25-26: 2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-4-7 max.): 2-4, 8-9.
BOT CHORD	Rigid ceiling directly applied or 8-8-11 oc bracing.
WEBS	1 Row at midpt 3-19

REACTIONS. (lb/size) 20=2121/Mechanical, 11=2157/0-5-8
Max Horz 20=-196(LC 9)
Max Uplift 20=-640(LC 8), 11=-268(LC 9)

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

TOP CHORD	1-2=-2478/617, 2-3=-2203/576, 3-4=-4888/726, 4-5=-5402/787, 5-6=-3910/486, 6-7=-3296/297, 7-8=-3506/379, 8-9=-3194/363, 9-11=-3320/365, 1-20=-2107/573
BOT CHORD	17-19=-780/3792, 16-17=-584/4272, 14-16=-130/2284, 13-14=-165/3189, 11-13=-218/2902
WEBS	2-19=-49/853, 3-19=-1963/304, 3-17=0/1353, 4-17=-2214/321, 5-17=-377/1678, 5-16=-1717/577, 6-16=-303/2100, 6-14=-91/1069, 7-14=-686/396, 8-13=-1196/64, 9-13=-45/1200, 1-19=-487/2318

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=640, 11=268.
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) 99 lb down and 113 lb up at 3-8-4, and 99 lb down and 104 lb up at 5-8-4 on top chord, and 74 lb down and 59 lb up at 1-8-4, 30 lb down and 39 lb up at 3-8-4 , 30 lb down and 39 lb up at 5-8-4, and 377 lb down and 160 lb up at 7-8-4, and 365 lb down and 79 lb up at 39-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) 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

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-4=-60, 4-6=-60, 6-8=-60, 8-9=-60, 9-12=-60, 20-27=-20
   Concentrated Loads (lb)
   Vert: 20=-74(B) 31=-0(B) 32=-0(B) 33=-4(B) 34=-4(B) 35=-377(B) 36=-100 37=-100 38=-365(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B16	ROOF SPECIAL	2	1	E12810603
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:46 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-76gqoH?rAa9NnCghpdg6y1tVZv8?eMTszyo8EWzajtZ

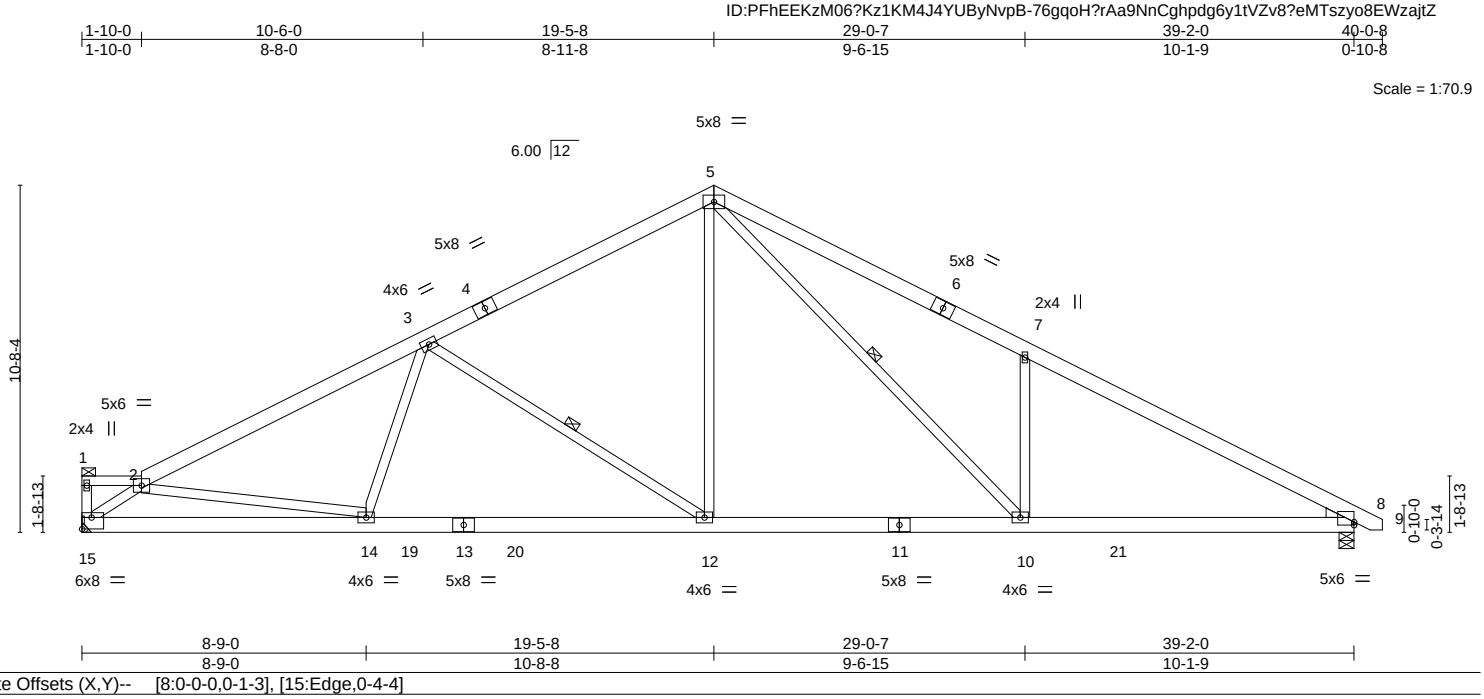


Plate Offsets (X,Y)-- [8:0-0-0,0-1-3], [15:Edge,0-4-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.17	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.29	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.09	10-12	>999	240	Weight: 276 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 1-2: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 5-10: 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-12, 5-10

REACTIONS. (lb/size) 8=1602/0-5-8, 15=1560/Mechanical
Max Horz 15=-160(LC 10)
Max Uplift 8=-74(LC 13), 15=-64(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2564/800, 3-5=-1903/729, 5-7=-2711/1131, 7-8=-2718/853
BOT CHORD 14-15=-613/1908, 12-14=-561/2200, 10-12=-231/1611, 8-10=-600/2327
WEBS 2-14=0/404, 3-14=0/352, 3-12=-752/399, 5-12=-103/767, 5-10=-538/1115, 7-10=-615/507, 2-15=-2356/904

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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) 8, 15.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

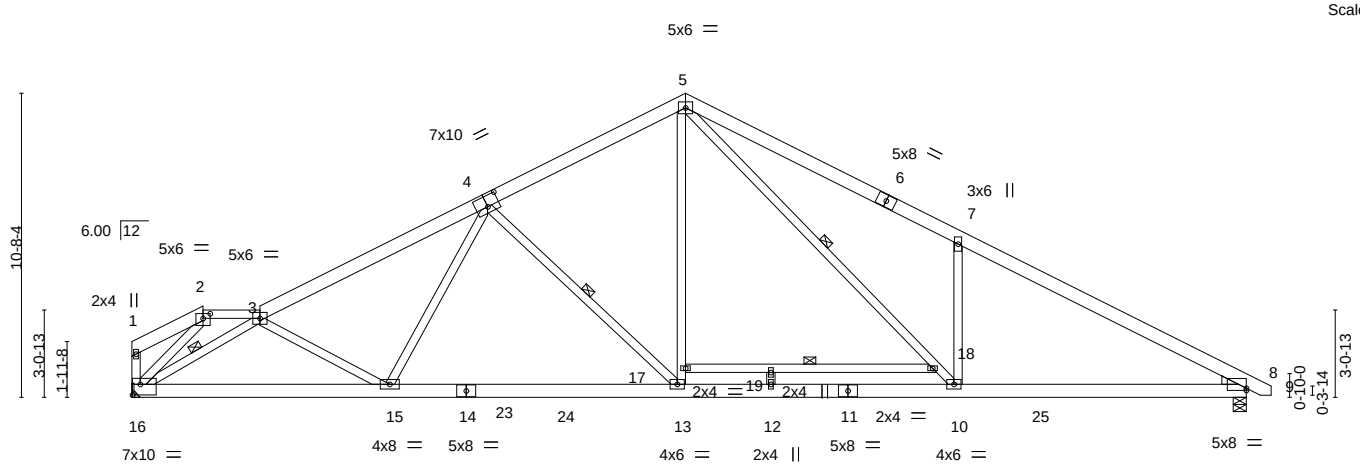
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B17	ROOF SPECIAL	2	1	E12810604
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:47 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-bIEC?d0UxtHDPLFuNKBLUFPbgJT6NnO0BcYimyzajtY

2-6-0	4-6-0	12-6-0	19-5-8	29-0-7	39-2-0	40-0-8
2-6-0	2-0-0	8-0-0	6-11-8	9-6-15	10-1-9	0-10-8

Scale = 1:81.0



8-9-0	19-5-8	22-5-8	29-0-7	39-2-0
8-9-0	10-8-8	3-0-0	6-6-15	10-1-9

Plate Offsets (X,Y)-- [2:0-3-0,0-2-0], [4:0-5-0,0-4-8], [8:Edge,0-0-15], [16:0-3-4,0-4-8]

LOADING (psf)		SPACING-	2-1-8	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.17	13-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.32	13-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.59	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.10	10-12	>999	240	Weight: 297 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 2-3: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 5-10: 2x4 SP No.2
WEDGE
Right: 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 (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 8-9-6 oc bracing.
WEBS 1 Row at midpt 4-13, 5-10, 17-18, 3-16

REACTIONS. (lb/size) 8=1702/0-5-8, 16=1658/Mechanical
Max Horz 16=-153(LC 13)
Max Uplift 8=-78(LC 13), 16=-68(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-2597/847, 4-5=-1937/785, 5-7=-2839/1211, 7-8=-2830/909
BOT CHORD 15-16=-692/2350, 13-15=-522/2129, 12-13=-251/1646, 10-12=-251/1646, 8-10=-642/2405
WEBS 4-15=0/444, 4-13=-726/393, 13-17=-156/756, 5-17=-154/755, 5-18=-592/1183, 10-18=-583/1163, 7-10=-666/554, 3-16=-2554/861

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 16.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-64, 2-3=-64, 3-5=-64, 5-9=-64, 16-20=-21

March 15,2019

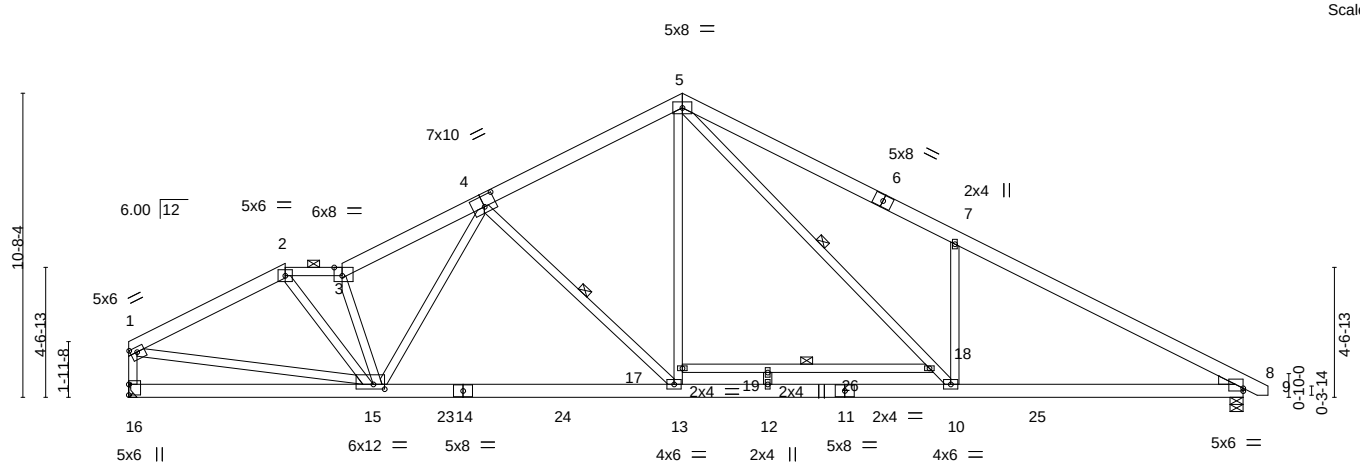
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B18	ROOF SPECIAL	2	1	E12810605 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:49 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-YhMyQJ2kSVXxefPGUlEpZgVyM69yreylfw1orrzajtW

5-6-0	7-6-0	12-6-0	19-5-8	29-0-7	39-2-0	40-0-8
5-6-0	2-0-0	5-0-0	6-11-8	9-6-15	10-1-9	0-10-8

Scale = 1:81.0



8-9-0	19-5-8	22-5-8	29-0-7	39-2-0
8-9-0	10-8-8	3-0-0	6-6-15	10-1-9

Plate Offsets (X,Y)-- [1:0-2-12,0-2-0], [3:0-3-6,Edge], [4:0-5-0,0-4-8], [8:0-0-0,0-1-3], [15:0-4-12,0-2-0]

LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC	0.68	Vert(LL)	-0.19	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL 1.15	BC	0.76	Vert(CT)	-0.34	13-15	>999	240		
BCLL	0.0 *	Rep Stress Incr NO	WB	0.77	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.10	10-12	>999	240	Weight: 303 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 2-3: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 5-10: 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-7-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-13, 5-10, 17-18

REACTIONS. (lb/size) 16=1560/Mechanical, 8=1602/0-5-8
Max Horz 16=-144(LC 13)
Max Uplift 16=-64(LC 12), 8=-74(LC 13)
Max Grav 16=1560(LC 1), 8=1610(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2286/732, 2-3=-2541/822, 3-4=-2540/863, 4-5=-1907/732, 5-7=-2738/1130, 7-8=-2744/850, 1-16=-1474/517
BOT CHORD 13-15=-474/2047, 12-13=-240/1655, 10-12=-240/1655, 8-10=-599/2350
WEBS 2-15=-198/940, 3-15=-1251/465, 4-15=-68/439, 4-13=-635/340, 13-17=-121/809, 5-17=-119/869, 5-18=-543/1106, 10-18=-535/1075, 7-10=-615/510, 1-15=-532/1868

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 8.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-5=-60, 5-9=-60, 16-20=-20

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B19	ROOF SPECIAL	2	1	E12810606
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:50 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-0twKef2MDofoGp_T2TI26t1AdWUNa7MSuamMNHzajtV

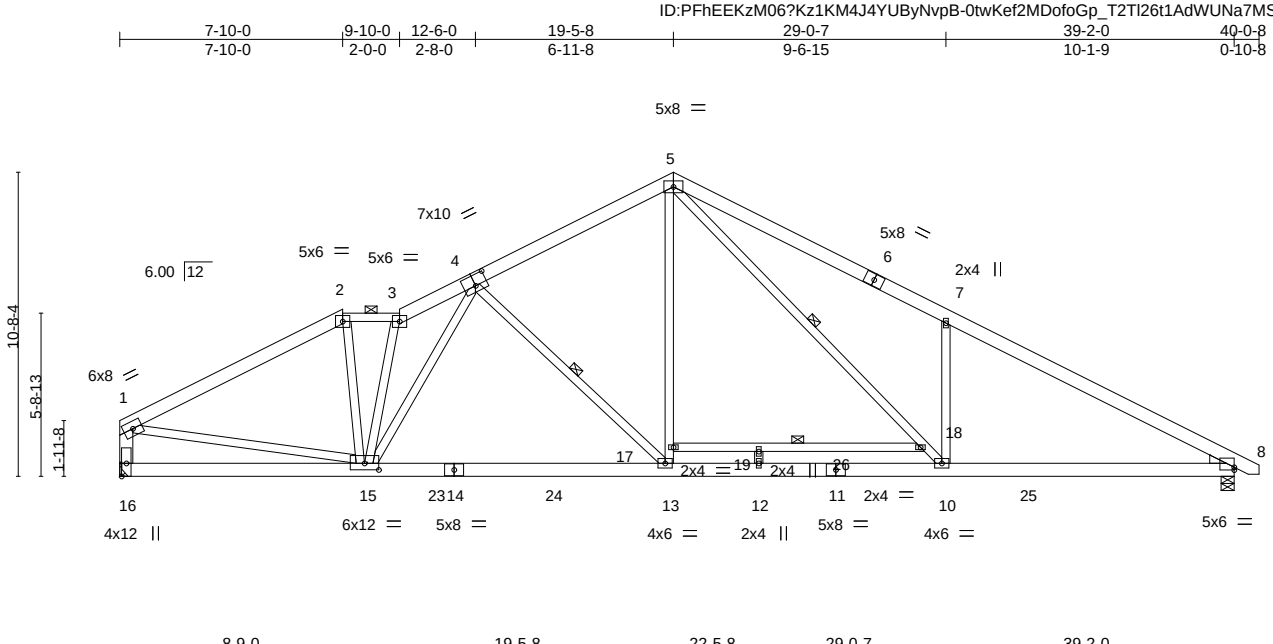


Plate Offsets (X,Y)-- [4:0-5-0,0-4-8], [8:Edge,0-1-3], [15:0-6-0,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.18	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.31	13-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.09	10-12	>999	240	Weight: 306 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except*
2-3: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
5-10,17-18: 2x4 SP No.2, 1-16: 2x6 SP No.2
WEDGE
Right: 2x4 SP No.3

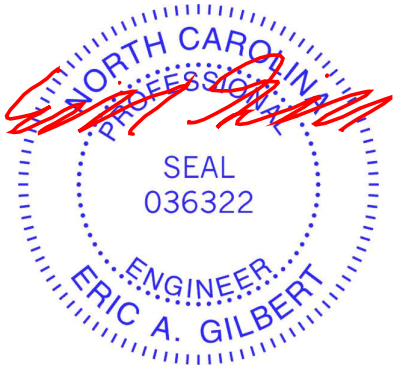
BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-10-14 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-13, 5-10, 17-18

REACTIONS. (lb/size) 16=1557/Mechanical, 8=1599/0-5-8
Max Horz 16=-145(LC 13)
Max Uplift 16=-64(LC 12), 8=-74(LC 13)
Max Grav 16=1557(LC 1), 8=1607(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2217/690, 2-3=-1999/696, 3-4=-2479/869, 4-5=-1899/728, 5-7=-2731/1126, 7-8=-2737/847, 1-16=-1466/519
BOT CHORD 15-16=-109/335, 13-15=-466/2029, 12-13=-237/1648, 10-12=-237/1648, 8-10=-596/2344
WEBS 2-15=-54/627, 3-15=-1062/339, 4-15=-85/424, 4-13=-630/333, 13-17=-116/804, 5-17=-114/865, 5-18=-543/1108, 10-18=-534/1075, 7-10=-615/510, 1-15=-385/1689

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 8.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-5=-60, 5-9=-60, 16-20=-20



March 15,2019

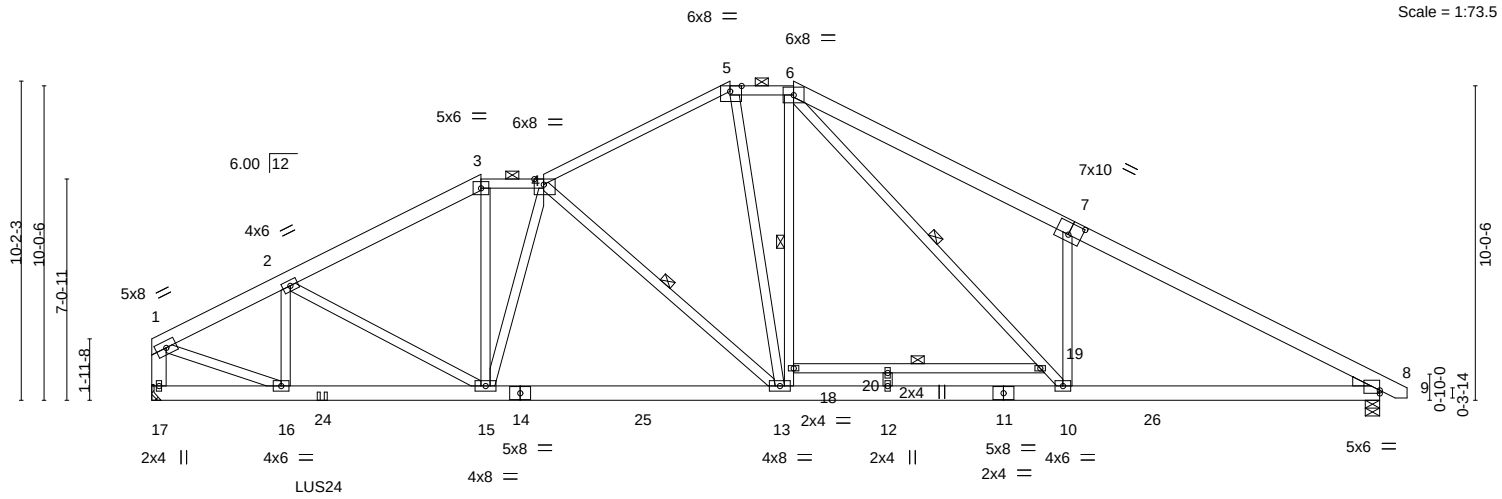
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B20	ROOF SPECIAL GIRDER	2	1	E12810607
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:52 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-yG153L4clPwWV78r9tnWBI7RQKBu24_lLuFSSAzajtT

4-3-4	10-6-0	12-6-0	18-5-5	20-5-11	29-2-8	39-2-0	40-0-8
4-3-4	6-2-12	2-0-0	5-11-5	2-0-5	8-8-13	9-11-8	0-10-8

Scale = 1:73.5



4-3-4	10-6-0	20-5-11	23-5-11	29-2-8	39-2-0
4-3-4	6-2-12	9-11-11	3-0-0	5-8-13	9-11-8

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.12	13-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.24	13-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.07	10	>999	240	Weight: 311 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 3-4,4-5,5-6: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except* 1-17: 2x6 SP No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-10-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-15 max.): 3-4, 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-13, 6-13, 6-10, 18-19

REACTIONS. (lb/size) 17=1846/Mechanical, 8=1644/0-5-8
Max Horz 17=-139(LC 9)
Max Uplift 17=-118(LC 8), 8=-78(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2244/175, 2-3=-2299/153, 3-4=-2000/166, 4-5=-1844/145, 5-6=-1683/152, 6-7=-2737/301, 7-8=-2754/138, 1-17=-1831/145
BOT CHORD 15-16=-187/1965, 13-15=-77/2131, 12-13=0/1679, 10-12=0/1679, 8-10=-18/2346
WEBS 3-15=-8/695, 4-15=-501/101, 4-13=-756/163, 5-13=-44/612, 13-18=-121/298, 6-18=-111/304, 6-19=-230/1008, 10-19=-214/985, 7-10=-575/274, 2-15=-70/303, 2-16=-512/144, 1-16=-133/2034

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 17=118.
8) Load case(s) 2, 3, 21, 22 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 7-8-4 from the left end to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

March 15,2019

LOAD CASE(S) Standard

Continued on page 2

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-4=-60, 4-5=-60, 5-6=-60, 6-9=-60, 17-21=-20
   Concentrated Loads (lb)
   Vert: 24=-333(B)
2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-50, 3-4=-50, 4-5=-50, 5-6=-50, 6-9=-50, 14-17=-20, 14-25=-50, 10-25=-20, 10-26=-50, 21-26=-20
   Concentrated Loads (lb)
   Vert: 24=-320(B)
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-20, 3-4=-20, 4-5=-20, 5-6=-20, 6-9=-20, 17-21=-40
   Concentrated Loads (lb)
   Vert: 24=-240(B)
21) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-50, 3-4=-50, 4-5=-50, 5-6=-50, 6-9=-20, 14-17=-20, 14-25=-50, 10-25=-20, 10-26=-50, 21-26=-20
   Concentrated Loads (lb)
   Vert: 24=-320(B)
22) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-20, 3-4=-20, 4-5=-20, 5-6=-50, 6-9=-50, 14-17=-20, 14-25=-50, 10-25=-20, 10-26=-50, 21-26=-20
   Concentrated Loads (lb)
   Vert: 24=-320(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B21	Roof Special	1	1	E12810608
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:54 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-ue9rT05tH1AElQIEHIp_GjCpn7qeW_b1oCkZW2zajtR

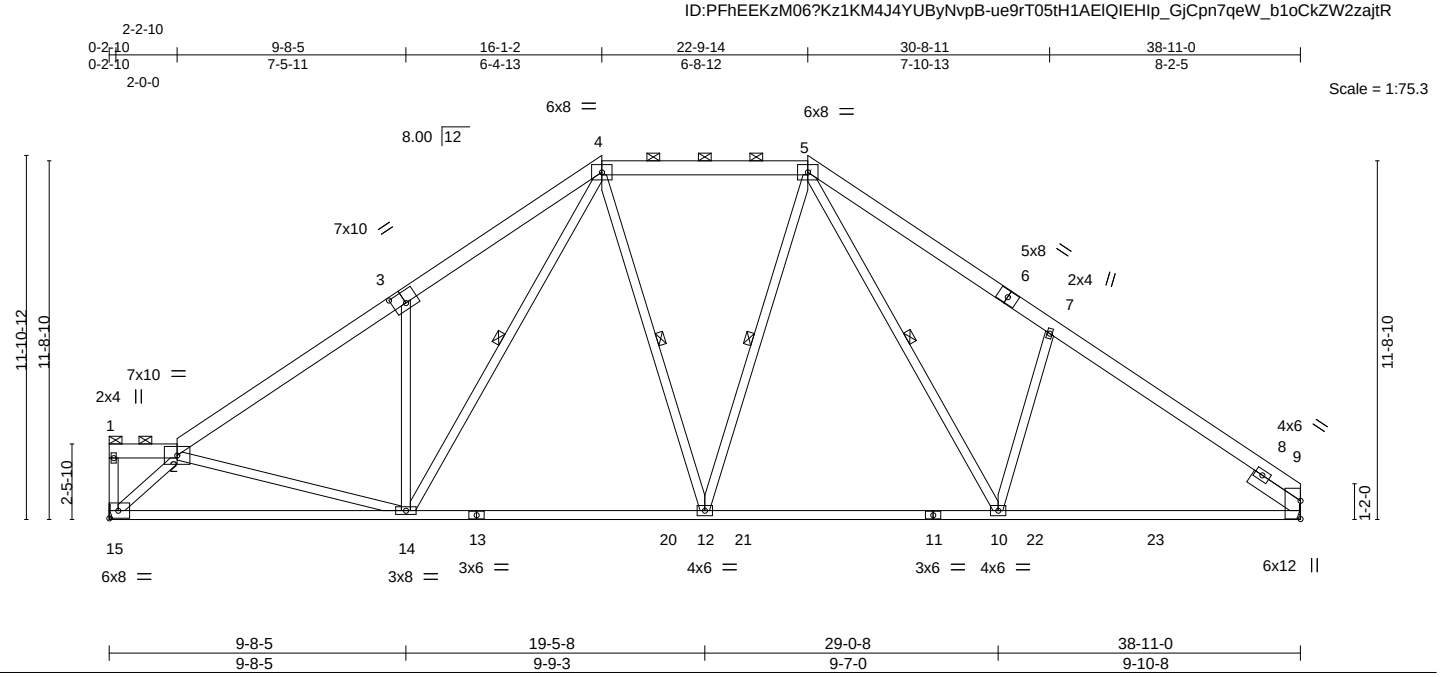


Plate Offsets (X,Y)-- [3:0-5-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.31	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.47	12-14	>993	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.11	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.06	10-12	>999	240	Weight: 278 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3 *Except* 4-14,5-10: 2x4 SP No.2
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-11-9 max.): 1-2, 4-5.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-14, 4-12, 5-12, 5-10

REACTIONS. (lb/size) 15=1551/Mechanical, 9=1551/Mechanical
Max Horz 15=-239(LC 8)
Max Uplift 15=-40(LC 12), 9=-39(LC 13)
Max Grav 15=1565(LC 2), 9=1678(LC 20)

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

TOP CHORD	2-3=-2145/520, 3-4=-2173/753, 4-5=-1463/536, 5-7=-2193/702, 7-9=-2279/547
BOT CHORD	14-15=-347/1640, 12-14=-103/1446, 10-12=-109/1418, 9-10=-314/1768
WEBS	2-14=0/284, 3-14=-498/353, 4-14=-293/777, 4-12=-63/374, 5-12=-67/296, 5-10=-236/765, 7-10=-426/337, 2-15=-2049/624

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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) 15, 9.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

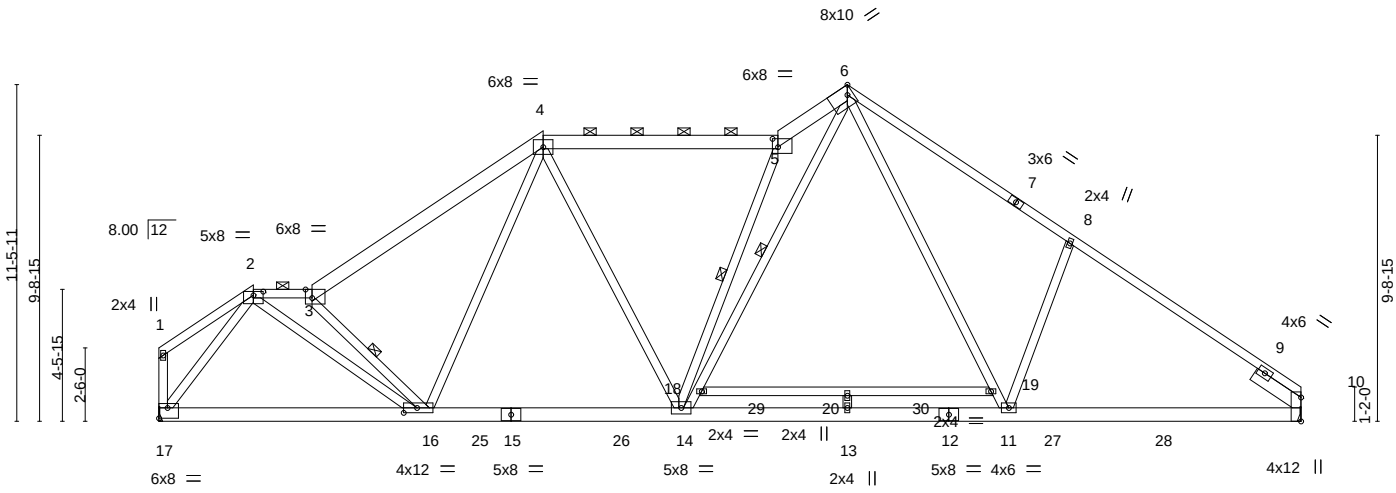
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B22	Roof Special	1	1	E12810609
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:56 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-q1Hcui77peQy_kRcOjsSM8H41xVz_nKKGWDgbxzajtP

3-2-10	5-2-10	13-1-2	21-1-2	23-5-8	31-0-8	38-11-0
3-2-10	2-0-0	7-10-8	8-0-0	2-4-6	7-7-0	7-10-8

Scale = 1:78.5



9-0-1	17-8-10	23-5-8	28-9-9	38-11-0
9-0-1	8-8-9	5-8-14	5-4-1	10-1-7

Plate Offsets (X,Y)-- [2:0-4-0,0-1-9], [3:0-2-11,Edge], [5:0-2-4,0-3-6], [6:0-2-5,Edge], [16:0-5-8,0-2-0], [17:Edge,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	1.15	TC	0.97	Vert(LL)	-0.32	13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.53	13	>881	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.12	14	>999	240	Weight: 313 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 3-4,4-5,5-6: 2x6 SP No.2, 7-10: 2x4 SP No.1
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3 *Except* 6-14,18-19: 2x4 SP No.2
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-7 max.): 2-3, 4-5.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-16, 5-14, 6-14

REACTIONS. (lb/size) 17=1551/Mechanical, 10=1551/Mechanical
Max Horz 17=-274(LC 10)
Max Uplift 17=-83(LC 12), 10=-37(LC 13)
Max Grav 17=1551(LC 1), 10=1661(LC 20)

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

TOP CHORD	2-3=-2849/819, 3-4=-2008/579, 4-5=-1683/552, 5-6=-2770/980, 6-8=-2145/678, 8-10=-2240/552
BOT CHORD	16-17=-216/1194, 14-16=-207/1570, 13-14=-110/1318, 11-13=-110/1318, 10-11=-323/1746
WEBS	2-16=-562/2178, 3-16=-1789/653, 4-16=-37/332, 4-14=-21/428, 5-14=-1822/705, 6-19=-186/730, 11-19=-198/736, 8-11=-421/318, 2-17=-1695/453, 14-18=-659/2010, 6-18=-646/2011

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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) 17, 10.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-60, 3-4=-60, 4-5=-60, 5-6=-60, 6-10=-60, 17-21=-20

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B23	Roof Special	1	1	E12810610
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:58 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-nQOMJO9NLFggE2b?W8uwRZMRllBPSgQdjqinfpzajtN

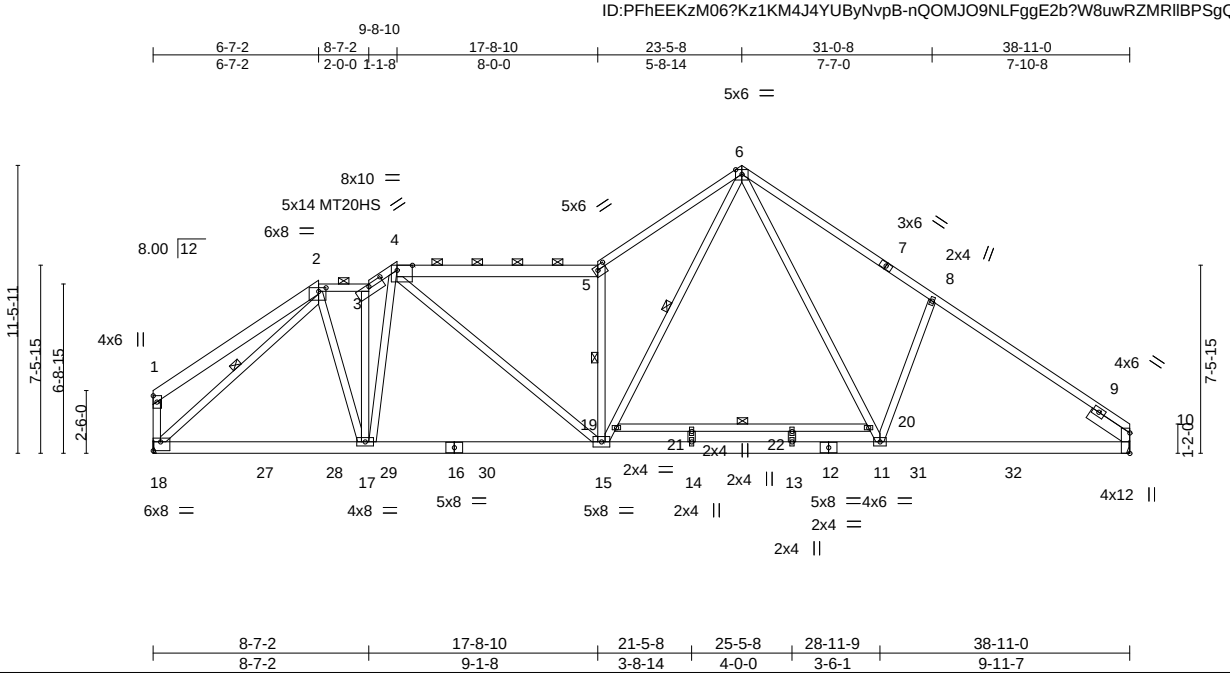


Plate Offsets (X,Y)-- [2:0-3-8,0-1-12], [3:0-7-0,0-1-0], [4:0-7-5,Edge], [5:0-4-0,0-2-0], [18:Edge,0-4-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.16	14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.37	13-14	>999	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.12	14	>999	240	Weight: 308 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 1-2,4-5: 2x6 SP No.2, 6-7,7-10: 2x4 SP No.1
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3 *Except* 19-20: 2x4 SP No.2
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-3-14 max.): 2-3, 4-5.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-15, 6-15, 2-18, 19-20

REACTIONS. (lb/size) 10=1551/Mechanical, 18=1551/Mechanical
Max Horz 18=-232(LC 8)
Max Uplift 10=-36(LC 13), 18=-83(LC 12)
Max Grav 10=1558(LC 20), 18=1551(LC 1)

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

TOP CHORD	1-2=-273/169, 2-3=-1598/488, 3-4=-1785/536, 4-5=-2125/643, 5-6=-2612/874, 6-8=-1979/676, 8-10=-2106/546, 1-18=-307/176
BOT CHORD	17-18=-218/1400, 15-17=-263/1616, 14-15=-123/1295, 13-14=-123/1295, 11-13=-123/1295, 10-11=-318/1651
WEBS	2-17=-114/979, 3-17=-709/172, 4-15=-148/704, 5-15=-1798/693, 15-19=-528/1733, 6-19=-526/1742, 6-20=-195/680, 11-20=-197/670, 8-11=-431/323, 2-18=-1695/337

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 18.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-60, 3-4=-60, 4-5=-60, 5-6=-60, 6-10=-60, 18-23=-20

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B24	Roof Special	1	1	E12810611
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:45:59 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-FcykXk9?6ZoWrBAB3sP9znvbK8XUB72nyUSKCGzajtM

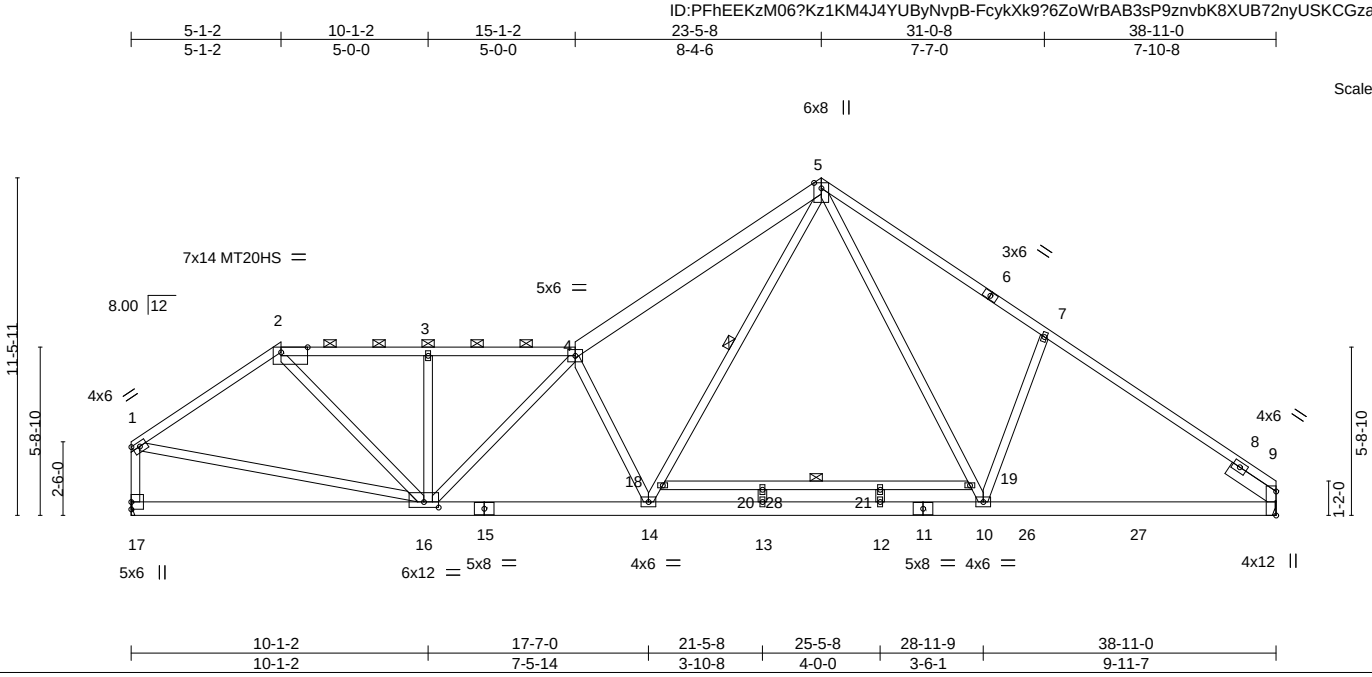


Plate Offsets (X,Y)-- [1:Edge,0-1-12], [2:0-10-13,Edge], [16:0-6-0,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.32	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.55	12-13	>839	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.12	14	>999	240	Weight: 287 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
4-5: 2x6 SP No.2, 6-9: 2x4 SP No.1
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
5-14,18-19: 2x4 SP No.2
SLIDER Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-2 max.): 2-4.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-14, 18-19

REACTIONS. (lb/size) 17=1551/Mechanical, 9=1551/Mechanical
Max Horz 17=-235(LC 8)
Max Uplift 17=-83(LC 12), 9=-36(LC 13)
Max Grav 17=1551(LC 1), 9=1592(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1887/525, 2-3=-2156/603, 3-4=-2165/607, 4-5=-2669/801, 5-7=-2047/667, 7-9=-2137/540, 1-17=-1450/426
BOT CHORD 16-17=-191/288, 14-16=-562/2689, 13-14=-158/1428, 12-13=-158/1428, 10-12=-158/1428, 9-10=-313/1663
WEBS 2-16=-163/961, 3-16=-331/162, 4-16=-819/211, 4-14=-1408/547, 14-18=-427/1619, 5-18=-438/1683, 5-19=-183/763, 10-19=-171/700, 7-10=-419/316, 1-16=-351/1449

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
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, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 9.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

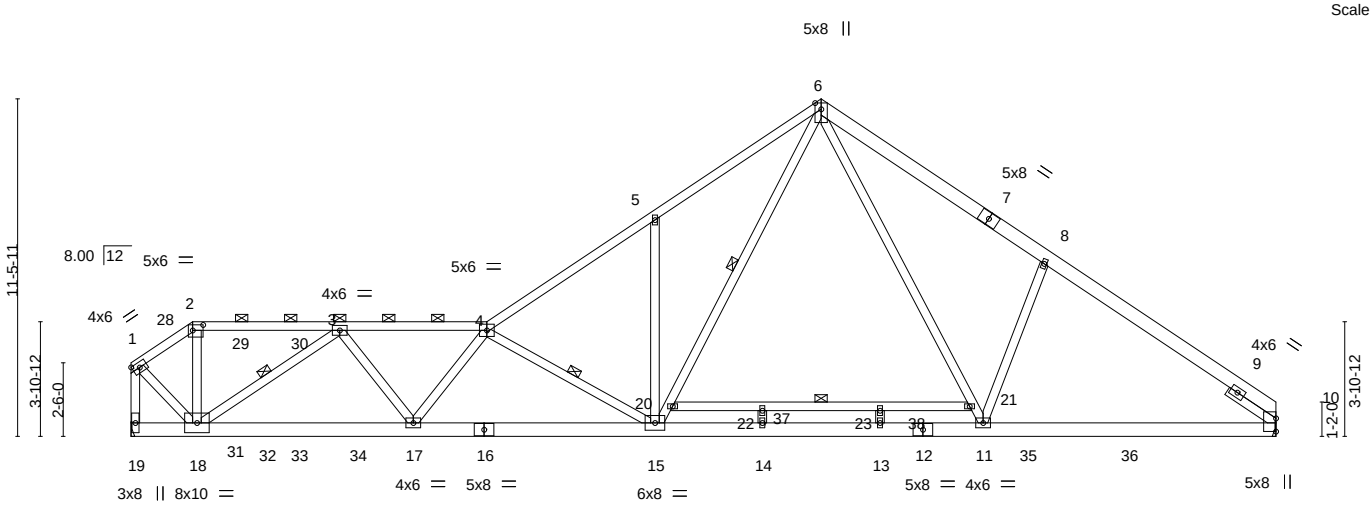
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-4=-60, 4-5=-60, 5-9=-60, 17-22=-20

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B25	Roof Special Girder	1	1	E12810612
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:03 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-7NCFM5CW9oIyKpUyIhU58d4I3mv_70iMt5QYL1zajtI

2-1-2	7-1-2	12-1-2	17-9-11	23-5-8	31-0-8	38-11-0
2-1-2	5-0-0	5-0-0	5-8-9	5-7-13	7-7-0	7-10-8

Scale = 1:78.3



2-1-2	9-7-2	17-9-11	21-5-8	25-5-8	28-11-9	38-11-0
2-1-2	7-6-0	8-2-9	3-7-13	4-0-0	3-6-1	9-11-7

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.33	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.57	13-14	>813	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.19	15	>999	240	Weight: 290 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 6-7,7-10: 2x6 SP No.2
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 14-22,13-23: 2x4 SP No.3
SLIDER	Right 2x4 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-7-9 max.): 2-4.
BOT CHORD	Rigid ceiling directly applied or 9-2-9 oc bracing.
WEBS	1 Row at midpt 3-18, 4-15, 6-15, 20-21

REACTIONS. (lb/size) 19=1845/Mechanical, 10=1620/Mechanical
Max Horz 19=-235(LC 4)
Max Uplift 19=-515(LC 8), 10=-97(LC 9)
Max Grav 19=1860(LC 34), 10=1702(LC 34)

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

TOP CHORD	1-2=-1383/398, 2-3=-1147/351, 3-4=-3748/662, 4-5=-2868/328, 5-6=-2890/483, 6-8=-2279/294, 8-10=-2366/188, 1-19=-1970/554
BOT CHORD	17-18=-682/3054, 15-17=-676/4234, 14-15=-48/1481, 13-14=-48/1481, 11-13=-48/1481, 10-11=-82/1850
WEBS	2-18=0/551, 3-18=-2328/371, 3-17=-19/1269, 4-17=-998/223, 4-15=-2240/516, 5-15=-420/212, 15-20=-398/2037, 6-20=-391/2056, 6-21=-127/848, 11-21=-126/826, 8-11=-418/253, 1-18=-446/1630

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 19=515.
9) Load case(s) 2, 3, 21, 22 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
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) 83 lb down and 117 lb up at 1-8-4, and 85 lb down and 107 lb up at 3-8-4, and 85 lb down and 107 lb up at 5-8-4 on top chord, and 27 lb down and 38 lb up at 1-8-4, 30 lb down and 39 lb up at 3-8-4, and 30 lb down and 39 lb up at 5-8-4, and 361 lb down and 141 lb up at 7-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

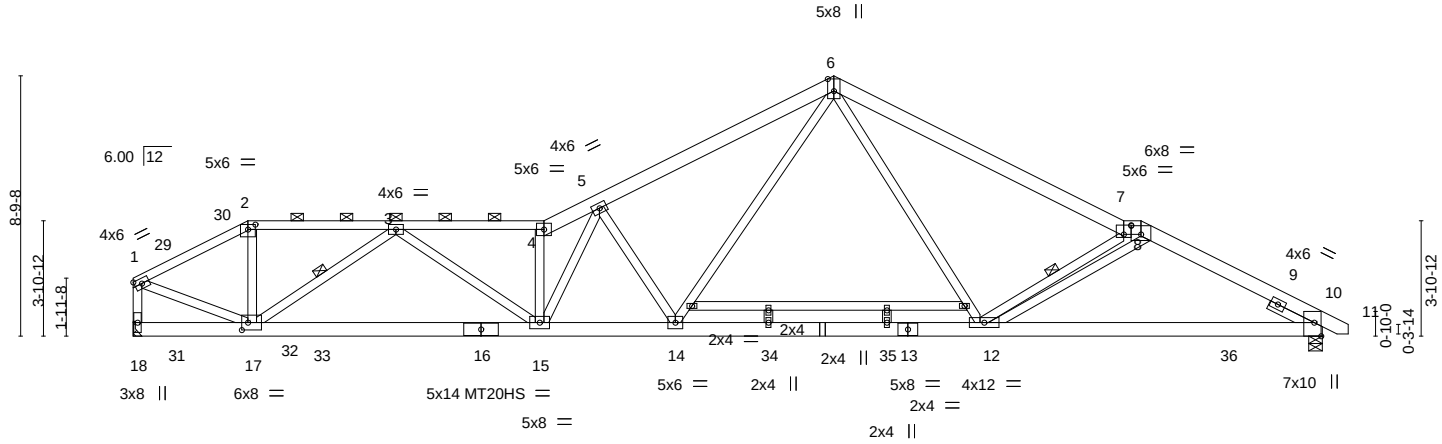
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-4=-60, 4-6=-60, 6-10=-60, 19-24=-20
   Concentrated Loads (lb)
   Vert: 28=-0(B) 29=-0(B) 30=-0(B) 31=-4(B) 32=-4(B) 33=-4(B) 34=-352(B)
2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-50, 2-4=-50, 4-6=-50, 6-10=-50, 19-35=-20, 35-36=-50, 24-36=-20, 37-38=-30
   Concentrated Loads (lb)
   Vert: 28=-0(B) 29=-0(B) 30=-0(B) 31=-3(B) 32=-3(B) 33=-3(B) 34=-340(B)
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-2=-20, 2-4=-20, 4-6=-20, 6-10=-20, 19-24=-40, 37-38=-40
   Concentrated Loads (lb)
   Vert: 28=-2(B) 29=-2(B) 30=-2(B) 31=-5(B) 32=-5(B) 33=-5(B) 34=-269(B)
21) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-50, 2-4=-50, 4-6=-50, 6-10=-20, 19-35=-20, 35-36=-50, 24-36=-20, 37-38=-30
   Concentrated Loads (lb)
   Vert: 28=-0(B) 29=-0(B) 30=-0(B) 31=-3(B) 32=-3(B) 33=-3(B) 34=-340(B)
22) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-20, 2-4=-20, 4-6=-20, 6-10=-50, 19-35=-20, 35-36=-50, 24-36=-20, 37-38=-30
   Concentrated Loads (lb)
   Vert: 28=-28(B) 29=-28(B) 30=-28(B) 31=-3(B) 32=-3(B) 33=-3(B) 34=-340(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B26	ROOF SPECIAL GIRDER	1	1	E12810613
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:05 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-4mK?nnEmhPYgZ6dLQ6WZD29d7ZaibuifKPvePvzajtG

0-10-0 3-10-8 8-10-8 13-10-8 15-9-0 23-8-0 33-5-8 34-0-8 40-2-0 41-0-8
0-10-0 3-0-8 5-0-0 5-0-0 1-10-8 7-11-0 9-9-8 0-7-0 6-1-8 0-10-8

Scale = 1:77.8



3-10-8 13-10-8 18-3-12 21-5-8 25-5-8 28-7-4 33-3-8 33-5-8 40-2-0
3-10-8 10-0-0 4-5-4 3-1-12 4-0-0 3-1-12 4-8-4 0-2-0 6-8-8

Plate Offsets (X,Y)-- [2:0-3-0,0-2-0], [6:0-4-14,Edge], [7:0-3-0,0-3-12], [8:0-4-0,0-3-8], [10:0-5-8,Edge], [10:0-0-13,0-1-10], [17:0-2-8,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.24	15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.59	12-14	>803	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.72	Horz(CT)	0.10	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.26	15	>999	240	Weight: 298 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1 *Except*
1-2: 2x4 SP No.2, 2-4: 2x4 SP No.1, 7-8,8-11: 2x6 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
19-20,21-22,23-24,8-12: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 1-7-13

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-6 oc purlins, except end verticals, and 2-0-0 oc purlins (2-4-13 max.): 2-4, 7-8.
BOT CHORD Rigid ceiling directly applied or 8-8-11 oc bracing.
WEBS 1 Row at midpt 3-17, 7-12

REACTIONS. (lb/size) 18=2109/Mechanical, 10=2153/0-5-8
Max Horz 18=-171(LC 25)
Max Uplift 18=-641(LC 8), 10=-264(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2463/611, 2-3=-2190/570, 3-4=-4842/725, 4-5=-5360/786, 5-6=-3864/481, 6-7=-3049/240, 7-8=-3966/460, 8-10=-3331/336, 1-18=-2095/572
BOT CHORD 15-17=-779/3762, 14-15=-583/4223, 12-14=-131/2228, 10-12=-208/2928
WEBS 2-17=-46/847, 3-17=-1942/308, 3-15=0/1333, 4-15=-2214/320, 5-15=-383/1686, 5-14=-1688/582, 6-14=-289/2100, 6-12=-2/819, 7-12=-1657/492, 1-17=-494/2304, 8-12=-141/1253

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-8 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=641, 10=264.
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) 99 lb down and 113 lb up at 3-8-4, and 99 lb down and 104 lb up at 5-8-4 on top chord, and 74 lb down and 59 lb up at 1-8-4, 30 lb down and 39 lb up at 3-8-4 , 30 lb down and 39 lb up at 5-8-4, and 377 lb down and 160 lb up at 7-8-4, and 365 lb down and 79 lb up at 39-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) 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

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

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

LOAD CASE(S) Standard

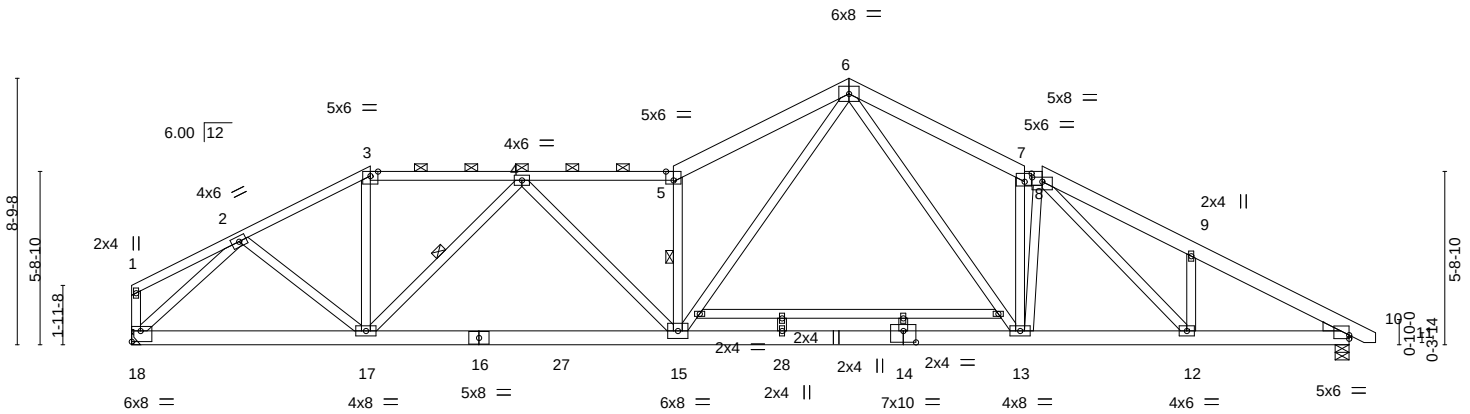
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-4=-60, 4-6=-60, 6-7=-60, 7-8=-60, 8-11=-60, 18-25=-20
   Concentrated Loads (lb)
   Vert: 18=-74(B) 29=-0(B) 30=-0(B) 31=-4(B) 32=-4(B) 33=-377(B) 34=-100 35=-100 36=-365(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B27	ROOF SPECIAL	1	1	E12810614
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:07 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-09RmCTG0D0oOpQnkXXY1ITE4RNGt3lwyojOlUozajtE

3-8-4	7-10-8	12-10-8	17-10-8	23-8-0	29-5-8	30-0-8	34-11-8	40-2-0	41-0-8
3-8-4	4-2-4	5-0-0	5-0-0	5-9-8	5-9-8	0-7-0	4-11-0	5-2-8	0-10-8

Scale = 1:76.0



7-10-8	17-10-8	21-5-8	25-5-8	29-0-8	29-5-8	34-11-8	40-2-0
7-10-8	10-0-0	3-7-0	4-0-0	3-7-0	0-5-0	5-6-0	5-2-8

Plate Offsets (X,Y)-- [5:0-3-0,Edge], [7:0-2-12,0-3-4], [8:0-4-0,0-1-12], [10:0-0-0,0-1-7], [14:0-5-0,0-4-8], [18:Edge,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	1.15	TC	0.45	Vert(LL)	-0.19	15-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.57	13-15	>842	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.18	15	>999	240	Weight: 310 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 1-3,3-5: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-10-8 max.): 3-5, 7-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-17, 5-15

REACTIONS. (lb/size) 10=1759/0-5-8, 18=1684/Mechanical
Max Horz 18=-172(LC 10)
Max Uplift 10=-161(LC 13), 18=-245(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2255/569, 3-4=-1969/549, 4-5=-3309/684, 5-6=-3704/841, 6-7=-2988/711, 7-8=-2648/561, 8-9=-2853/768, 9-10=-2968/656
BOT CHORD 17-18=-313/1576, 15-17=-436/2813, 13-15=-195/2068, 12-13=-311/2598, 10-12=-484/2553
WEBS 2-17=-1/524, 3-17=-93/707, 4-17=-1221/231, 4-15=0/715, 5-15=-1928/548, 6-15=-377/2114, 6-13=-171/1009, 7-13=-805/310, 8-13=0/380, 8-12=-294/42, 2-18=-2083/528

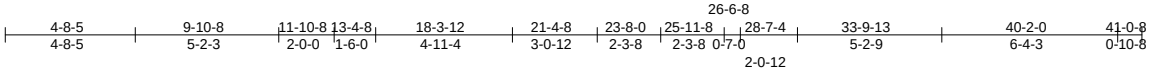
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-0 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=161, 18=245.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

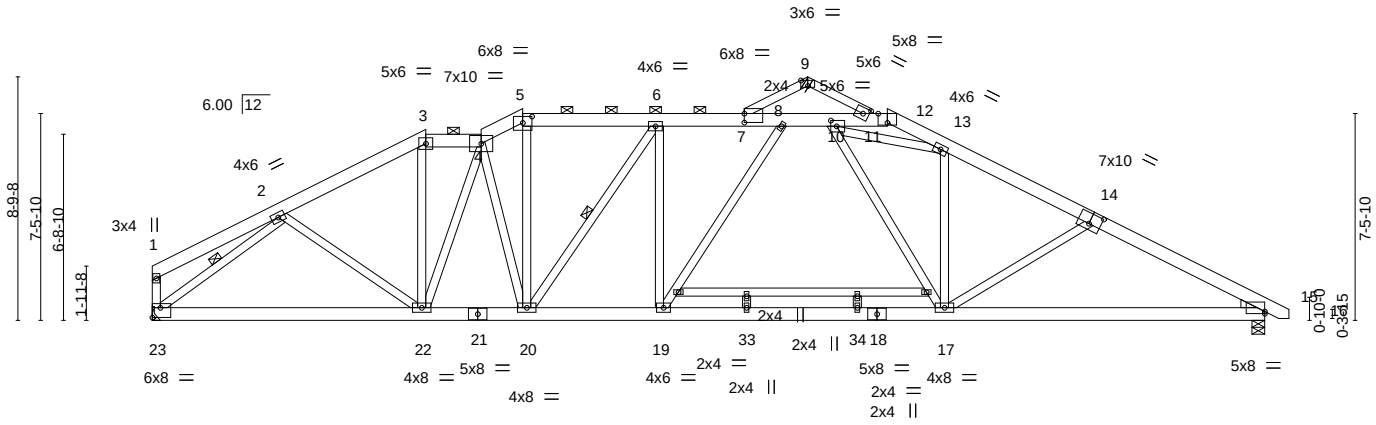
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	B28	ROOF SPECIAL	1	1	E12810615
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:10 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Qj7uqVIvWxBzguWJDf6kw5sYOaJPGAsOUhcP57zajtB



Scale = 1:83.2



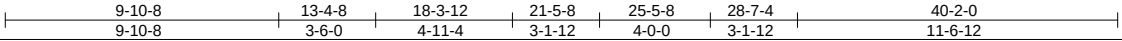


Plate Offsets (X,Y)-- [5:0-4-0,0-2-12], [7:0-0-0,0-3-14], [9:0-3-0,Edge], [10:0-2-8,0-2-8], [11:0-2-10,0-2-9], [12:0-4-0,Edge], [14:0-5-0,0-4-8], [15:0-0-0,0-0-15], [23:Edge,0-4-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.13	17-19	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.40	17-19	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.10	15	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.13	17-19	>999	240	Weight: 345 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 7-9,9-11: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-1-10 max.): 3-4, 5-12.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-20, 2-23

REACTIONS. (lb/size) 15=1759/0-5-8, 23=1684/Mechanical
Max Horz 23=-170(LC 17)
Max Uplift 15=-171(LC 13), 23=-260(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2317/598, 3-4=-2020/586, 4-5=-2338/667, 5-6=-2182/641, 6-7=-2548/626, 7-8=-2401/579, 8-10=-2250/592, 10-11=-433/162, 11-12=-546/190, 12-13=-587/198, 13-14=-2754/585, 14-15=-3054/697
BOT CHORD 22-23=-359/1755, 20-22=-315/2216, 19-20=-279/2548, 17-19=-293/2397, 15-17=-507/2623
WEBS 2-22=0/371, 3-22=-58/557, 4-22=-612/140, 5-20=-150/695, 6-20=-652/0, 6-19=-56/341, 8-19=-81/453, 10-17=-188/306, 13-17=0/504, 14-17=-294/281, 10-13=-1906/435, 2-23=-2090/570

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-8-0 from left end, supported at two points, 4-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=171, 23=260.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

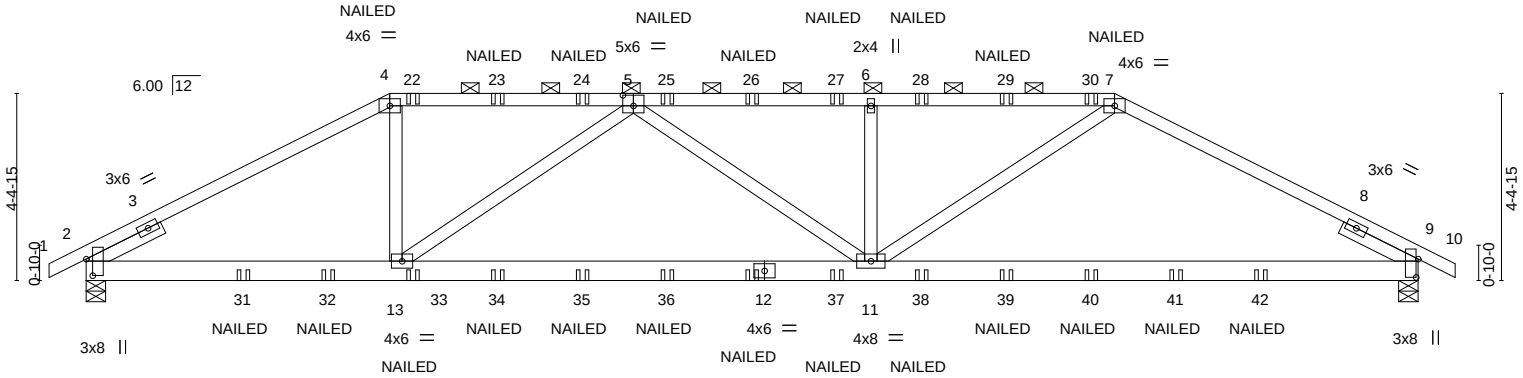
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C01	Hip Girder	1	2	E12810616
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:13 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-rIo1TWKnpsZXXLEtuofRYkU6eoN2TeyqAfr4hSzajt8

-0-10-8	7-1-15	12-10-14	18-6-2	24-3-1	31-5-0	32-3-8
0-10-8	7-1-15	5-9-0	5-7-4	5-9-0	7-1-15	0-10-8

Scale = 1:54.3



7-1-15	18-6-2	31-5-0
7-1-15	11-4-3	12-10-14

Plate Offsets (X,Y)-- [2:0-4-11,0-1-13], [5:0-3-0,0-3-0], [9:0-5-3,0-0-9]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	0.21	11-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.28	11-20	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.19	Horz(CT)	-0.04	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 344 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=1806/0-5-8, 9=1806/0-5-8
Max Horz 2=77(LC 8)
Max Uplift 2=-907(LC 8), 9=-908(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2865/1593, 4-5=-2517/1462, 5-6=-3471/2087, 6-7=-3471/2087, 7-9=-2634/1578
BOT CHORD 2-13=-1385/2484, 11-13=-2009/3316, 9-11=-1325/2353
WEBS 4-13=-489/911, 5-13=-1062/816, 5-11=-55/322, 6-11=-457/445, 7-11=-845/1415

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=907, 9=908.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-7=-60, 7-10=-60, 14-18=-20

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

Concentrated Loads (lb)

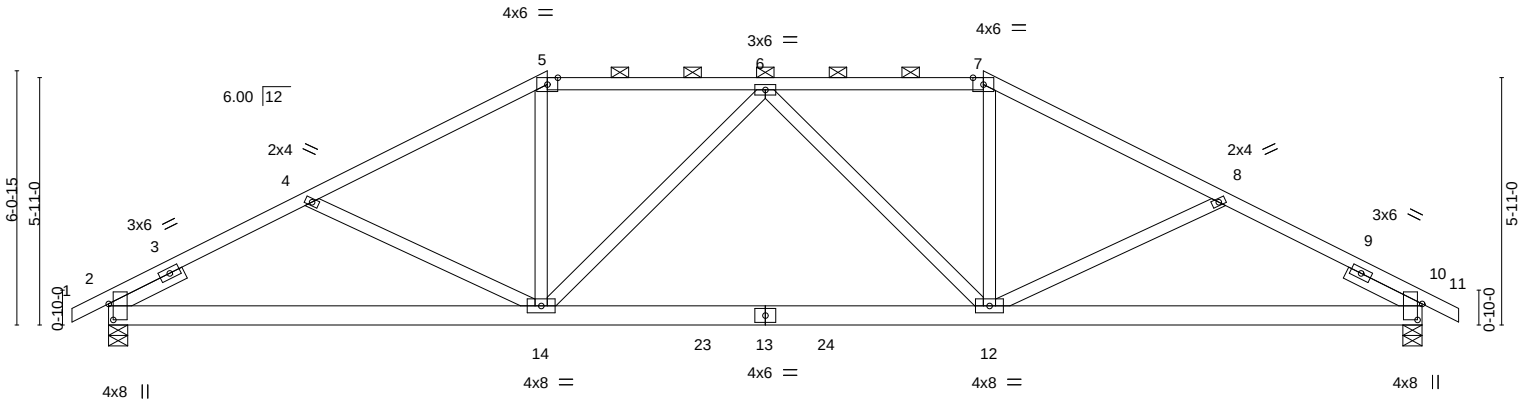
Vert: 12=-21(B) 22=-33(B) 23=-33(B) 24=-33(B) 25=-33(B) 26=-33(B) 27=-33(B) 28=-33(B) 29=-33(B) 30=-33(B) 31=-138(B) 32=-115(B) 33=-21(B) 34=-21(B) 35=-21(B) 36=-21(B) 37=-21(B) 38=-21(B) 39=-21(B) 40=-21(B) 41=-115(B) 42=-138(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C02	Hip	1	1	E12810617
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:15 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-nhwntCM2LUpFmfOG?Diwd9ZSib3NxUH7ezKAmKzajt6

-0-10-8	4-10-6	10-5-15	15-8-8	20-11-1	26-6-10	31-5-0	32-3-8
0-10-8	4-10-6	5-7-9	5-2-9	5-2-9	5-7-9	4-10-6	0-10-8

Scale = 1:55.1



10-5-15	20-11-1	31-5-0
10-5-15	10-5-3	10-5-15

Plate Offsets (X,Y)-- [2:0-4-9,0-1-5], [10:0-4-9,0-1-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.18	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.32	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.10	12-14	>999	240	Weight: 188 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-5-2 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=1309/0-5-8, 10=1309/0-5-8
Max Horz 2=108(LC 16)
Max Uplift 2=-201(LC 12), 10=-201(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2079/699, 4-5=-1862/585, 5-6=-1602/580, 6-7=-1602/580, 7-8=-1862/585, 8-10=-2079/699
BOT CHORD 2-14=-520/1806, 12-14=-395/1770, 10-12=-522/1806
WEBS 5-14=-55/504, 6-14=-350/178, 6-12=-350/178, 7-12=-55/504

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=201, 10=201.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

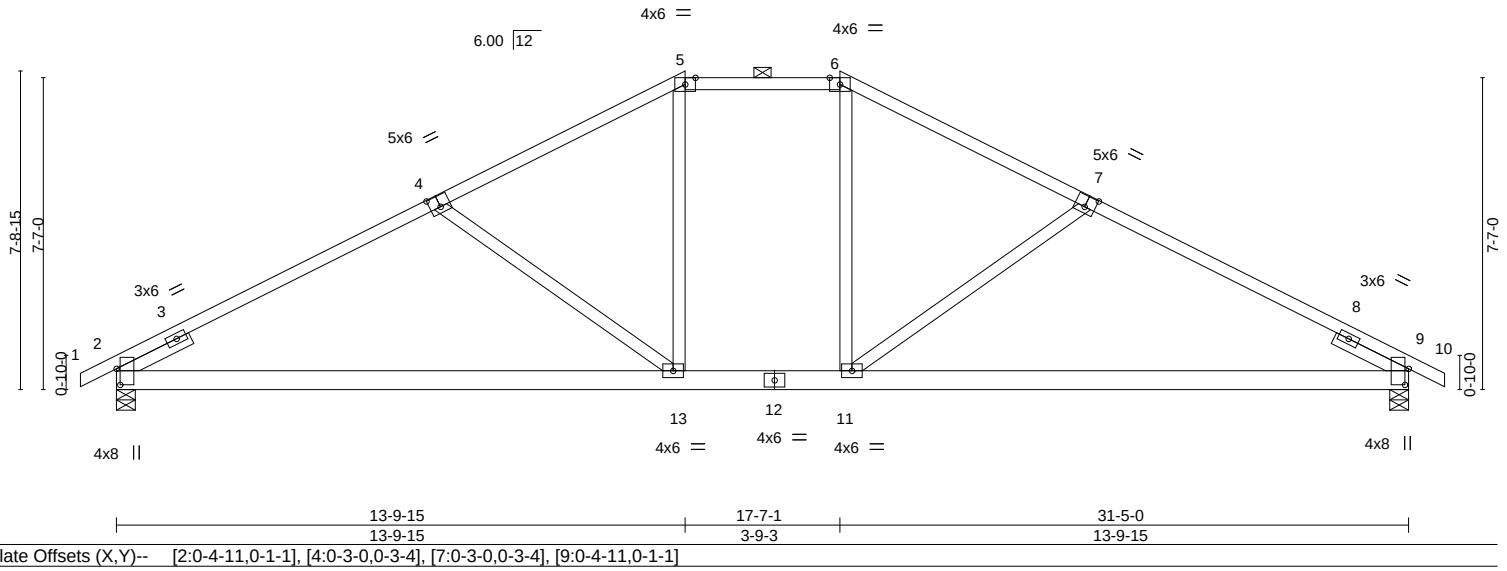
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C03	Hip	1	1	E12810618
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:18 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-BGcwWEOwdPBqd67rhLFdFnBy3p3z8rKaKxYrNfzajt3

-0-10-8 7-10-9 13-9-15 17-7-1 23-6-7 31-5-0 32-3-8
0-10-8 7-10-9 5-11-6 3-9-3 5-11-6 7-10-9 0-10-8

Scale = 1:56.0



13-9-15 17-7-1 31-5-0
13-9-15 3-9-3 13-9-15

Plate Offsets (X,Y)-- [2:0-4-11,0-1-1], [4:0-3-0,0-3-4], [7:0-3-0,0-3-4], [9:0-4-11,0-1-1]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.21	11-20	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.42	11-20	>893	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.17	13-16	>999	240	Weight: 176 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-11-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=1309/0-5-8, 9=1309/0-5-8
Max Horz 2=140(LC 16)
Max Uplift 2=-233(LC 12), 9=-233(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1895/697, 4-5=-1624/582, 5-6=-1372/572, 6-7=-1624/582, 7-9=-1895/697
BOT CHORD 2-13=-476/1695, 11-13=-218/1372, 9-11=-478/1695
WEBS 4-13=-436/321, 5-13=-88/442, 6-11=-88/442, 7-11=-436/321

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=233, 9=233.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

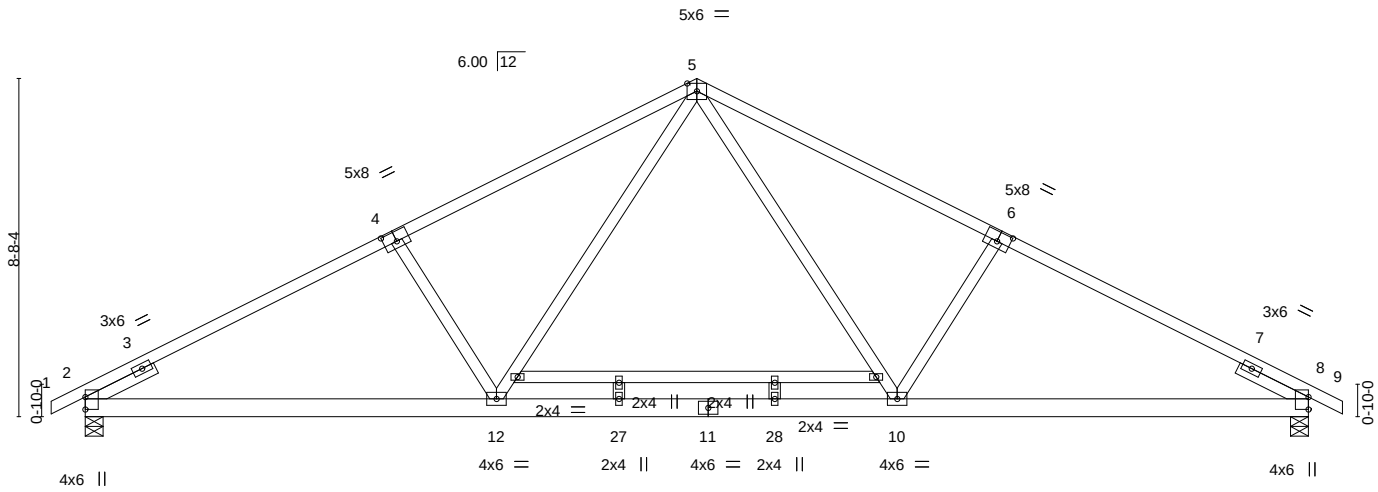
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C04	COMMON	11	1	E12810619
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:21 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-crH28FQpwKZPUasQMToKsQpPJ06cLDw00vnVz_zajt0

-0-10-8	8-0-0	15-8-8	23-5-0	31-5-0	32-3-8
0-10-8	8-0-0	7-8-8	7-8-8	8-0-0	0-10-8

Scale = 1:59.2



10-6-12	13-8-8	17-8-8	20-10-4	31-5-0
10-6-12	3-1-12	4-0-0	3-1-12	10-6-12

Plate Offsets (X,Y)-- [4:0-4-0,0-3-0], [6:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.11	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.39	10-12	>971	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.08	10-12	>999	240	Weight: 192 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

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

REACTIONS. (lb/size) 2=1409/0-5-8, 8=1409/0-5-8
Max Horz 2=159(LC 12)
Max Uplift 2=-148(LC 12), 8=-148(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2245/466, 4-5=-2045/482, 5-6=-2045/482, 6-8=-2245/466
BOT CHORD 2-12=-279/1933, 10-12=-56/1340, 8-10=-281/1933
WEBS 5-10=-83/780, 6-10=-407/354, 5-12=-83/780, 4-12=-407/354

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 15-8-8 from left end, supported at two points, 4-0-0 apart.
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) except (jt=lb) 2=148, 8=148.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C05	COMMON	1	1	E12810620
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:26 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-yo5xBzUxlsChbLkN90OVZTXFi1o30U6l9AUGeCzajsx

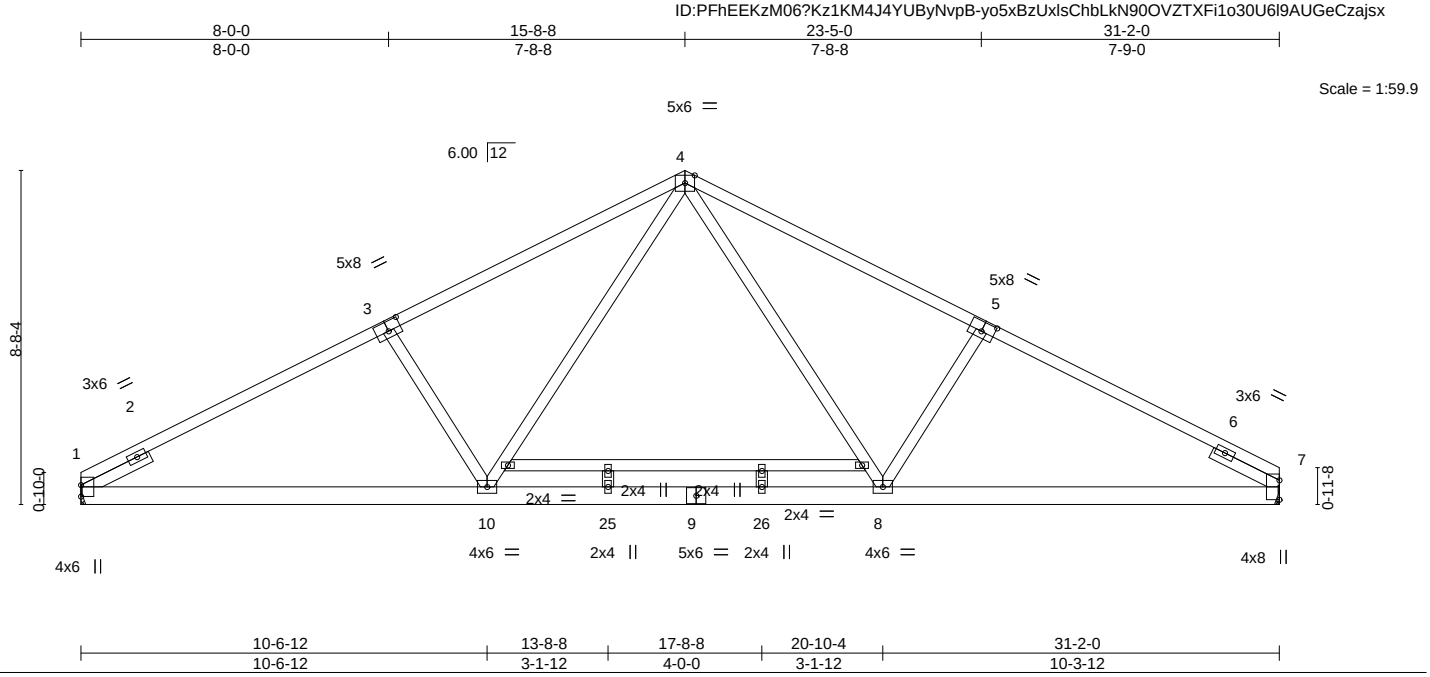


Plate Offsets (X,Y)-- [3:0-4-0,0-3-0], [5:0-4-0,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.12	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.41	8-10	>912	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.09	8-10	>999	240	Weight: 188 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

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

REACTIONS. (lb/size) 1=1346/Mechanical, 7=1347/Mechanical
Max Horz 1=98(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2231/464, 3-4=-2031/480, 4-5=-1990/470, 5-7=-2183/454
BOT CHORD 1-10=-304/1921, 8-10=-77/1321, 7-8=-293/1875
WEBS 3-10=-408/354, 4-10=-86/790, 4-8=-71/733, 5-8=-389/349

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 15-8-8 from left end, supported at two points, 4-0-0 apart.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C06	GABLE	4	1	E12810621
					Job Reference (optional)

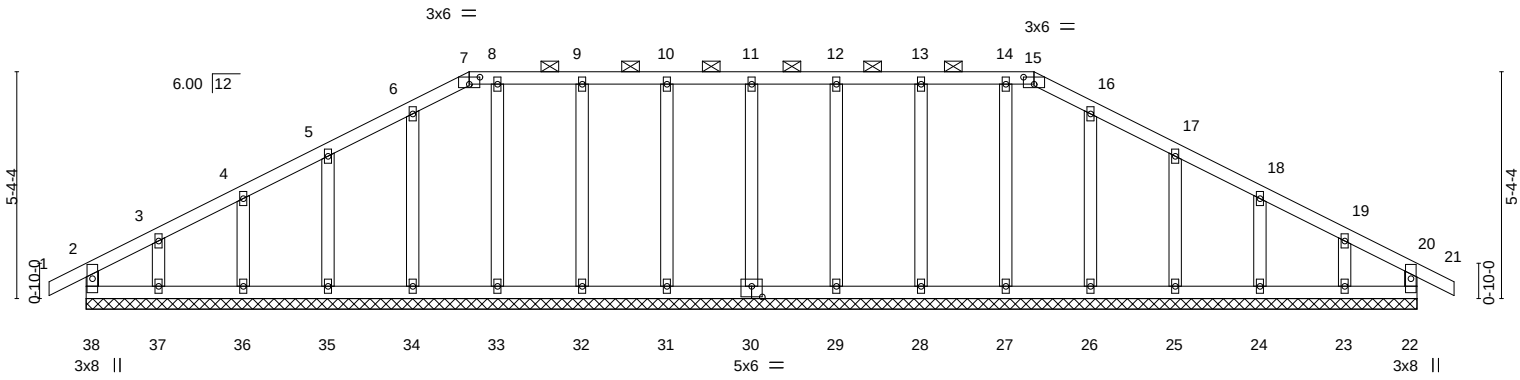
Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:29 2019 Page 1

ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-NNm4q_Xq2naGSoTyq9yCB69x6EzSDwyBs8jwEWzajsu

-0-10-8 9-0-8 22-4-8 31-5-0 32-3-8

0-10-8 9-0-8 13-4-0 9-0-8 0-10-8

Scale = 1:54.4



31-5-0

31-5-0

Plate Offsets (X,Y)-- [7:0-3-0,0-2-0], [15:0-3-0,0-2-0], [30:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	21	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	21	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	22	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 182 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, and 2-0-0 oc purlins (6-0-0 max.): 7-15.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 31-5-0.

(lb) - Max Horz 38=-95(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 38, 22, 30, 31, 32, 33, 34, 35, 36, 29, 28, 27, 26, 25, 24, 23 except 37=-101(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 38, 22, 30, 31, 32, 33, 34, 35, 36, 37, 29, 28, 27, 26, 25, 24, 23

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 38, 22, 30, 31, 32, 33, 34, 35, 36, 29, 28, 27, 26, 25, 24, 23 except (jt=lb) 37=101.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

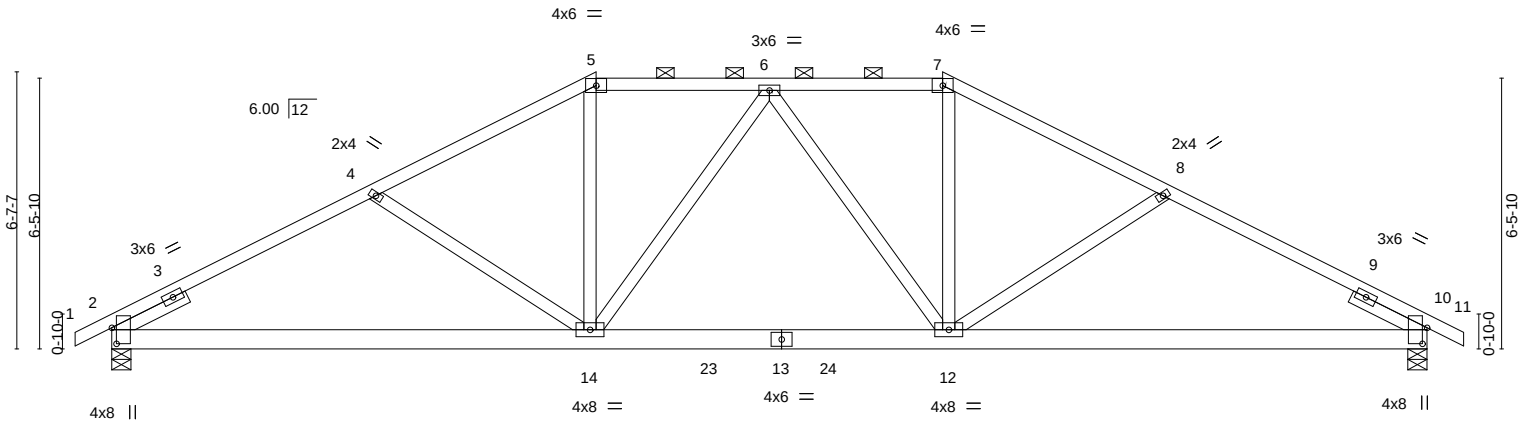
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C07	Hip	4	1	E12810622
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:32 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-nySDS0ZiKiyrJGBXVHVvpknNcStbQD2dY6xarrzajsr

-0-10-8	6-3-11	11-6-13	15-8-8	19-10-3	25-1-5	31-5-0	32-3-8
0-10-8	6-3-11	5-3-2	4-1-11	4-1-11	5-3-2	6-3-11	0-10-8

Scale = 1:55.0



11-6-13	19-10-3	31-5-0
11-6-13	8-3-5	11-6-13

Plate Offsets (X,Y)-- [2:0-4-9,0-1-5], [10:0-4-9,0-1-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.13	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.21	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.08	12-14	>999	240	Weight: 190 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-7-15 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=1309/0-5-8, 10=1309/0-5-8
Max Horz 2=118(LC 12)
Max Uplift 2=-212(LC 12), 10=-212(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2034/691, 4-5=-1771/592, 5-6=-1519/579, 6-7=-1519/579, 7-8=-1771/592, 8-10=-2034/691
BOT CHORD 2-14=-493/1760, 12-14=-329/1615, 10-12=-494/1760
WEBS 4-14=-291/254, 5-14=-87/494, 6-14=-283/141, 6-12=-283/141, 7-12=-87/494, 8-12=-291/254

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=212, 10=212.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

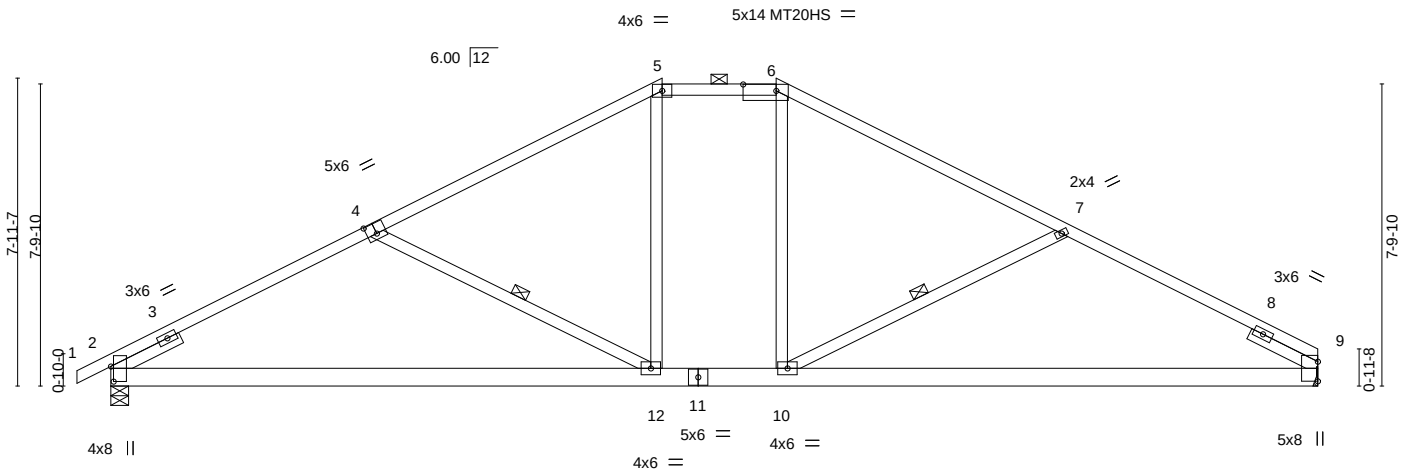
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C08	Hip	4	1	E12810623
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:36 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-gkhjlOcDOxSGntVIk7arzaxzr3CsM2jDTkvn_czajsn

-0-10-8	6-10-6	14-2-13	17-2-3	24-6-9	31-2-0
0-10-8	6-10-6	7-4-7	2-11-5	7-4-7	6-7-7

Scale = 1:59.5



14-2-13	17-2-3	31-2-0
14-2-13	2-11-5	13-11-13

Plate Offsets (X,Y)-- [2:0-4-11,0-0-13], [4:0-3-0,0-3-4], [6:0-10-4,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.22	12-19	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.46	12-19	>819	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.06	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.16	12-19	>999	240	Weight: 177 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-6-10 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-12, 7-10

REACTIONS. (lb/size) 9=1246/Mechanical, 2=1300/0-5-8
Max Horz 2=155(LC 12)
Max Uplift 9=-210(LC 13), 2=-236(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1873/728, 4-5=-1589/555, 5-6=-1326/565, 6-7=-1585/552, 7-9=-1964/720
BOT CHORD 2-12=-547/1735, 10-12=-226/1326, 9-10=-538/1700
WEBS 4-12=-498/361, 5-12=-61/430, 6-10=-45/401, 7-10=-464/350

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=210, 2=236.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

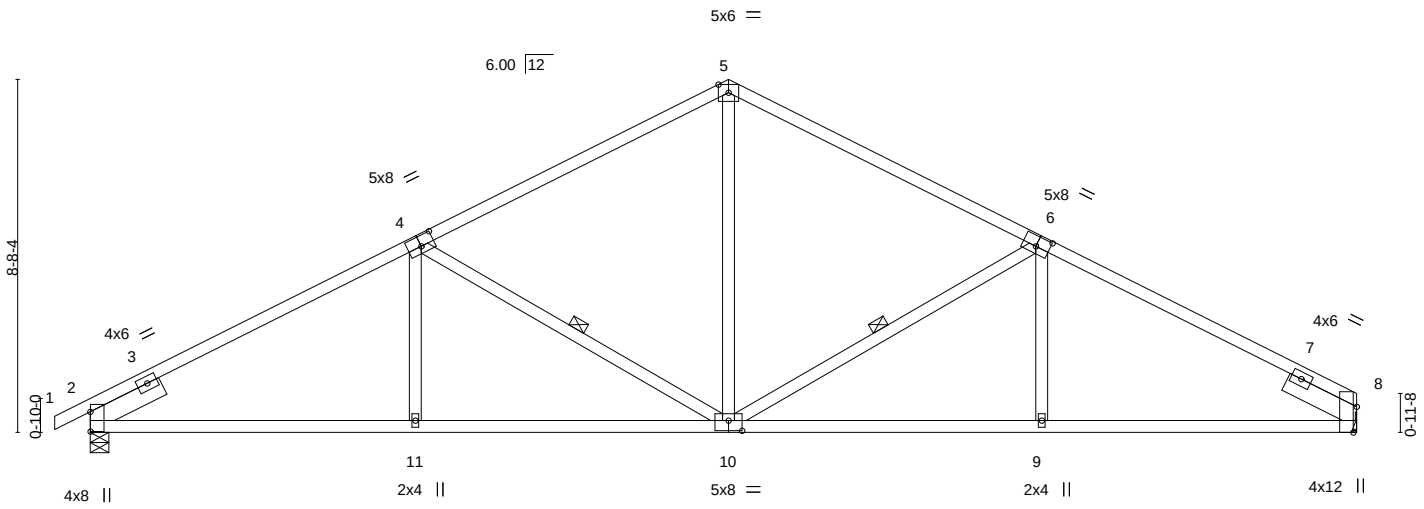
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C09	Common	9	1	E12810624
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:39 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-4JNswPe5hsqreLEtPF7YbDZSBGAPZNif9i8Sbxzajsk

-0-10-8 8-0-0 15-8-8 23-5-0 31-2-0
0-10-8 8-0-0 7-8-8 7-8-8 7-9-0

Scale = 1:56.7



8-0-0 15-8-8 23-5-0 31-2-0
8-0-0 7-8-8 7-8-8 7-9-0

Plate Offsets (X,Y)-- [2:0-5-13,0-0-1], [4:0-4-0,0-3-0], [6:0-4-0,0-3-0], [8:0-7-9,Edge], [10:0-4-0,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.13	9-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.31	9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.12	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.10	9-10	>999	240	Weight: 160 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except*
	6-8: 2x4 SP No.1
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-10, 6-10

REACTIONS. (lb/size) 2=1300/0-5-8, 8=1246/Mechanical
Max Horz 2=171(LC 12)
Max Uplift 2=-246(LC 12), 8=-221(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1981/657, 4-5=-1446/570, 5-6=-1443/569, 6-8=-1937/644
BOT CHORD 2-11=-470/1688, 10-11=-471/1686, 9-10=-456/1641, 8-9=-455/1643
WEBS 4-11=0/279, 4-10=-610/313, 5-10=-221/733, 6-10=-564/296, 6-9=0/266

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=246, 8=221.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C10	COMMON	2	1	E12810625
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:42 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Ut3_YRh__nDQVoyS5NhFDrB??UGXmj56rgM6CGzajsh

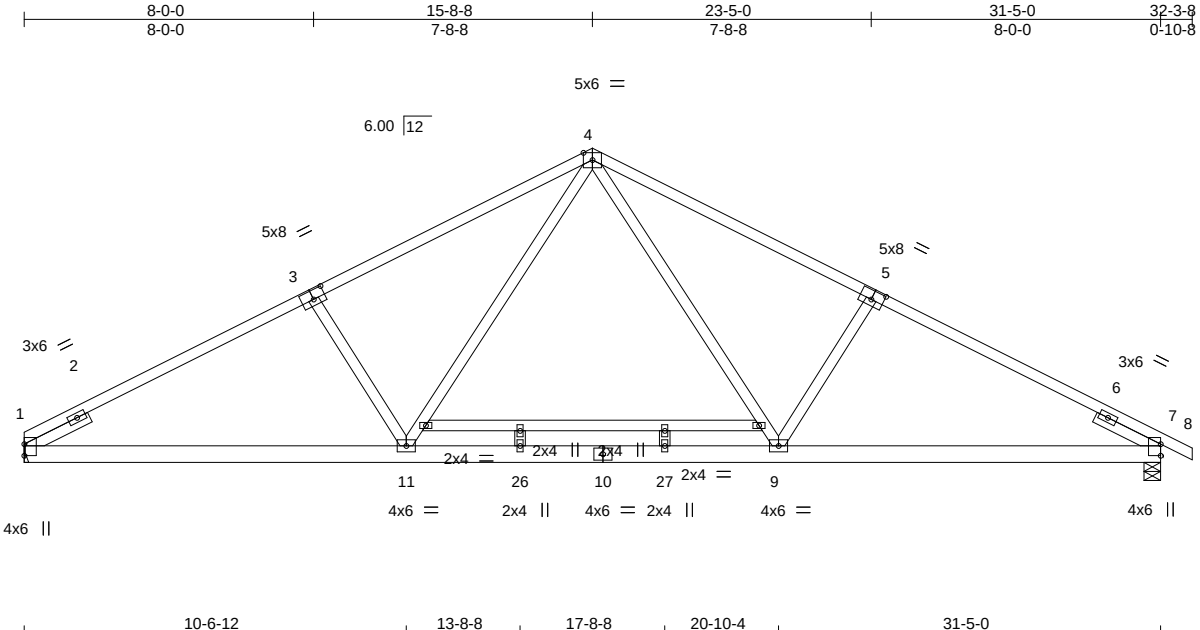


Plate Offsets (X,Y)-- [3:0-4-0,0-3-0], [5:0-4-0,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.11	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.39	9-11	>975	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.08	9-11	>999	240	Weight: 191 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

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

REACTIONS. (lb/size) 1=1356/Mechanical, 7=1410/0-5-8
Max Horz 1=-104(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2249/468, 3-4=-2049/484, 4-5=-2046/483, 5-7=-2246/467
BOT CHORD 1-11=-283/1937, 9-11=-57/1342, 7-9=-282/1934
WEBS 4-9=-83/780, 5-9=-408/354, 4-11=-85/784, 3-11=-409/354

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 15-8-8 from left end, supported at two points, 4-0-0 apart.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

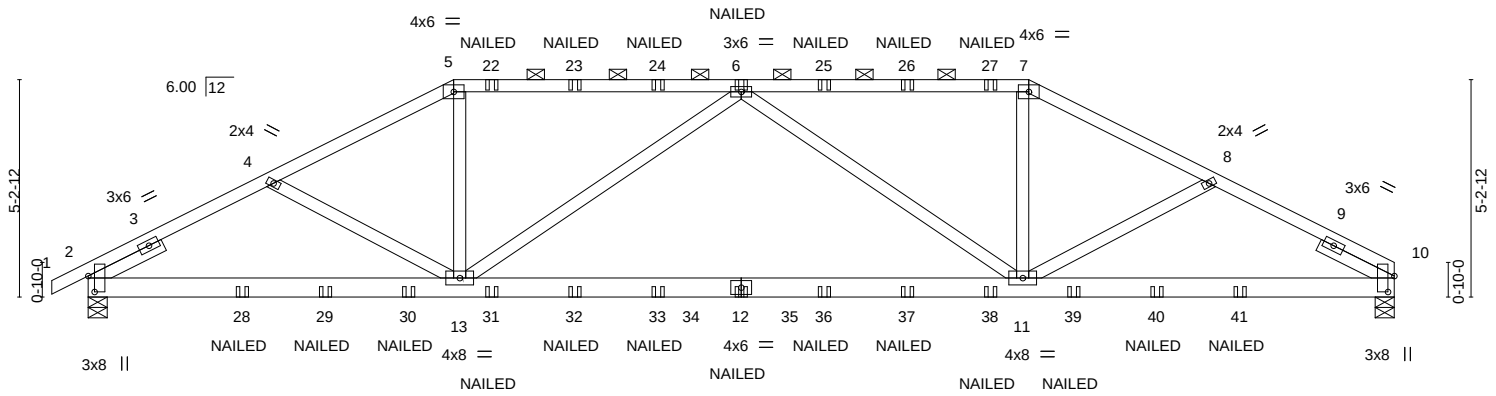
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C11	Hip Girder	1	2	E12810626
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:47 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-rrstb8l6oJrjcarQtxGQwvuv2V?gR1wr_x4ttUzajsc

-0-10-8	4-5-8	8-9-8	15-8-8	22-7-8	26-11-8	31-5-0
0-10-8	4-5-8	4-4-0	6-11-0	6-11-0	4-4-0	4-5-8

Scale = 1:55.4



8-9-8	22-7-8	31-5-0
8-9-8	13-10-0	8-9-8

Plate Offsets (X,Y)-- [2:0-4-9,0-1-13], [10:0-4-9,0-1-13]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	0.24	11-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.34	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.16	Horz(CT)	-0.04	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 366 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 10=1809/0-5-8, 2=1863/0-5-8
Max Horz 2=101(LC 31)
Max Uplift 10=-1098(LC 9), 2=-1121(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2976/1964, 4-5=-2821/1948, 5-6=-2515/1809, 6-7=-2518/1810, 7-8=-2824/1949, 8-10=-2981/1966
BOT CHORD 2-13=-1744/2597, 11-13=-2166/2976, 10-11=-1662/2603
WEBS 4-13=-231/330, 5-13=-548/885, 6-13=-605/638, 6-11=-603/638, 7-11=-548/886, 8-11=-234/331

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=1098, 2=1121.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60, 5-7=-60, 7-10=-60, 14-18=-20

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

Concentrated Loads (lb)

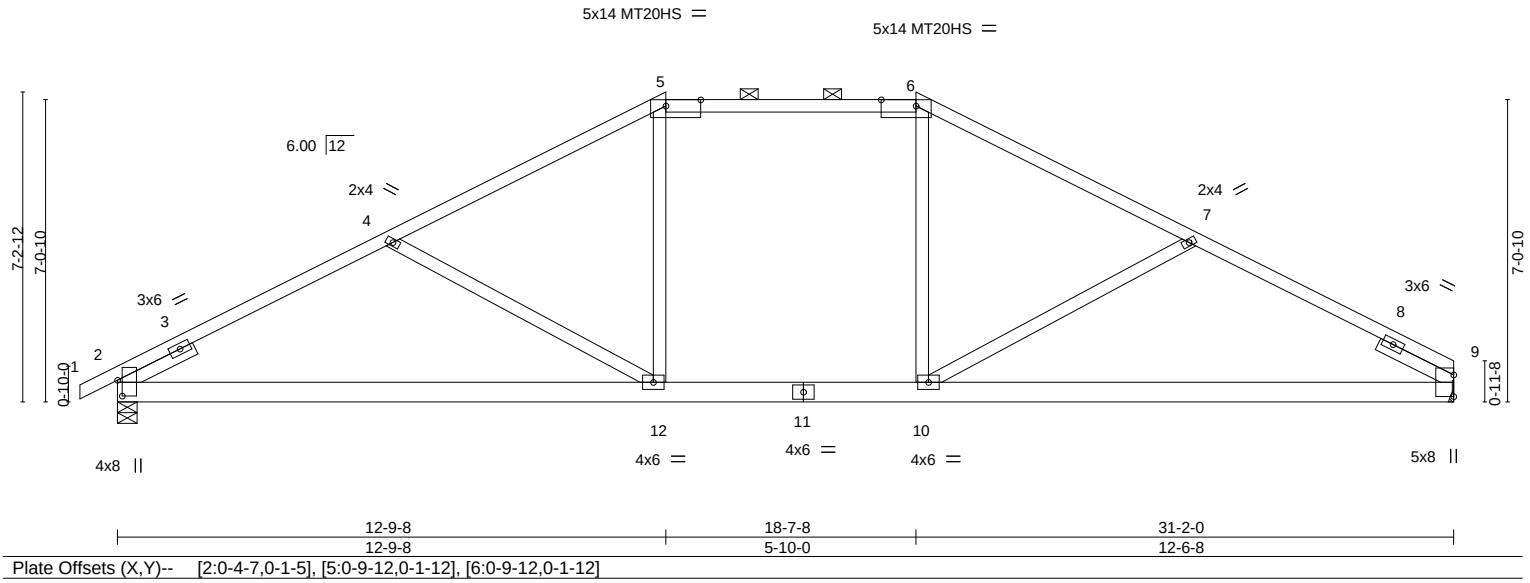
Vert: 12=-22(B) 6=-32(B) 22=-32(B) 23=-32(B) 24=-32(B) 25=-32(B) 26=-32(B) 27=-32(B) 28=-142(B) 29=-115(B) 30=-107(B) 31=-22(B) 32=-22(B) 33=-22(B) 36=-22(B) 37=-22(B) 38=-22(B) 39=-107(B) 40=-115(B) 41=-142(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C12	HIP	1	1	E12810627
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:50 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-FQY0EAn?5EDHT1a?Z3q7YXWP5i_heKeHhvIXUpzajsZ

-0-10-8	6-5-1	12-9-8	18-7-8	24-11-15	31-2-0
0-10-8	6-5-1	6-4-6	5-10-0	6-4-6	6-2-2

Scale = 1:53.7



12-9-8	18-7-8	31-2-0
12-9-8	5-10-0	12-6-8

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.28	12-19	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.44	12-19	>848	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.22	12-19	>999	240	Weight: 171 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-6-11 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 9=1246/Mechanical, 2=1300/0-5-8
Max Horz 2=141(LC 12)
Max Uplift 9=-198(LC 13), 2=-223(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2009/711, 4-5=-1678/573, 5-6=-1423/575, 6-7=-1671/571, 7-9=-1969/700
BOT CHORD 2-12=-537/1745, 10-12=-271/1423, 9-10=-523/1701
WEBS 4-12=-414/314, 5-12=-31/426, 6-10=-23/406, 7-10=-371/307

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=198, 2=223.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C13	COMMON	1	1	E12810628
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:51 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-jc5ORWodsYL84B8B6mLM4l3Xr6LfNoKQvZ240FzajsY

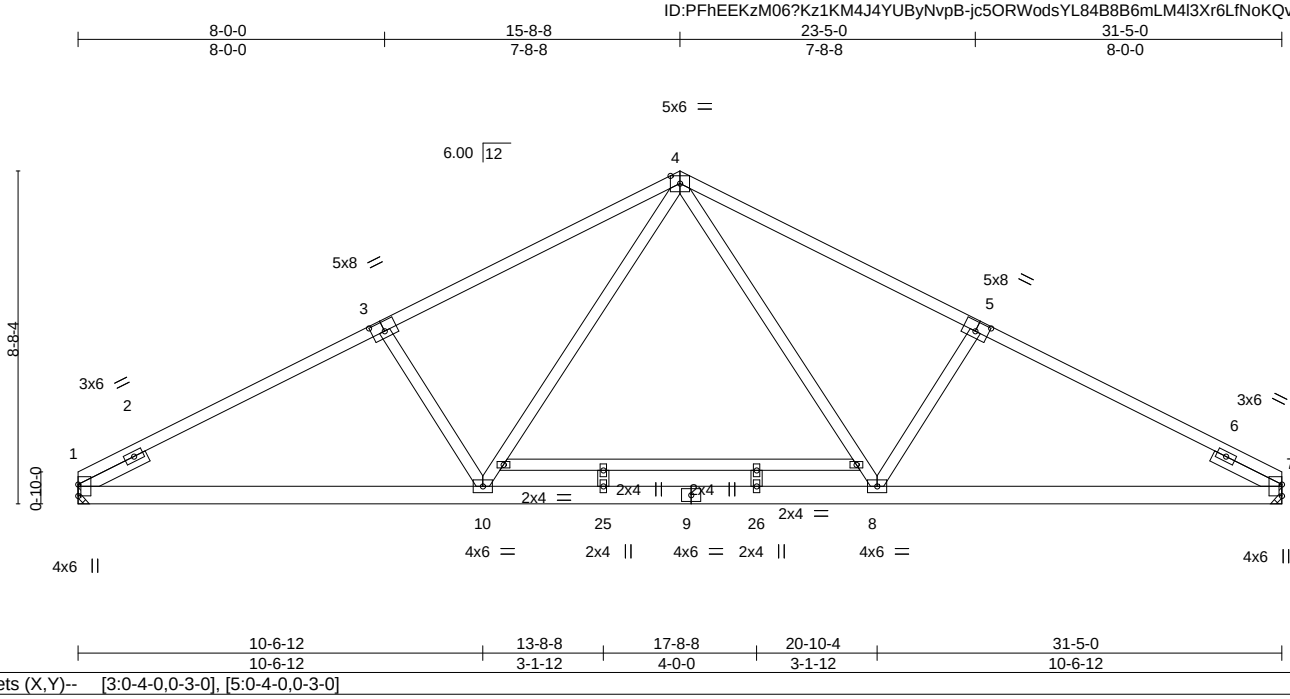


Plate Offsets (X,Y)-- [3:0-4-0,0-3-0], [5:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.10	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.38	8-10	>980	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.08	8-10	>999	240	Weight: 189 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

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

REACTIONS. (lb/size) 1=1357/Mechanical, 7=1357/Mechanical
Max Horz 1=-151(LC 13)
Max Uplift 1=-125(LC 12), 7=-125(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2250/468, 3-4=-2050/484, 4-5=-2050/484, 5-7=-2250/468
BOT CHORD 1-10=-302/1939, 8-10=-76/1343, 7-8=-302/1939
WEBS 4-8=-84/783, 5-8=-409/354, 4-10=-84/783, 3-10=-409/354

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 15-8-8 from left end, supported at two points, 4-0-0 apart.
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) 1=125, 7=125.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C14	COMMON	6	1	E12810629
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:46:57 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-YmTfiZsOSO6Ip6cLT1SmK0JYxXNLnVoJlVVPEvzajsS

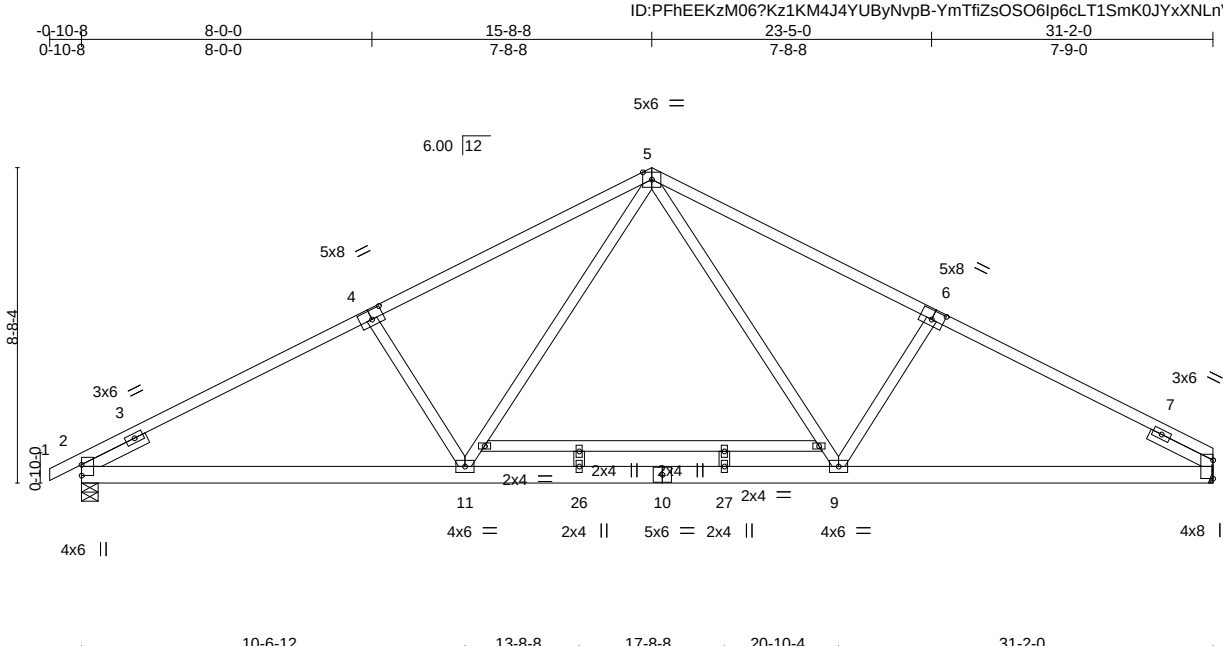


Plate Offsets (X,Y)-- [4:0-4-0,0-3-0], [6:0-4-0,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.12	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.41	9-11	>908	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.09	9-11	>999	240	Weight: 190 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

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

REACTIONS. (lb/size) 2=1399/0-5-8, 8=1347/Mechanical
Max Horz 2=171(LC 12)
Max Uplift 2=-147(LC 12), 8=-121(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2226/463, 4-5=-2027/478, 5-6=-1989/470, 6-8=-2181/454
BOT CHORD 2-11=-302/1917, 9-11=-77/1320, 8-9=-293/1874
WEBS 4-11=-407/354, 5-11=-85/786, 5-9=-72/733, 6-9=-389/349

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 15-8-8 from left end, supported at two points, 4-0-0 apart.
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) 2=147, 8=121.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

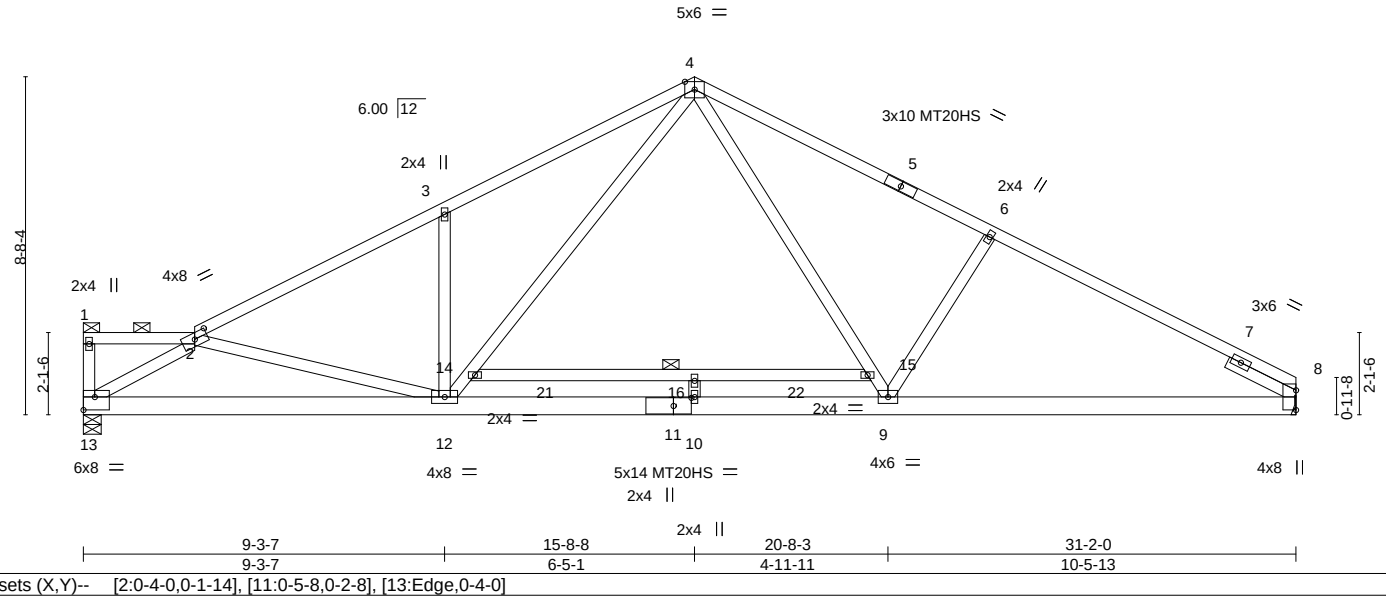
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C15	Roof Special	2	1	E12810630
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:00 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-zL8oKbvGkJUtgZKw89?Tyex3QkMC_pJl_Tj3rDzajsP

2-10-5	9-3-7	15-8-8	23-3-8	31-2-0
2-10-5	6-5-1	6-5-1	7-7-0	7-10-8

Scale = 1:59.2



9-3-7	15-8-8	20-8-3	31-2-0
9-3-7	6-5-1	4-11-11	10-5-13

Plate Offsets (X,Y)-- [2:0-4-0,0-1-14], [11:0-5-8,0-2-8], [13:Edge,0-4-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.32	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.48	10-12	>781	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.10	10	>999	240	Weight: 203 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
14-15: 2x4 SP No.2
SLIDER Right 2x4 SP No.3 1-11-12

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

REACTIONS. (lb/size) 13=1241/0-5-8, 8=1241/Mechanical
Max Horz 13=-178(LC 13)
Max Uplift 13=-224(LC 12), 8=-220(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1933/612, 3-4=-1933/797, 4-6=-1749/679, 6-8=-1948/665
BOT CHORD 12-13=-546/1712, 10-12=-218/1200, 9-10=-218/1200, 8-9=-475/1669
WEBS 2-13=-2002/747, 3-12=-412/334, 12-14=-302/818, 4-14=-308/862, 4-15=-180/756, 9-15=-176/683, 6-9=-408/341

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=224, 8=220.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-4=-60, 4-8=-60, 13-17=-20

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C16	Roof Special	2	1	E12810631
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:01 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-RXiAXxvuVccjHjv6itWiUsTF_8jPjGJvD7TcNgzajsO

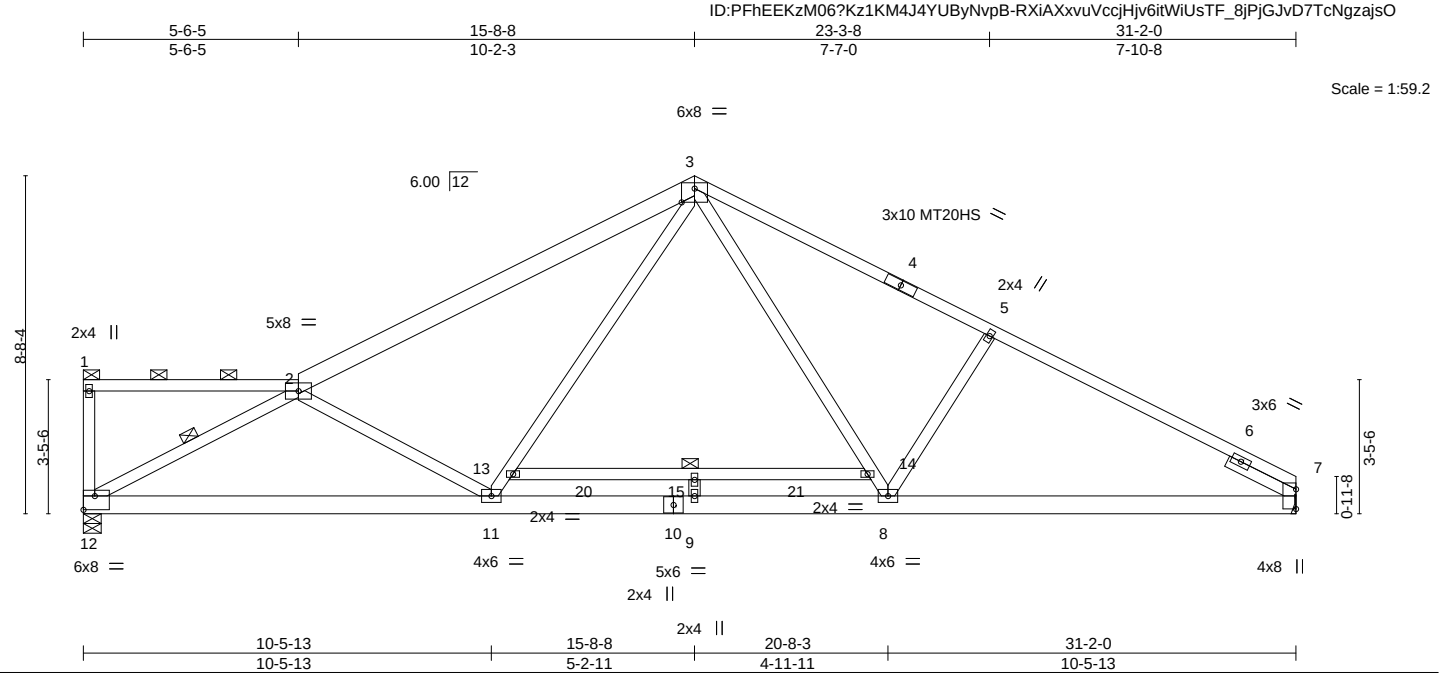


Plate Offsets (X,Y)-- [3:0-4-0,Edge], [12:Edge,0-4-4]

LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC	0.76	Vert(LL)	-0.21	9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL 1.15	BC	0.72	Vert(CT)	-0.32	9	>999	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr NO	WB	0.55	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.08	9	>999	240	Weight: 208 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 2-3: 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-12, 13-14

REACTIONS. (lb/size) 12=1241/0-5-8, 7=1241/Mechanical
Max Horz 12=-212(LC 13)
Max Uplift 12=-228(LC 12), 7=-217(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1780/567, 3-5=-1740/666, 5-7=-1938/651
BOT CHORD 11-12=-520/1821, 9-11=-215/1239, 8-9=-215/1239, 7-8=-461/1658
WEBS 2-12=-2042/744, 2-11=-452/339, 11-13=-47/657, 3-13=-53/740, 3-14=-177/684, 8-14=-171/605, 5-8=-397/323

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=228, 7=217.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-7=-60, 12-16=-20

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C17	Roof Special	2	1	E12810632
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:03 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Nwqxycx91EsRX13UpIZAZHZbJxPzB5qBgRyjRYzajsM

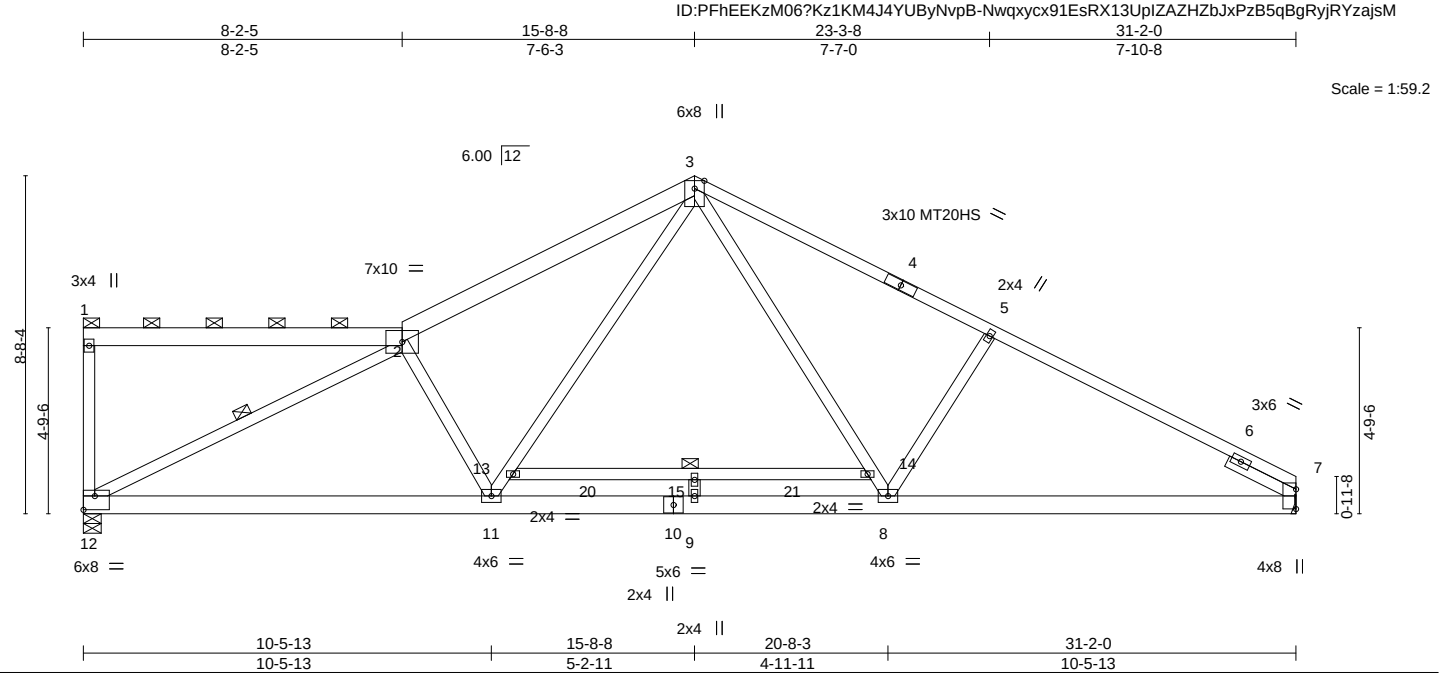


Plate Offsets (X,Y)-- [12:Edge,0-4-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.21	9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.33	9	>999	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.09	9	>999	240	Weight: 216 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2 *Except* 3-4,4-7: 2x4 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 2-12, 13-14

REACTIONS. (lb/size) 12=1241/0-5-8, 7=1241/Mechanical
Max Horz 12=-243(LC 13)
Max Uplift 12=-235(LC 12), 7=-213(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1847/630, 3-5=-1743/650, 5-7=-1941/636
BOT CHORD 11-12=-394/1739, 9-11=-197/1241, 8-9=-197/1241, 7-8=-449/1663
WEBS 2-12=-1924/651, 2-11=-441/296, 11-13=-139/718, 3-13=-149/802, 3-14=-190/684, 8-14=-181/605, 5-8=-400/335

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=235, 7=213.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-7=-60, 12-16=-20

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C18	Roof Special	2	1	E12810633
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:04 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-r6OJAyynoX_I8BehN?4P6U5idLmDwZkLv5hG_?zajsL

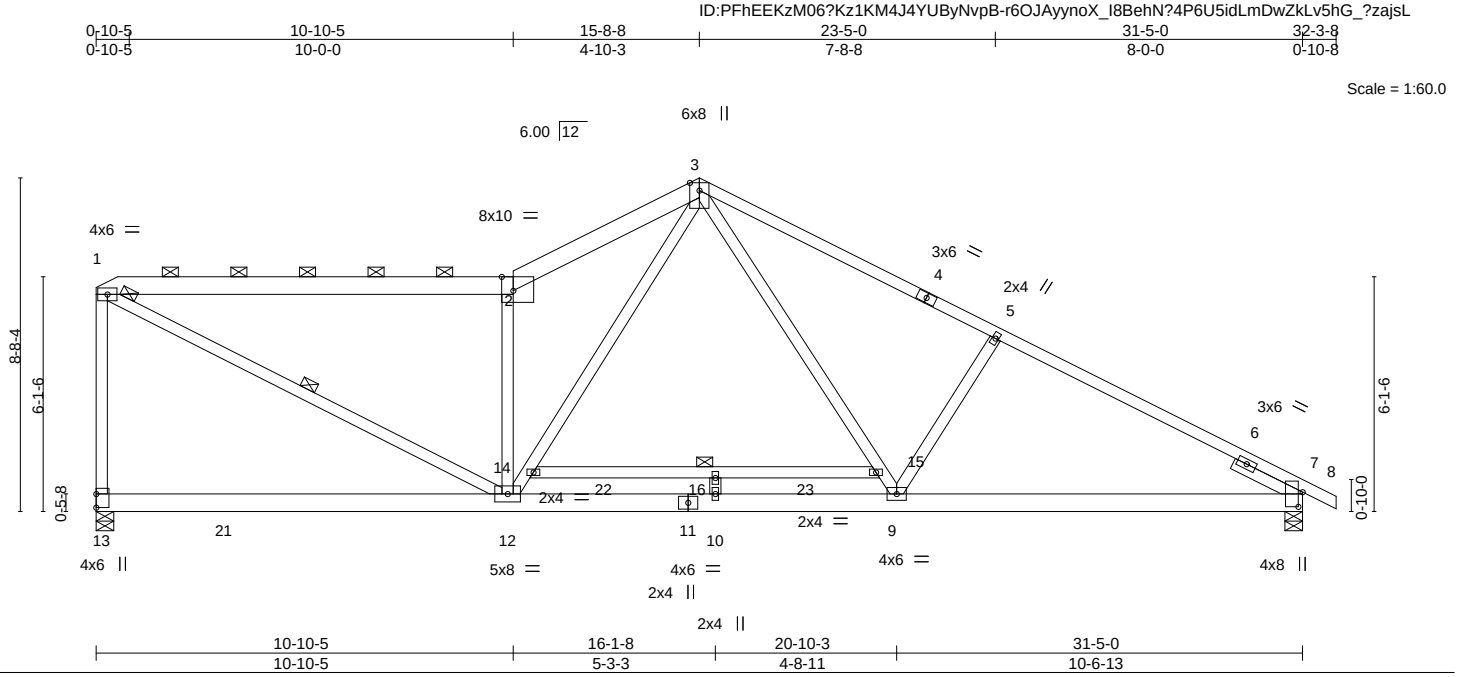


Plate Offsets (X,Y)-- [2:0-3-10,Edge], [7:0-4-9,0-1-5]

LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.15	TC 0.99		Vert(LL)	-0.20	10	>999	360	MT20	244/190
TCDL 10.0		Lumber DOL 1.15	BC 0.65		Vert(CT)	-0.32	10	>999	240		
BCLL 0.0	*	Rep Stress Incr NO	WB 0.82		Horz(CT)	0.03	7	n/a	n/a		
BCDL 10.0		Code IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.09	10-12	>999	240	Weight: 224 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 1-2: 2x6 SP No.1, 2-3: 2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3 *Except* 1-13: 2x4 SP No.2
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-4-1 max.): 1-2.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 1-12, 14-15

REACTIONS. (lb/size) 13=1250/0-5-8, 7=1304/0-5-8
Max Horz 13=-299(LC 13)
Max Uplift 13=-245(LC 12), 7=-234(LC 13)
Max Grav 13=1263(LC 2), 7=1304(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1613/510, 2-3=-1948/688, 3-5=-1804/644, 5-7=-2006/629, 1-13=-1149/434
BOT CHORD 12-13=-58/296, 10-12=-140/1208, 9-10=-140/1208, 7-9=-423/1726
WEBS 1-12=-558/1766, 2-12=-1379/605, 12-14=-236/921, 3-14=-233/936, 3-15=-215/720, 9-15=-209/667, 5-9=-416/348

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=245, 7=234.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-8=-60, 13-17=-20

March 15,2019

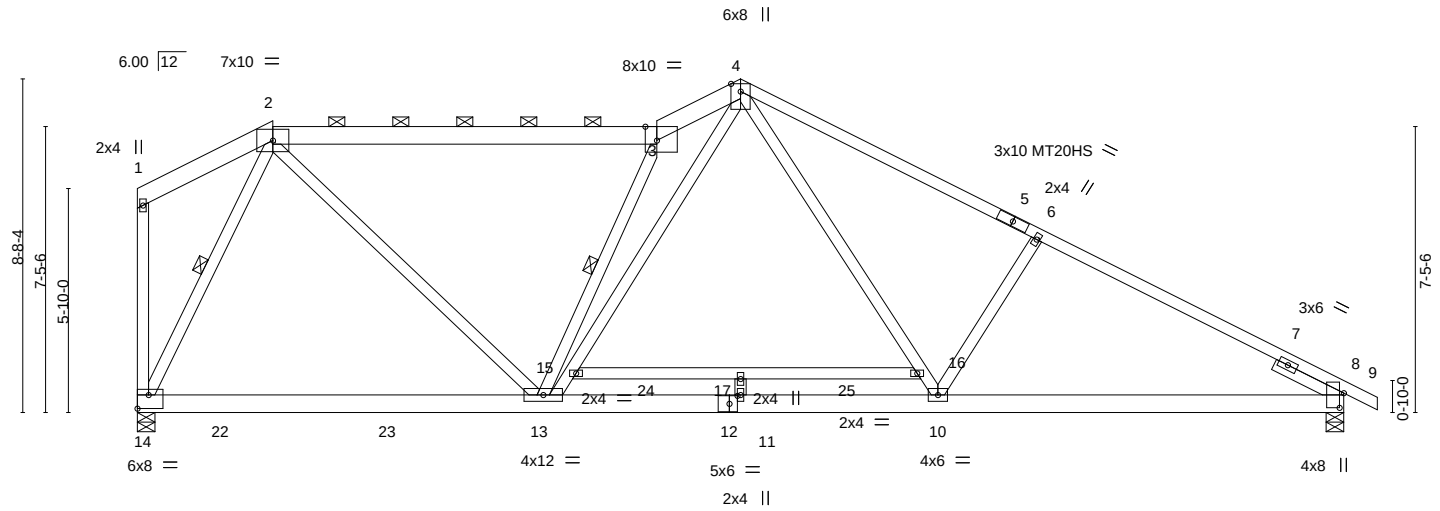
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C19	Roof Special	2	1	E12810634
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:07 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Fh3Ro__f5SMt?eNG28d6k7jGNZoA7xNnb3wwaJzajsI

3-6-5	13-6-5	15-8-8	23-5-0	31-5-0	32-3-8
3-6-5	10-0-0	2-2-3	7-8-8	8-0-0	0-10-8

Scale = 1:60.0



10-6-13	15-8-8	20-10-3	31-5-0
10-6-13	5-1-11	5-1-11	10-6-13

Plate Offsets (X,Y)-- [3:0-3-10,Edge], [8:0-4-9,0-1-5], [12:0-2-8,0-2-8], [14:Edge,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	1.15	TC	0.76	Vert(LL)	-0.21	11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.32	11	>999	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.09	11-13	>999	240	Weight: 236 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2 *Except* 4-5,5-9: 2x4 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3 *Except* 4-13,4-10: 2x4 SP No.2
SLIDER	Right 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-8-2 max.): 2-3.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-13, 2-14

REACTIONS. (lb/size) 8=1304/0-5-8, 14=1250/0-5-8
Max Horz 14=-293(LC 13)
Max Uplift 8=-235(LC 13), 14=-243(LC 12)
Max Grav 8=1304(LC 1), 14=1285(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1239/411, 3-4=-2022/777, 4-6=-1802/640, 6-8=-2003/625
BOT CHORD 13-14=-53/628, 11-13=-97/1079, 10-11=-97/1079, 8-10=-419/1721
WEBS 2-13=-190/966, 3-13=-1396/605, 13-15=-398/1193, 4-15=-364/1134, 4-16=-204/713, 10-16=-220/706, 6-10=-406/341, 2-14=-1286/471

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=235, 14=243.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 4-9=-60, 14-18=-20

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C20	Roof Special	2	1	E12810635
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:08 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-kudq?K?HsmUkdoyScr8LGKGNly3SsPXxqjfU7mzajsH

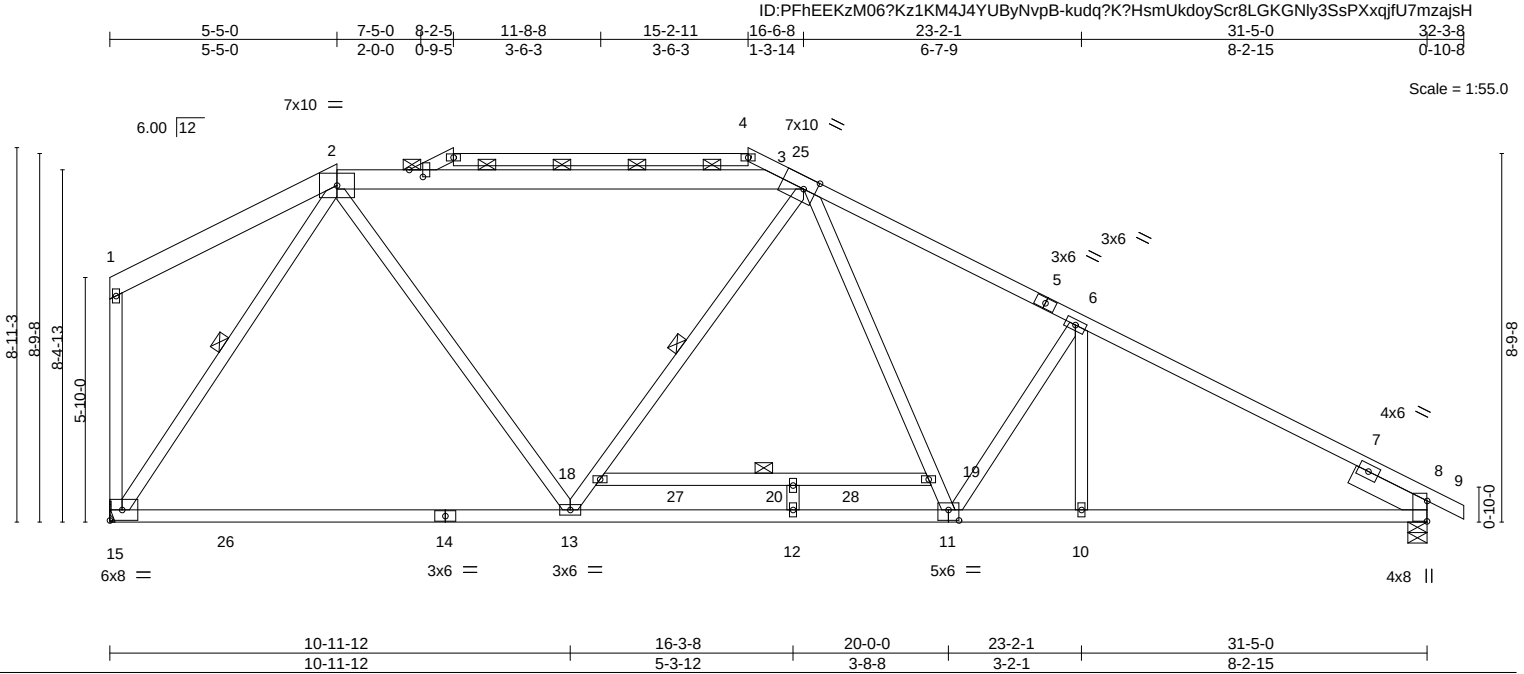


Plate Offsets (X,Y)-- [3:0-3-8,Edge], [8:0-5-13,0-0-1], [11:0-3-0,0-3-0], [16:0-2-0,0-3-15]

LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.15	TC	0.98	Vert(LL)	-0.48	13-15	>780	360	MT20	244/190
TCDL 10.0		Lumber DOL 1.15	BC	0.95	Vert(CT)	-0.78	13-15	>481	240		
BCLL 0.0	*	Rep Stress Incr NO	WB	0.64	Horz(CT)	0.06	8	n/a	n/a		
BCDL 10.0		Code IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.06	11	>999	240	Weight: 222 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 1-2,2-3: 2x6 SP No.2
BOT CHORD	2x4 SP No.2 *Except* 14-15: 2x4 SP No.1, 11-14: 2x4 SP SS
WEBS	2x4 SP No.3 *Except* 1-15: 2x4 SP No.2
SLIDER	Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-9-8 max.): 2-3.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-13, 2-15, 18-19

REACTIONS. (lb/size) 15=1259/Mechanical, 8=1313/0-5-8
Max Horz 15=-306(LC 13)
Max Uplift 15=-144(LC 8), 8=-239(LC 13)
Max Grav 15=1297(LC 2), 8=1313(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1118/520, 3-6=-1713/704, 6-8=-1983/676
BOT CHORD 13-15=-55/754, 12-13=-222/1262, 11-12=-222/1262, 10-11=-440/1686, 8-10=-440/1686
WEBS 2-13=-182/756, 13-18=-376/337, 3-18=-364/339, 6-11=-405/274, 2-15=-1258/546, 3-19=-178/577, 11-19=-180/523

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=144, 8=239.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

Uniform Loads (plf)

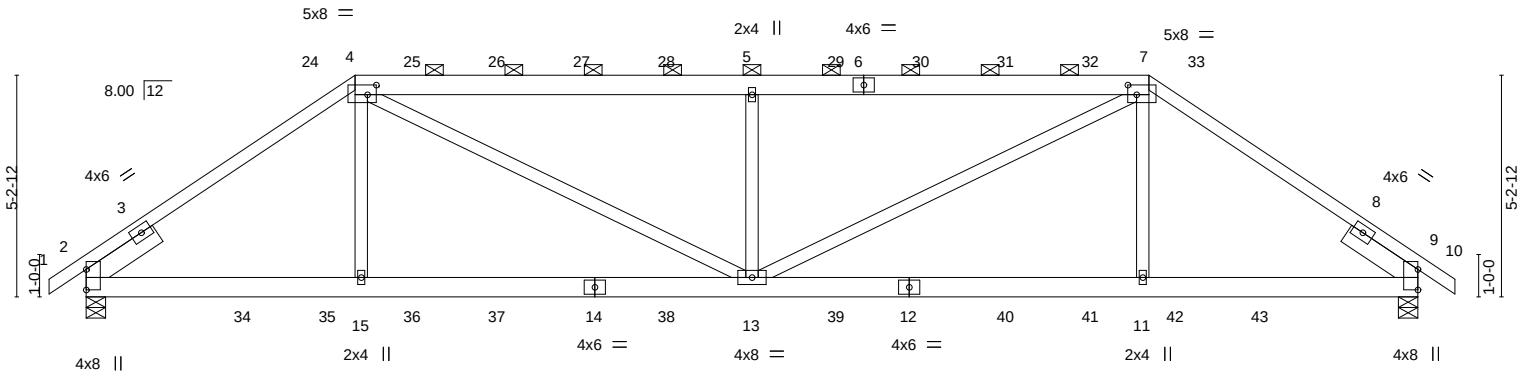
Vert: 1-2=-60, 2-25=-60, 3-25=-20, 3-4=-60, 3-9=-60, 15-21=-20

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C21	Hip Girder	1	2	E12810636
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:11 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-8TJyeM1A8htJUGg1Hzi2uzu0jACW3oPNWgu8j5zajsE

-0-10-8 6-4-2 15-8-8 25-0-14 31-5-0 32-3-8
0-10-8 6-4-2 9-4-6 9-4-6 6-4-2 0-10-8

Scale = 1:54.4



6-4-2 15-8-8 25-0-14 31-5-0
6-4-2 9-4-6 9-4-6 6-4-2

Plate Offsets (X,Y)-- [4:0-2-8,0-2-12], [7:0-2-8,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	0.18	11-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.15	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.51	Horz(CT)	-0.05	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 403 lb	FT = 20%

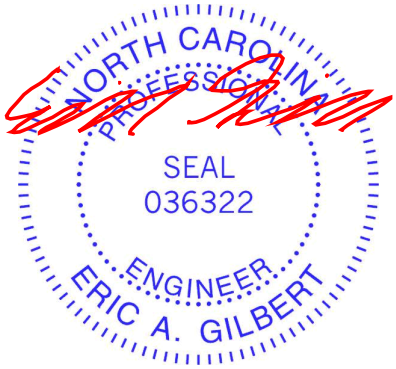
LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 4-6,6-7: 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=1754/0-5-8, 9=1754/0-5-8
Max Horz 2=137(LC 26)
Max Uplift 2=-1178(LC 8), 9=-1178(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2321/1710, 4-5=-3091/2509, 5-7=-3090/2508, 7-9=-2321/1711
BOT CHORD 2-15=-1470/1955, 13-15=-1469/1961, 11-13=-1357/1904, 9-11=-1359/1899
WEBS 4-15=-16/363, 4-13=-1304/1463, 5-13=-900/1011, 7-13=-1303/1463, 7-11=-16/362

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=1178, 9=1178.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 134 lb down and 190 lb up at 5-8-8, 126 lb down and 148 lb up at 7-8-8, 126 lb down and 148 lb up at 9-8-8, 126 lb down and 148 lb up at 11-8-8, 126 lb down and 148 lb up at 13-8-8, 126 lb down and 148 lb up at 15-8-8, 126 lb down and 148 lb up at 17-8-8, 126 lb down and 148 lb up at 19-8-8, 126 lb down and 148 lb up at 21-8-8, and 126 lb down and 148 lb up at 23-8-8, and 134 lb down and 190 lb up at 25-8-8 on top chord, and 141 lb down and 125 lb up at 3-8-8, 31 lb down and 24 lb up at 5-8-8, 47 lb down and 50 lb up at 7-8-8, 47 lb down and 50 lb up at 9-8-8, 47 lb down and 50 lb up at 11-8-8, 47 lb down and 50 lb up at 13-8-8, 47 lb down and 50 lb up at 15-8-8, 47 lb down and 50 lb up at 17-8-8, 47 lb down and 50 lb up at 19-8-8, 47 lb down and 50 lb up at 21-8-8, 47 lb down and 50 lb up at 23-8-8, and 31 lb down and 24 lb up at 25-8-8, and 141 lb down and 125 lb up at 27-8-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

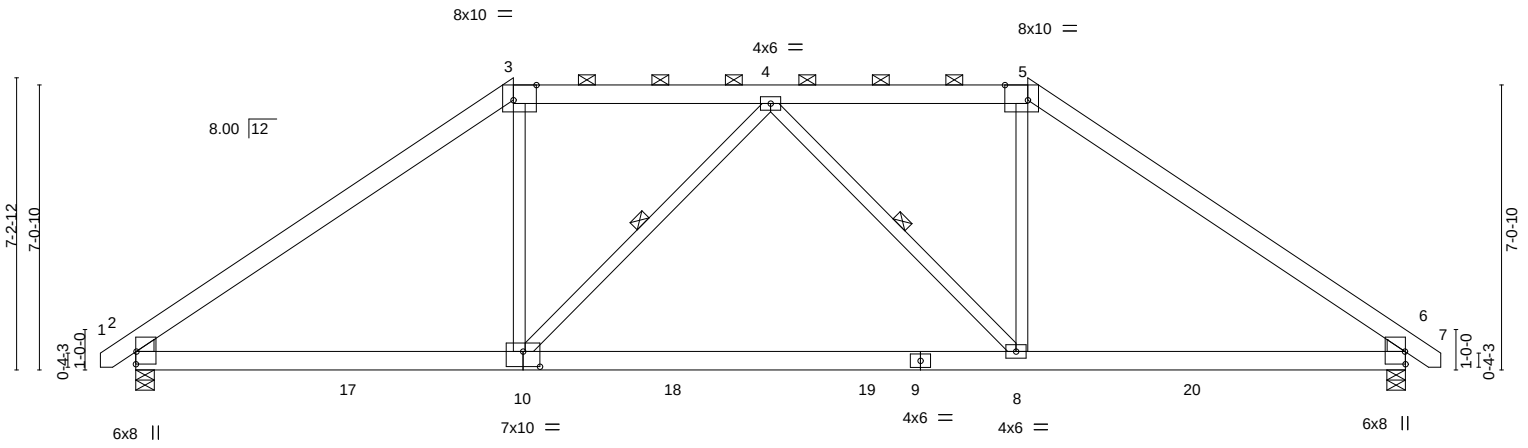
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-60, 4-7=-60, 7-10=-60, 16-20=-20
   Concentrated Loads (lb)
   Vert: 14=-22(B) 13=-22(B) 5=-32(B) 12=-22(B) 24=-45(B) 25=-32(B) 26=-32(B) 27=-32(B) 28=-32(B) 29=-32(B) 30=-32(B) 31=-32(B) 32=-32(B) 33=-45(B) 34=-141(B) 35=-16(B) 36=-22(B) 37=-22(B) 38=-22(B) 39=-22(B) 40=-22(B) 41=-22(B) 42=-16(B) 43=-141(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C22	HIP	1	1	E12810637
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:12 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-cftKrh2ov??A6PFDrhDHRARDsaVYoIZWkKdhGXzajsD

-0-10-8	9-4-2	15-8-8	22-0-14	31-5-0	32-3-8
0-10-8	9-4-2	6-4-6	6-4-6	9-4-2	0-10-8

Scale = 1:57.0



9-4-2	22-0-14	31-5-0
9-4-2	12-8-12	9-4-2

Plate Offsets (X,Y)-- [2:Edge,0-0-3], [2:0-0-2,0-3-11], [2:0-0-1,0-0-1], [3:0-6-13,Edge], [5:0-6-13,Edge], [6:Edge,0-0-3], [6:0-0-2,0-3-11], [6:0-0-1,0-0-1], [10:0-5-0,0-4-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.18	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.34	8-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.06	10-13	>999	240	Weight: 207 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-10, 4-8

REACTIONS. (lb/size) 2=1300/0-5-8, 6=1300/0-5-8
Max Horz 2=188(LC 11)
Max Uplift 2=-178(LC 12), 6=-178(LC 13)
Max Grav 2=1337(LC 2), 6=1335(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1822/439, 3-4=-1431/462, 4-5=-1423/462, 5-6=-1822/438
BOT CHORD 2-10=-207/1409, 8-10=-270/1578, 6-8=-189/1409
WEBS 3-10=-36/621, 4-10=-374/270, 4-8=-380/270, 5-8=-34/621

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=178, 6=178.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

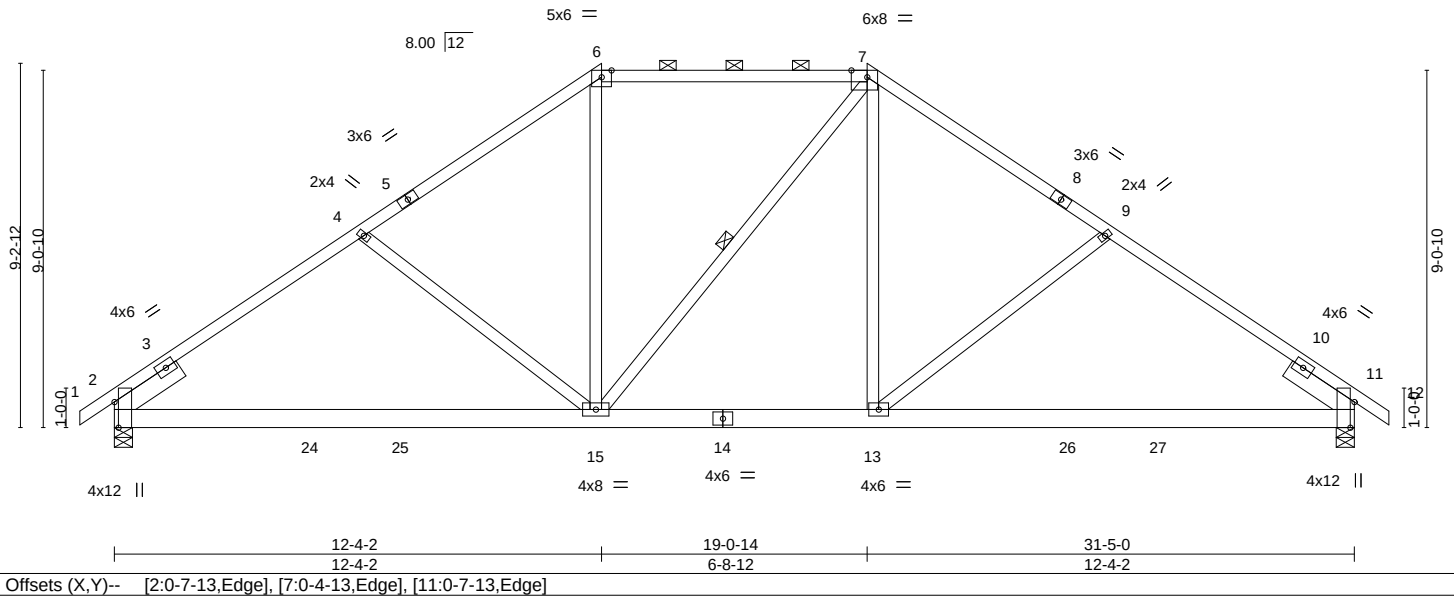
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C23	Hip	1	1	E12810638
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:13 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-4rQi313QgI70jZqPPOkWzOzKszsmXjogz_NFozzajsC

-0-10-8	6-3-13	12-4-2	19-0-14	25-1-3	31-5-0	32-3-8
0-10-8	6-3-13	6-0-5	6-8-12	6-0-5	6-3-13	0-10-8

Scale = 1:58.4



12-4-2	19-0-14	31-5-0
12-4-2	6-8-12	12-4-2

Plate Offsets (X,Y)-- [2:0-7-13,Edge], [7:0-4-13,Edge], [11:0-7-13,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.13	13-22	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.25	13-22	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.04	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.05	13-15	>999	240	Weight: 203 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-4-9 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-15

REACTIONS. (lb/size) 2=1309/0-5-8, 11=1309/0-5-8
Max Horz 2=248(LC 11)
Max Uplift 2=-209(LC 12), 11=-209(LC 13)

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

TOP CHORD	2-4=-1668/481, 4-6=-1426/448, 6-7=-1107/440, 7-9=-1425/448, 9-11=-1668/481
BOT CHORD	2-15=-279/1394, 13-15=-78/1116, 11-13=-263/1318
WEBS	4-15=-355/277, 6-15=-30/439, 7-13=-65/509, 9-13=-356/277

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=209, 11=209.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C24	HIP	1	1	E12810639
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:14 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Y1_5GN32RcFtLjPcz6FlWbWa8N6kG6ypCe6oKPzajsB

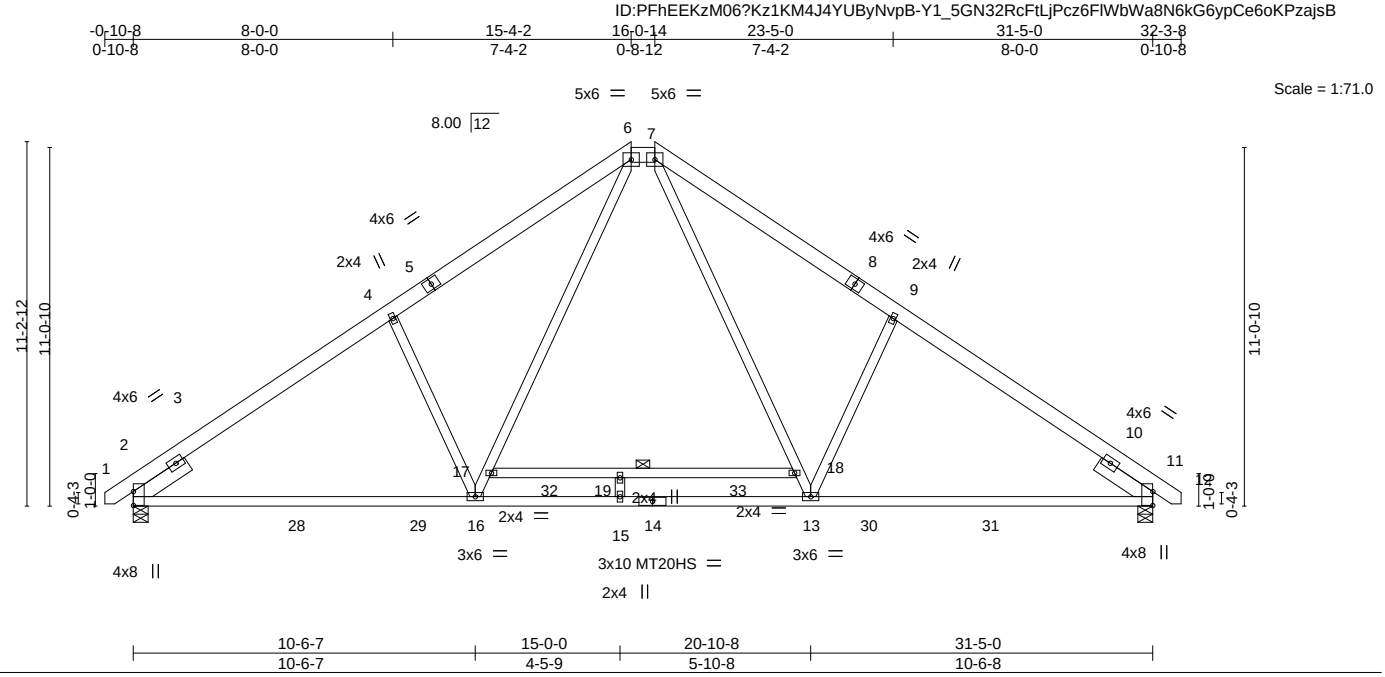


Plate Offsets (X,Y)-- [2:0-5-2,0-0-1], [11:0-5-2,0-0-1]

LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.43 13-15 >884 360	MT20	244/190
TCDL 10.0		Lumber DOL 1.15	BC 0.96	Vert(CT) -0.56 13-15 >673 240	MT20HS	187/143
BCLL 0.0	*	Rep Stress Incr NO	WB 0.65	Horz(CT) 0.05 11 n/a n/a		
BCDL 10.0		Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.05 16-22 >999 240	Weight: 217 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3 *Except*
17-18: 2x4 SP No.2
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 17-18

REACTIONS. (lb/size) 2=1300/0-5-8, 11=1300/0-5-8
Max Horz 2=302(LC 11)
Max Uplift 2=-226(LC 12), 11=-226(LC 13)
Max Grav 2=1397(LC 19), 11=1397(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1784/440, 4-6=-1668/539, 6-7=-1043/451, 7-9=-1666/539, 9-11=-1782/440
BOT CHORD 2-16=-305/1602, 15-16=-61/1135, 13-15=-61/1135, 11-13=-214/1388
WEBS 4-16=-437/367, 9-13=-437/367, 16-17=-241/777, 6-17=-237/825, 7-18=-237/822, 13-18=-239/761

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=226, 11=226.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60, 6-7=-60, 7-12=-60, 20-24=-20

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C25	Common	4	1	E12810640
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:16 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-VQ6rh35IzDVba1Z_4WIDb0bqlBsck1?6fybvPIzajs9

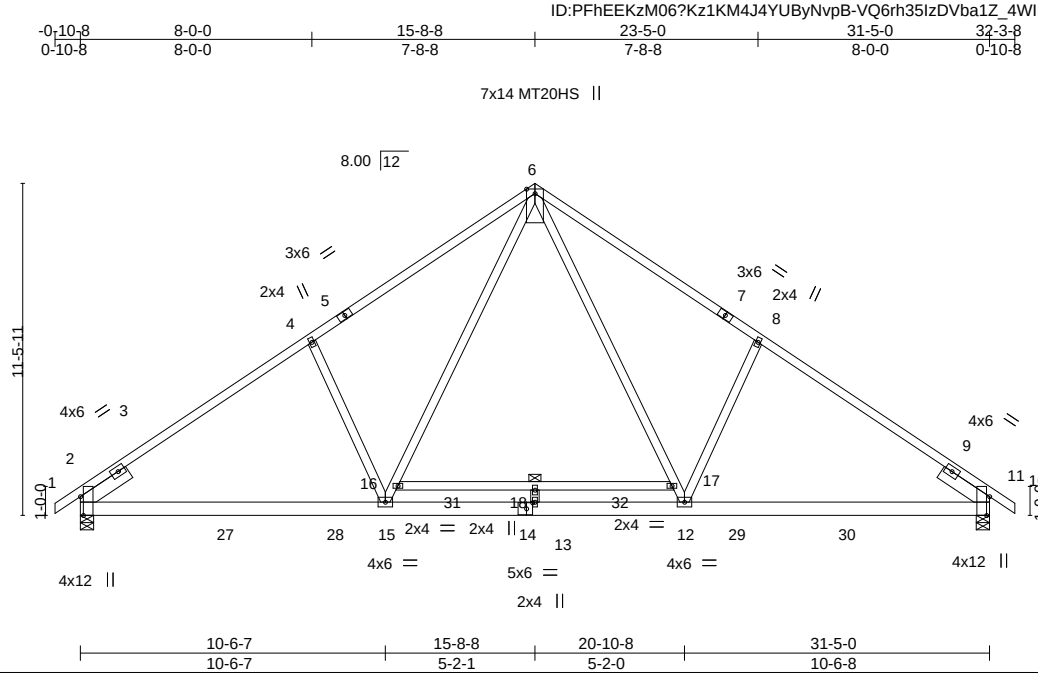


Plate Offsets (X,Y)-- [2:0-7-13,Edge], [10:0-7-13,Edge], [14:0-2-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.22	13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.32	13	>999	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.06	15-21	>999	240	Weight: 211 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
16-17: 2x4 SP No.2
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 16-17

REACTIONS. (lb/size) 2=1309/0-5-8, 10=1309/0-5-8
Max Horz 2=314(LC 11)
Max Uplift 2=-231(LC 12), 10=-231(LC 13)
Max Grav 2=1414(LC 19), 10=1414(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1793/438, 4-6=-1686/545, 6-8=-1686/545, 8-10=-1793/438
BOT CHORD 2-15=-306/1621, 13-15=-68/1159, 12-13=-68/1159, 10-12=-207/1414
WEBS 4-15=-457/362, 15-16=-243/800, 6-16=-247/857, 6-17=-247/857, 12-17=-243/800, 8-12=-457/362

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=231, 10=231.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60, 6-11=-60, 19-23=-20

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C26	Common	1	1	E12810641
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:17 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-zcgDuP6xkXdSCB8BeEpS8E8z_bBFTXKFucLSxkzajs8

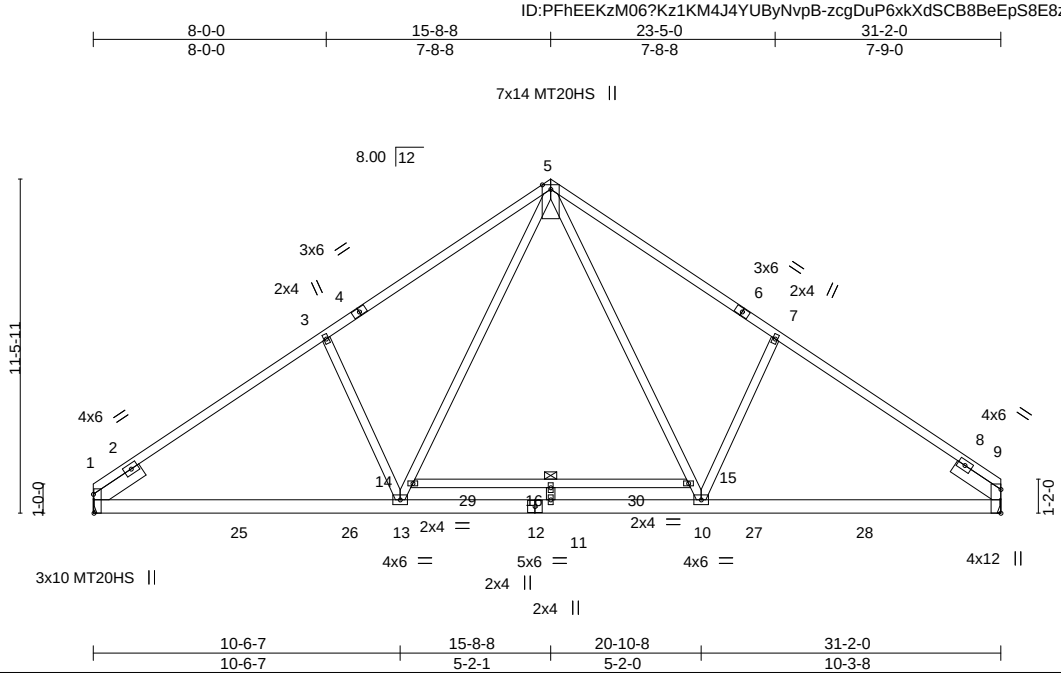


Plate Offsets (X,Y)-- [1:0-7-13,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.23	11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.34	11	>999	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.06	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.05	11	>999	240	Weight: 207 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
14-15: 2x4 SP No.2
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 14-15

REACTIONS. (lb/size) 1=1247/Mechanical, 9=1247/Mechanical
Max Horz 1=238(LC 9)
Max Uplift 1=-42(LC 12), 9=-41(LC 13)
Max Grav 1=1354(LC 19), 9=1355(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1788/435, 3-5=-1678/542, 5-7=-1643/534, 7-9=-1752/428
BOT CHORD 1-13=-232/1567, 11-13=-37/1116, 10-11=-37/1116, 9-10=-224/1368
WEBS 3-13=-456/323, 13-14=-193/789, 5-14=-200/846, 5-15=-186/784, 10-15=-180/727, 7-10=-438/319

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
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) 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) 1, 9.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60, 5-9=-60, 17-21=-20

March 15,2019

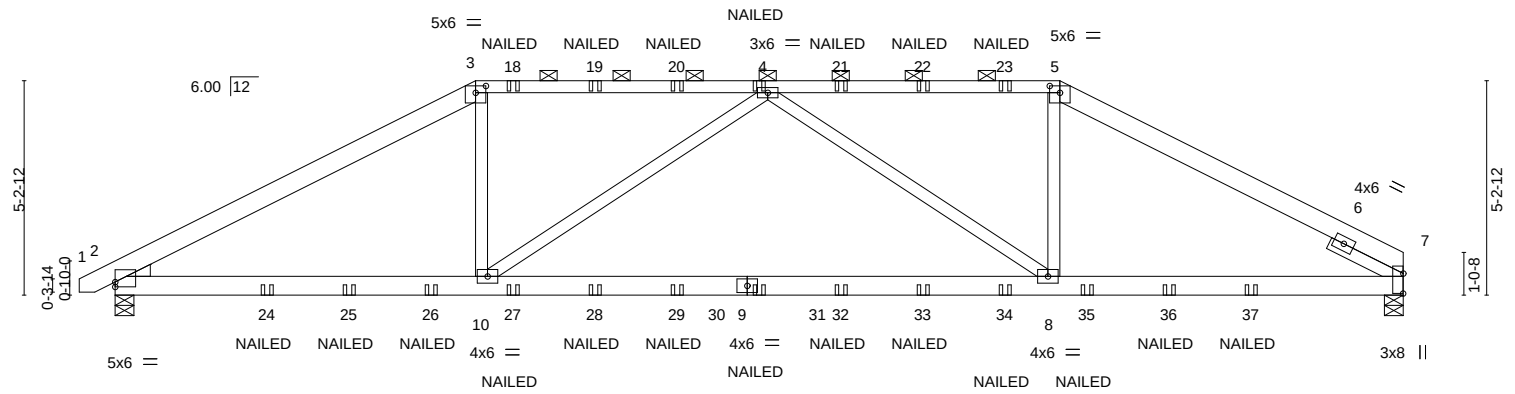
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C27	HIP GIRDER	1	2	E12810642
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:18 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-RpEb6I7ZVrIJqKjNCxKhgRgCt_ZQC2AP7G40TBzajs7

-0-10-8 8-9-8 15-11-0 23-0-8 31-5-0
0-10-8 8-9-8 7-1-8 7-1-8 8-4-8

Scale = 1:56.2



8-9-8 23-0-8 31-5-0
8-9-8 14-3-0 8-4-8

Plate Offsets (X,Y)-- [2:0-0-0,0-1-7], [3:0-3-0,0-2-0], [5:0-3-0,0-2-0], [7:0-5-14,0-0-1]

LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.15	TC	0.55	Vert(LL)	0.26	8-10	>999	240	MT20	244/190
TCDL 10.0		Lumber DOL 1.15	BC	0.59	Vert(CT)	-0.36	8-10	>999	240		
BCLL 0.0	*	Rep Stress Incr NO	WB	0.19	Horz(CT)	-0.05	7	n/a	n/a		
BCDL 10.0		Code IRC2015/TPI2014	Matrix-MS							Weight: 368 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 3-5: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 7=1809/0-5-8, 2=1851/0-5-8
Max Horz 2=105(LC 8)
Max Uplift 7=-1094(LC 9), 2=-1115(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2959/1960, 3-4=-2543/1827, 4-5=-2456/1755, 5-7=-2843/1893
BOT CHORD 2-10=-1713/2577, 8-10=-2178/2979, 7-8=-1584/2431
WEBS 3-10=-595/943, 4-10=-589/633, 4-8=-684/712, 5-8=-610/959

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=1094, 2=1115.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

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

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 5-7=-60, 11-15=-20

Concentrated Loads (lb)

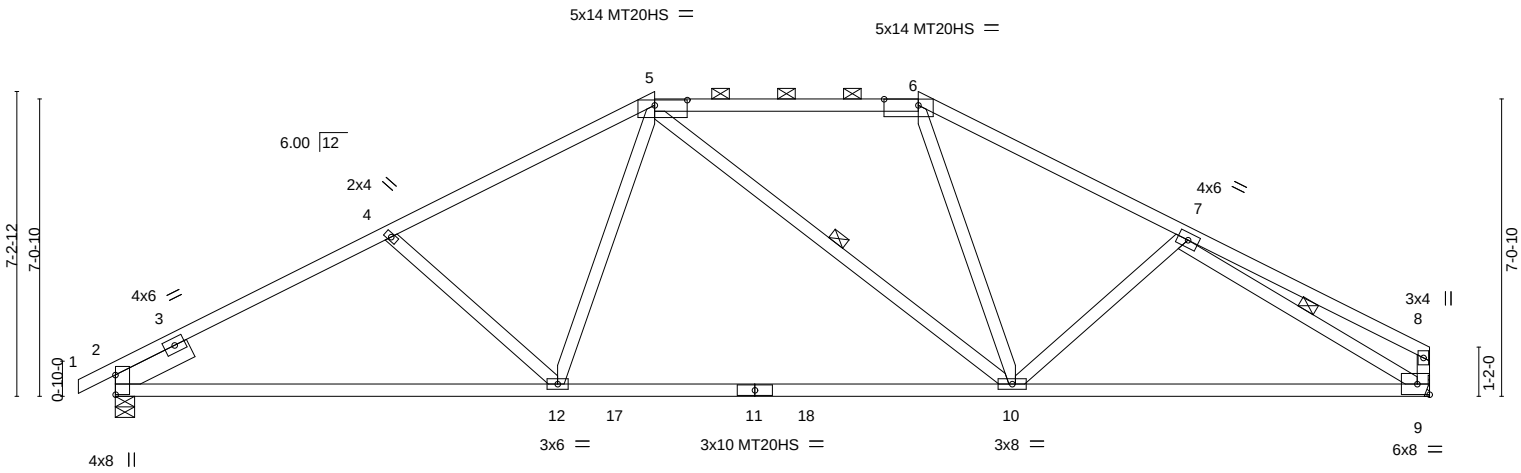
Vert: 9=-22(B) 4=-32(B) 18=-32(B) 19=-32(B) 20=-32(B) 21=-32(B) 22=-32(B) 23=-32(B) 24=-142(B) 25=-115(B) 26=-107(B) 27=-22(B) 28=-22(B) 29=-22(B) 32=-22(B) 33=-22(B) 34=-22(B) 35=-107(B) 36=-115(B) 37=-142(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C28	Hip	1	1	E12810643
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:19 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-v?o_J57BG8tARUHZlfrwDfDJZOsQxQDYLwqZ0dzajs6

-0-10-8	6-6-8	12-9-8	19-0-8	25-3-9	31-2-0
0-10-8	6-6-8	6-3-0	6-3-0	6-3-1	5-10-7

Scale = 1:54.6



10-5-14	21-4-3	31-2-0
10-5-14	10-10-5	9-9-13

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.41	10-12	>905	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.67	10-12	>559	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.09	10-12	>999	240	Weight: 167 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-5-11 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-10, 7-9

REACTIONS. (lb/size) 2=1294/0-5-8, 9=1240/Mechanical
Max Horz 2=148(LC 12)
Max Uplift 2=-222(LC 12), 9=-191(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1980/667, 4-5=-1754/605, 5-6=-1346/573, 6-7=-1703/588, 7-8=-370/119, 8-9=-293/138
BOT CHORD 2-12=-509/1697, 10-12=-298/1383, 9-10=-468/1554
WEBS 4-12=-273/264, 5-12=-51/488, 6-10=-39/450, 7-9=-1546/526

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=222, 9=191.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C29	Common	1	1	E12810644
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:21 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-rOvkkm9Rom7uhoRyt4tOI4IcBCYdPMXrpEJg4Wzajs4

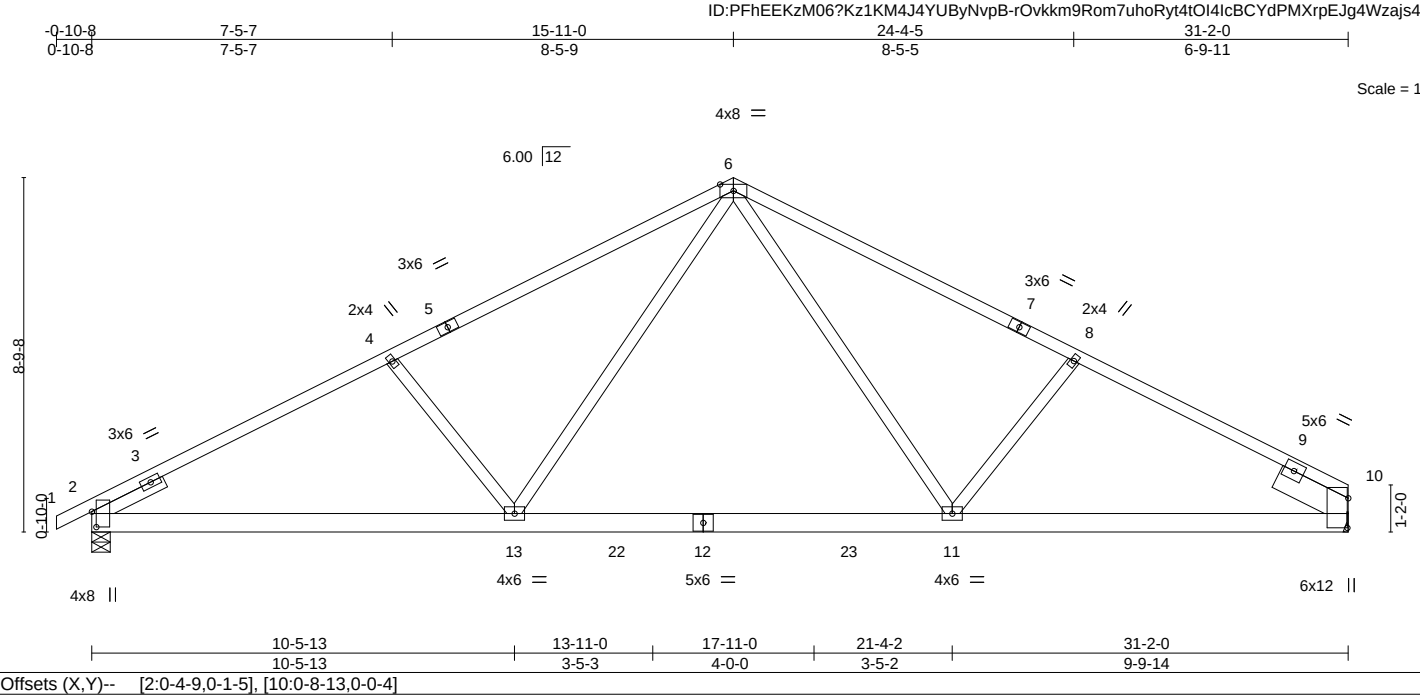


Plate Offsets (X,Y)-- [2:0-4-9,0-1-5], [10:0-8-13,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.27	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.45	11-13	>826	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.12	11-13	>999	240	Weight: 179 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1 *Except* 1-5,7-10: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x8 SP DSS 1-11-12

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

REACTIONS. (lb/size) 2=1300/0-5-8, 10=1246/Mechanical
Max Horz 2=178(LC 12)
Max Uplift 2=-248(LC 12), 10=-219(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2032/702, 4-6=-1802/683, 6-8=-1707/654, 8-10=-1910/666
BOT CHORD 2-13=-532/1755, 11-13=-226/1166, 10-11=-490/1635
WEBS 4-13=-431/349, 6-13=-177/694, 6-11=-134/570, 8-11=-376/322

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=248, 10=219.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C30	Common	3	1	E12810645
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:22 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-JaT6x6A3Z3FlJy08RnPdrHroCctn8p2_2u2Dcyzajs3

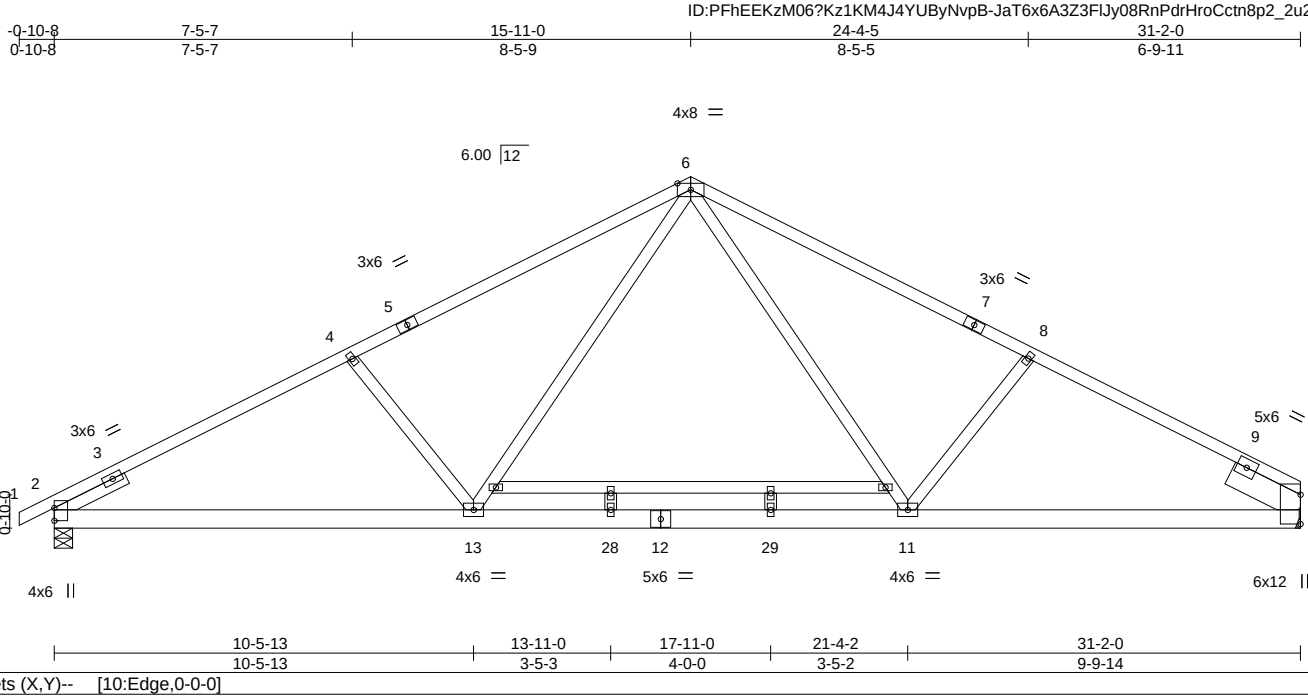


Plate Offsets (X,Y)-- [10:Edge,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.14	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.50	11-13	>753	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.10	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.11	11-13	>999	240	Weight: 195 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1 *Except*
1-5: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
14-15: 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x8 SP DSS 1-11-12

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

REACTIONS. (lb/size) 2=1398/0-5-8, 10=1348/Mechanical
Max Horz 2=178(LC 12)
Max Uplift 2=-150(LC 12), 10=-117(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2254/480, 4-6=-2026/459, 6-8=-1927/438, 8-10=-2126/454
BOT CHORD 2-13=-340/1948, 11-13=-88/1304, 10-11=-309/1819
WEBS 4-13=-416/365, 6-13=-58/778, 6-11=-27/644, 8-11=-353/347

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 15-11-0 from left end, supported at two points, 4-0-0 apart.
4) All plates are 2x4 MT20 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=150, 10=117.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

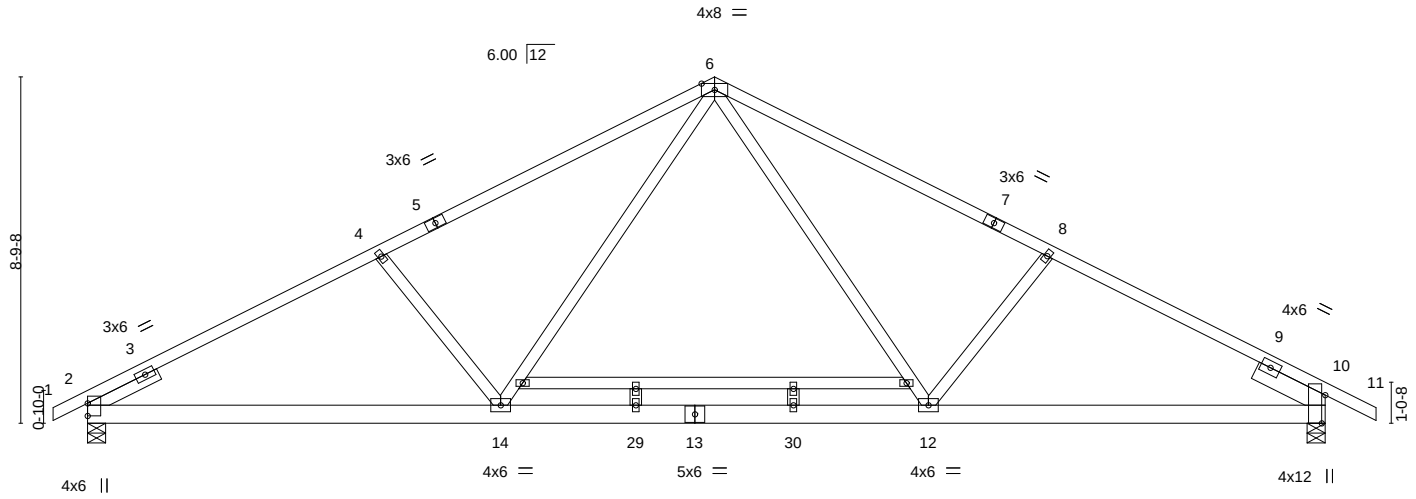
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C31	Common	2	1	E12810646
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:23 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-nm1U9SAhKNNcw6bK_VwsNVOxs?DftGJ8GYon9Ozajs2

-0-10-8 7-5-7 15-11-0 24-4-5 31-5-0 32-8-8
0-10-8 7-5-7 8-5-9 8-5-5 7-0-11 1-3-8

Scale = 1:58.5



10-5-13 13-11-0 15-11-0 17-11-0 21-4-2 31-5-0
10-5-13 3-5-3 2-0-0 2-0-0 3-5-2 10-0-14

Plate Offsets (X,Y)-- [10:0-8-9,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.14	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.49	12-14	>775	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.11	12-14	>999	240	Weight: 197 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1 *Except* 1-5,7-11: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 15-16: 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x6 SP No.2 1-11-12

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

REACTIONS. (lb/size) 2=1407/0-5-8, 10=1436/0-5-8
Max Horz 2=162(LC 12)
Max Uplift 2=-150(LC 12), 10=-155(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2271/483, 4-6=-2044/461, 6-8=-1974/447, 8-10=-2183/464
BOT CHORD 2-14=-307/1964, 12-14=-57/1322, 10-12=-286/1875
WEBS 4-14=-416/365, 6-14=-57/774, 6-12=-33/681, 8-12=-374/351

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 15-11-0 from left end, supported at two points, 4-0-0 apart.
4) All plates are 2x4 MT20 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=150, 10=155.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	C32	COMMON	1	1	E12810647
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:24 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-GzbtMoBK5hVTYFAXYCR5wiw77PaDcjXHVCXKhqzajs1

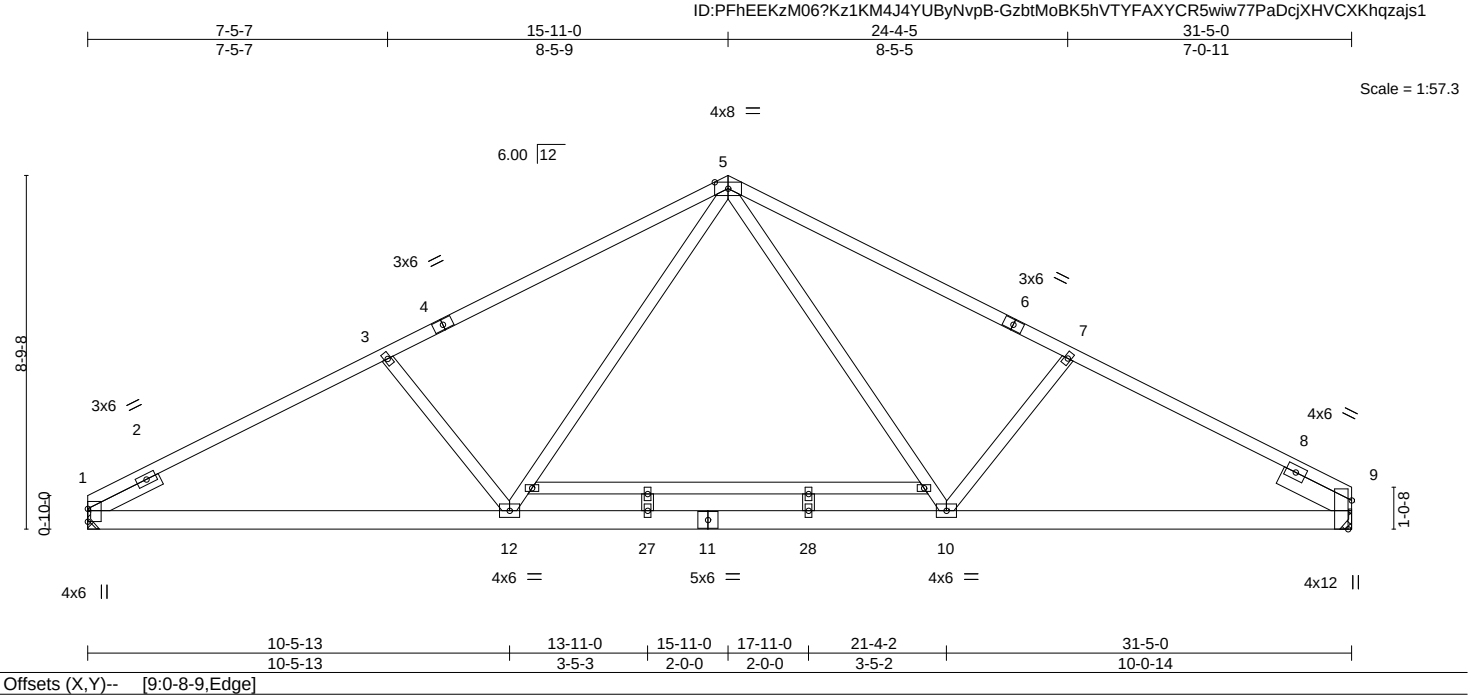


Plate Offsets (X,Y)-- [9:0-8-9,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.13	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.48	10-12	>784	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.11	10-12	>999	240	Weight: 193 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1 *Except*
1-4,6-9: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
13-14: 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x6 SP No.2 1-11-12

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

REACTIONS. (lb/size) 1=1355/Mechanical, 9=1358/Mechanical
Max Horz 1=158(LC 12)
Max Uplift 1=-127(LC 12), 9=-121(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2279/486, 3-5=-2051/465, 5-7=-1984/450, 7-9=-2194/468
BOT CHORD 1-12=-339/1971, 10-12=-87/1327, 9-10=-318/1886
WEBS 3-12=-418/365, 5-12=-58/778, 5-10=-35/689, 7-10=-378/352

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 15-11-0 from left end, supported at two points, 4-0-0 apart.
4) All plates are 2x4 MT20 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=127, 9=121.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	CJ01	DIAGONAL HIP GIRDER	6	1	E12810648 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:24 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-GzbtMoBK5hVTYFAXYCR5wiwKEPkCcoZHVCXKhqzajs1

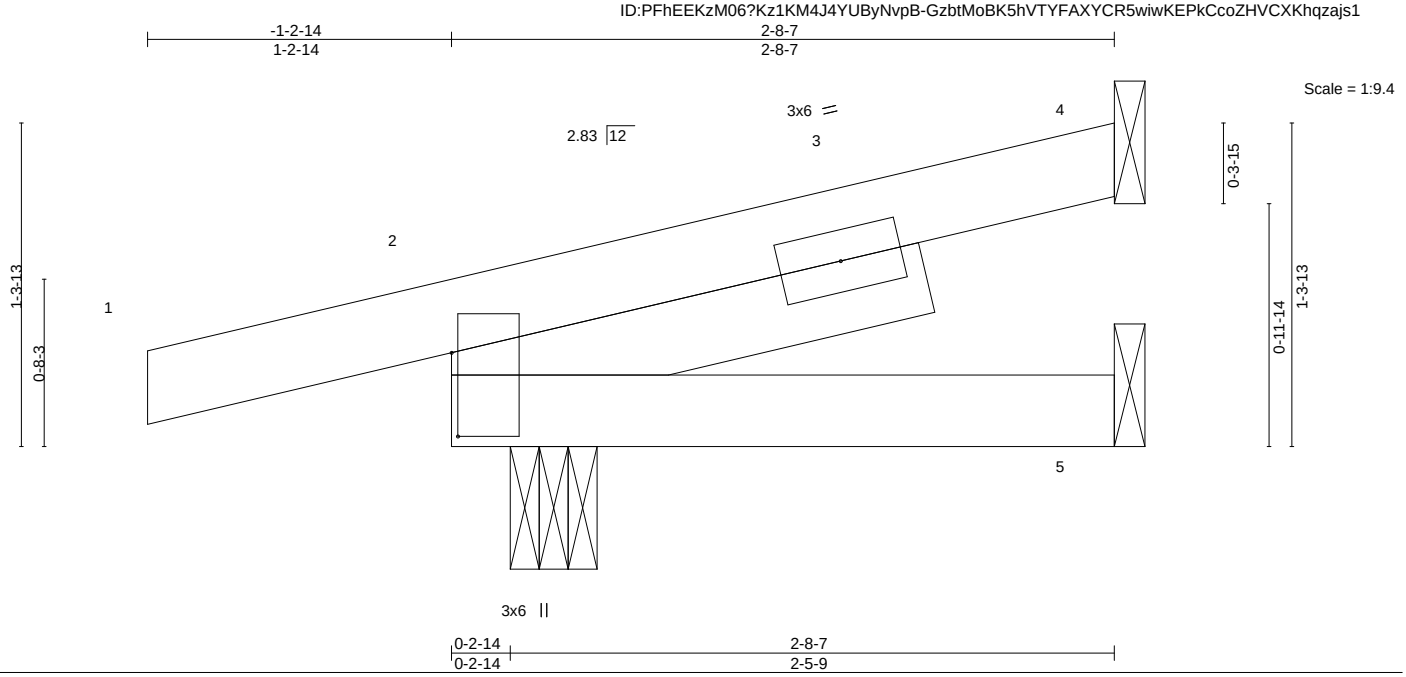


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.00	10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP		Wind(LL)	0.00	10	>999	240	Weight: 13 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 4=36/Mechanical, 5=15/Mechanical, 2=234/0-4-4
Max Horz 2=45(LC 8)
Max Uplift 4=-24(LC 12), 5=-10(LC 9), 2=-140(LC 8)
Max Grav 4=36(LC 1), 5=33(LC 3), 2=234(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4, 5 except (jt=lb) 2=140.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	D01	QUEENPOST	1	1	E12810649
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:25 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-k99Fa8Cyr_dKAPlj6vyKSwTJRp0FL9oRksHtDHzajs0

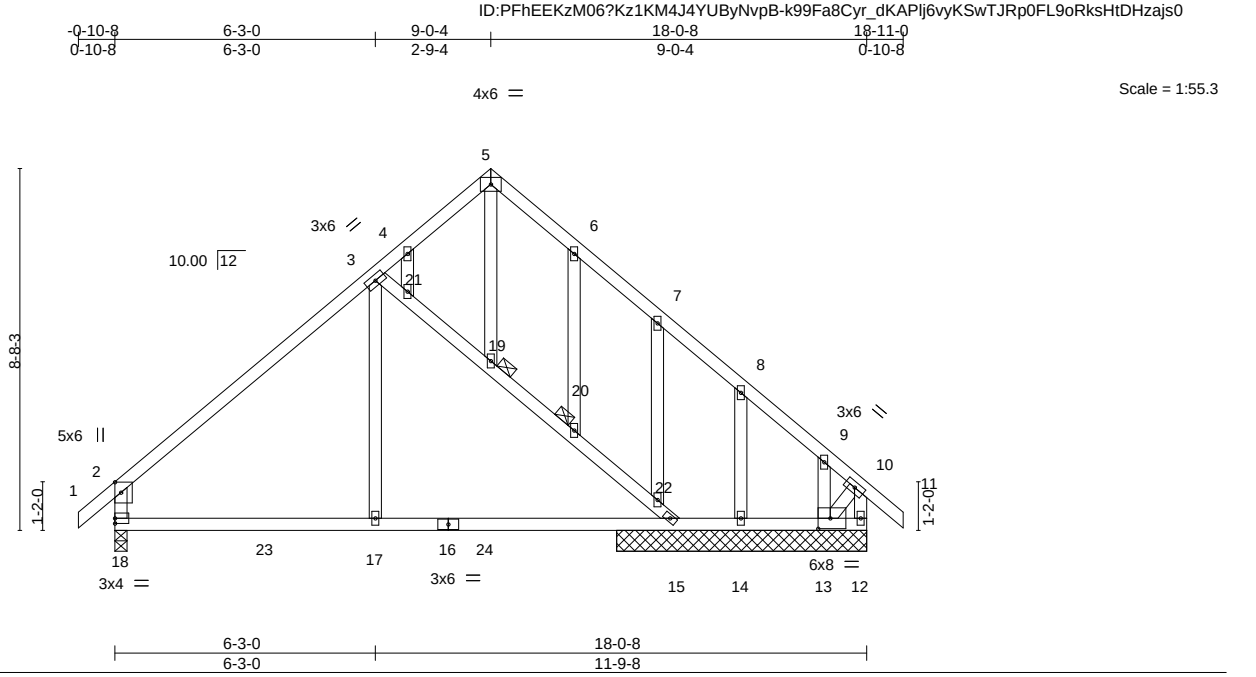


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12], [13:0-3-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.05	15-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.11	15-17	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.01	13	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	-0.02	15-17	>999	240	Weight: 120 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 19, 20

REACTIONS. All bearings 6-0-0 except (jt=length) 18=0-3-8.
(lb) - Max Horz 18=274(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 18, 12 except 15=-108(LC 12), 14=-180(LC 13), 13=-267(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 14, 13 except 18=660(LC 19), 15=580(LC 19), 12=425(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-630/102, 9-10=-272/124, 2-18=-586/182, 10-12=-423/141
BOT CHORD 17-18=-94/531, 15-17=-94/531, 14-15=-151/256, 13-14=-151/256
WEBS 3-21=-494/288, 19-21=-463/226, 19-20=-462/226, 20-22=-464/237, 15-22=-538/287, 3-17=0/309, 10-13=-158/310

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 12 except (jt=lb) 15=108, 14=180, 13=267.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	D02	COMMON GIRDER	1	2	E12810650
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:27 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-gYH??qDCNcu1Pjv6DK_oYLYdddg2pyakBAm_l9zajs_

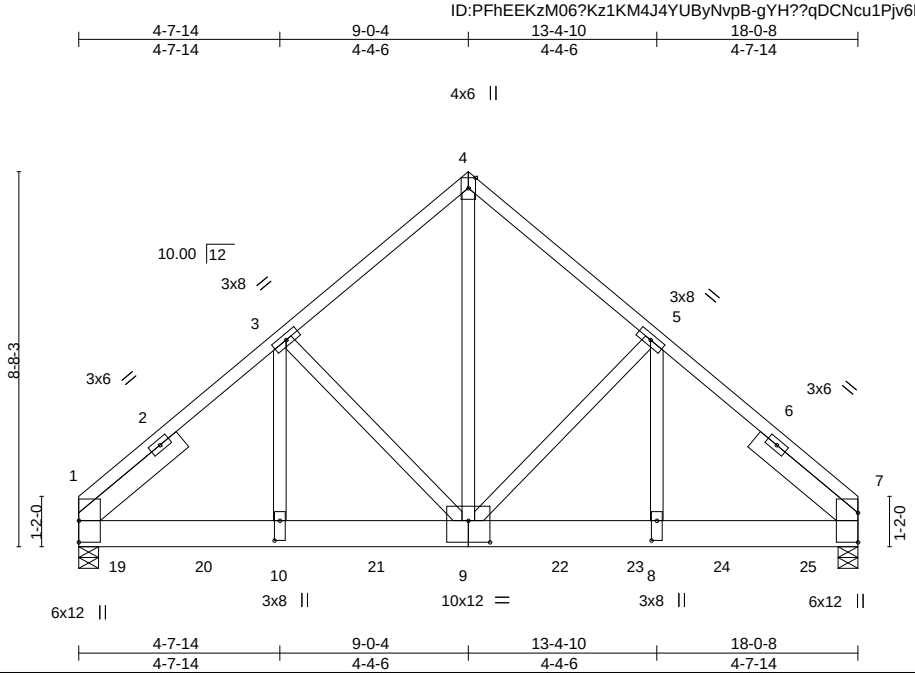


Plate Offsets (X,Y)-- [7:Edge,0-0-0], [8:0-5-8,0-1-8], [9:0-6-0,0-6-0], [10:0-5-8,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.09	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.18	8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.04	9-10	>999	240	Weight: 293 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 3-0-10, Right 2x6 SP No.2 3-0-10

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

REACTIONS. (lb/size) 1=7869/0-5-8, 7=7706/0-5-8
Max Horz 1=-214(LC 23)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-7859/0, 3-4=-5927/0, 4-5=-5924/0, 5-7=-8087/0
BOT CHORD 1-10=0/5910, 9-10=0/5910, 8-9=0/6077, 7-8=0/6077
WEBS 4-9=0/7161, 5-9=-2254/0, 5-8=0/2970, 3-9=-2012/491, 3-10=-319/2636

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1548 lb down and 83 lb up at 0-11-0, 1547 lb down and 83 lb up at 2-11-0, 1547 lb down and 84 lb up at 4-11-0, 1531 lb down and 78 lb up at 6-11-0, 1627 lb down and 68 lb up at 8-11-0, 1651 lb down at 11-2-0, 1651 lb down at 12-11-0, and 1703 lb down at 14-11-0, and 1327 lb down at 16-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-7=-60, 11-15=-20
Concentrated Loads (lb)
Vert: 9=-1627(B) 10=-1547(B) 19=-1548(B) 20=-1547(B) 21=-1531(B) 22=-1651(B) 23=-1651(B) 24=-1703(B) 25=-1327(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	D03	GABLE	1	1	E12810651
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:28 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-8kqNCAEq8v0u1tTIn2V14Y5tM0zgYWrtQqVYpczajrz

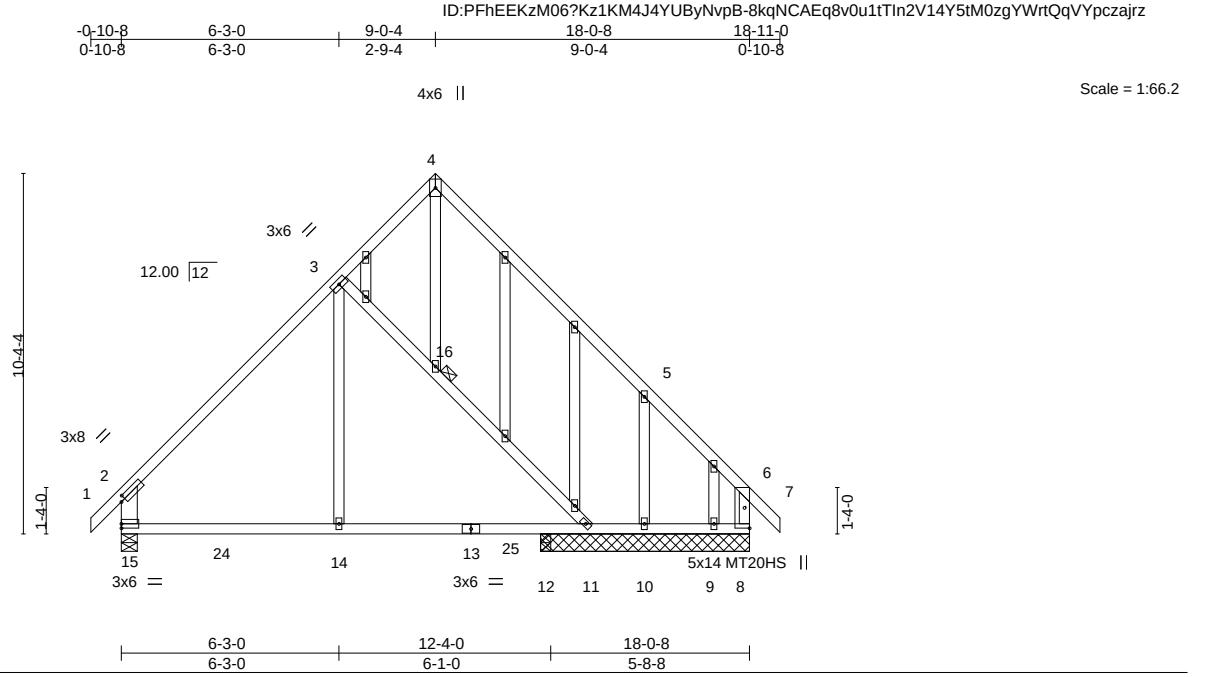


Plate Offsets (X,Y)-- [2:0-1-10,0-1-8], [6:0-1-12,0-1-12], [8:0-0-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.04	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.09	12-14	>999	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	-0.04	12-14	>999	240	Weight: 133 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-4-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 16

REACTIONS. All bearings 6-0-0 except (jt=length) 15=0-5-8, 12=0-3-8.
(lb) - Max Horz 15=-330(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) except 11=-243(LC 12), 10=-302(LC 13), 9=-322(LC 22)
Max Grav All reactions 250 lb or less at joint(s) except 15=858(LC 19), 8=816(LC 22), 11=324(LC 19), 10=620(LC 20), 12=285(LC 3)

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

TOP CHORD	2-3=-835/14, 3-4=-428/104, 4-5=-536/6, 5-6=-551/46, 2-15=-758/120, 6-8=-460/0
BOT CHORD	14-15=-59/642, 12-14=-59/642, 11-12=-59/642, 10-11=-70/372, 9-10=-70/372, 8-9=-70/372
WEBS	3-16=-513/300, 11-16=-505/295, 5-10=-613/401, 3-14=0/298

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
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 243 lb uplift at joint 11, 302 lb uplift at joint 10 and 322 lb uplift at joint 9.
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=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-4=-76(F=-16), 4-6=-76(F=-16), 6-7=-76(F=-16), 12-15=-20, 8-12=-36(F=-16), 3-11=-46(F)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	D04	Common Girder	1	2	E12810652
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:29 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-cwOmPVFSvD8le12ULl1Gdme7rQNkHsQ0fUF5L2zajry

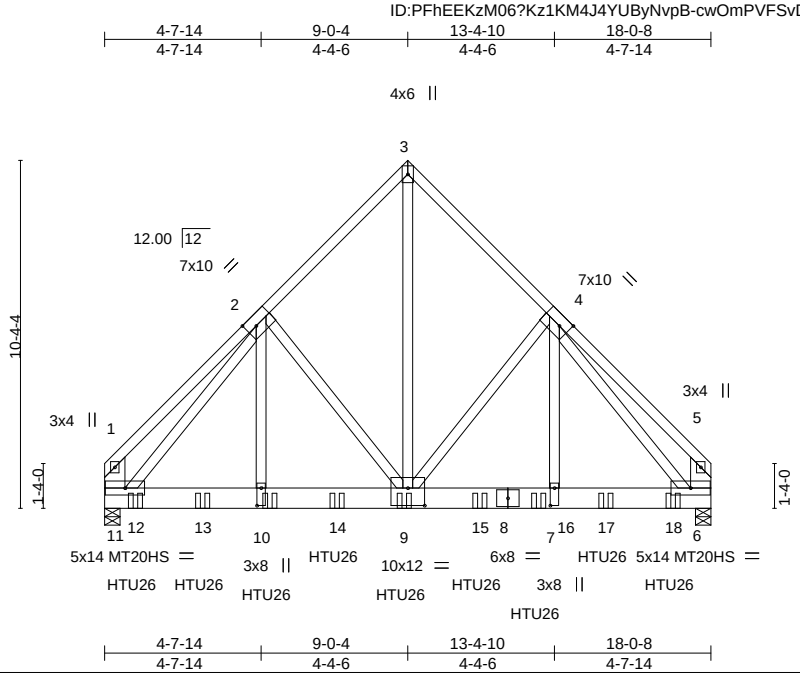


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [4:0-3-8,Edge], [7:0-6-4,0-1-8], [9:0-6-0,0-6-4], [10:0-6-4,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.06	7-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.13	7-9	>999	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.04	7-9	>999	240	Weight: 334 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SP No.2 *Except*
1-11,5-6: 2x8 SP DSS

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

REACTIONS. (lb/size) 11=7698/0-5-8, 6=7288/0-5-8
Max Horz 11=295(LC 24)
Max Uplift 11=-335(LC 9), 6=-374(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2371/208, 2-3=-4859/393, 3-4=-4859/393, 4-5=-2310/227, 1-11=-1752/193, 5-6=-1709/206
BOT CHORD 10-11=-273/4465, 9-10=-274/4493, 7-9=-181/4535, 6-7=-180/4506
WEBS 3-9=-410/6460, 4-9=-1855/326, 4-7=-109/3120, 2-9=-1810/293, 2-10=-60/3082, 2-11=-4612/187, 4-6=-4748/196

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) All plates are MT20 plates unless otherwise indicated.
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 335 lb uplift at joint 11 and 374 lb uplift at joint 6.
9) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-3-0 oc max. starting at 0-11-0 from the left end to 16-11-0 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

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

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 6-11=-20

Concentrated Loads (lb)

Vert: 9=-1531(B) 10=-1547(B) 12=-1547(B) 13=-1546(B) 14=-1531(B) 15=-1531(B) 16=-1531(B) 17=-1600(B) 18=-1227(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	E01	GABLE	1	1	E12810653
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:30 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-46y8drG5gXGcGAdhvTYV9zAKAqnU0UtAt8?etUzajrx

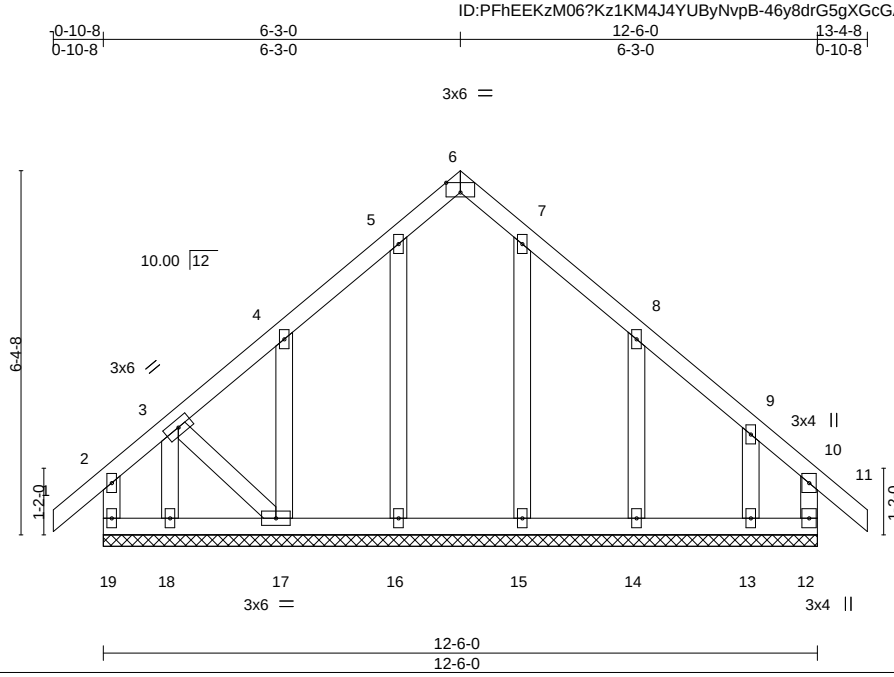


Plate Offsets (X,Y)-- [6:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.00	11	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.00	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 82 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, Except: 6-0-0 oc bracing: 18-19,17-18.

REACTIONS. All bearings 12-6-0.
(lb) - Max Horz 19=-208(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 19, 12, 16, 18 except 17=-239(LC 12), 14=-122(LC 13), 13=-210(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 19, 12, 16, 17, 18, 15, 14, 13

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 12, 16, 18 except (jt=lb) 17=239, 14=122, 13=210.

March 15,2019

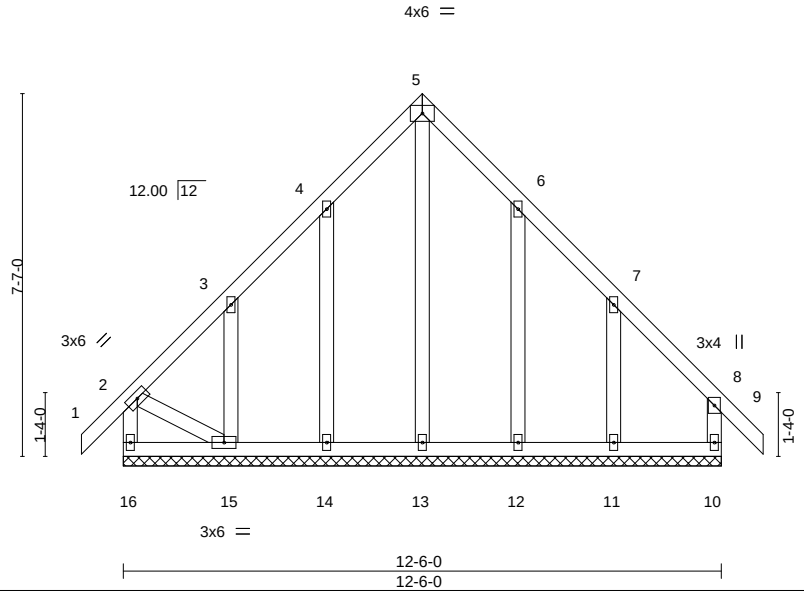
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	E02	Common Supported Gable	1	1	E12810654
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:31 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-YJWWqBHjRqOTuKCtSA3kiBjXdE7OltqJ6okCQwzajrw

-0-10-8 6-3-0 12-6-0 13-4-8
0-10-8 6-3-0 6-3-0 0-10-8

Scale: 1/4"=1'



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	9	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	9	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 89 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 2-15: 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, Except: 6-0-0 oc bracing: 15-16.

REACTIONS. All bearings 12-6-0.
(lb) - Max Horz 16=249(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 10, 13 except 16=-208(LC 8), 14=-129(LC 12), 15=-208(LC 12), 12=-110(LC 13), 11=-193(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 10, 14, 12, 11 except 16=289(LC 20), 13=354(LC 13), 15=264(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-16=-269/216, 4-5=-268/309, 5-6=-268/308
WEBS 5-13=-355/245

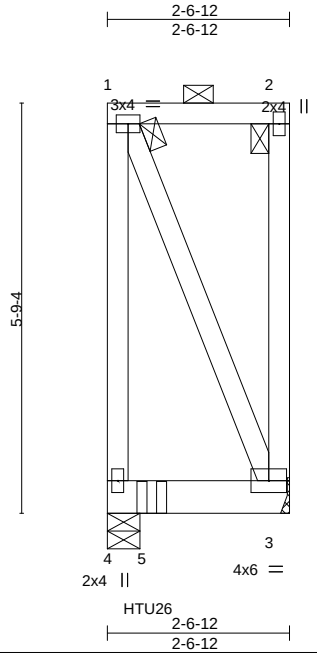
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 13 except (jt=lb) 16=208, 14=129, 15=208, 12=110, 11=193.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	FG01	Flat Girder	2	1	E12810655
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:32 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-1V4u2XHLC8WKVUn30uazFOGiPeLpUPXTLSUlyNzajrv



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.01	3-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.01	3-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP		Wind(LL)	0.00	3-4	>999	240	Weight: 33 lb	FT = 20%

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

BRACING-
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 4=1073/0-5-8, 3=353/Mechanical
Max Uplift 4=-144(LC 4), 3=-55(LC 4)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 4=144.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 0-7-8 from the left end to connect truss(es) to back face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.
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=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 3-4=-20
Concentrated Loads (lb)
Vert: 5=-1245(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	H01	Hip Girder	1	2	E12810656
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:33 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-VheGFtIzzSeB7eMFab5CncojZ1gwDhVcZ6DJUpzajru

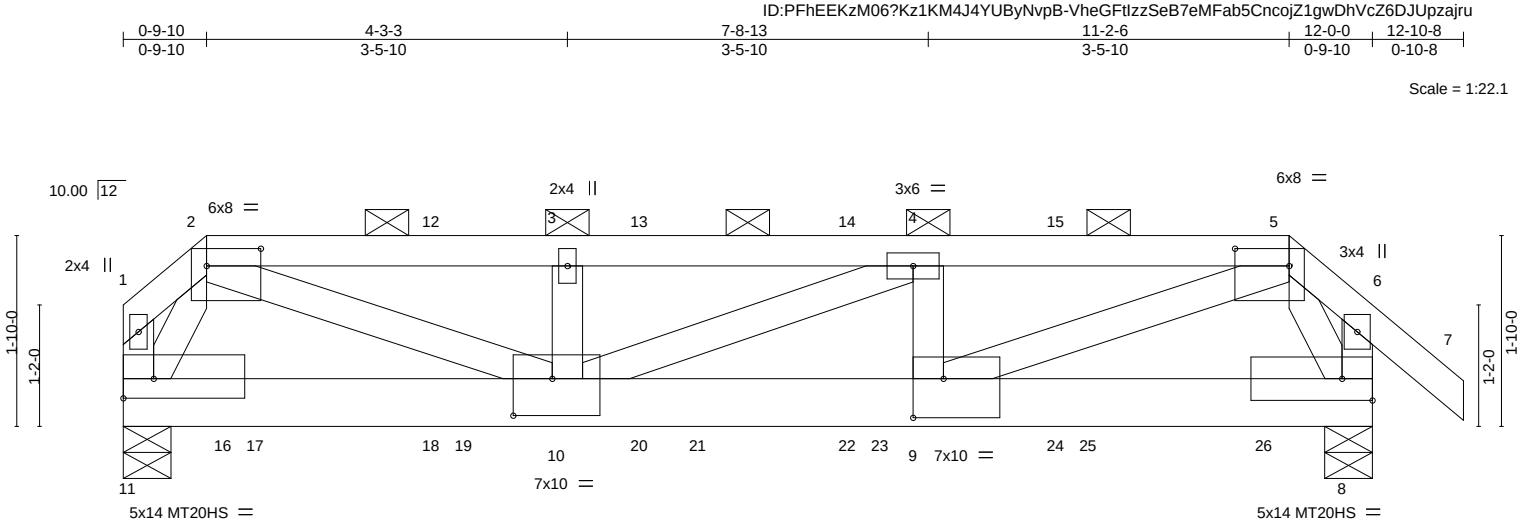


Plate Offsets (X,Y)-- [2:0-6-4,0-2-0], [5:0-6-4,0-2-0], [9:0-3-8,0-4-8], [10:0-4-8,0-4-4], [11:Edge,0-2-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.11	9-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22	9-10	>628	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.72	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.08	9-10	>999	240	Weight: 145 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.2 *Except*
2-10,5-9: 2x4 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-0 max.): 2-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=4486/0-5-8, 11=4914/0-5-8
Max Horz 11=-69(LC 23)
Max Uplift 8=-288(LC 4), 11=-273(LC 5)
Max Grav 8=4486(LC 1), 11=4916(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1177/65, 2-3=-9636/505, 3-4=-9636/505, 4-5=-10024/558, 5-6=-1096/94, 1-11=-829/41, 6-8=-882/107
BOT CHORD 10-11=-153/1998, 9-10=-559/10024, 8-9=-146/1982
WEBS 2-10=-404/8286, 4-10=-423/65, 4-9=-92/280, 5-9=-448/8729, 2-11=-2836/231, 5-8=-3019/231

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=288, 11=273.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

Continued on page 2

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

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 34 lb up at 0-9-10, 17 lb down and 34 lb up at 3-0-12, 17 lb down and 34 lb up at 5-0-12, 17 lb down and 34 lb up at 7-0-12, and 17 lb down and 34 lb up at 9-0-12, and 16 lb down and 35 lb up at 11-2-6 on top chord, and 8 lb down and 1 lb up at 1-0-12, 1531 lb down and 78 lb up at 1-4-8, 7 lb down and 1 lb up at 3-0-12, 1627 lb down and 64 lb up at 3-4-8, 7 lb down and 1 lb up at 5-0-12, 1611 lb down and 31 lb up at 5-7-8, 7 lb down and 1 lb up at 7-0-12, 1611 lb down and 31 lb up at 7-4-8, 7 lb down and 1 lb up at 9-0-12, and 2028 lb down and 153 lb up at 9-4-8, and 9 lb down and 1 lb up at 11-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

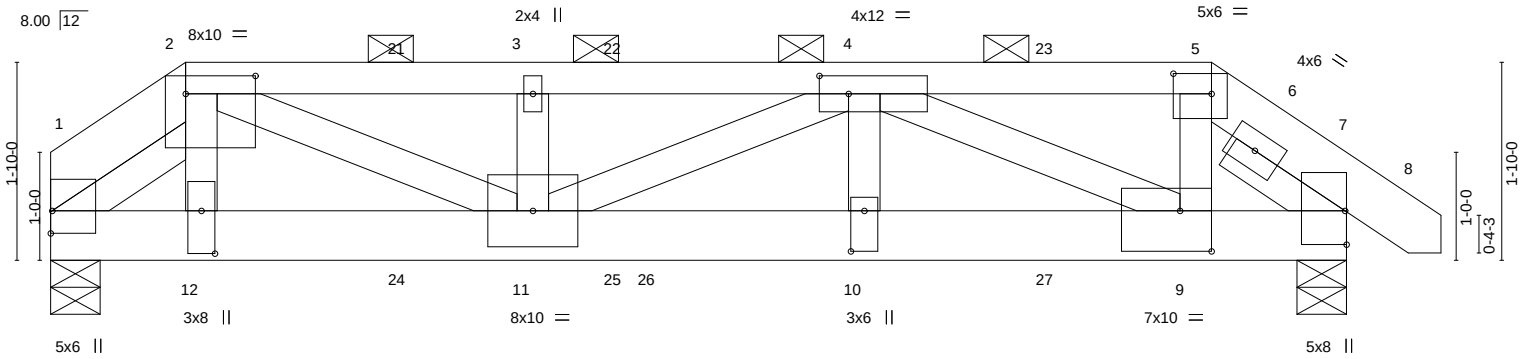
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-5=-60, 5-6=-60, 6-7=-60, 8-11=-20
   Concentrated Loads (lb)
   Vert: 16=1(B) 17=-1531(F) 18=1(B) 19=-1627(F) 20=1(B) 21=-1611(F) 22=1(B) 23=-1611(F) 24=1(B) 25=-2028(F) 26=1(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	H02	HIP GIRDER	2	2	E12810657
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:35 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-R4m1gZKDV3uvMyWeh07gs1u6XrM9hcev1PiPZizajrs

1-3-0	4-5-9	7-6-7	10-9-0	12-0-0	12-10-8
1-3-0	3-2-9	3-0-13	3-2-9	1-3-0	0-10-8

Scale = 1:21.3



1-3-0	4-5-9	7-6-7	10-9-0	12-0-0
1-3-0	3-2-9	3-0-13	3-2-9	1-3-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.09	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.19	10-11	>736	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.07	10-11	>999	240	Weight: 153 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2 *Except* 2-5: 2x4 SP No.2
BOT CHORD	2x6 SP DSS
WEBS	2x4 SP No.2
SLIDER	Left 2x4 SP No.2 1-5-13, Right 2x4 SP No.2 1-2-7

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (3-8-0 max.): 2-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=4930/0-5-8, 7=4488/0-5-8
Max Horz 1=-40(LC 13)
Max Uplift 1=-322(LC 5), 7=-256(LC 4)
Max Grav 1=4930(LC 19), 7=4488(LC 1)

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

TOP CHORD	1-2=-2873/193, 2-3=-9199/541, 3-4=-9195/542, 4-5=-3833/226, 5-7=-5431/307
BOT CHORD	1-12=-271/3867, 11-12=-284/4098, 10-11=-522/9924, 9-10=-522/9924, 7-9=-191/3416
WEBS	2-12=-122/2224, 2-11=-286/5557, 4-11=-810/0, 4-10=-31/3050, 4-9=-6744/348, 5-9=-168/4199

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=322, 7=256.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 37 lb up at 1-3-0, 17 lb down and 34 lb up at 3-3-12, 17 lb down and 34 lb up at 5-3-12, 17 lb down and 34 lb up at 7-3-12, and 17 lb down and 34 lb up at 9-3-12, and 17 lb down and 36 lb up at 10-9-0 on top chord, and 7 lb down and 1 lb up at 1-3-12, 1540 lb down and 110 lb up at 1-4-8, 7 lb down and 1 lb up at 3-3-12, 1637 lb down and 117 lb up at 3-4-8, 7 lb down and 1 lb up at 5-3-12, 1621 lb down and 30 lb up at 5-7-8, 7 lb down and 1 lb up at 7-3-12, 1621 lb down and 30 lb up at 7-4-8, 7 lb down and 1 lb up at 9-3-12, and 2023 lb down and 102 lb up at 9-4-8, and 7 lb down and 1 lb up at 10-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-5=-60, 5-8=-60, 13-17=-20
   Concentrated Loads (lb)
   Vert: 12=-1540(F=-1540, B=1) 10=-1620(F=-1621, B=1) 9=1(B) 24=-1636(F=-1637, B=1) 25=1(B) 26=-1621(F) 27=-2022(F=-2023, B=1)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	H03	Hip Girder	2	2	E12810658
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:36 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-vGJPtvKrGN0m_55qFjfvPEQGfFhgQ1z2G3Sz58zajrr

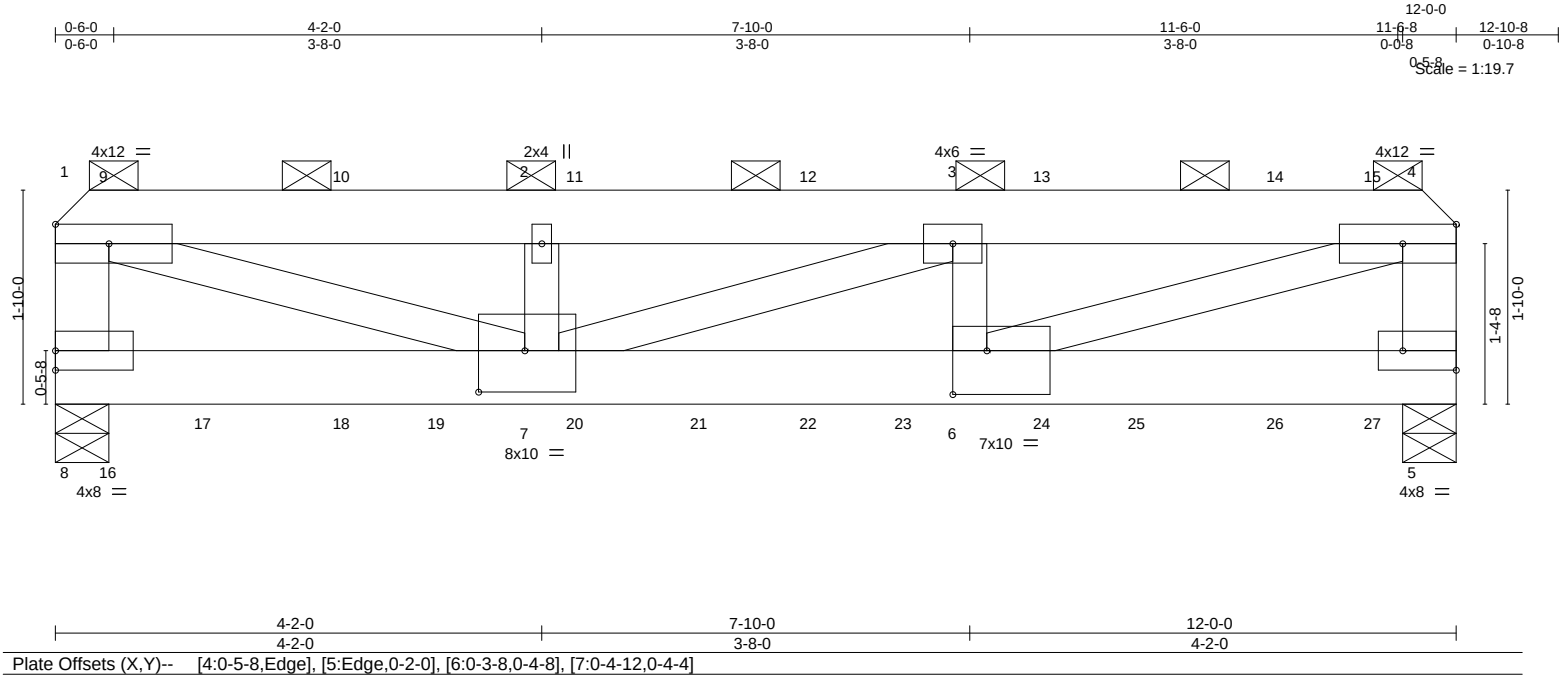


Plate Offsets (X,Y)-- [4:0-5-8,Edge], [5:Edge,0-2-0], [6:0-3-8,0-4-8], [7:0-4-12,0-4-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.11	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.23	6-7	>613	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.80	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.12	6-7	>999	240	Weight: 158 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.2 *Except*
1-7,4-6: 2x4 SP No.1, 1-8,4-5: 2x6 SP No.2

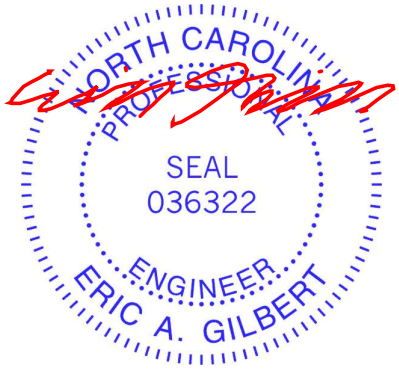
BRACING-
TOP CHORD 2-0-0 oc purlins (4-3-6 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=4993/0-5-8, 5=4524/0-5-8
Max Horz 8=57(LC 22)
Max Uplift 8=-988(LC 4), 5=-1050(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-9680/1891, 2-3=-9680/1891, 3-4=-10078/2127, 1-8=-3401/709, 4-5=-3570/794
BOT CHORD 7-8=-234/980, 6-7=-2142/10078, 5-6=-244/909
WEBS 1-7=-1800/9215, 3-7=-425/261, 3-6=-145/354, 4-6=-2011/9712

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=988, 5=1050.
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) 19 lb down and 21 lb up at 0-6-12, 17 lb down and 15 lb up at 2-6-12, 17 lb down and 15 lb up at 4-6-12, 17 lb down and 15 lb up at 6-6-12, 17 lb down and 15 lb up at 8-6-12, and 17 lb down and 15 lb up at 10-6-12, and 19 lb down and 25 lb up at 11-4-12 on top chord, and 11 lb down at 0-6-12, 1580 lb down and 306 lb up at 1-4-8, 7 lb down and 1 lb up at 2-6-12, 1580 lb down and 290 lb up at 3-4-8, 7 lb down and 1 lb up at 4-6-12, 1664 lb down and 280 lb up at 5-7-8, 7 lb down and 1 lb up at 6-6-12, 1664 lb down and 264 lb up at 7-4-8, 7 lb down and 1 lb up at 8-6-12, 2101 lb down and 660 lb up at 9-4-8, and 7 lb down and 1 lb up at 10-6-12, and 11 lb down at 11-4-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



March 15,2019

Continued on page 2

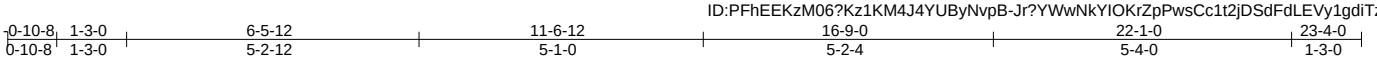
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard

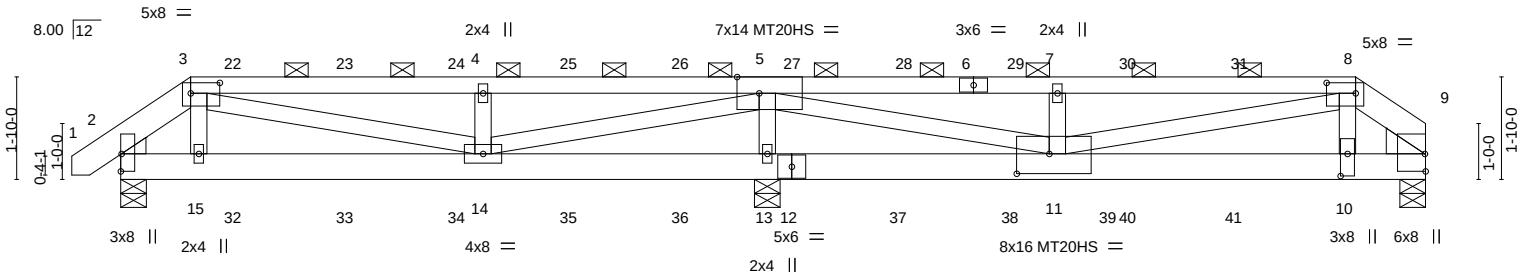
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-60, 5-8=-20
   Concentrated Loads (lb)
   Vert: 9=-1(B) 15=-1(B) 16=-3(B) 17=-1580(F) 18=1(B) 19=-1580(F) 20=1(B) 21=-1664(F) 22=1(B) 23=-1664(F) 24=1(B) 25=-2101(F) 26=1(B) 27=-2(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	H04	HIP GIRDER	2	2	E12810659
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:39 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Jr?YWwNkYIOKrZpPwsCc1t2jDSdFdLEVy1gdiTzajro



Scale = 1:41.2



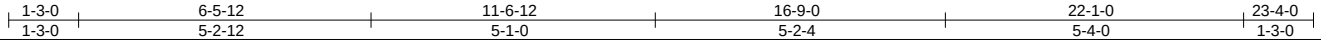


Plate Offsets (X,Y)-- [2:Edge,0-0-3], [2:0-0-2,0-3-11], [2:0-0-1,0-0-1], [3:0-6-4,0-2-4], [5:0-4-12,Edge], [8:0-6-4,0-2-4], [9:Edge,0-0-3], [9:0-0-2,0-3-11], [9:0-0-1,0-0-1], [10:0-4-12,0-1-8], [11:0-7-0,0-4-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.14	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.28	10-11	>513	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.96	Horz(CT)	-0.01	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.10	10-11	>999	240	Weight: 272 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2 *Except*
3-6: 2x4 SP No.2, 6-8: 2x4 SP No.1
BOT CHORD 2x6 SP No.2 *Except*
9-12: 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-11,8-11: 2x4 SP No.1
WEDGE
Left: 2x4 SP No.3, Right: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-1 oc purlins, except 2-0-0 oc purlins (3-8-2 max.): 3-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (lb/size) 2=5/0-5-8, 13=5725/0-5-8, 9=4253/0-5-8
Max Horz 2=37(LC 31)
Max Uplift 2=-232(LC 24), 13=-564(LC 5), 9=-285(LC 4)
Max Grav 2=265(LC 15), 13=5725(LC 1), 9=4253(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-283/273, 3-4=-271/1418, 4-5=-271/1418, 5-7=-8486/594, 7-8=-8486/594, 8-9=-6347/414
BOT CHORD 13-14=-2707/257, 11-13=-2707/257, 10-11=-312/4823, 9-10=-304/4497
WEBS 3-14=-1485/128, 4-14=-284/180, 5-14=-300/1347, 5-13=-3953/492, 5-11=-859/11626, 8-11=-279/3804, 8-10=-102/3278

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=232, 13=564, 9=285.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

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

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 34 lb up at 2-0-12, 17 lb down and 34 lb up at 4-0-12, 17 lb down and 34 lb up at 6-0-12, 17 lb down and 34 lb up at 8-0-12, 17 lb down and 34 lb up at 10-0-12, 17 lb down and 34 lb up at 12-0-12, 17 lb down and 34 lb up at 14-0-12, 17 lb down and 34 lb up at 16-0-12, 17 lb down and 34 lb up at 18-0-12, and 17 lb down and 34 lb up at 20-0-12, and 17 lb down and 37 lb up at 22-1-0 on top chord, and 7 lb down and 1 lb up at 2-0-12, 7 lb down and 1 lb up at 4-0-12, 7 lb down and 1 lb up at 6-0-12, 7 lb down and 1 lb up at 8-0-12, 7 lb down and 1 lb up at 10-0-12, 7 lb down and 1 lb up at 12-0-12, 1826 lb down and 138 lb up at 13-11-8, 7 lb down and 1 lb up at 14-0-12, 1537 lb down and 84 lb up at 15-11-8, 7 lb down and 1 lb up at 16-0-12, 1540 lb down and 84 lb up at 17-8-8, 7 lb down and 1 lb up at 18-0-12, 1637 lb down and 89 lb up at 19-11-8, 7 lb down and 1 lb up at 20-0-12, and 1540 lb down and 84 lb up at 21-11-8, and 7 lb down and 1 lb up at 22-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-8=-60, 8-9=-60, 16-19=-20
   Concentrated Loads (lb)
   Vert: 12=1(F) 10=-1540(F=1, B=-1540) 32=1(F) 33=1(F) 34=1(F) 35=1(F) 36=1(F) 37=-1825(F=1, B=-1826) 38=-1537(F=1, B=-1537) 39=-1540(B) 40=1(F) 41=-1636(F=1, B=-1637)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	H05	Hip Girder	1	2	E12810660
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:40 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-o2ZwjGOMJbWBTjOcUZjrZ4bwcs?yMtMeAhQAEvzajrn

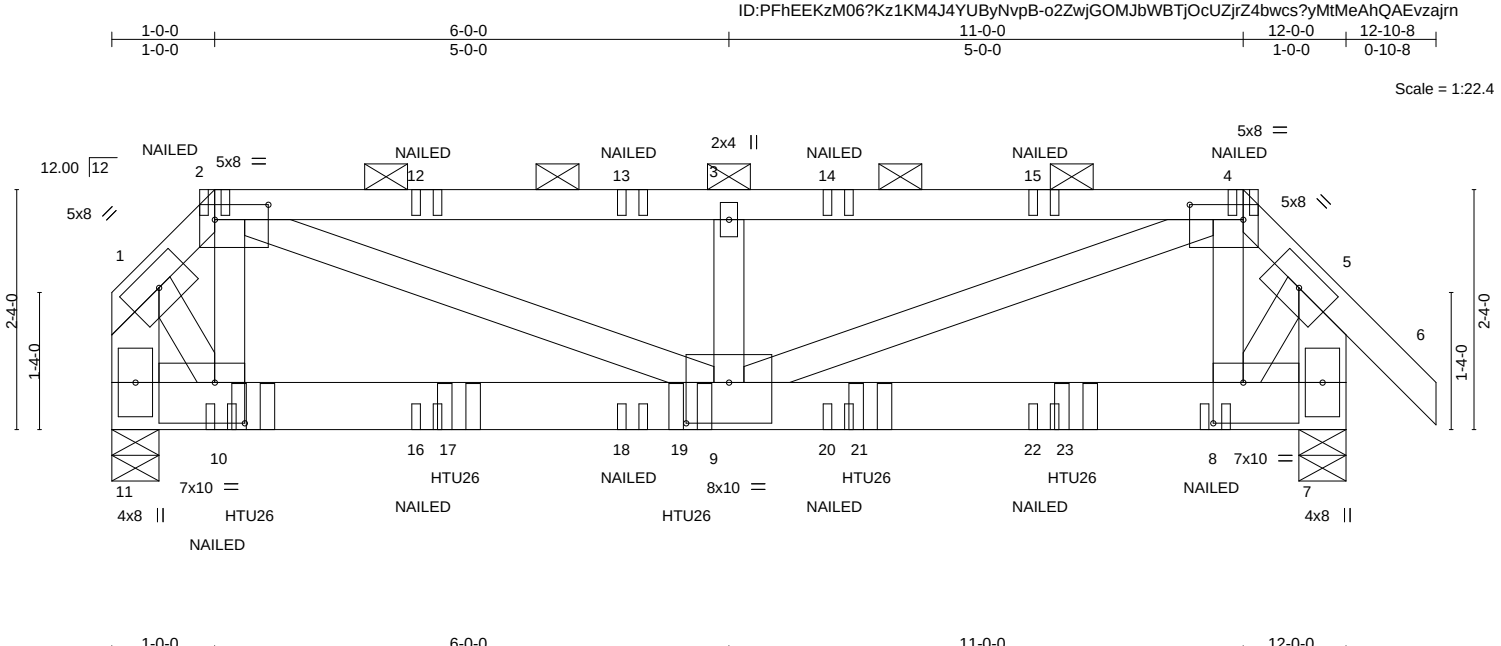


Plate Offsets (X,Y)-- [2:0-6-4,0-1-12], [4:0-6-4,0-1-12], [8:0-3-8,0-4-12], [9:0-5-0,0-4-12], [10:0-3-8,0-4-12]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.09	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.18	8-9	>776	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.65	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.08	8-9	>999	240	Weight: 158 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
1-11,5-7: 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 (3-11-8 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 11=4757/0-5-8, 7=4177/0-5-8
Max Horz 11=-91(LC 6)
Max Uplift 11=-514(LC 4), 7=-755(LC 4)
Max Grav 11=4758(LC 19), 7=4177(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3805/391, 2-3=-7618/1039, 3-4=-7618/1039, 4-5=-3876/758, 1-11=-5778/570, 5-7=-6050/1149
BOT CHORD 9-10=-299/2679, 8-9=-546/2727
WEBS 2-10=0/667, 2-9=-833/5304, 3-9=-252/215, 4-9=-540/5257, 4-8=-288/689, 1-10=-423/3901, 5-8=-814/4084

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered 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.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=514, 7=755.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-3-0 oc max. starting at 1-4-8 from the left end to 9-4-8 to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

March 15,2019

LOAD CASE(S) Standard

Continued on page 2

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-4=-60, 4-5=-60, 5-6=-60, 7-11=-20
   Concentrated Loads (lb)
   Vert: 10=-1530(F=-1531, B=1) 8=1(B) 16=1(B) 17=-1531(F) 18=1(B) 19=-1531(F) 20=1(B) 21=-1531(F) 22=1(B) 23=-1825(F)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J01	JACK-OPEN	24	1	E12810661
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:41 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-GE7IxcO_4ve24tzo2HE46I7FwGYW5UmnPL9kmLzajrm

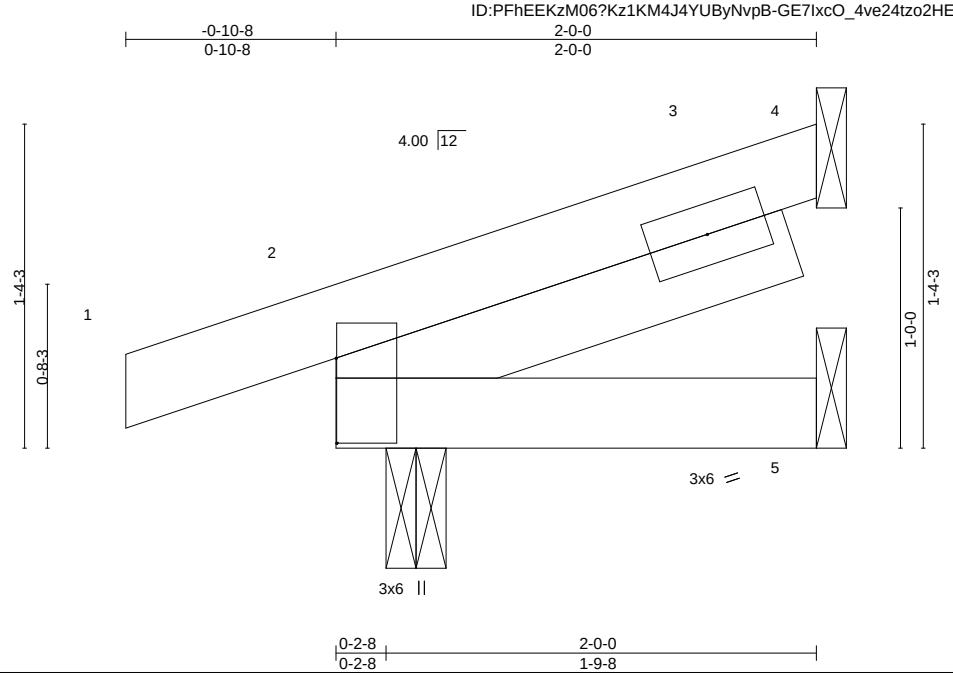


Plate Offsets (X,Y)-- [2:Edge,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-12

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

REACTIONS. (lb/size) 5=20/Mechanical, 4=48/Mechanical, 2=144/0-3-0
Max Horz 2=47(LC 8)
Max Uplift 5=-11(LC 8), 4=-33(LC 8), 2=-79(LC 8)
Max Grav 5=29(LC 3), 4=48(LC 1), 2=144(LC 1)

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

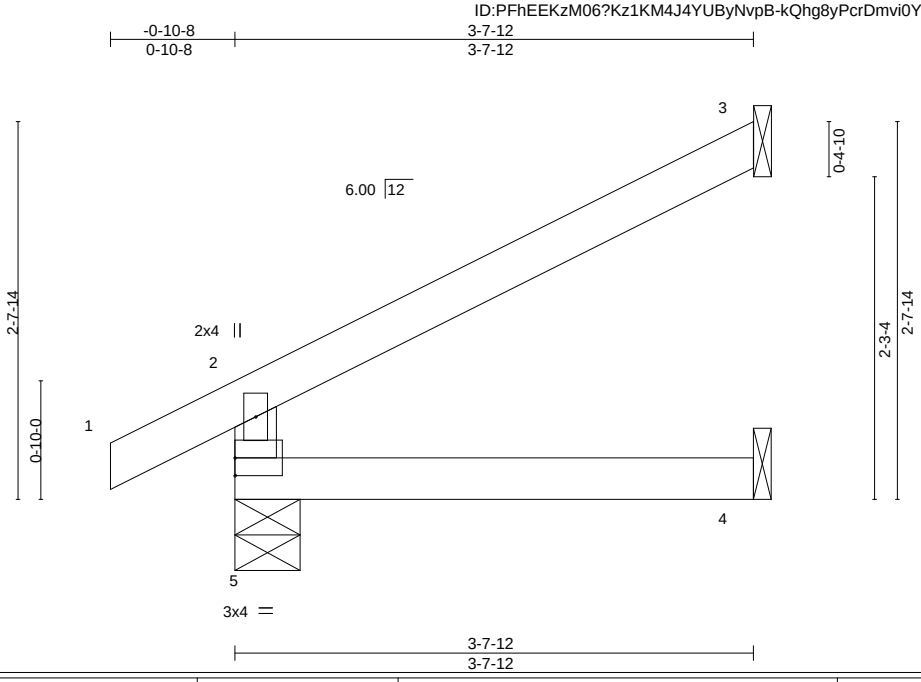
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 5, 4, 2.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J02	JACK-OPEN	7	1	E12810662
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:42 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-kQhg8yPcrDmvi0Y_c_IJfVgMOgskqx0xe?vHJozajrl



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.01	4-5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR		Wind(LL)	0.01	4-5	>999	240	Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=208/0-5-8, 3=90/Mechanical, 4=38/Mechanical
Max Horz 5=87(LC 12)
Max Uplift 5=-32(LC 12), 3=-70(LC 12)
Max Grav 5=208(LC 1), 3=90(LC 1), 4=65(LC 3)

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

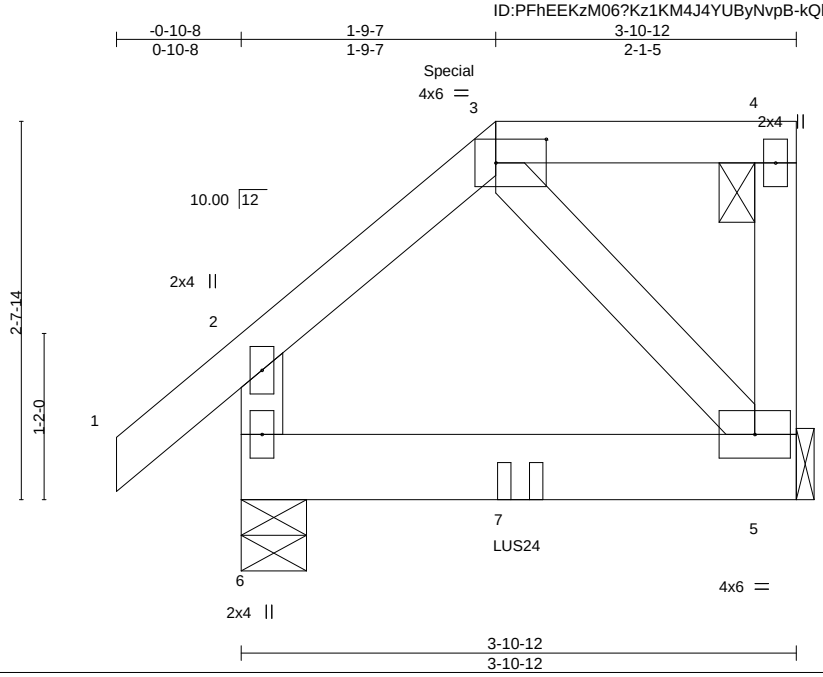
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 5, 3.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J03	HALF HIP GIRDER	2	1	E12810663
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:42 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-kQhg8yPcrDmvi0Y_c_lJfVgORgtzqxnxe?vHJozajrl



Scale = 1:16.2

Plate Offsets (X,Y)-- [3:0-4-4,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	-0.00	5-6	>999	240	Weight: 25 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except*
2-6: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=240/0-5-8, 5=158/Mechanical
Max Horz 6=82(LC 8)
Max Uplift 6=-49(LC 8), 5=-65(LC 5)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6, 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 1-11-8 from the left end to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 47 lb down and 77 lb up at 1-9-7 on top chord. The design/selection of such connection device(s) is the responsibility of others.
12) 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=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-6=-20
Concentrated Loads (lb)
Vert: 3=-30(B) 7=-18(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J04	HALF HIP	3	1	E12810664
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:43 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-CdE2MIQEcWvmKA7A9hHYBiDY93DgZOP4tfeqrEzajrk

-0-10-8 2-11-13 3-10-12
0-10-8 2-11-13 0-10-15

Scale = 1:21.3

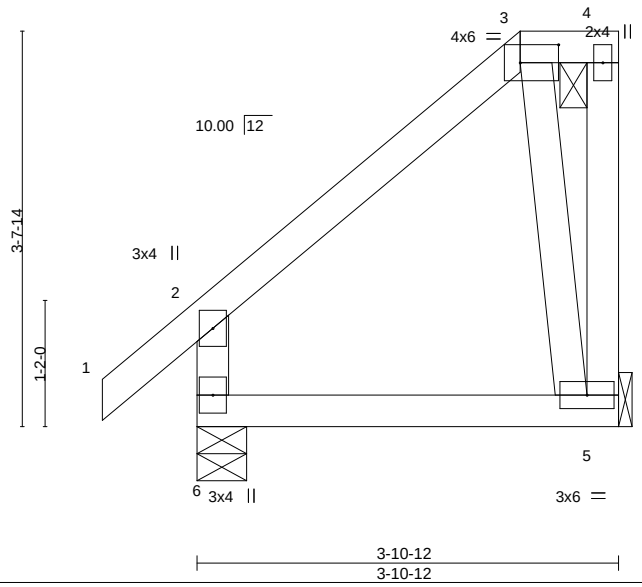


Plate Offsets (X,Y)-- [3:0-4-4,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.01	5-6	>999	240	Weight: 25 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=135/Mechanical, 6=214/0-5-8
Max Horz 6=125(LC 12)
Max Uplift 5=-87(LC 12)
Max Grav 5=136(LC 19), 6=214(LC 1)

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

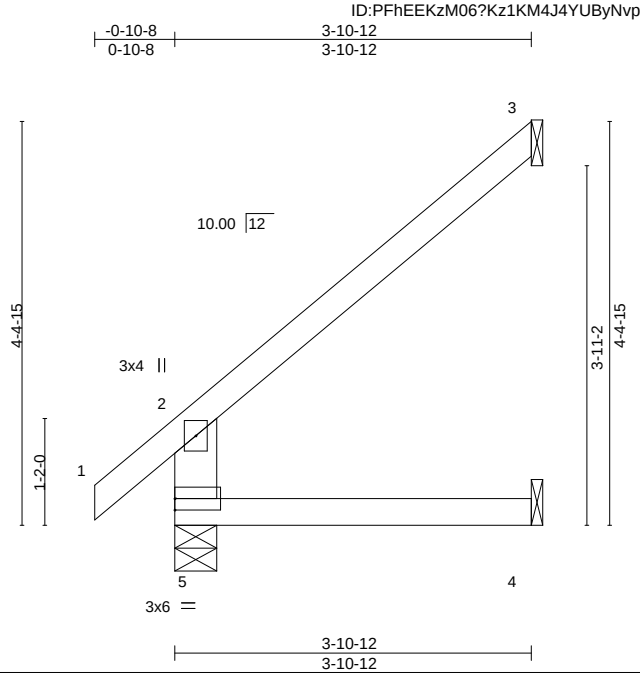
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J05	JACK-OPEN	18	1	E12810665
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:44 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-gpoRZeRtNq1dxKiNjPonkwlivTWpIrVE5JOONgzajrj



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	0.03	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.03	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.04	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 17 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=221/0-5-8, 3=93/Mechanical, 4=41/Mechanical
Max Horz 5=153(LC 12)
Max Uplift 3=-113(LC 12), 4=-16(LC 12)
Max Grav 5=221(LC 1), 3=116(LC 19), 4=68(LC 3)

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

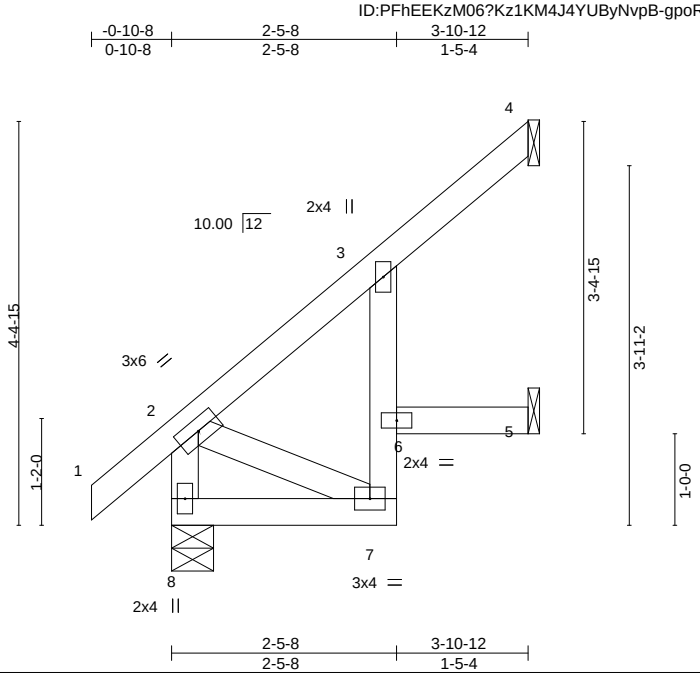
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4 except (jt=lb) 3=113.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J06	JACK-OPEN	4	1	E12810666
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:44 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-gpoRZeRtNq1dxKiNjPonkwlgrTauIqRE5JOONgzajrj



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	0.07	7	>621	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.05	7	>900	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	-0.03	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP							Weight: 23 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=217/0-5-8, 4=124/Mechanical, 5=15/Mechanical
Max Horz 8=154(LC 12)
Max Uplift 4=-138(LC 12)
Max Grav 8=217(LC 1), 4=156(LC 19), 5=30(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4=138.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J07	HALF HIP	1	1	E12810667
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:45 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-8?Mpm_RV889UZUHZH6J0G7Iw3tuS1I9NKz7xv6zajri

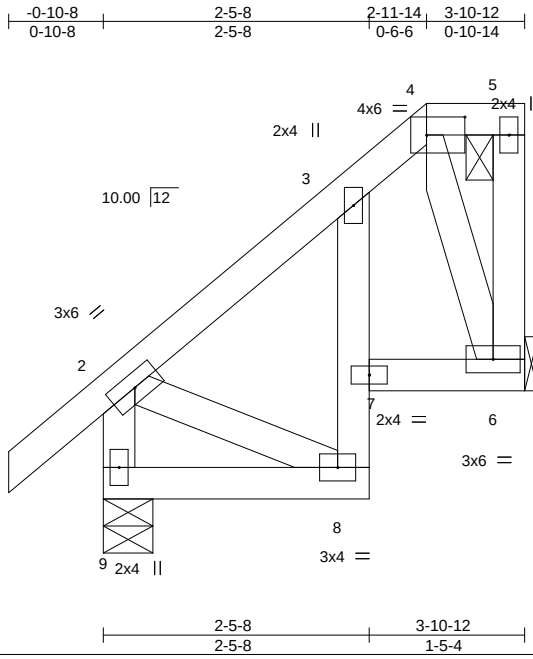


Plate Offsets (X,Y)-- [4:0-4-4,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	0.01	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.00	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 29 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=135/Mechanical, 9=214/0-5-8
Max Horz 9=125(LC 12)
Max Uplift 6=-87(LC 12)
Max Grav 6=136(LC 19), 9=214(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J08	HALF HIP GIRDER	1	1	E12810668
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:46 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-cBwB_JS7vRHLBerlrqqFpLr58HEAmliXZdtVSZzajrh

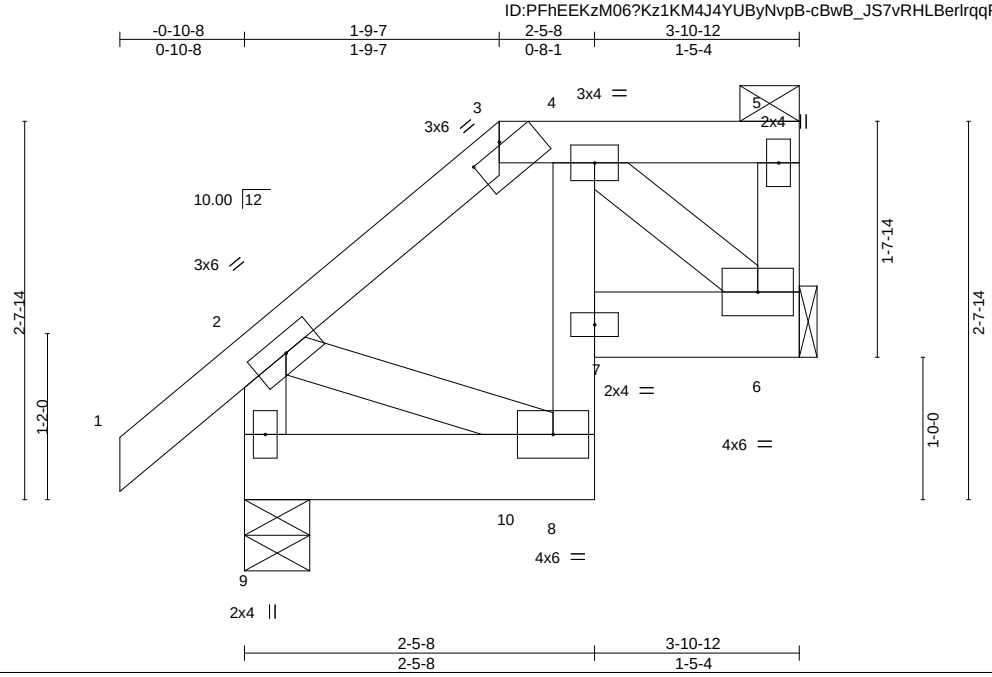


Plate Offsets (X,Y)-- [3:0-3-0,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.00	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.00	8	>999	240	Weight: 28 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
4-8: 2x4 SP No.2
WEBS 2x4 SP No.2 *Except*
2-9: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=158/Mechanical, 9=240/0-5-8
Max Horz 9=82(LC 8)
Max Uplift 6=-65(LC 5), 9=-49(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 9.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 40 lb down and 77 lb up at 1-9-7 on top chord, and 25 lb down at 1-11-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-5=-60, 8-9=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 3=-30(B) 10=-18(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J09	HALF HIP	1	1	E12810669
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:47 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-4OUZBfTlgIPCooQyOXLULYNGthbqVBvgnHc2_?zajrg

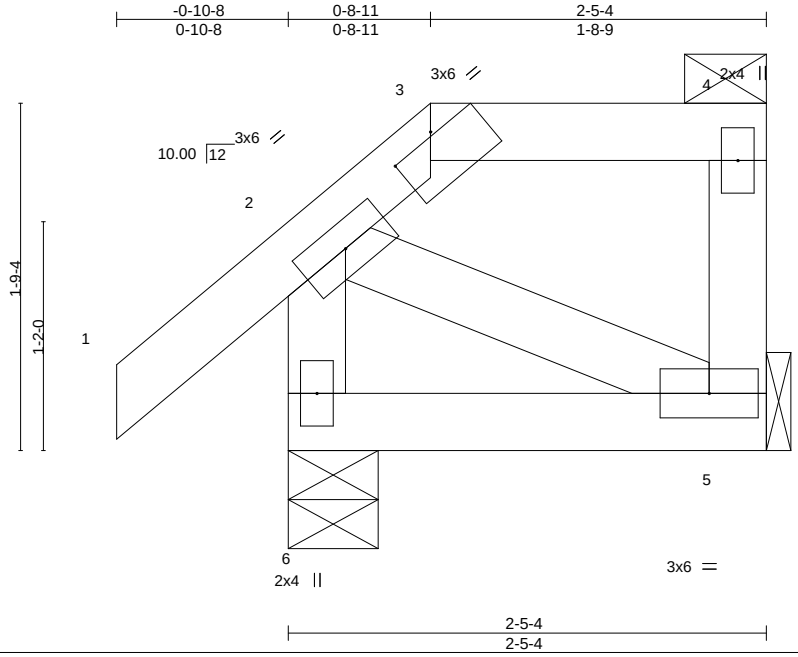


Plate Offsets (X,Y)-- [3:0-3-0,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.00	6	>999	240	Weight: 15 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=162/0-5-8, 5=71/Mechanical
Max Horz 6=52(LC 9)
Max Uplift 6=-26(LC 12), 5=-35(LC 9)
Max Grav 6=162(LC 1), 5=78(LC 24)

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

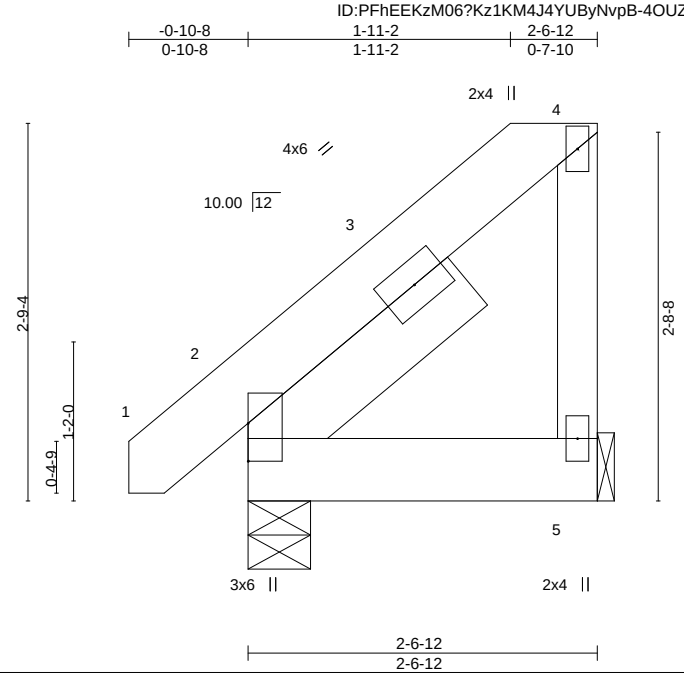
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-3-8 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6, 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J10	HALF HIP	1	1	E12810670
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:47 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-4OUZBfTlglPCooQyOXLULYNG?hbbVBFgnHc2_?zajrg



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP							Weight: 24 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=90/Mechanical, 2=148/0-5-8
Max Horz 2=119(LC 11)
Max Uplift 5=-63(LC 9), 2=-14(LC 12)
Max Grav 5=121(LC 19), 2=152(LC 20)

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

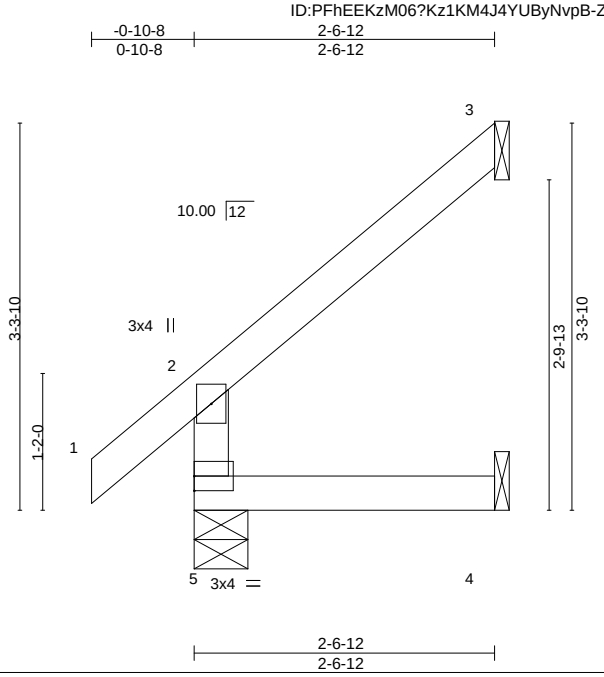
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 5, 2.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J11	Jack-Open	2	1	E12810671
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:48 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Za2xP?UNR3X3Qx?8yFsjumwPA4vDEeVp0xMbWRzajrf



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 12 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=169/0-5-8, 3=57/Mechanical, 4=23/Mechanical
Max Horz 5=105(LC 12)
Max Uplift 3=-80(LC 12), 4=-14(LC 12)
Max Grav 5=169(LC 1), 3=75(LC 19), 4=44(LC 3)

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

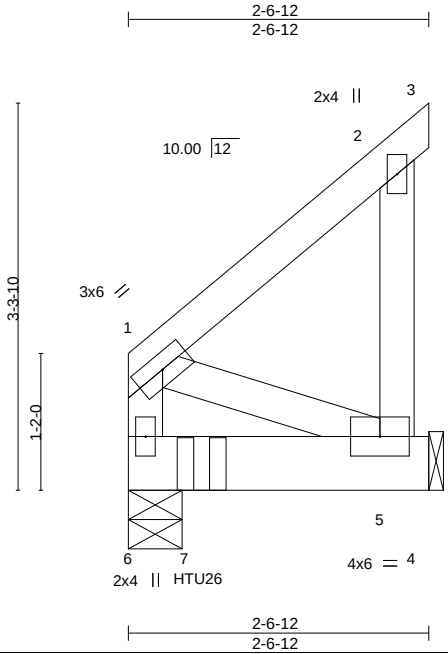
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 3, 4.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J12	Jack-Closed Girder	1	1	E12810672
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:48 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Za2xP?UNR3X3Qx?8yFsjumwRW4pDEeGp0xMbWRzajrf



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP		Wind(LL)	-0.00	6	>999	240	Weight: 19 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 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=1119/0-5-8, 5=395/Mechanical
Max Horz 6=118(LC 5)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 0-7-8 from the left end to connect truss(es) to back face of bottom chord.
6) Fill all nail holes where hanger is in contact with lumber.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

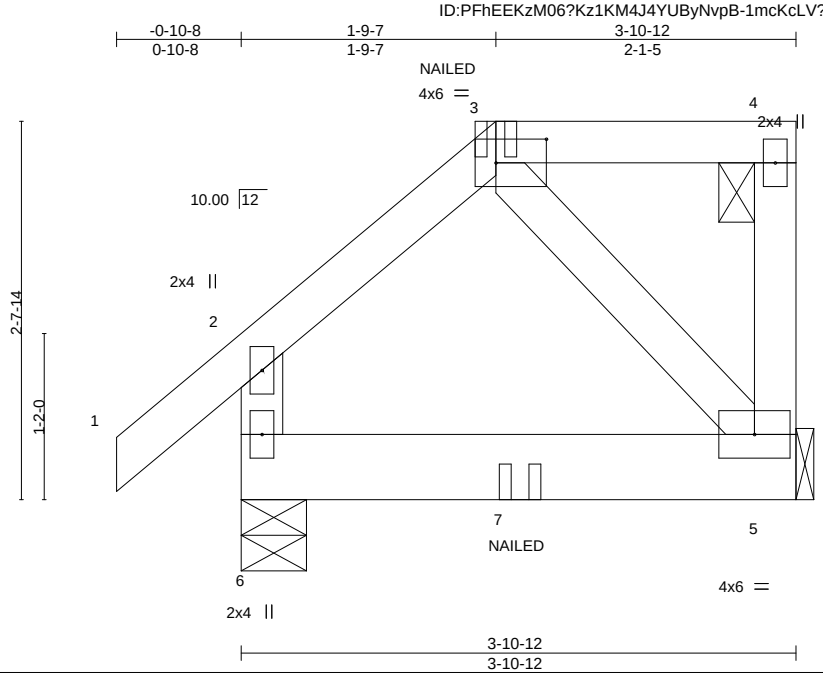
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-20, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-1331(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J13	HALF HIP GIRDER	1	1	E12810673
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:49 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-1mcKcLV?CMfw25aKWyOyRzTbhUGcz5WzFb592uzajre



Scale = 1:16.2

Plate Offsets (X,Y)-- [3:0-4-4,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	-0.00	5-6	>999	240	Weight: 25 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except*
2-6: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=240/0-5-8, 5=158/Mechanical
Max Horz 6=82(LC 8)
Max Uplift 6=-49(LC 8), 5=-65(LC 5)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 5.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-6=-20
Concentrated Loads (lb)
Vert: 3=-30(F) 7=-18(F)

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J14	HALF HIP	1	1	E12810674
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:50 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-VzAiqhVdzgnngF9X4fvBzB?nuudXiYk6UFribKzajrd

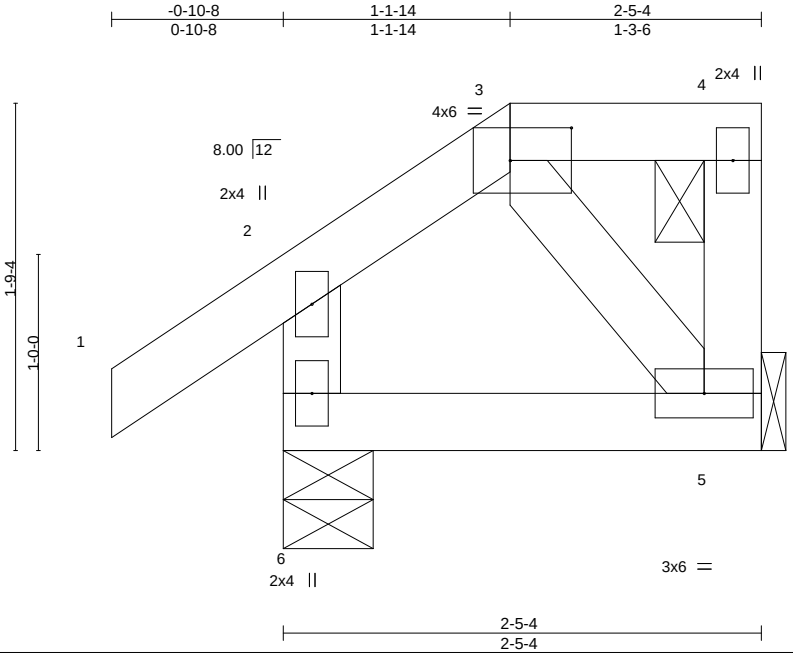


Plate Offsets (X,Y)-- [3:0-3-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	-0.00	6	>999	240	Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=162/0-5-8, 5=71/Mechanical
Max Horz 6=49(LC 9)
Max Uplift 6=-30(LC 12), 5=-31(LC 9)
Max Grav 6=162(LC 1), 5=71(LC 24)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-3-8 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6, 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

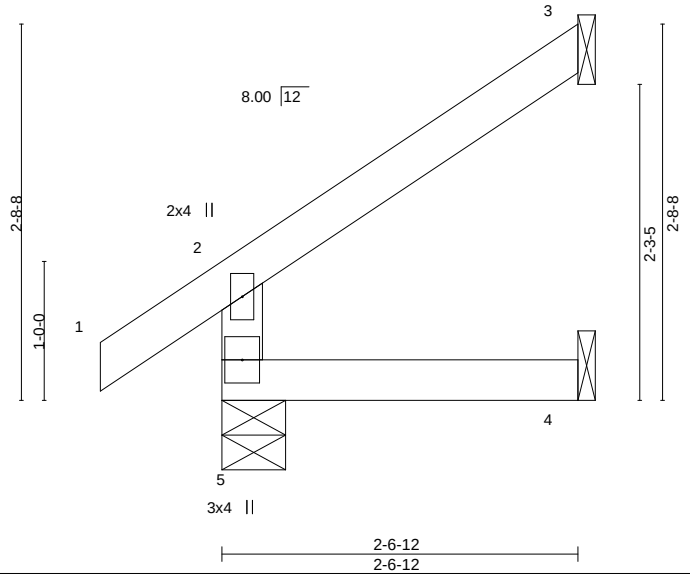
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J15	Jack-Open	6	1	E12810675
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:51 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-z9j411WGk_vdHPkjdNQQWOYxYIyjR?EGivaF7mzajrc

-0-10-8 2-6-12
0-10-8 2-6-12

Scale = 1:16.6



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.00	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 11 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=169/0-5-8, 3=58/Mechanical, 4=23/Mechanical
Max Horz 5=84(LC 12)
Max Uplift 5=-7(LC 12), 3=-63(LC 12), 4=-5(LC 12)
Max Grav 5=169(LC 1), 3=70(LC 19), 4=44(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 5, 3, 4.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J16	Jack-Closed Girder	2	1	E12810676 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:51 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-z9j411WGk_vdHPkjdNQQWOYymIrsR?2GivaF7mzajrc

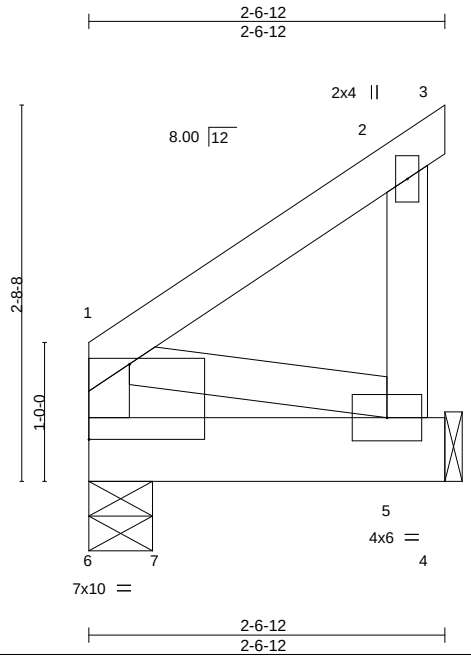


Plate Offsets (X,Y)-- [6:0-1-12,0-0-0], [6:Edge,0-6-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.01	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP		Wind(LL)	-0.00	6	>999	240	Weight: 17 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 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=1127/0-5-8, 5=397/Mechanical
Max Horz 6=94(LC 5)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1341 lb down at 0-7-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

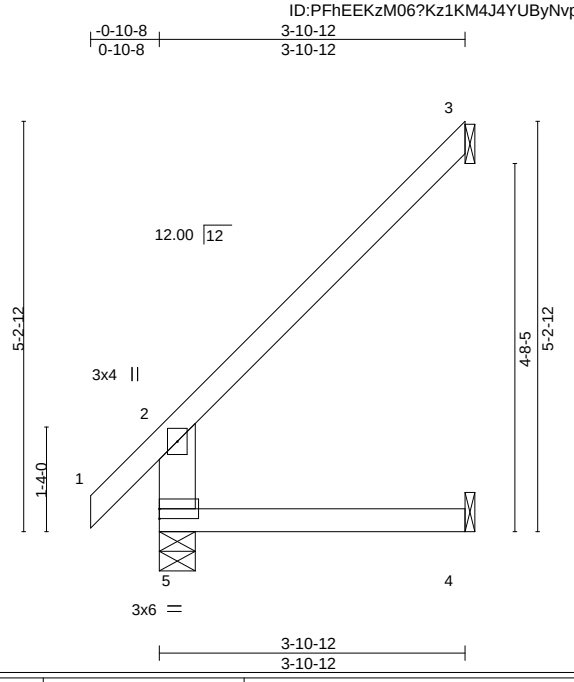
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-20, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-1341(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J17	JACK-OPEN	38	1	E12810677
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:52 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-RLHSENXuVH1UvZJvB4xf2c541iCpASUPxZKpfDzajrb



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	0.04	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.03	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.07	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 19 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=221/0-5-8, 3=92/Mechanical, 4=42/Mechanical
Max Horz 5=184(LC 12)
Max Uplift 3=-140(LC 12), 4=-30(LC 12)
Max Grav 5=221(LC 1), 3=123(LC 19), 4=68(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4 except (jt=lb) 3=140.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J18	JACK-OPEN	6	1	E12810678
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:53 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-vYrqSjYWFb9LXju5loSubpdBC5e_vuPYAD3MCfzajra

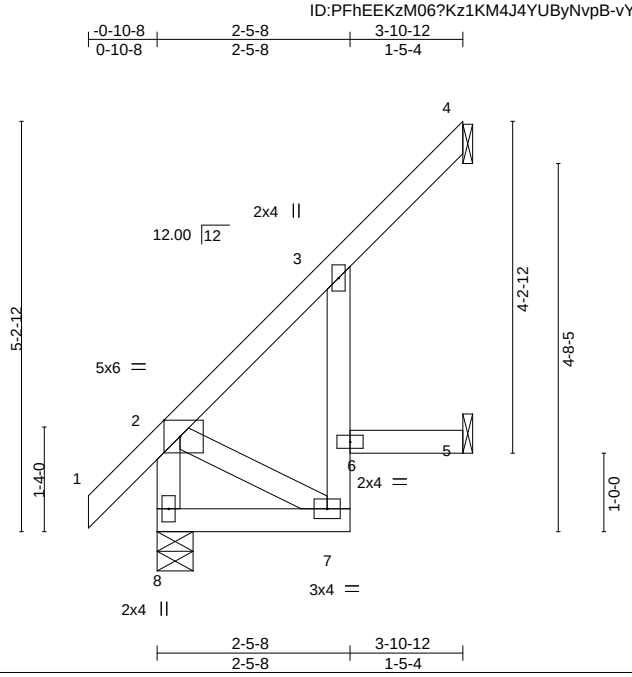


Plate Offsets (X,Y)-- [2:0-2-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	0.10	7	>449	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.09	7	>487	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.05	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP							Weight: 25 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=217/0-5-8, 4=124/Mechanical, 5=15/Mechanical
Max Horz 8=185(LC 12)
Max Uplift 4=-179(LC 12)
Max Grav 8=217(LC 1), 4=169(LC 19), 5=30(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 7-8=-250/198
WEBS 2-7=-228/286

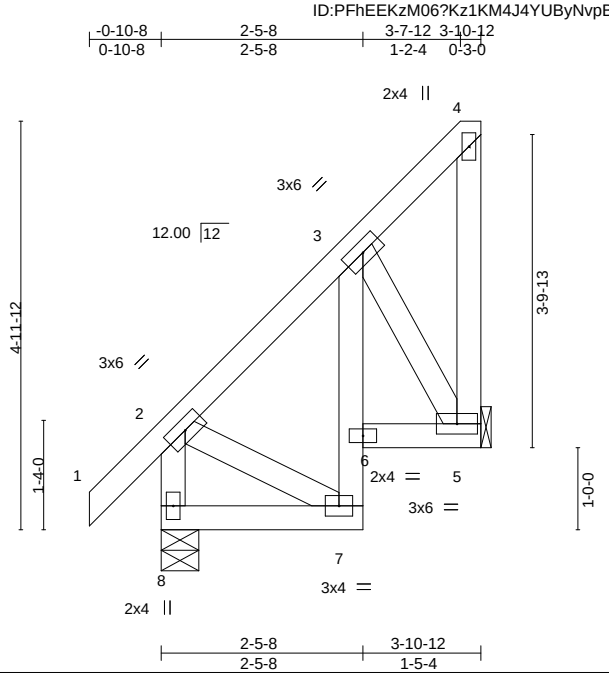
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4=179.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J19	HALF HIP	2	1	E12810679
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:53 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-vYrqSjYWFb9LXju5loSubpdH35d?vvvYAD3MCfzajra



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.00	7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 34 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=214/0-5-8, 5=135/Mechanical
Max Horz 8=182(LC 12)
Max Uplift 5=-167(LC 12)
Max Grav 8=214(LC 1), 5=180(LC 19)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 5=167.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J20	HALF HIP	2	1	E12810680
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:54 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-NkPCf3Y80vHC8tTIJVz781ASiVzdeMIiPtpwk5zajrZ

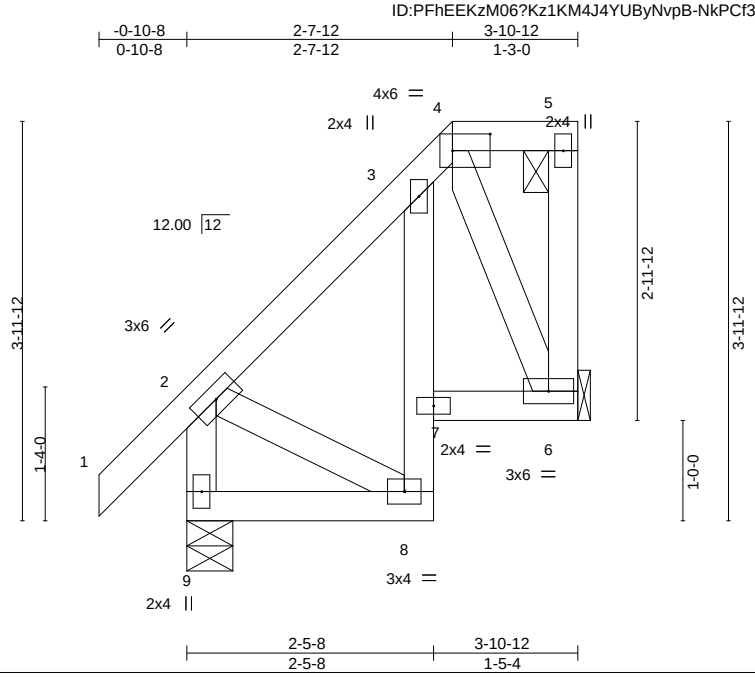


Plate Offsets (X,Y)-- [4:0-4-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	0.00	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.00	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 32 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 9=214/0-5-8, 6=135/Mechanical
Max Horz 9=135(LC 12)
Max Uplift 6=-95(LC 12)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J21	HALF HIP	2	1	E12810681
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:55 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-rwzbtOZmnCP3m02UsDUMgEjdZvJ2NpkrdXYTGXzajrY

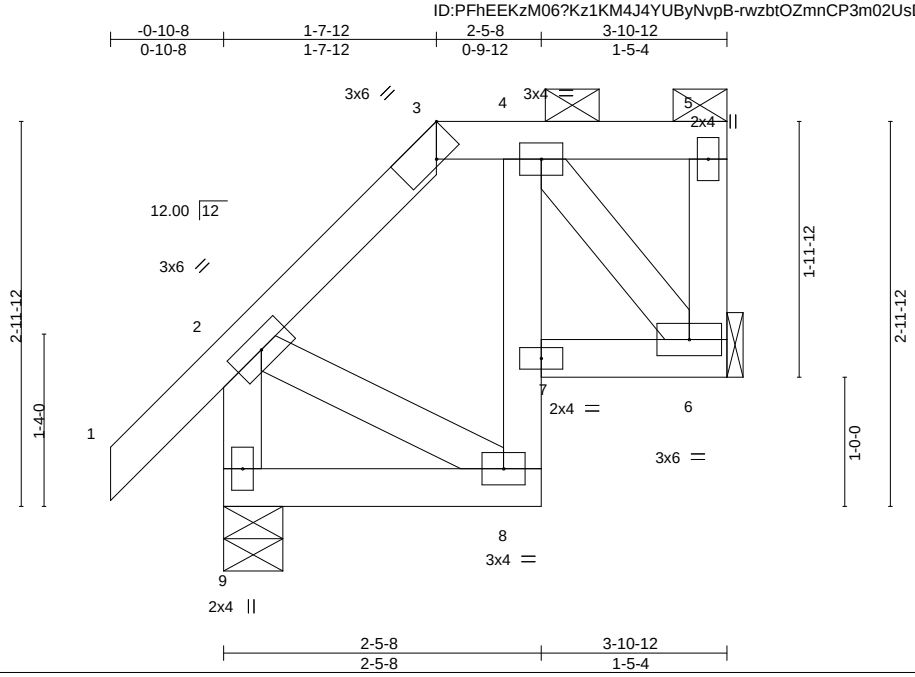


Plate Offsets (X,Y)-- [3:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.00	8	>999	240	Weight: 28 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (lb/size) 6=135/Mechanical, 9=214/0-5-8
Max Horz 9=91(LC 12)
Max Uplift 6=-58(LC 9), 9=-15(LC 12)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6, 9.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J22	HALF HIP GIRDER	2	1	E12810682
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:56 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-K7Xz4kaOYWXwOAcgQw0bDSFnkJgc6GO?sBI0o_zajrX

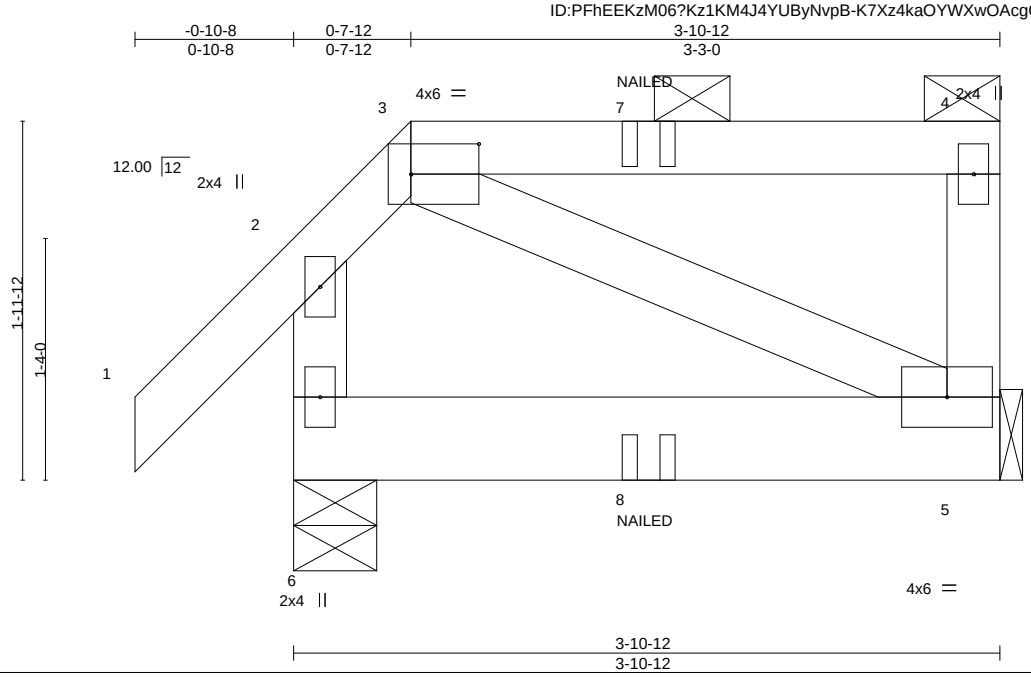


Plate Offsets (X,Y)-- [3:0-4-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.01	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	-0.00	6	>999	240	Weight: 25 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except*
2-6: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=214/0-5-8, 5=136/Mechanical
Max Horz 6=58(LC 24)
Max Uplift 6=-43(LC 8), 5=-51(LC 5)
Max Grav 6=214(LC 1), 5=140(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6, 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
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=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-6=-20
Concentrated Loads (lb)
Vert: 8=-0(B)

March 15,2019

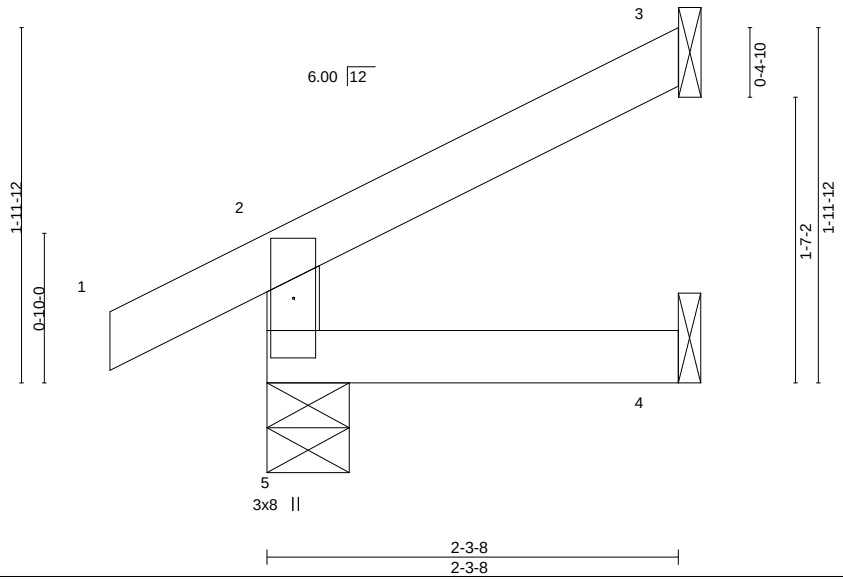
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J23	JACK-OPEN	2	1	E12810683
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:56 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-K7Xz4kaOYWXwOAcgQw0bDSFnvJfR6GU?sBI0o_zajrX

-0-10-8 2-3-8
0-10-8 2-3-8

Scale = 1:12.8



2-3-8
2-3-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.00	5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR		Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=160/0-5-8, 3=49/Mechanical, 4=19/Mechanical
Max Horz 5=57(LC 12)
Max Uplift 5=-28(LC 12), 3=-43(LC 12)
Max Grav 5=160(LC 1), 3=49(LC 1), 4=38(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 5, 3.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J25	Half Hip	2	1	E12810684
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:57 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-oJ5LI4b0Jpfn?KBt_eXqlfoz3j04rj485q1aLQzajrW

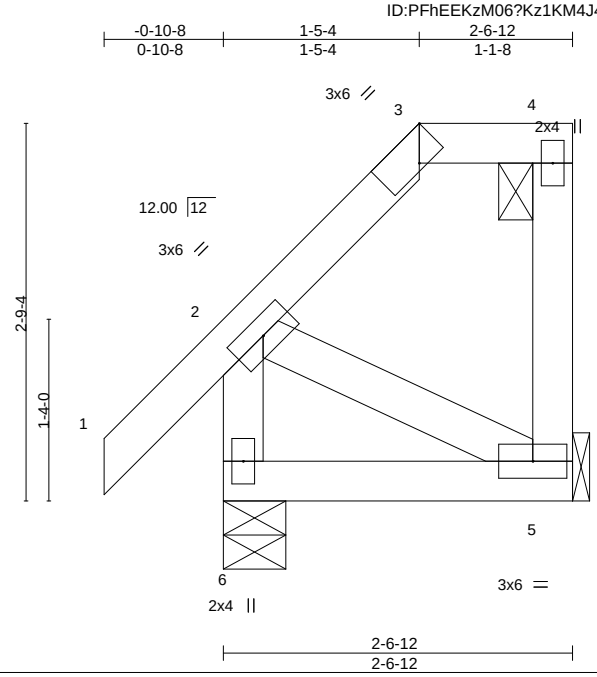


Plate Offsets (X,Y)-- [3:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.00	6	>999	240	Weight: 19 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=166/0-5-8, 5=77/Mechanical
Max Horz 6=82(LC 12)
Max Uplift 5=-56(LC 12)

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

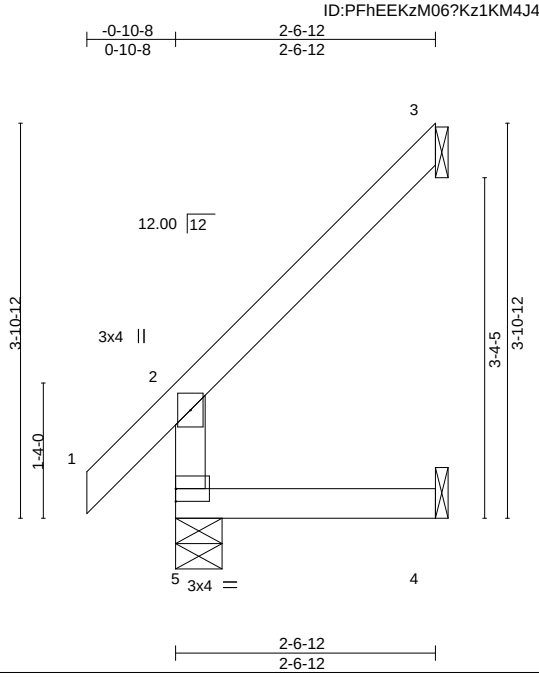
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J26	Jack-Open	4	1	E12810685 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:57 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-oJ5LI4b0Jpfn?KBt_eXqlfovSjzKrjj85q1aLQzajrW



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	3	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.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=169/0-5-8, 3=57/Mechanical, 4=24/Mechanical
Max Horz 5=126(LC 12)
Max Uplift 3=-101(LC 12), 4=-25(LC 12)
Max Grav 5=169(LC 1), 3=82(LC 19), 4=45(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4 except (jt=lb) 3=101.

March 15,2019

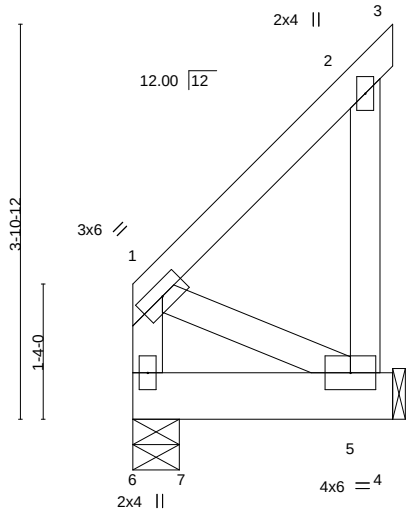
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J27	Jack-Closed Girder	2	1	E12810686
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:58 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-GVfjVQbf47nedUm3YL23ItK8z6DUaAgIJUn7tszajrV

2-6-12
2-6-12

Scale = 1:22.7



2-6-12
2-6-12

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP		Wind(LL)	0.00	5-6	>999	240	Weight: 20 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 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=1127/0-5-8, 5=397/Mechanical
Max Horz 6=142(LC 5)
Max Uplift 6=-146(LC 4), 5=-140(LC 5)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6=146, 5=140.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1342 lb down and 139 lb up at 0-7-8 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).

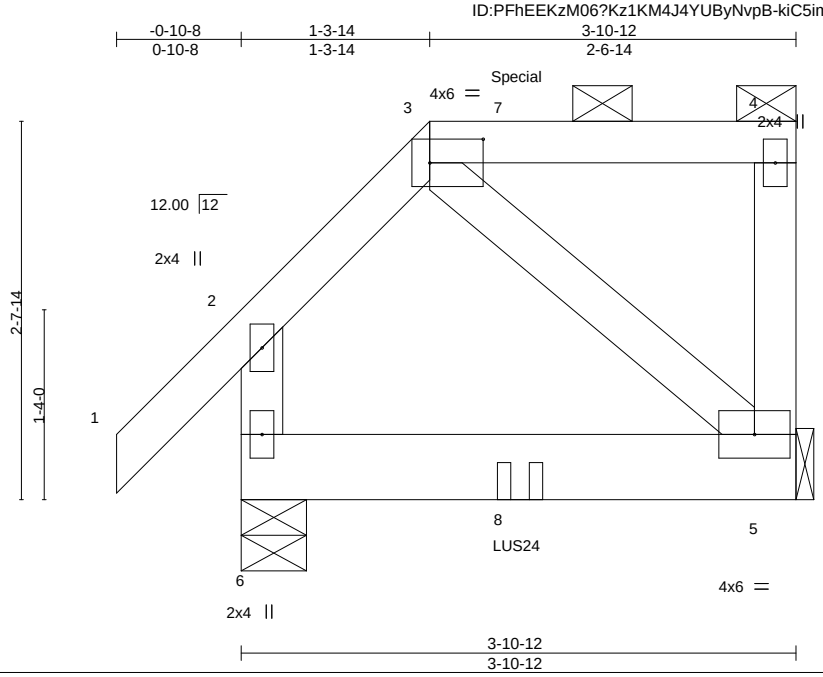
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-20, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-1342(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J28	HALF HIP GIRDER	4	1	E12810687
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:47:59 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-kiC5imcHrRwVFeLF52ZIr4tI9WgzJd1RY8WhPJzajrU



Scale = 1:16.2

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.01	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	-0.00	5-6	>999	240	Weight: 26 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except*
2-6: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=238/0-5-8, 5=160/Mechanical
Max Horz 6=78(LC 8)
Max Uplift 6=-45(LC 8), 5=-69(LC 5)
Max Grav 6=238(LC 1), 5=162(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6, 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 1-11-8 from the left end to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 40 lb down and 76 lb up at 1-11-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

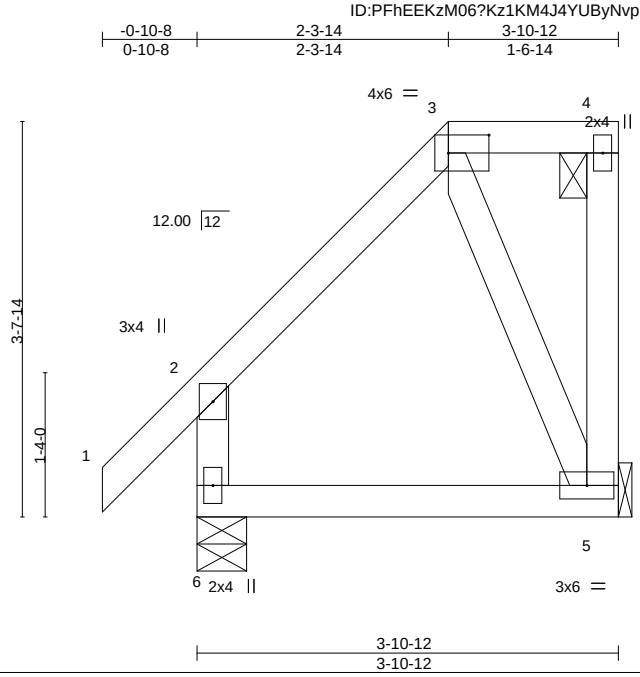
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-6=-20
Concentrated Loads (lb)
Vert: 7=-30(B) 8=-18(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J29	HALF HIP	4	1	E12810688
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:00 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-CumUw6dvck2MsowSfm4XNIQSJw0g24manoGExlzajrT



Scale = 1:21.3

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.00	5-6	>999	240	Weight: 26 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=214/0-5-8, 5=135/Mechanical
Max Horz 6=121(LC 12)
Max Uplift 5=-77(LC 12)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J30	HALF HIP	4	1	E12810689
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:00 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-CumUw6dvck2MsowSfm4XNIQSEwzL24TanoGExlzajrT

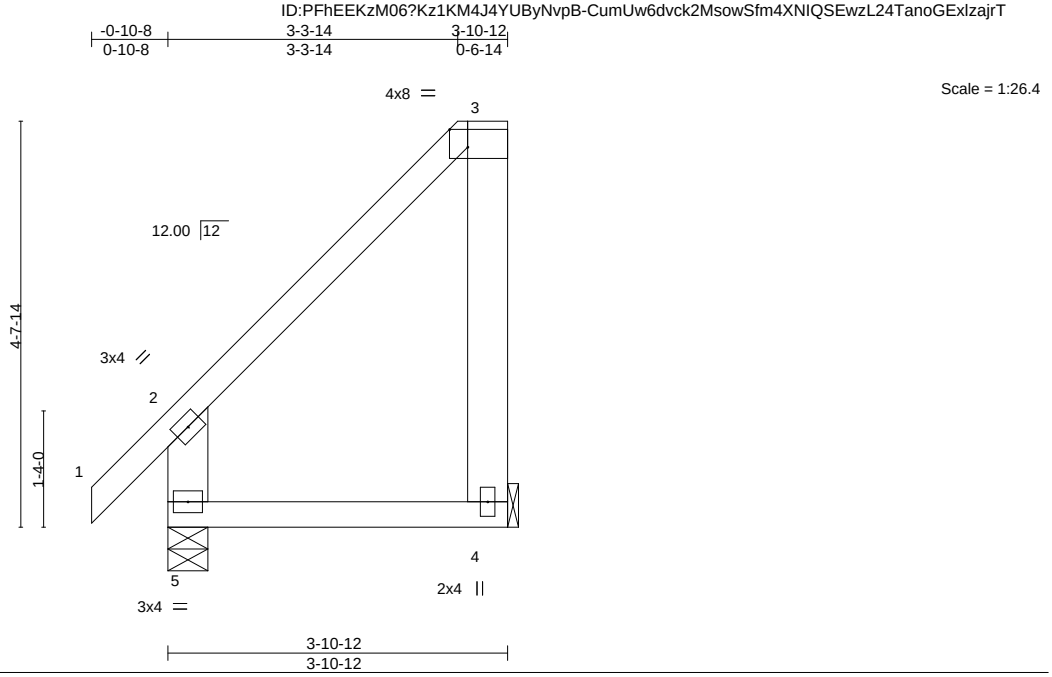


Plate Offsets (X,Y)-- [3:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 28 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 4=127/Mechanical, 5=214/0-5-8
Max Horz 5=176(LC 12)
Max Uplift 4=-165(LC 12)
Max Grav 4=172(LC 19), 5=214(LC 1)

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

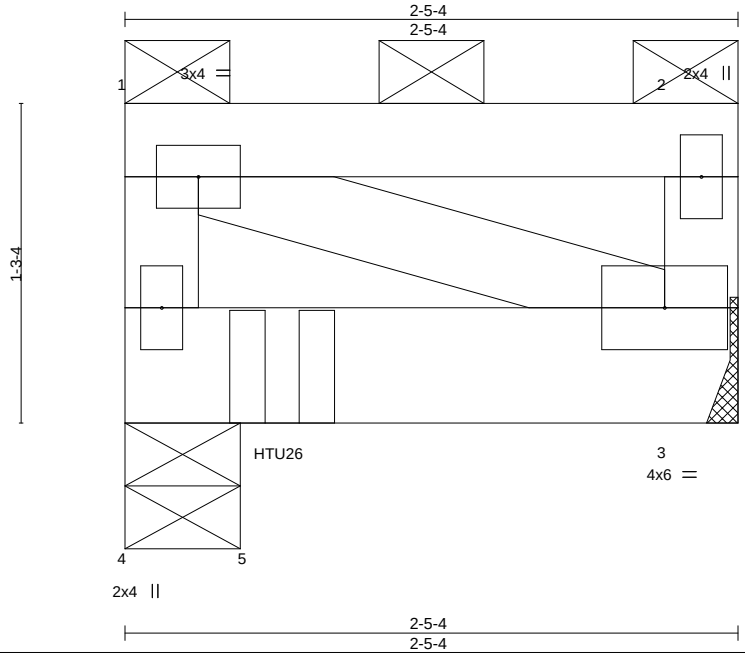
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4=165.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J32	Flat Girder	2	1	E12810690
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:01 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-g4Ks7SeXN2ADUxVeDTbmwVyfGKFBnXgk0S?nUBzajrS



Scale = 1:9.2

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	3-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.01	3-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP		Wind(LL)	0.00	3-4	>999	240	Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 4=1128/0-5-8, 3=385/Mechanical
Max Horz 4=-37(LC 4)
Max Uplift 4=-133(LC 4), 3=-59(LC 5)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 4=133.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 0-7-8 from the left end to connect truss(es) to front face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.
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=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 3-4=-20
Concentrated Loads (lb)
Vert: 5=-1342(F)

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J33	HALF HIP	2	1	E12810691
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:02 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-8GuELof98MI4654qnB6?SjVewkdXWtltE6lL0dzajrR

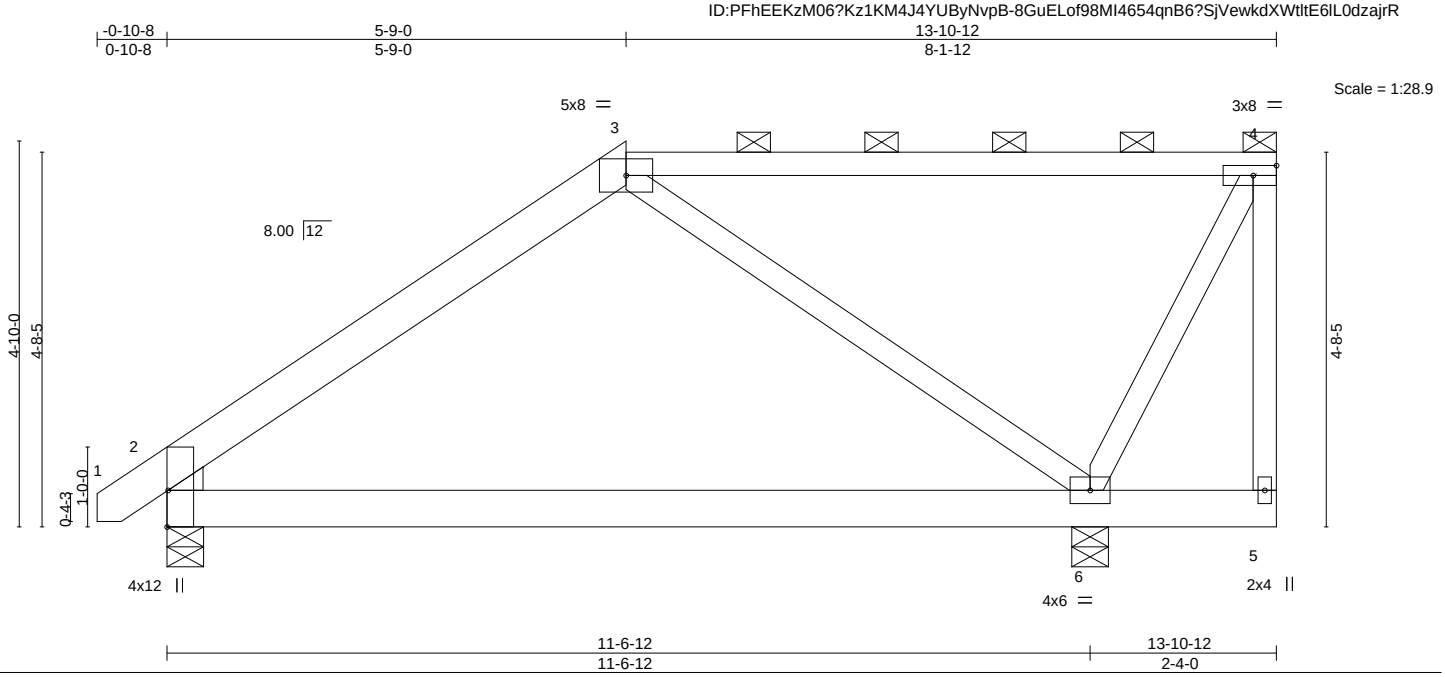


Plate Offsets (X,Y)-- [2:0-0-1,0-0-1], [2:0-0-2,0-3-11], [2:Edge,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.09	6-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.17	6-9	>818	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	-0.03	6-9	>999	240	Weight: 87 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 3-4: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=491/0-5-8, 6=653/0-5-8
Max Horz 2=188(LC 12)
Max Uplift 2=-73(LC 12), 6=-160(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-417/140
BOT CHORD 2-6=-184/318
WEBS 3-6=-443/311

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2 except (jt=lb) 6=160.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J34	HALF HIP	2	1	E12810692
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:02 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-8GuELof98MI4654qnB6?SjVfRkdmWxftE6lL0dzajrR

-0-10-8 4-3-0 13-10-12
0-10-8 4-3-0 9-7-12

Scale = 1:26.6

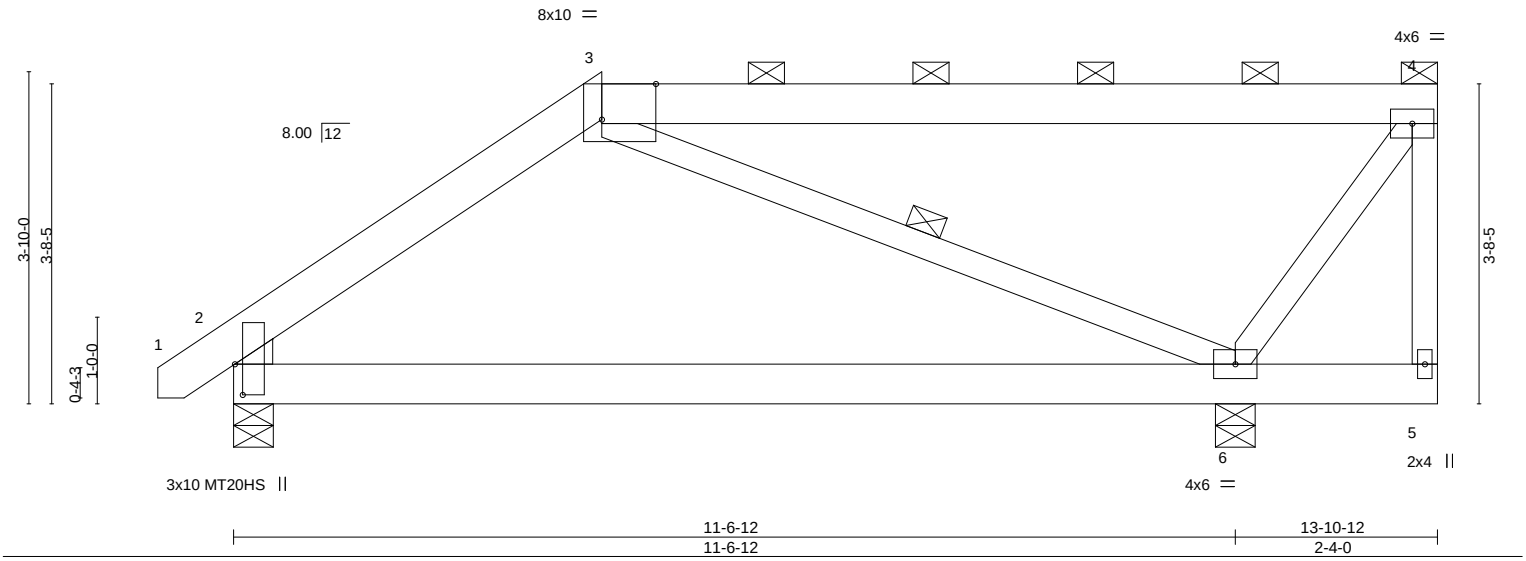


Plate Offsets (X,Y)-- [2:0-0-1,0-0-1], [2:0-0-2,0-3-11], [2:0-4-4,0-1-1], [3:0-7-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.08	6-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.15	6-9	>916	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	-0.02	6-9	>999	240	Weight: 91 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

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

REACTIONS. (lb/size) 2=491/0-5-8, 6=653/0-5-8
Max Horz 2=141(LC 12)
Max Uplift 2=-73(LC 12), 6=-163(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-513/213
BOT CHORD 2-6=-228/430
WEBS 3-6=-566/370, 4-6=-284/283

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=163.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

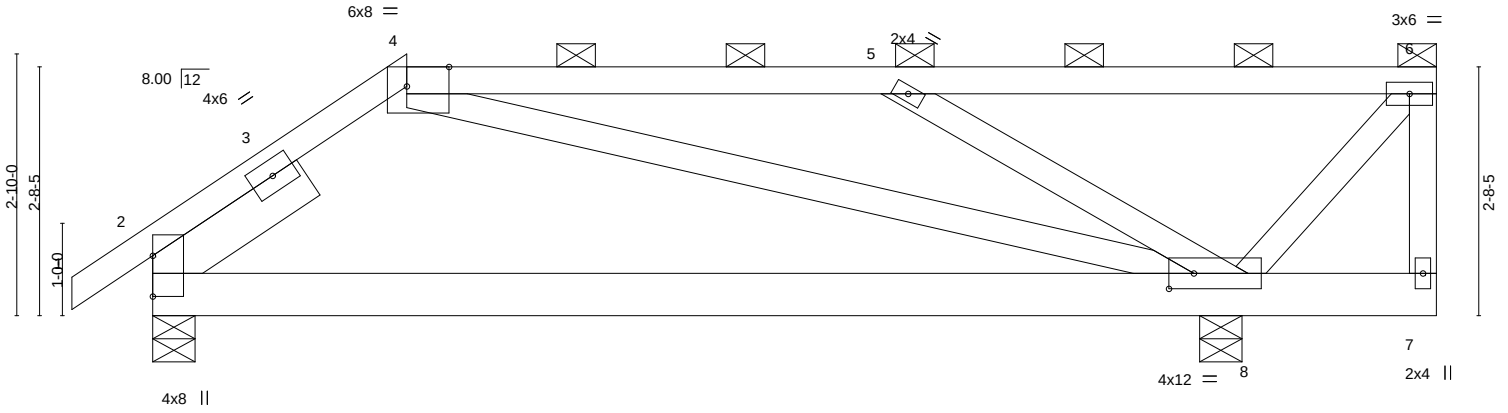
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J35	Half Hip	2	1	E12810693
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:03 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-cTScY8fnvfQwjFf0KueE?w2wh7zZFNP1TmUuY4zajrQ

-0-10-8 2-9-0 8-2-2 13-10-12
0-10-8 2-9-0 5-5-2 5-8-10

Scale = 1:24.9



11-6-12 13-10-12
11-6-12 2-4-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.08	8-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.17	8-11	>863	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	-0.01	8-11	>999	240	Weight: 87 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=522/0-5-8, 8=630/0-5-8
Max Horz 2=100(LC 12)
Max Uplift 2=-74(LC 9), 8=-161(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-866/216, 4-5=-623/314
BOT CHORD 2-8=-185/439
WEBS 5-8=-742/483

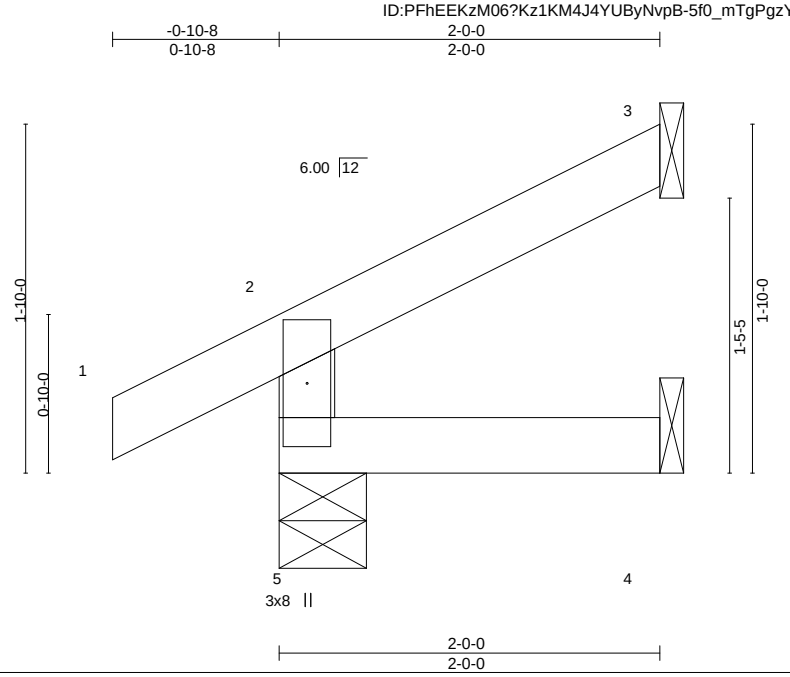
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2 except (jt=lb) 8=161.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J37	Jack-Open	54	1	E12810694
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:04 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-5f0_mTgPgzYnLPEDuc9TY8aA9XOV_uSAiQES4WzajrP



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR		Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 20%

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

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

REACTIONS. (lb/size) 5=152/0-5-8, 3=41/Mechanical, 4=16/Mechanical
Max Horz 5=51(LC 12)
Max Uplift 5=-27(LC 12), 3=-38(LC 12)
Max Grav 5=152(LC 1), 3=41(LC 1), 4=34(LC 3)

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

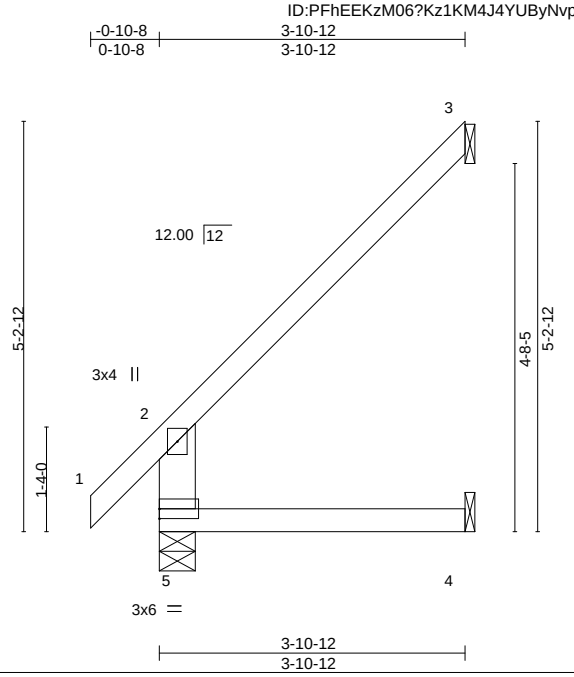
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 5, 3.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J38	Jack-Open	18	1	E12810695
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:04 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-5f0_mTgPgzYnLPEDuc9TY8a7?XId_uSAiQES4WzajrP



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	0.04	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.03	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.07	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 19 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=221/0-5-8, 3=92/Mechanical, 4=42/Mechanical
Max Horz 5=184(LC 12)
Max Uplift 3=-140(LC 12), 4=-30(LC 12)
Max Grav 5=221(LC 1), 3=123(LC 19), 4=68(LC 3)

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

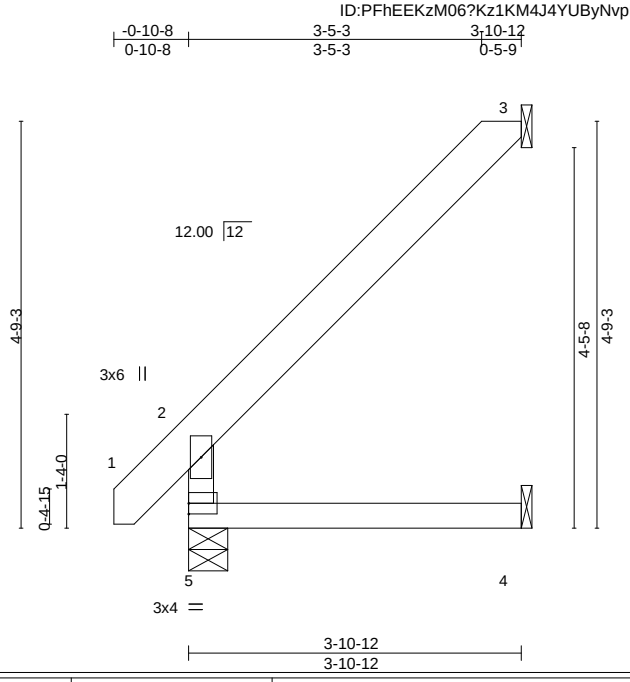
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4 except (jt=lb) 3=140.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J39	HALF HIP	3	1	E12810696
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:05 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-ZraNzph2RHgezZoPSJgi4L7H6xhKjKiJw4z?dyzajrO



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	0.02	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 22 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 3=105/Mechanical, 5=208/0-5-8, 4=36/Mechanical
Max Horz 5=198(LC 12)
Max Uplift 3=-162(LC 12), 4=-4(LC 12)
Max Grav 3=138(LC 19), 5=208(LC 1), 4=67(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4 except (jt=lb) 3=162.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J40	Half Hip Girder	2	1	E12810697
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:06 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-127lA9igCaoVajNb01BxdZgWiL3aSndT9kjY9PzajrN

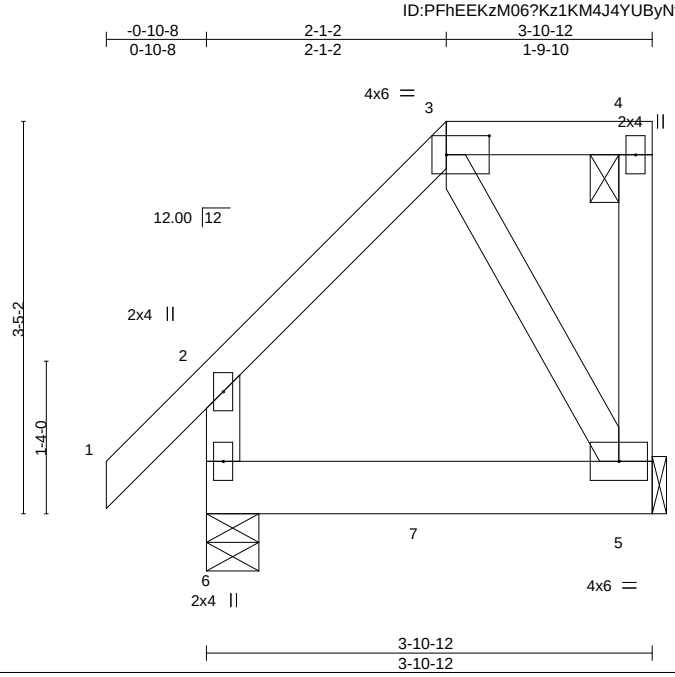


Plate Offsets (X,Y)-- [3:0-4-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.00	5-6	>999	240	Weight: 28 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 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=237/0-5-8, 5=161/Mechanical
Max Horz 6=112(LC 8)
Max Uplift 6=-43(LC 8), 5=-105(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 5=105.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 96 lb down and 103 lb up at 2-1-2 on top chord, and 30 lb down and 23 lb up at 1-11-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-6=-20
Concentrated Loads (lb)
Vert: 3=-30(F) 7=-18(F)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J41	Half Hip Girder	1	1	E12810698
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:06 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-127lA9igCaoVajNb01BxdZgWiL3aSndT9kjY9PzajrN

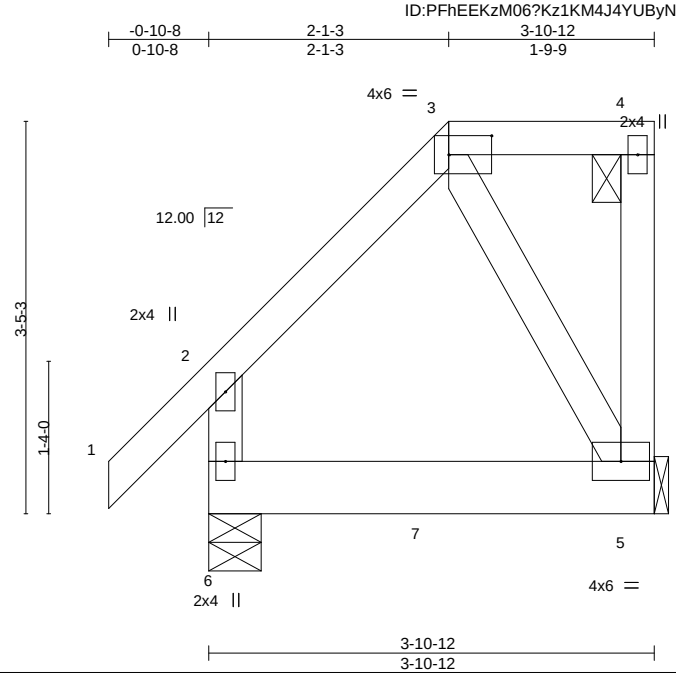


Plate Offsets (X,Y)-- [3:0-4-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.00	5-6	>999	240	Weight: 28 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 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=237/0-5-8, 5=161/Mechanical
Max Horz 6=112(LC 8)
Max Uplift 6=-42(LC 8), 5=-105(LC 8)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6 except (jt=lb) 5=105.
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) 96 lb down and 103 lb up at 2-1-3 on top chord, and 30 lb down and 23 lb up at 1-11-8 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).

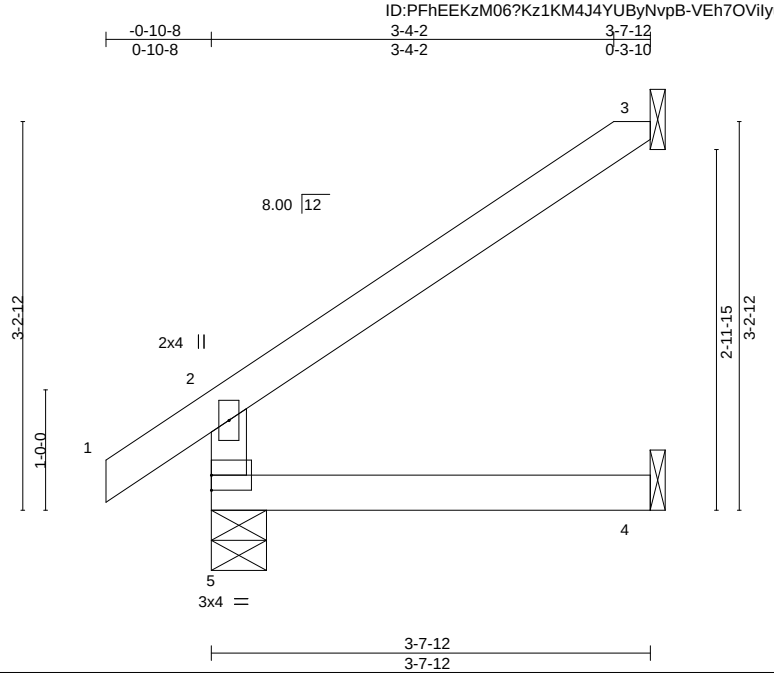
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-6=-20
Concentrated Loads (lb)
Vert: 3=-30(F) 7=-18(F)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J42	Half Hip	4	1	E12810699
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:07 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-VEh7OViIyuwMCsyoZkiA9mCe6lOVBECcOOS6hrzajrM



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR							Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 3=90/Mechanical, 5=208/0-5-8, 4=38/Mechanical
Max Horz 5=128(LC 12)
Max Uplift 3=-88(LC 12), 5=-5(LC 12), 4=-3(LC 12)
Max Grav 3=105(LC 19), 5=208(LC 1), 4=65(LC 3)

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

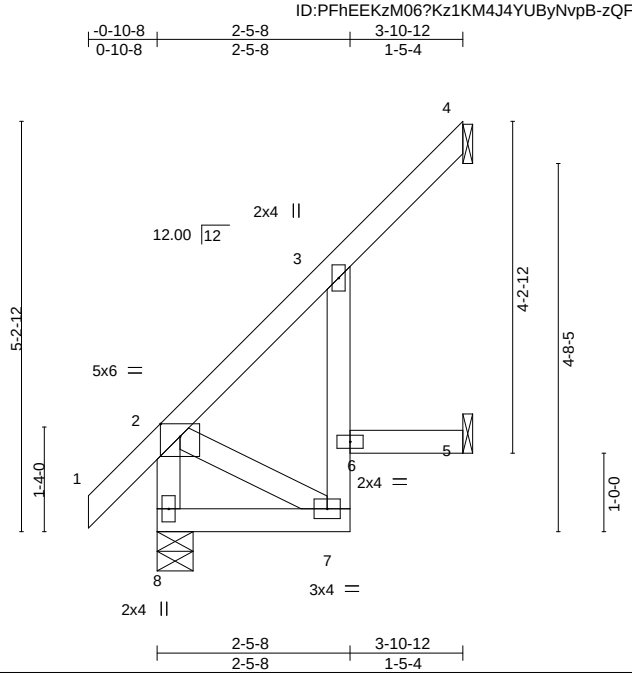
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 3, 5, 4.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J43	Jack-Open	4	1	E12810700
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:08 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-zQFVbrjwjC2Dq0X_7RDPi_lmQ8mVwg7md2CfDHzajrL



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	0.10	7	>449	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.09	7	>487	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.05	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP							Weight: 25 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=217/0-5-8, 4=124/Mechanical, 5=15/Mechanical
Max Horz 8=185(LC 12)
Max Uplift 4=-179(LC 12)
Max Grav 8=217(LC 1), 4=169(LC 19), 5=30(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 7-8=-250/198
WEBS 2-7=-228/286

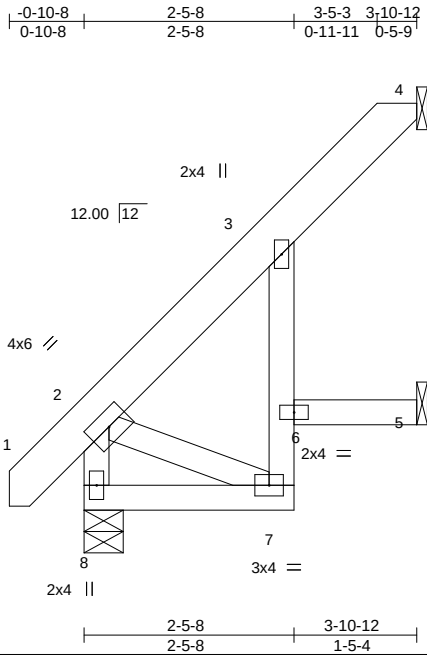
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4=179.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J44	HALF HIP	1	1	E12810701
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:08 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-zQFVbrjwjC2Dq0X_7RDPi_lql8mWwgBmd2CfDHzajrL



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.03	7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.02	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP							Weight: 30 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 4=126/Mechanical, 8=208/0-5-8, 5=15/Mechanical
Max Horz 8=183(LC 12)
Max Uplift 4=-174(LC 12)
Max Grav 4=168(LC 19), 8=208(LC 1), 5=30(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-7=-219/273

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 4=174.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J45	HALF HIP GIRDER	1	1	E12810702
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:09 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-RdptpBkYUVA4RA6Ah9keFBI0qY5df8OvrixCmjzajrK

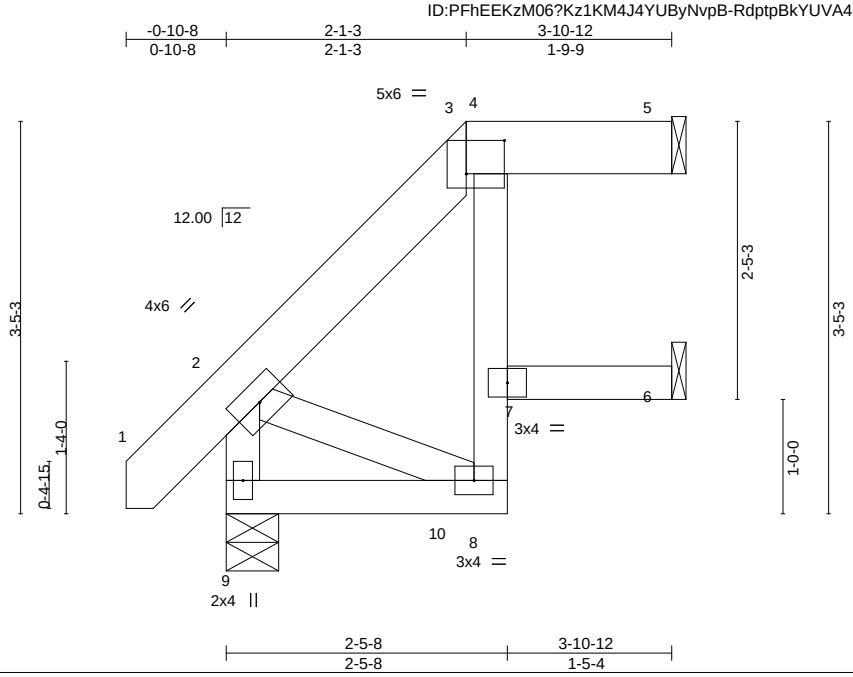


Plate Offsets (X,Y)-- [3:0-0-0,0-2-12], [3:0-4-0,0-3-8], [4:0-1-12,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.01	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 28 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=118/Mechanical, 9=232/0-5-8, 6=48/Mechanical
Max Horz 9=110(LC 8)
Max Uplift 5=-83(LC 5), 9=-41(LC 8), 6=-27(LC 8)
Max Grav 5=118(LC 1), 9=232(LC 1), 6=53(LC 3)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 5, 9, 6.
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) 96 lb down and 103 lb up at 2-1-3 on top chord, and 30 lb down and 23 lb up at 1-11-8 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).

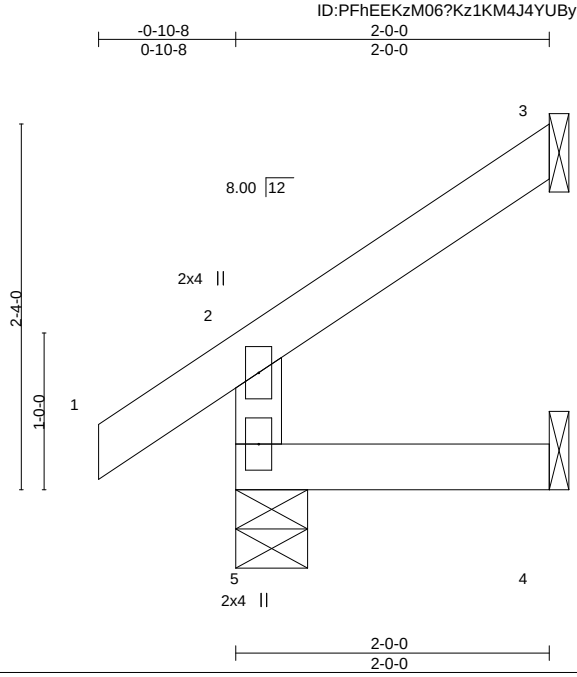
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 3-5=-60, 8-9=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 3=-30(B) 10=-18(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J46	Jack-Open	6	1	E12810703
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:10 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-vpNG0XlAFpIx3KhNFsGtnPqALyRbObx34MhmIAzajrJ



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	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.3

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

REACTIONS. (lb/size) 5=152/0-5-8, 3=41/Mechanical, 4=16/Mechanical
Max Horz 5=69(LC 12)
Max Uplift 5=-8(LC 12), 3=-50(LC 12), 4=-6(LC 12)
Max Grav 5=152(LC 1), 3=52(LC 19), 4=34(LC 3)

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

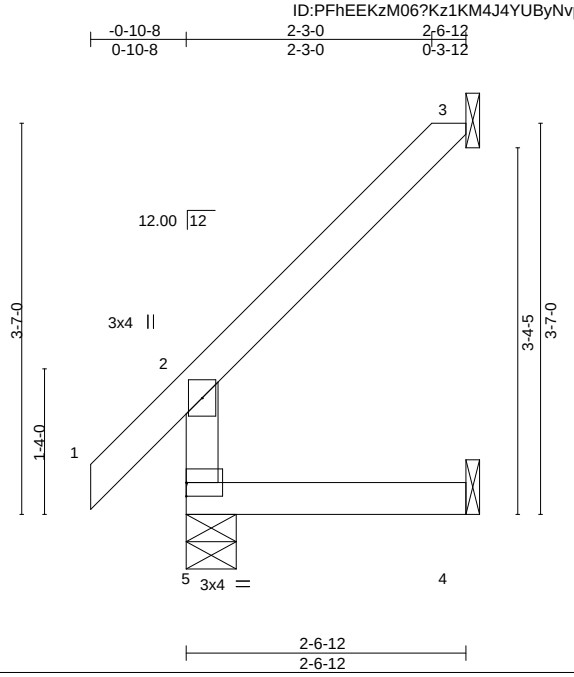
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 5, 3, 4.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J47	Half Hip	1	1	E12810704
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:10 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-vpNG0XlAFpIx3KhNFsGtnPq8RyPYObx34MhmIAzajrJ



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	3	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.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 3=57/Mechanical, 5=169/0-5-8, 4=24/Mechanical
Max Horz 5=119(LC 12)
Max Uplift 3=-101(LC 12), 4=-24(LC 12)
Max Grav 3=80(LC 19), 5=169(LC 1), 4=45(LC 3)

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

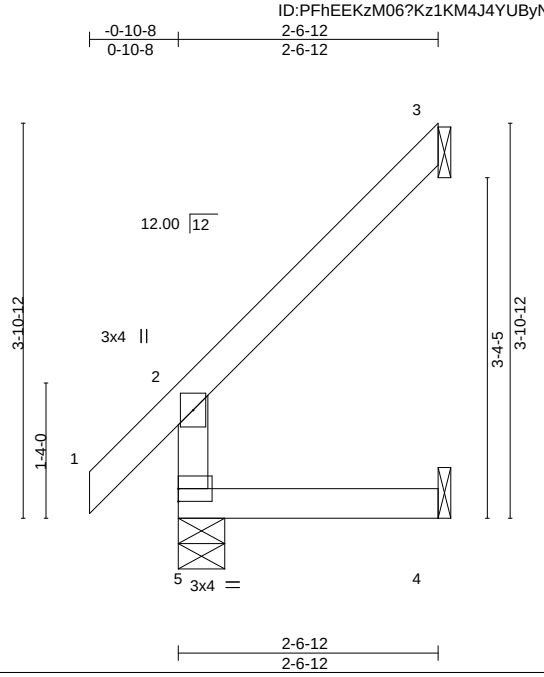
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 4 except (jt=lb) 3=101.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J48	Jack-Open	2	1	E12810705
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:11 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-N?xeEtmo07QohUGZoan6KcNIvMkc72BCJ0QJqczajrI



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	3	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.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=169/0-5-8, 3=57/Mechanical, 4=24/Mechanical
Max Horz 5=126(LC 12)
Max Uplift 3=-101(LC 12), 4=-25(LC 12)
Max Grav 5=169(LC 1), 3=82(LC 19), 4=45(LC 3)

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

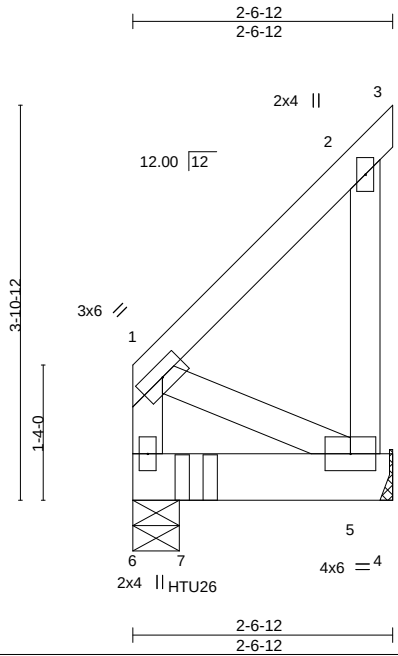
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4 except (jt=lb) 3=101.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J49	Jack-Closed Girder	1	1	E12810706 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:12 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-sCV0RCmRnQYflerIMHILsqwWcm0RsVwLXgAtM2zajrH



LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.03	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP		Wind(LL)	0.00	5-6	>999	240	Weight: 20 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=1042/0-5-8, 5=372/Mechanical
Max Horz 6=142(LC 5)
Max Uplift 6=-82(LC 4), 5=-121(LC 5)
Max Grav 6=1060(LC 30), 5=417(LC 29)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6 except (jt=lb) 5=121.
6) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 0-7-8 from the left end to connect truss(es) to back face of bottom chord.
7) Fill all nail holes where hanger is in contact with lumber.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

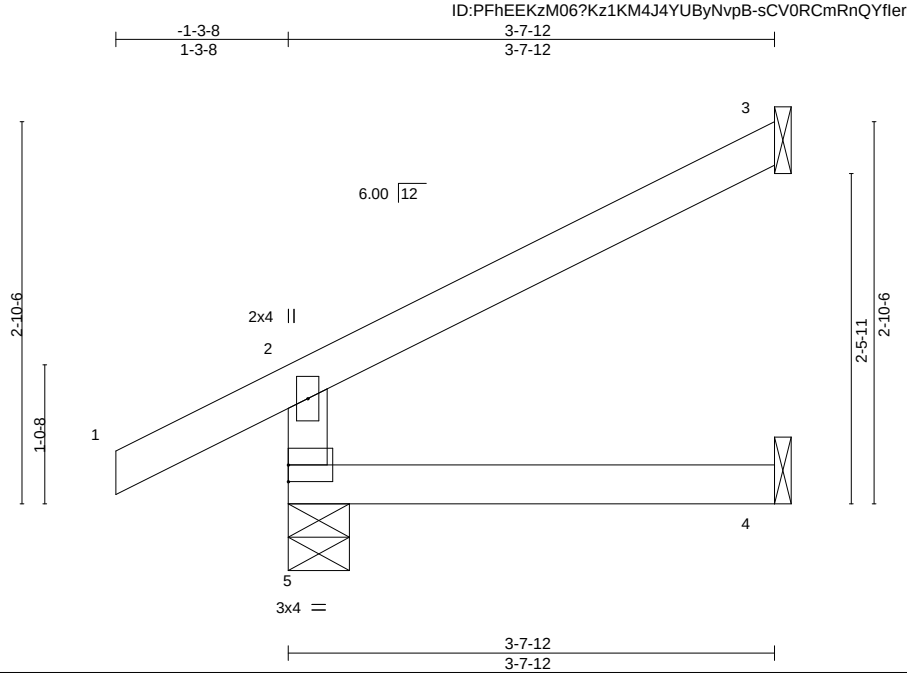
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-20, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-1232(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	J50	Jack-Open	1	1	E12810707
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:12 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-sCV0RCmRnQYfIerlMHILsqwULm5TsVRLXgAtM2zajrH



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.01	4-5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MR		Wind(LL)	0.01	4-5	>999	240	Weight: 15 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=242/0-5-8, 3=85/Mechanical, 4=34/Mechanical
Max Horz 5=91(LC 12)
Max Uplift 5=-41(LC 12), 3=-70(LC 12)
Max Grav 5=242(LC 1), 3=85(LC 1), 4=64(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 5, 3.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	K01	GABLE	4	1	E12810708
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:13 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-KO3OeYn3YkgWwnQxw?paP1Sig9TTbywVmKvQvVzajrG

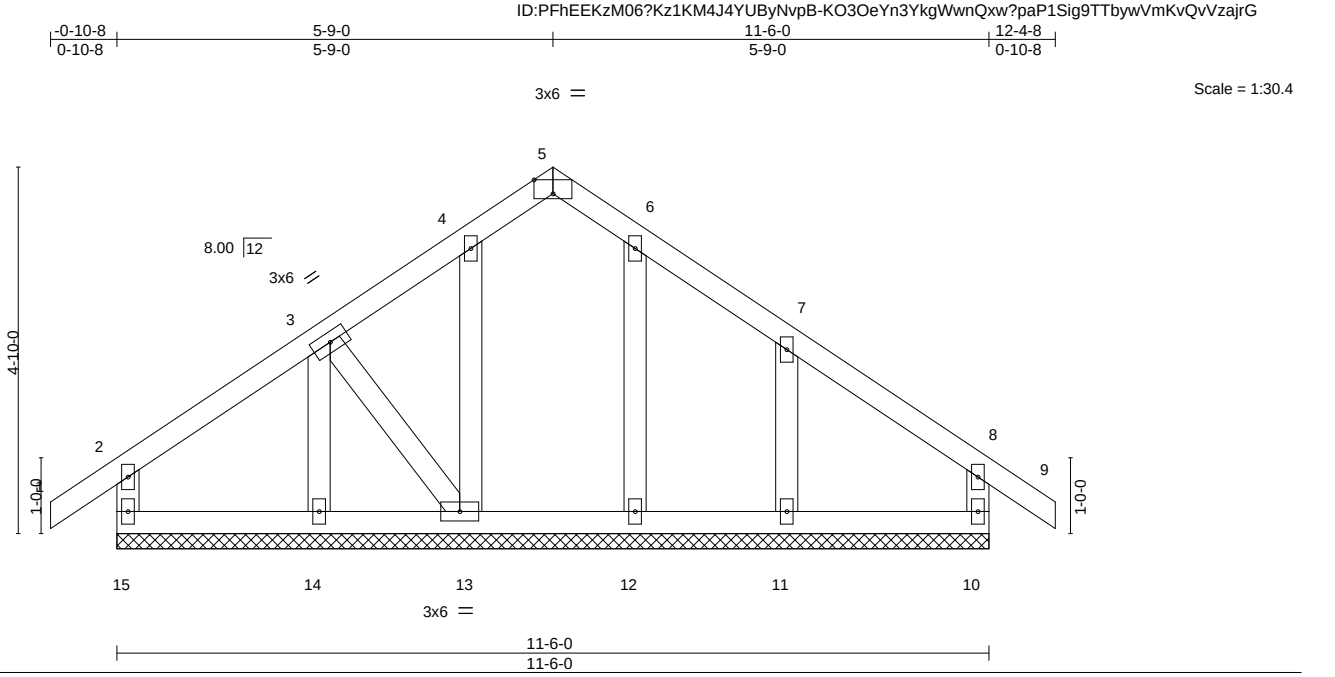


Plate Offsets (X,Y)-- [5:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.00	9	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	9	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 64 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. All bearings 11-6-0.
(lb) - Max Horz 15=158(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 15, 10, 14 except 13=-116(LC 9), 11=-154(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 15, 10, 13, 14, 12, 11

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 10, 14 except (jt=lb) 13=116, 11=154.

March 15,2019

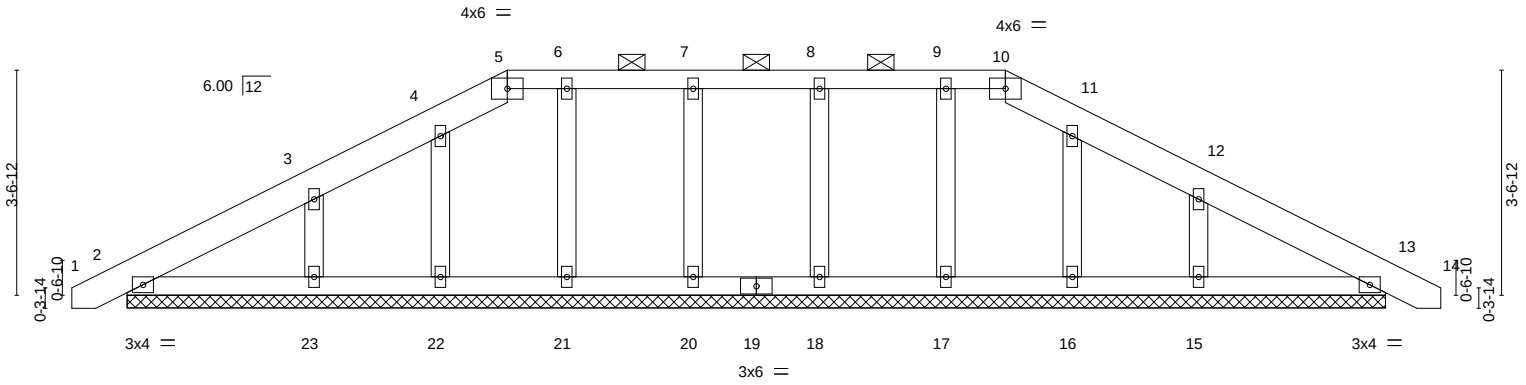
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	L01	GABLE	1	1	E12810709
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:14 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-oacmsuohJ2pNYx_8UiKpyF?uhZpoKPEe?_fzRxzajrF

0-10-8 6-0-3 13-10-13 19-11-0 20-9-8
0-10-8 6-0-3 7-10-10 6-0-3 0-10-8

Scale = 1:36.5



19-11-0
19-11-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	13	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	14	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	13	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 106 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 5-10: 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 19-11-0.
(lb) - Max Horz 2=-66(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 18, 17, 16, 13 except 23=-101(LC 12), 15=-103(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 20, 21, 22, 23, 18, 17, 16, 15, 13

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 18, 17, 16, 13 except (jt=lb) 23=101, 15=103.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

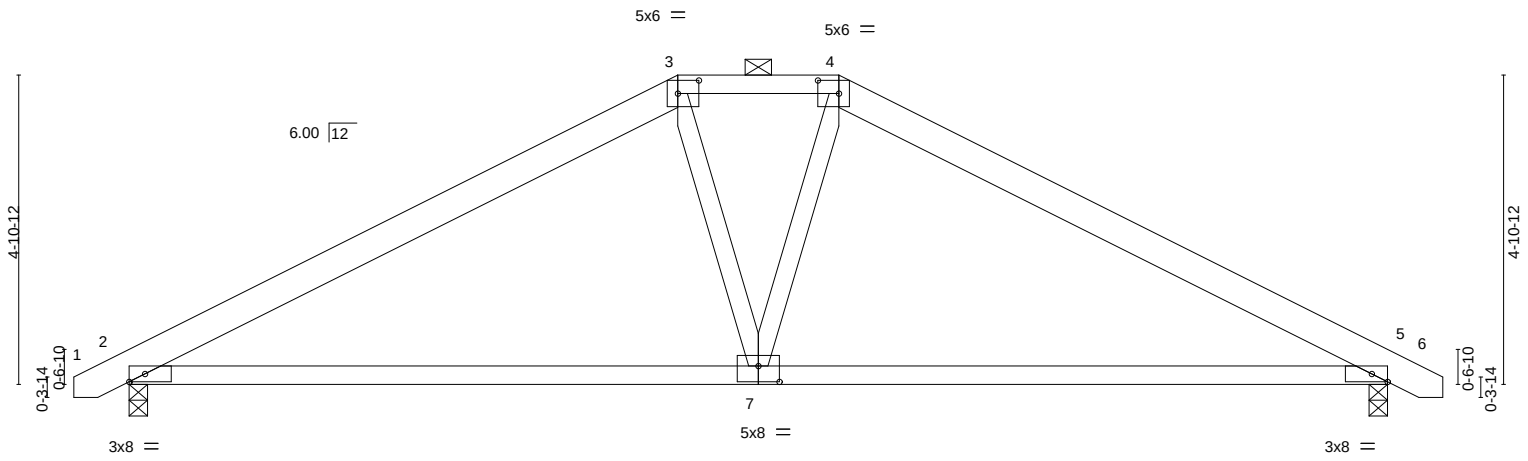
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	L02	HIP	1	1	E12810710
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:15 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-GnA93EpJ4LxD95ZK1Qr2USYyhzys3rcoEeOXzNzajrE

0-10-8 8-8-3 11-2-13 19-11-0 20-9-8
0-10-8 8-8-3 2-6-10 8-8-3 0-10-8

Scale = 1:36.5



9-11-8 19-11-0
9-11-8 9-11-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.13	7-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.28	7-13	>844	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.09	7-10	>999	240	Weight: 97 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except* 3-4: 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-6-2 max.): 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=838/0-3-8, 5=838/0-3-8
Max Horz 2=-92(LC 13)
Max Uplift 2=-151(LC 12), 5=-151(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1085/344, 3-4=-926/376, 4-5=-1085/344
BOT CHORD 2-7=-156/895, 5-7=-156/895

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=151, 5=151.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	L03	COMMON	4	1	E12810711 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:16 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-kzkXHapxrf34nF8Wb7NI1g469NI3oH?xSI84WpzajrD

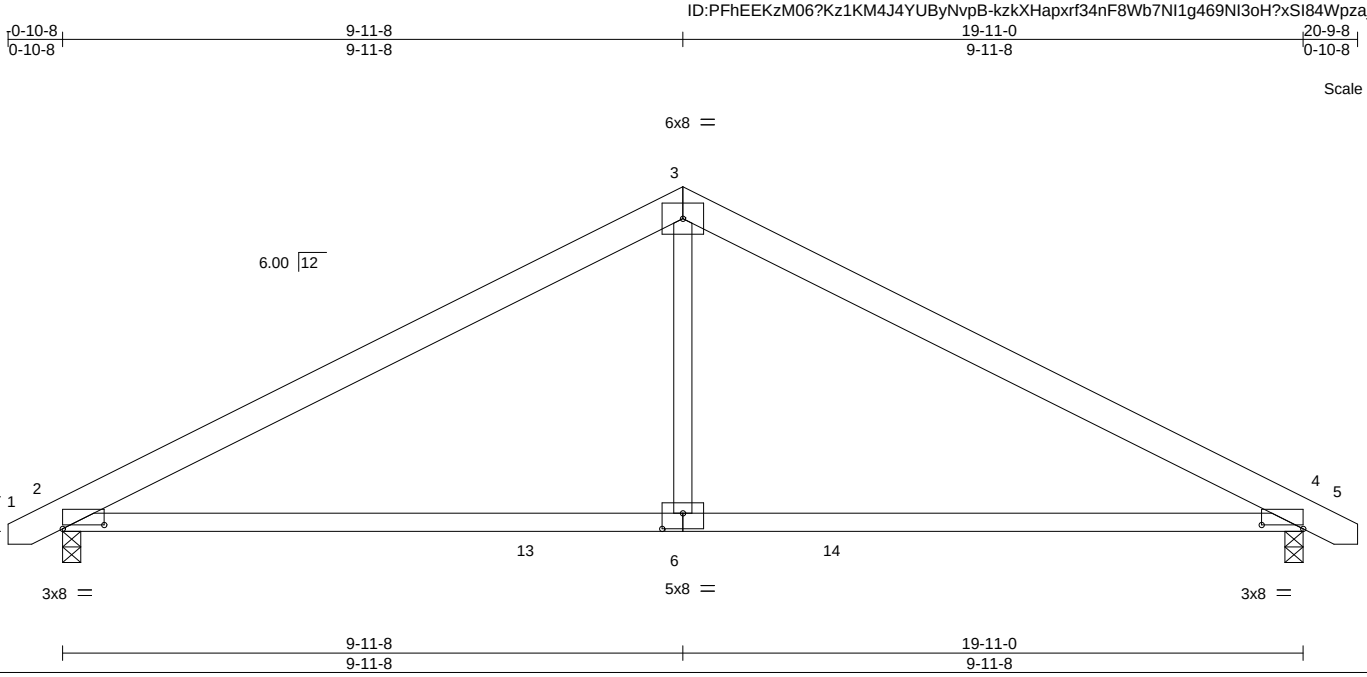


Plate Offsets (X,Y)-- [2:0-8-0,0-0-12], [4:0-8-0,0-0-12], [6:0-4-0,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.13	6-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.28	6-12	>842	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.12	6-9	>999	240	Weight: 94 lb	FT = 20%

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

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

REACTIONS. (lb/size) 2=838/0-3-8, 4=838/0-3-8
Max Horz 2=-102(LC 13)
Max Uplift 2=-161(LC 12), 4=-161(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1107/362, 3-4=-1107/362
BOT CHORD 2-6=-168/934, 4-6=-168/934
WEBS 3-6=0/409

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=161, 4=161.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

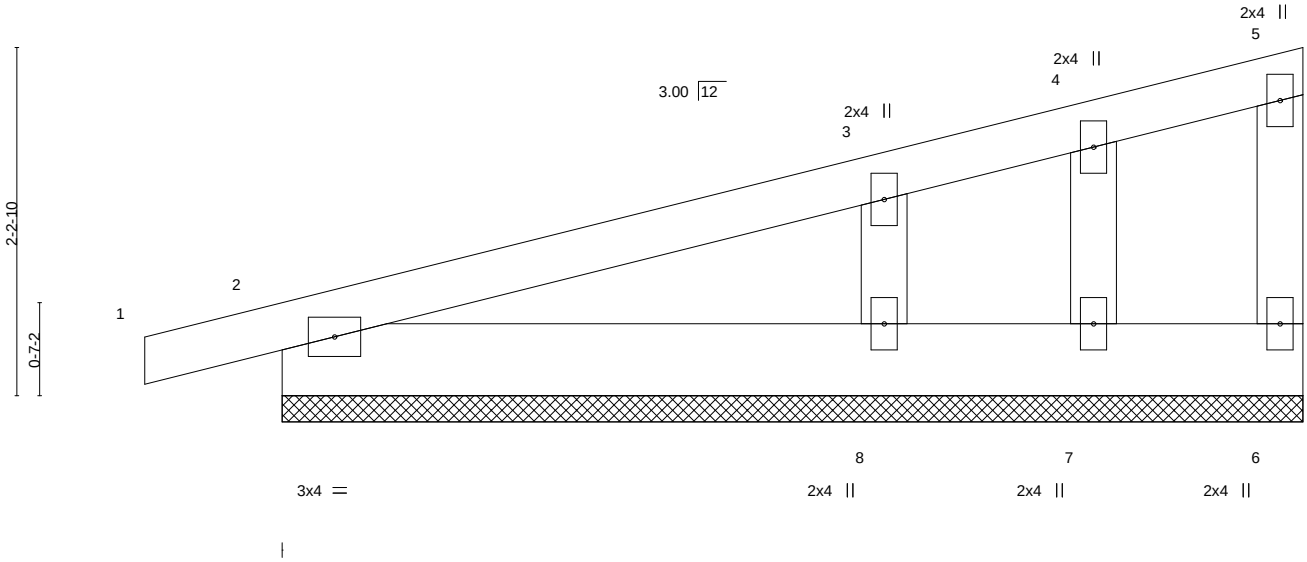
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M01	MONOPITCH SUPPORTED	1	1	E12810712
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:17 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-C9IvUwqZczBxPPjj9quXZtdN0nqbXld5hyte2GzajrC

-0-10-8 6-6-0
0-10-8 6-6-0

Scale = 1:14.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 32 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 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. All bearings 6-6-0.
(lb) - Max Horz 2=80(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7 except 8=314(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 1-4-0 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2, 7, 8.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M02	Monopitch	5	1	E12810713
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:17 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-C9IvUwqZczBxPPjj9quXZtdJ5nmjXmg5hyte2GzajrC

-0-10-8 6-6-0
0-10-8 6-6-0

Scale = 1:14.9

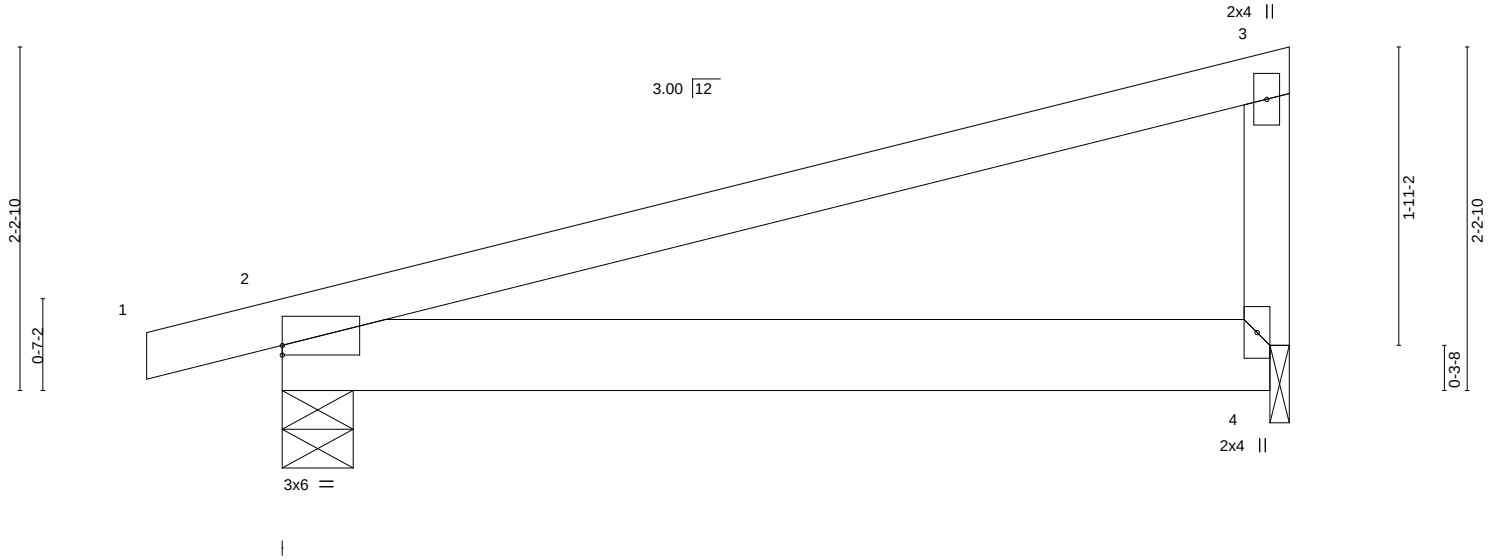


Plate Offsets (X,Y)-- [2:0-0-0,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.03	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.06	4-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.03	4-7	>999	240	Weight: 29 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=308/0-5-8, 4=252/0-1-8
Max Horz 2=81(LC 11)
Max Uplift 2=-103(LC 8), 4=-69(LC 12)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=103.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

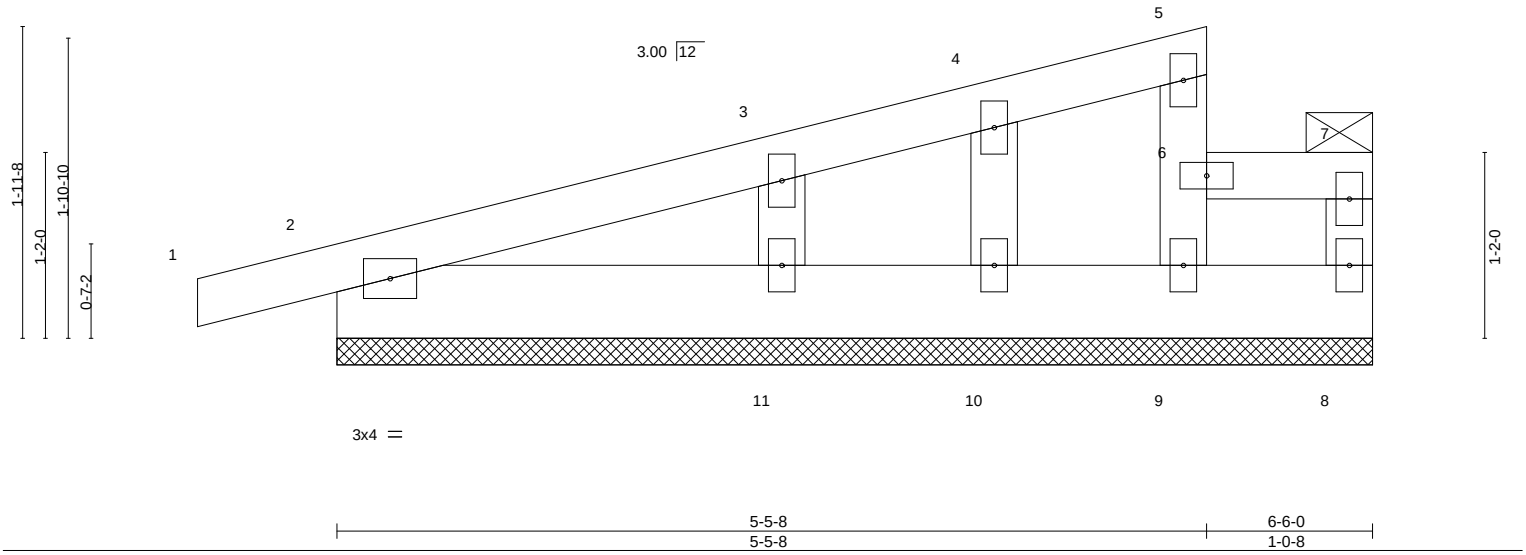
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M03	HALF HIP SUPPORTED	1	1	E12810714 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:18 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-gLsHiGrBNGJo0ZIvjYPm65AZ3AABGDHEwcdBaizajrB

-0-10-8 0-10-8 | 5-5-8 5-5-8 | 6-6-0 1-0-8

Scale = 1:14.5



5-5-8 5-5-8 | 6-6-0 1-0-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.04	Horz(CT)	-0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 31 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 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, and 2-0-0 oc purlins (6-0-0 max.): 6-9, 6-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 8-9.

REACTIONS. All bearings 6-6-0.
(lb) - Max Horz 2=107(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 9, 8, 2, 10, 11
Max Grav All reactions 250 lb or less at joint(s) 9, 8, 2, 10, 11

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 6-4-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 8, 2, 10, 11.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60, 6-7=-75, 2-8=-20

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M04	Half Hip	20	1	E12810715
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:19 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-9YQfvcsq8aRfeit5GFw?elih9aUT?fnN8GMk68zajrA

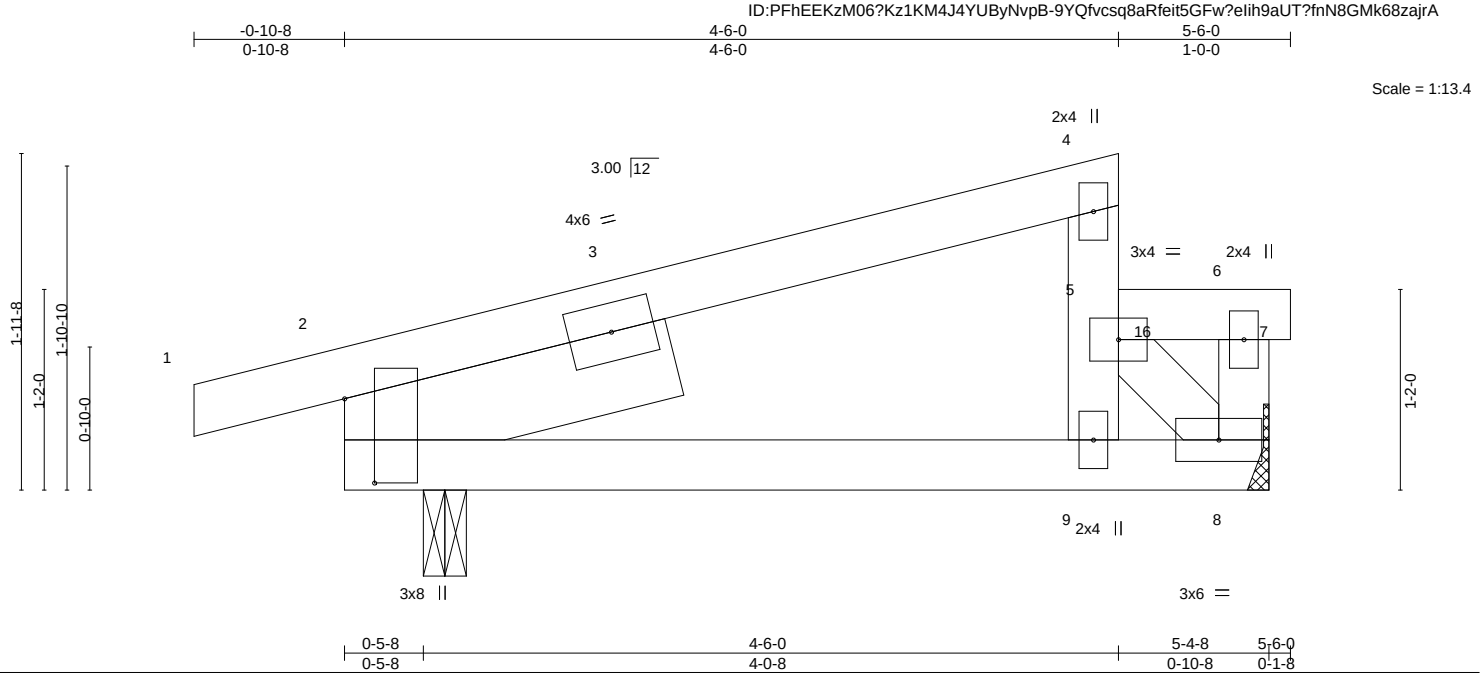


Plate Offsets (X,Y)-- [2:0-5-14,0-2-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.00	9-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	9-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.09	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP		Wind(LL)	0.01	9-14	>999	240	Weight: 27 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
4-9: 2x4 SP No.2
SLIDER Left 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-9, 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=555/Mechanical, 2=331/0-3-0
Max Horz 2=76(LC 12)
Max Uplift 2=-78(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 6-8=-250/0
BOT CHORD 8-9=-86/334
WEBS 5-8=-453/104

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 5-6-0 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 2.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 5-6=-60, 6-7=-20, 8-10=-20
Concentrated Loads (lb)
Vert: 16=-410

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M05	Half Hip	8	1	E12810716
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:20 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-dk_27ytSvuZWGsSIqzREBWFoz_nsk5sXNw6lfbzajr9

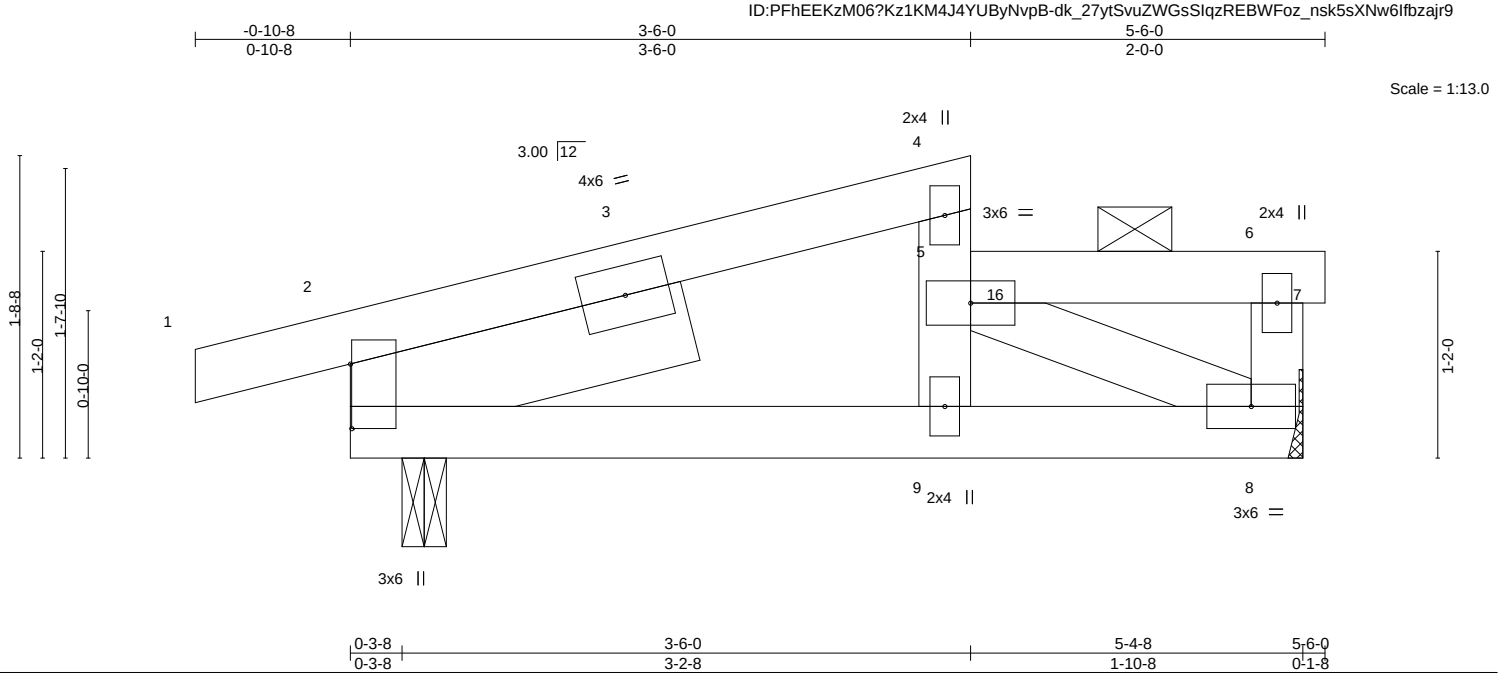


Plate Offsets (X,Y)-- [2:0-4-6,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.01	9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.02	9	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP		Wind(LL)	0.02	9	>999	240	Weight: 27 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
4-9: 2x4 SP No.2
SLIDER Left 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-9, 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=473/Mechanical, 2=413/0-3-0
Max Horz 2=71(LC 12)
Max Uplift 2=-102(LC 8)
Max Grav 8=570(LC 2), 2=464(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-455/187
BOT CHORD 2-9=-209/420, 8-9=-320/659
WEBS 5-8=-727/353

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 5-6-0 zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2=102.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 5-6=-60, 6-7=-20, 8-10=-20
Concentrated Loads (lb)
Vert: 16=-410

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M06	HALF HIP	6	1	E12810717
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:20 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-dk_27ytSvuZWGsSlqzREBWFoi_mLk4yXNw6lfbzajr9

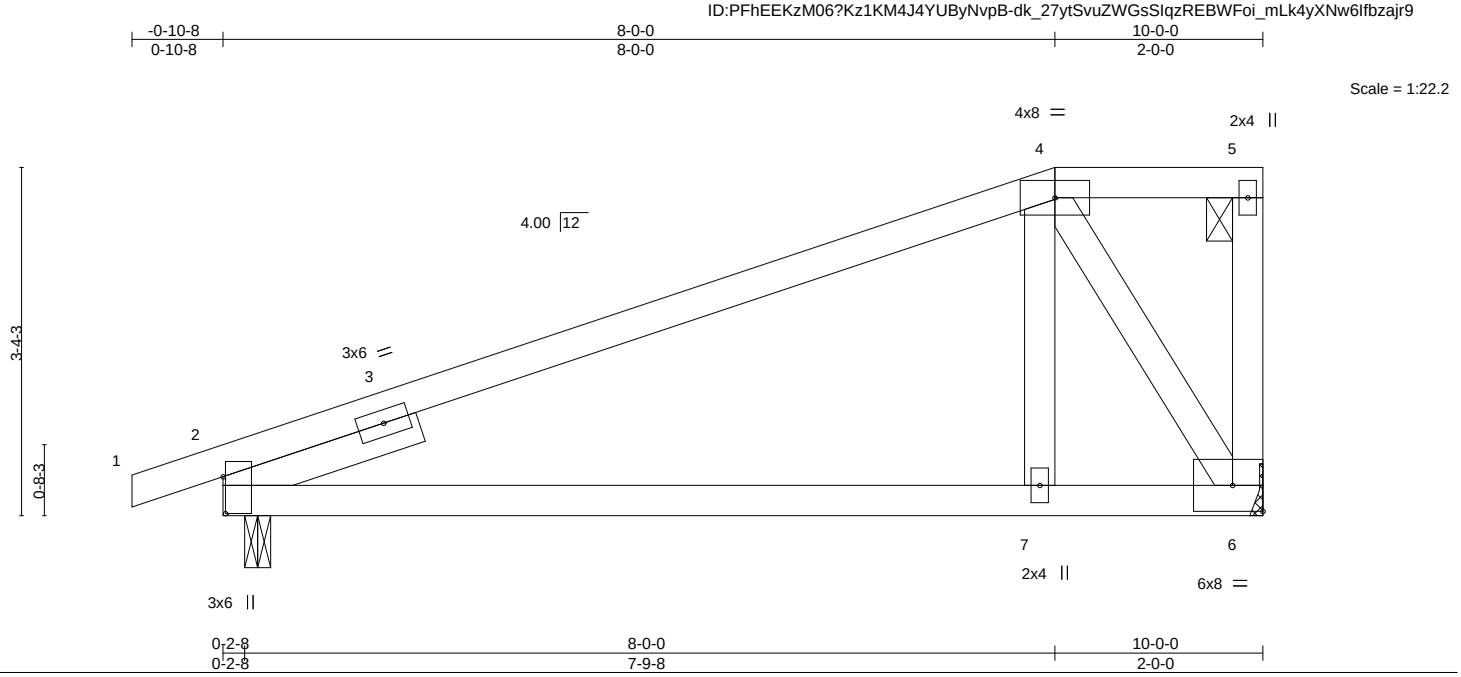


Plate Offsets (X,Y)-- [2:0-4-4,0-0-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	0.17	7-12	>704	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.13	7-12	>891	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.22	Horz(CT)	-0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 48 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 6=376/Mechanical, 2=465/0-3-0
Max Horz 2=136(LC 8)
Max Uplift 6=-216(LC 8), 2=-235(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-313/344
BOT CHORD 2-7=-390/297, 6-7=-371/287
WEBS 4-7=-393/300, 4-6=-576/749

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=216, 2=235.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M07	HALF HIP	6	1	E12810718
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:21 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-5wXQKHt4fBhNu01UOgyTkjn2xO9ZTYrgcZrrB1zajr8

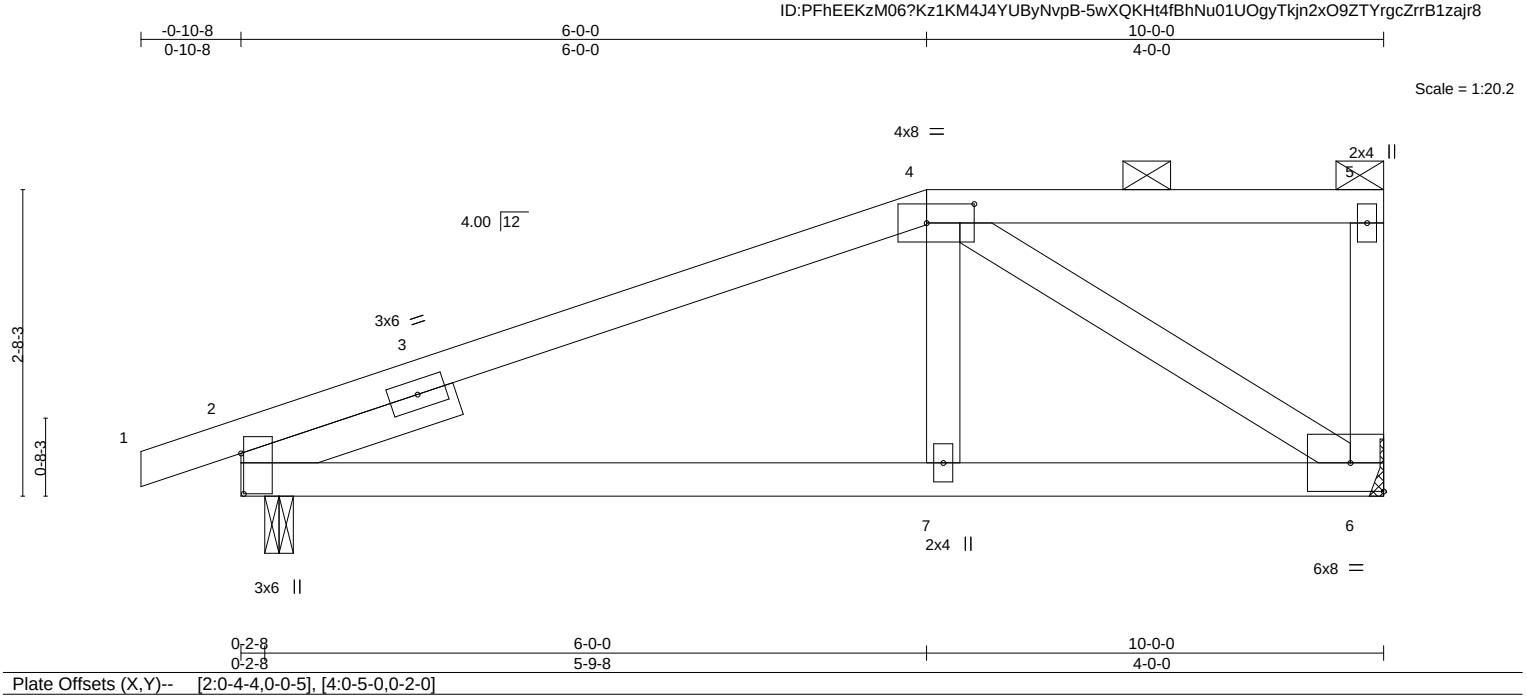


Plate Offsets (X,Y)-- [2:0-4-4,0-0-5], [4:0-5-0,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.05	7-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.04	7-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 47 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-11-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (lb/size) 6=376/Mechanical, 2=465/0-3-0
Max Horz 2=106(LC 8)
Max Uplift 6=-208(LC 8), 2=-243(LC 8)

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

TOP CHORD	2-4=-432/502
BOT CHORD	2-7=-517/410, 6-7=-532/417
WEBS	4-7=-253/206, 4-6=-466/605

NOTES-

1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=208, 2=243.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

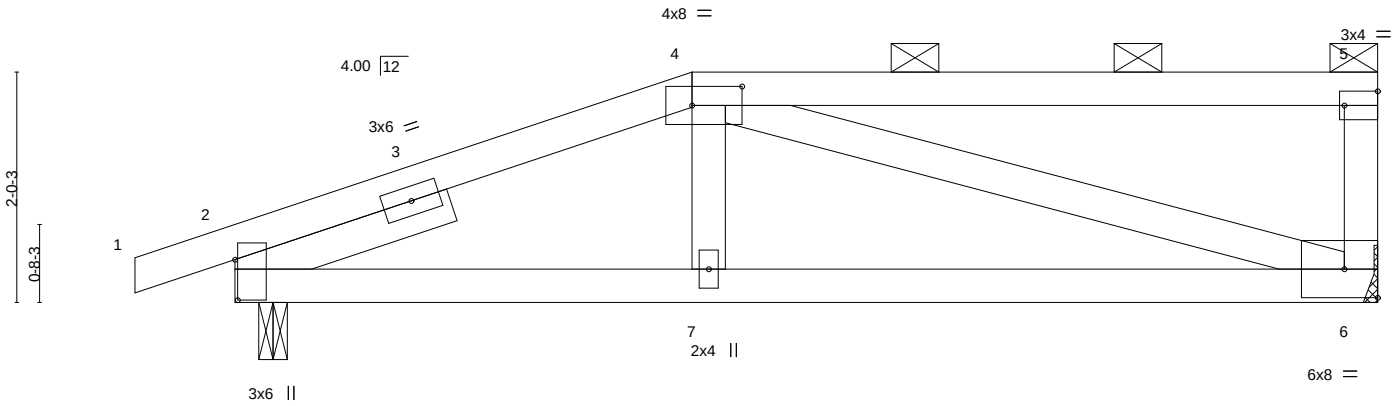
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M08	HALF HIP	6	1	E12810719
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:22 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Z75oXduiQVpEVAcgyOTiGxK8LoUuCzBqrDbOjTzajr7

-0-10-8 0-10-8 | 4-0-0 4-0-0 | 10-0-0 6-0-0

Scale = 1:20.2



0-2-8 0-2-8 | 4-0-0 3-9-8 | 10-0-0 6-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.03	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	6-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.08	6-7	>999	240	Weight: 47 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 6=376/Mechanical, 2=465/0-3-0
Max Horz 2=77(LC 8)
Max Uplift 6=-201(LC 8), 2=-250(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-582/677
BOT CHORD 2-7=-657/531, 6-7=-675/537
WEBS 4-6=-443/575

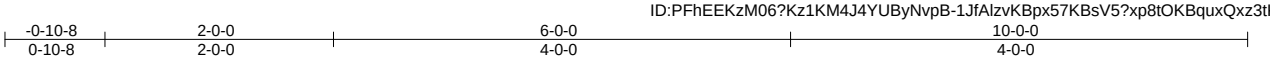
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=201, 2=250.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

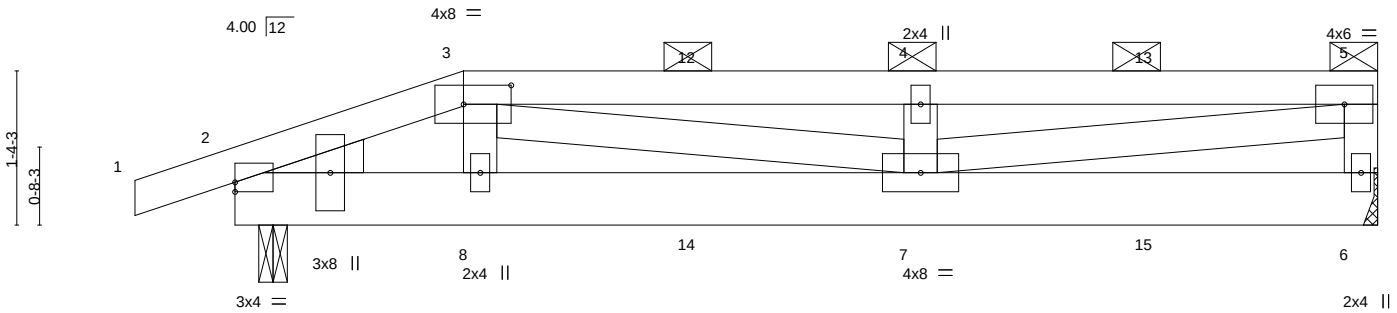
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M09	HALF HIP GIRDER	6	1	E12810720 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:23 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-1JfAlzvKBpx57KBsV5?xp8tOKBquxQxz3tKyFwzajr6



Scale = 1:20.2



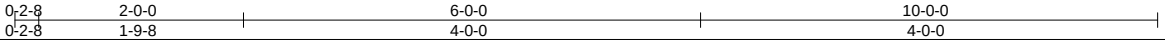


Plate Offsets (X,Y)-- [2:0-0-0,0-1-0], [3:0-5-0,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.04	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.05	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 55 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
WEDGE
Left: 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 (5-9-13 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=401/Mechanical, 2=457/0-3-0
Max Horz 2=47(LC 19)
Max Uplift 6=-215(LC 4), 2=-256(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-741/400, 3-4=-923/500, 4-5=-923/500, 5-6=-318/174
BOT CHORD 2-8=-386/695, 7-8=-388/701
WEBS 5-7=-457/843

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left exposed ; end vertical left exposed; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=215, 2=256.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 37 lb down and 56 lb up at 2-0-0, 21 lb down and 36 lb up at 4-0-12, and 21 lb down and 36 lb up at 6-0-12, and 21 lb down and 36 lb up at 8-0-12 on top chord, and 6 lb down and 42 lb up at 2-0-0, 5 lb down and 22 lb up at 4-0-12, and 5 lb down and 22 lb up at 6-0-12, and 5 lb down and 22 lb up at 8-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

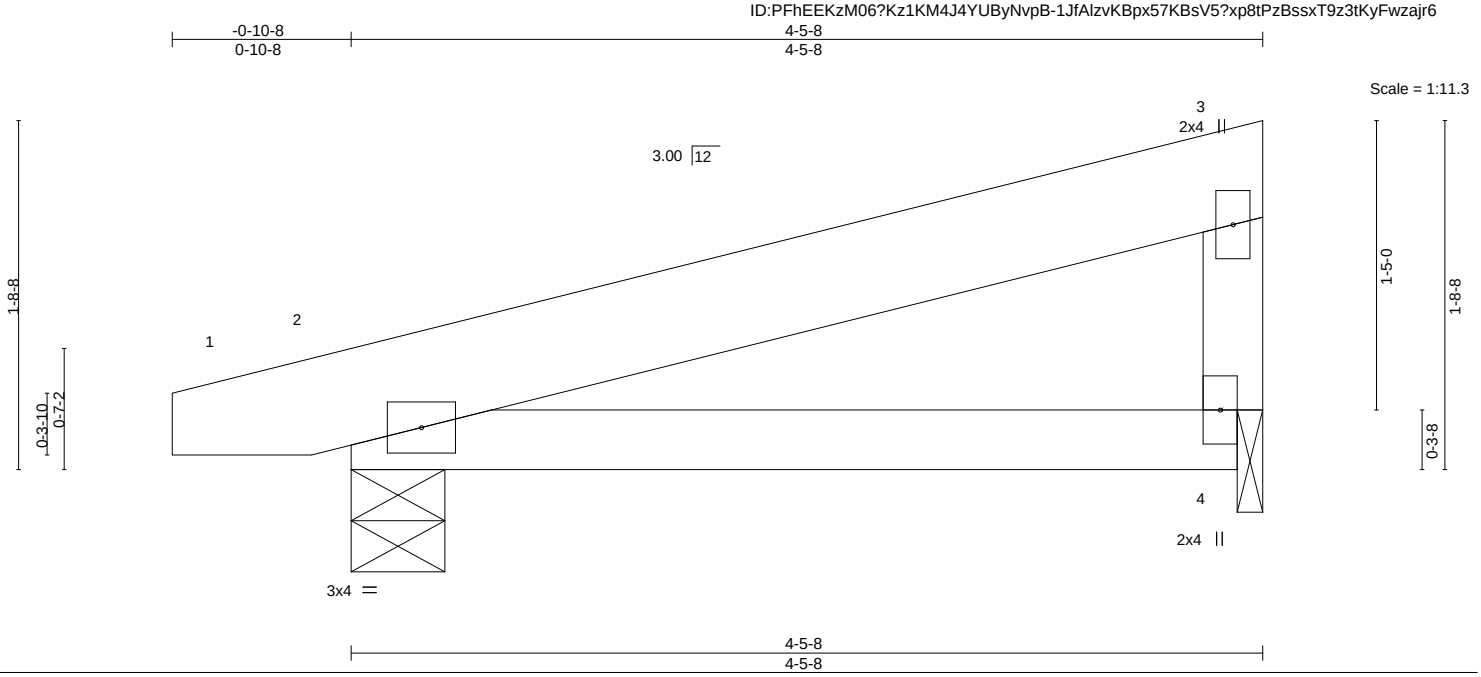
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-5=-60, 6-9=-20
Concentrated Loads (lb)
Vert: 3=-0(B) 8=-3(B) 7=-4(B) 4=-0(B) 12=-0(B) 13=-0(B) 14=-4(B) 15=-4(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M10	GABLE	8	1	E12810721
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:23 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-1JfAlzvKBpx57KBsV5?xp8tPzBssxT9z3tKyFwzajr6



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.01	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.01	4-7	>999	240	Weight: 21 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=207/0-5-8, 4=171/0-1-8
Max Horz 2=60(LC 11)
Max Uplift 2=-67(LC 8), 4=-48(LC 12)

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

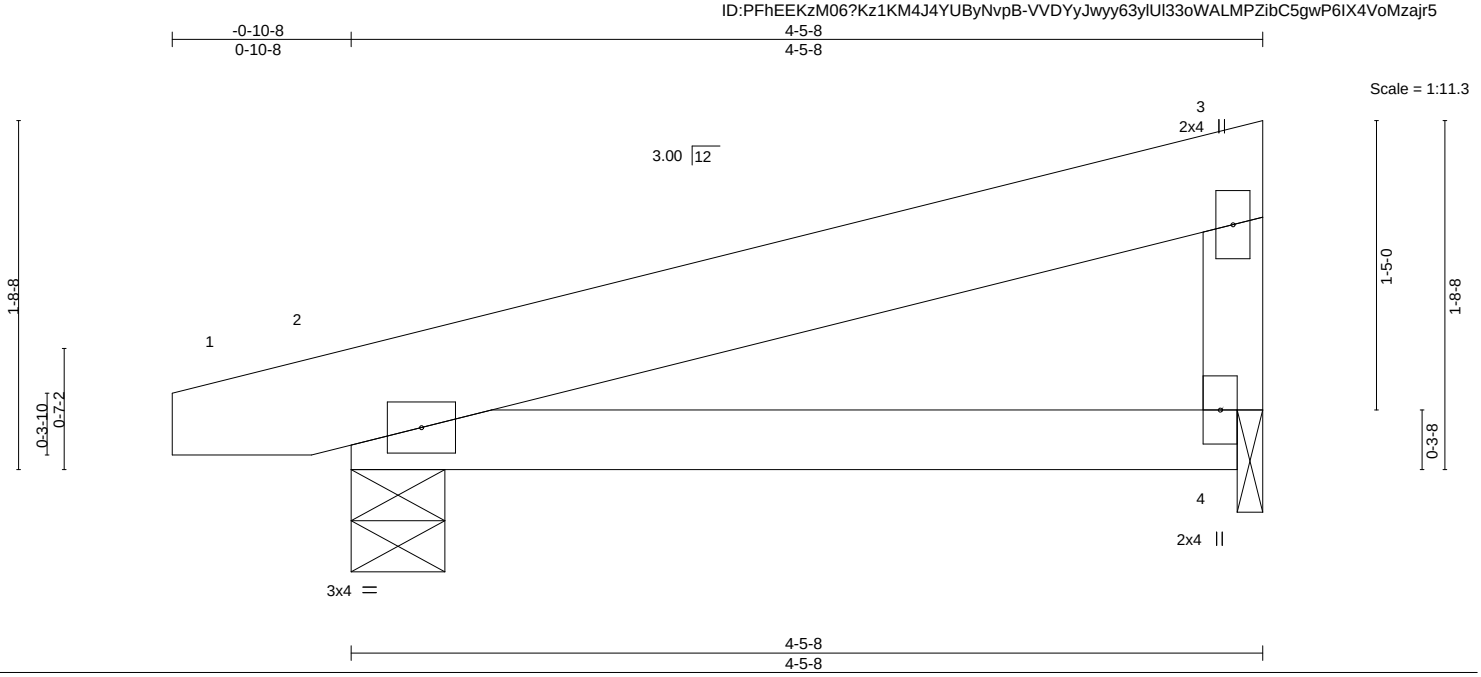
NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M11	MONOPITCH	30	1	E12810722
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:24 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-VVDYyJwyy63ylUl33oWALMPZibC5gwP6lX4VoMzajr5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.01	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.01	4-7	>999	240	Weight: 21 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=207/0-5-8, 4=171/0-1-8
Max Horz 2=56(LC 8)
Max Uplift 2=-62(LC 8), 4=-52(LC 12)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

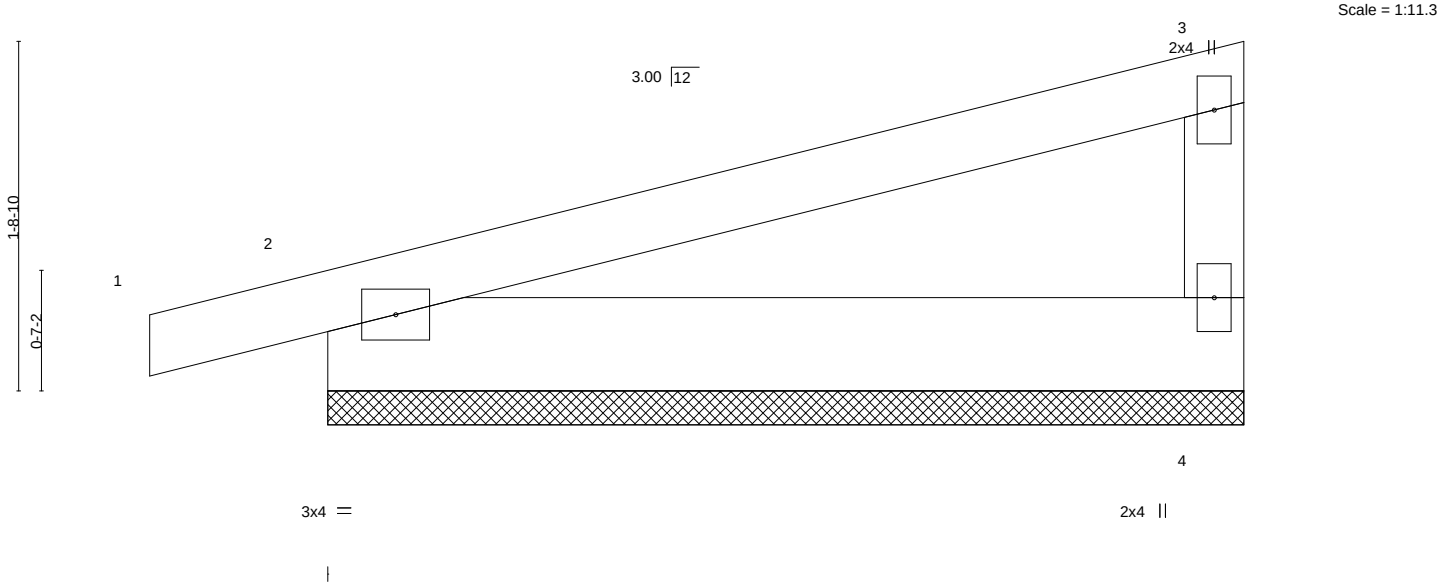
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M12	Monopitch	4	1	E12810723
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:25 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-zinxAfwajQBpMdKFdW1PuZyhP?YnPNfGXBp3Kozajr4

-0-10-8 4-6-0
0-10-8 4-6-0

Scale = 1:11.3



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.01	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	0.01	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 20 lb	FT = 20%

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

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

REACTIONS. (lb/size) 4=169/4-6-0, 2=232/4-6-0
Max Horz 2=61(LC 9)
Max Uplift 4=-47(LC 12), 2=-86(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M13	Half Hip	10	1	E12810724
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:25 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-zinxAfwajQBpMdKFdW1PuZygw?WjPL9GXBp3Kozajr4

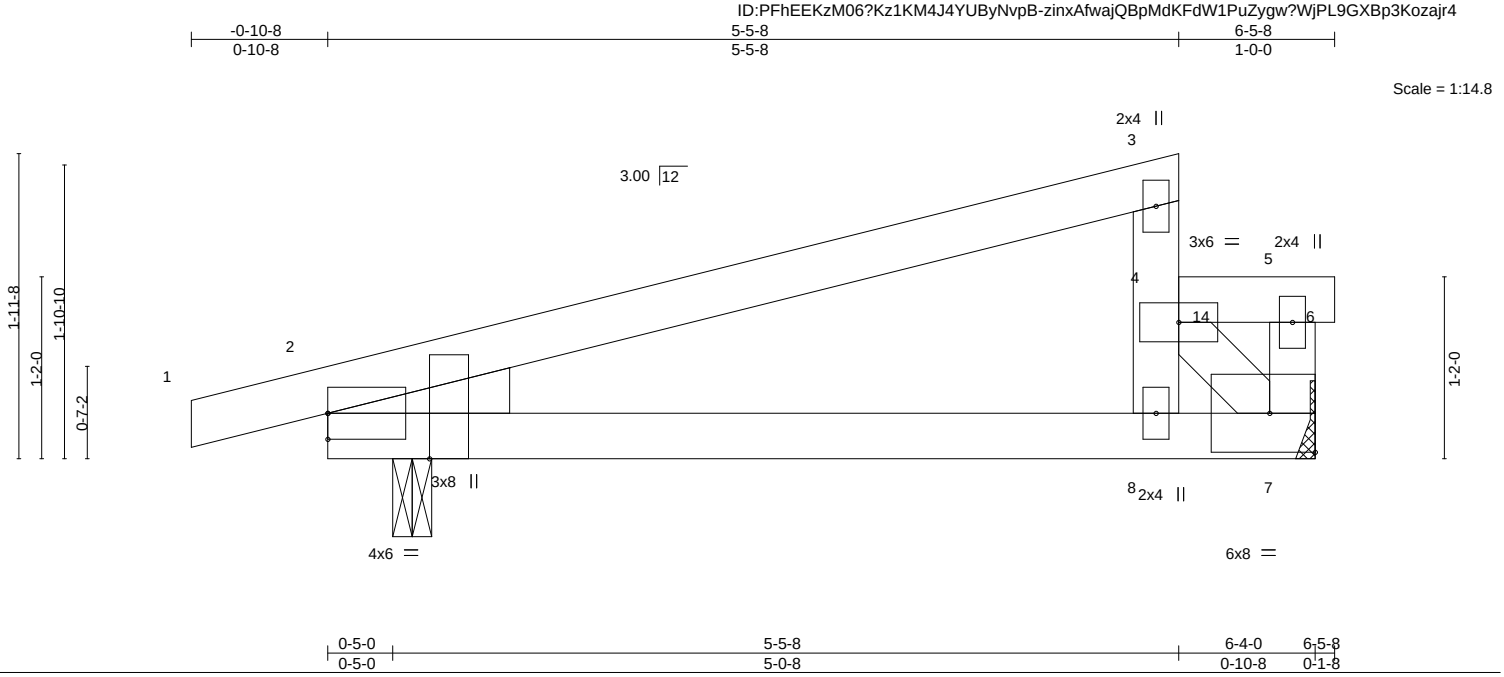


Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	0.04	8-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	8-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.16	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP							Weight: 27 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
3-8: 2x4 SP No.2
WEDGE
Left: 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: 4-8, 4-6.
BOT CHORD Rigid ceiling directly applied or 9-0-13 oc bracing.

REACTIONS. (lb/size) 7=605/Mechanical, 2=358/0-3-0
Max Horz 2=105(LC 12)
Max Uplift 2=-162(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-264/182, 4-8=-307/169
BOT CHORD 7-8=-382/415
WEBS 4-7=-588/541

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 6-5-8 zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2=162.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 4-5=-60, 5-6=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 14=-410

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M14	Monopitch	7	1	E12810725
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:26 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-RuLJN?xDUkJg_nvRBDYeRnVr6PsD8qvPlrZcsEzajr3

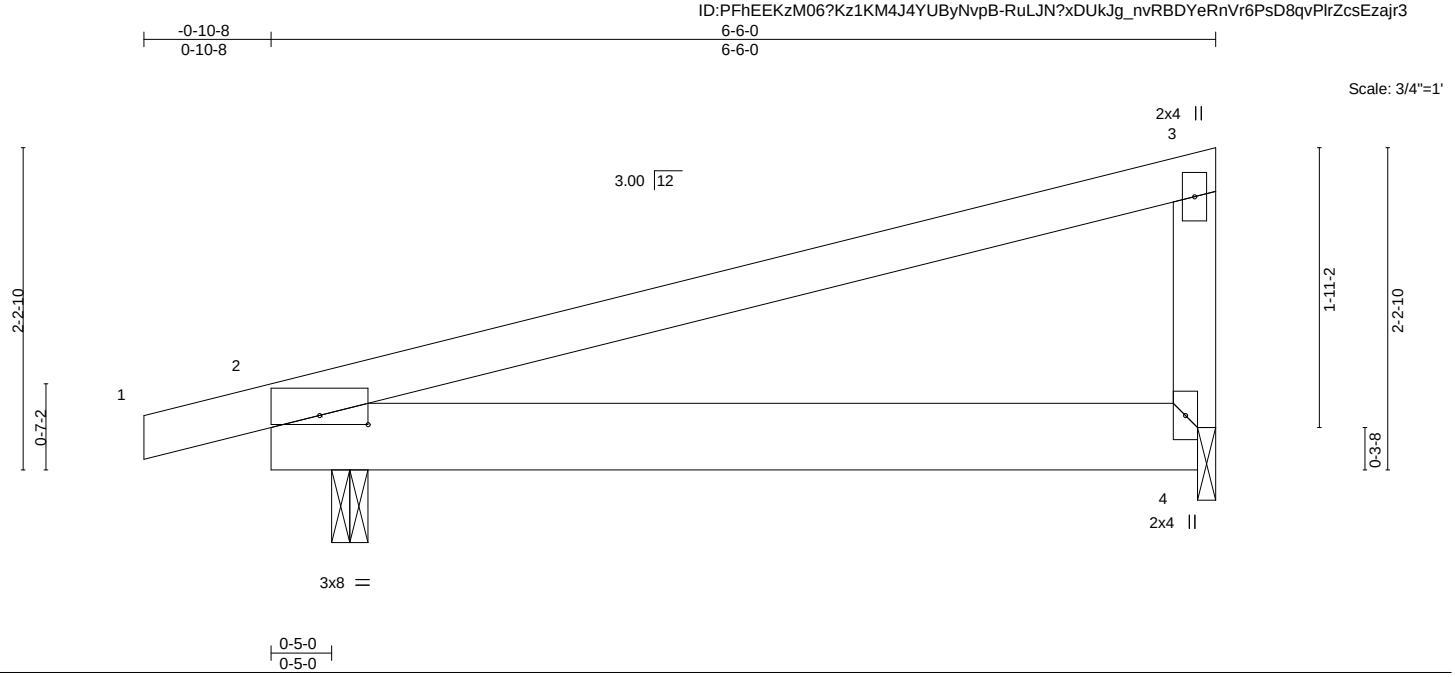


Plate Offsets (X,Y)-- [2:0-4-0,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	0.05	4-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.03	4-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 29 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=337/0-3-0, 4=223/0-1-8
Max Horz 2=87(LC 8)
Max Uplift 2=-179(LC 8), 4=-126(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=179, 4=126.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M15	MONOPITCH	10	1	E12810726
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:27 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-w4vhbLyrF1RXcxUekx3tz_10NpAGtH9Z_VI9Ohzajr2

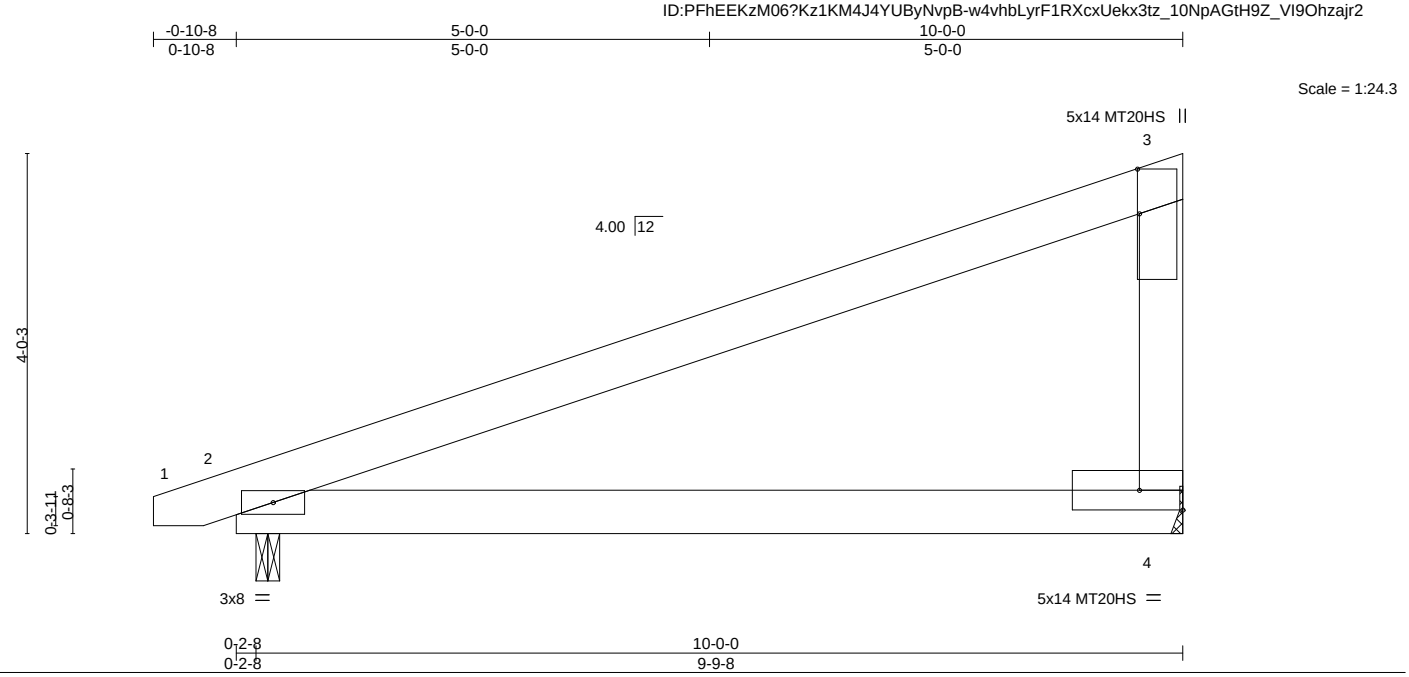


Plate Offsets (X,Y)-- [3:0-5-11,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	0.17	4-7	>689	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.14	4-7	>867	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 58 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 4=390/Mechanical, 2=429/0-3-0
Max Horz 2=157(LC 8)
Max Uplift 4=-230(LC 8), 2=-205(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=230, 2=205.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M16	GABLE	1	1	E12810727
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:27 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-w4vhbLyrF1RXcxUekx3tz_13FpDAtGyZ_VI9Ohzajr2

-0-10-8 6-6-0
0-10-8 6-6-0

Scale = 1:15.7

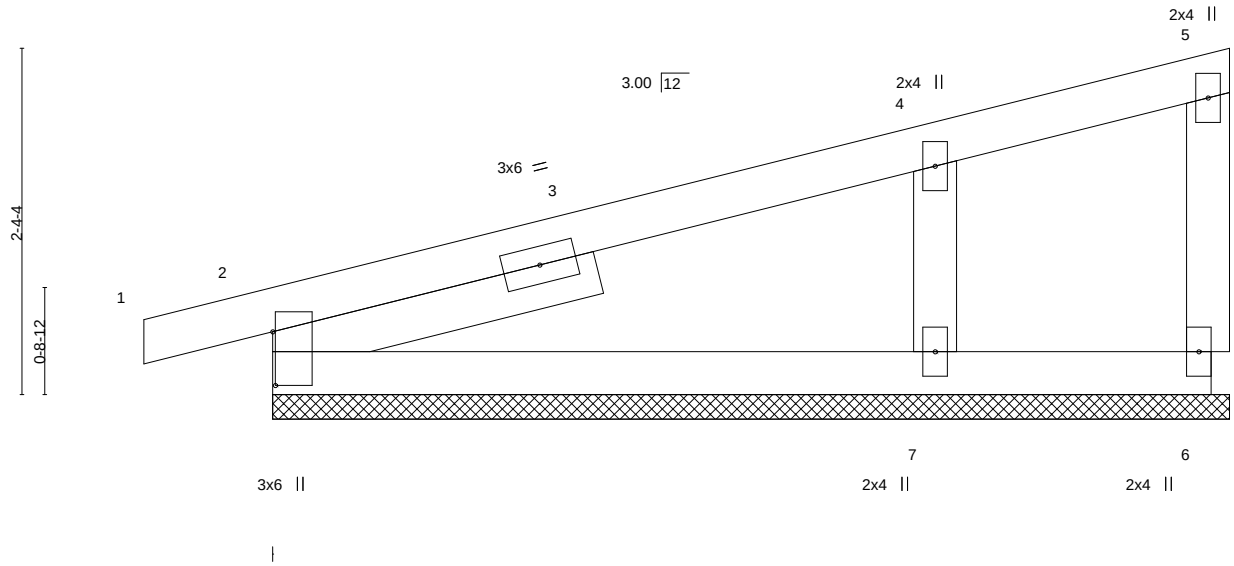


Plate Offsets (X,Y)-- [2:0-4-6,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 29 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
SLIDER Left 2x4 SP No.3 2-3-5

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

REACTIONS. (lb/size) 6=4/6-6-0, 2=209/6-6-0, 7=348/6-6-0
Max Horz 2=82(LC 12)
Max Uplift 6=-2(LC 3), 2=-64(LC 8), 7=-109(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-7=-255/259

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2 except (jt=lb) 7=109.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M17	Monopitch	5	1	E12810728
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:28 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-OHT3ohzT0LZND53qIea6WCa9wCVVckPiD92jx7zajr1

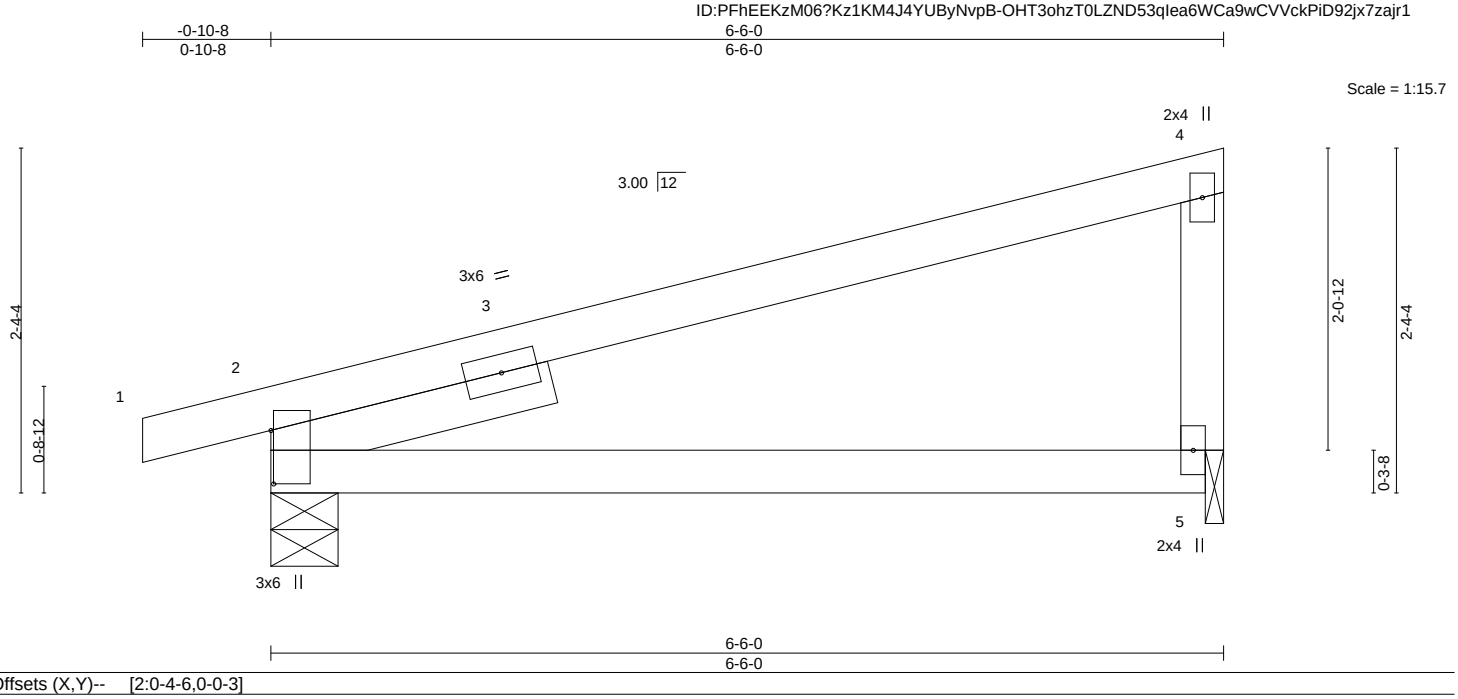


Plate Offsets (X,Y)-- [2:0-4-6,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.06	5-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.15	5-8	>516	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS		Wind(LL)	0.08	5-8	>912	240	Weight: 26 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=310/0-5-8, 5=251/0-1-8
Max Horz 2=84(LC 8)
Max Uplift 2=-95(LC 8), 5=-77(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-355/34

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 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) 5 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) 5.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 15,2019

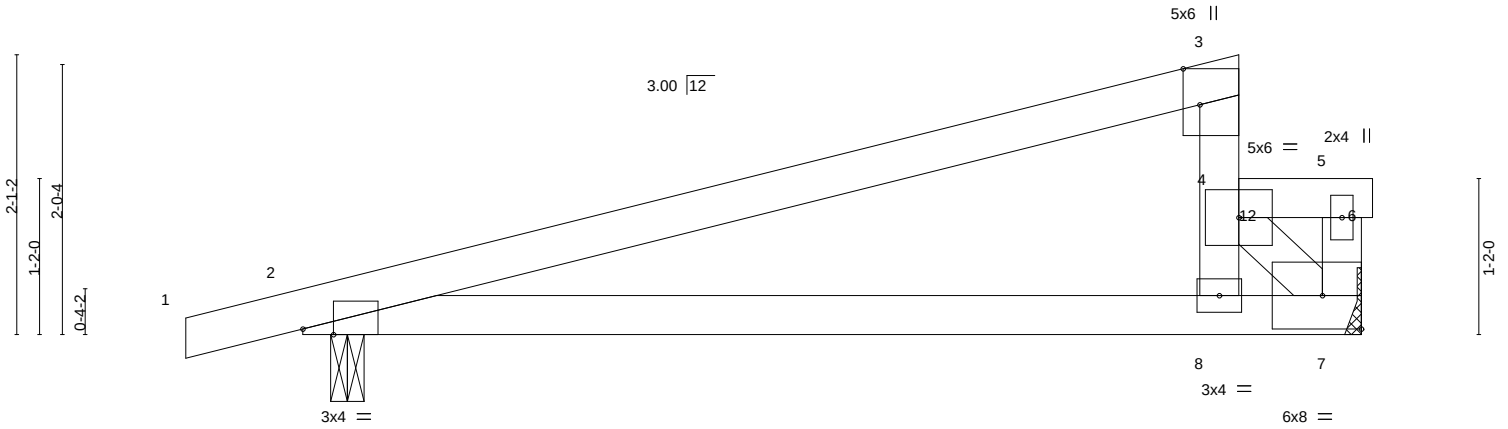
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M18	Half Hip	1	1	E12810729
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:29 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-sT0R?0_5nfhErFe0sM5L2P7JMcoxL9BsSpnGTZzajr0

-0-10-8 0-10-8 | 7-0-0 7-0-0 | 8-0-0 1-0-0

Scale = 1:17.2



0-2-8 0-2-8 | 7-0-0 6-9-8 | 7-11-0 0-11-0 | 8-0-0 0-1-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	0.16	8-11	>583	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.14	8-11	>678	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.16	Horz(CT)	-0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 30 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
3-8: 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.): 4-8, 4-6.
BOT CHORD Rigid ceiling directly applied or 8-2-2 oc bracing.

REACTIONS. (lb/size) 7=692/Mechanical, 2=397/0-3-0
Max Horz 2=129(LC 12)
Max Uplift 2=-185(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-469/369, 4-8=-410/280, 5-7=-322/149
BOT CHORD 2-8=-410/428, 7-8=-402/538
WEBS 4-7=-661/530

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 8-0-0 zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2=185.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 4-5=-60, 5-6=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 12=-410

March 15,2019

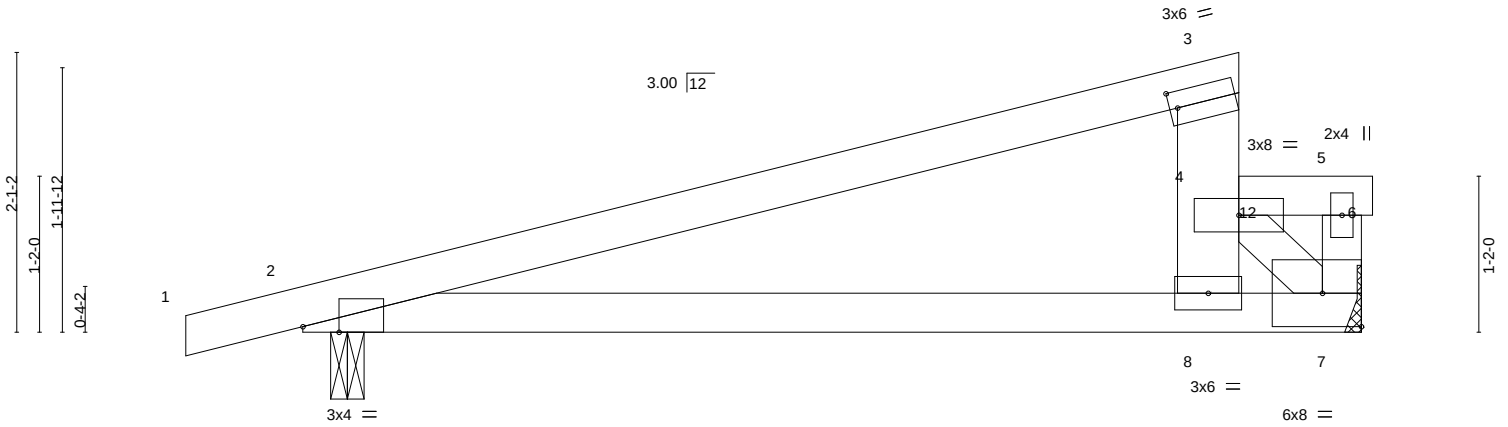
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M19	Half Hip	2	1	E12810730
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:30 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-KfapDM_jYyq5TPDDQ3dabdfVZ07A4cj?gTXq?0zajr?

-0-10-8 7-0-0 8-0-0
0-10-8 7-0-0 1-0-0

Scale = 1:17.2



0-2-8 7-0-0 7-11-0 8-0-0
0-2-8 6-9-8 0-11-0 0-1-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	0.14	8-11	>664	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.12	8-11	>772	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.14	Horz(CT)	-0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 31 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
3-8: 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 (6-0-0 max.): 4-8, 4-6.
BOT CHORD Rigid ceiling directly applied or 8-0-6 oc bracing.

REACTIONS. (lb/size) 7=692/Mechanical, 2=397/0-3-0
Max Horz 2=127(LC 12)
Max Uplift 2=-185(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-492/398, 4-8=-297/204, 5-7=-272/86
BOT CHORD 2-8=-438/451, 7-8=-374/551
WEBS 4-7=-647/469

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 8-0-0 zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2=185.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 4-5=-60, 5-6=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 12=-410

March 15,2019

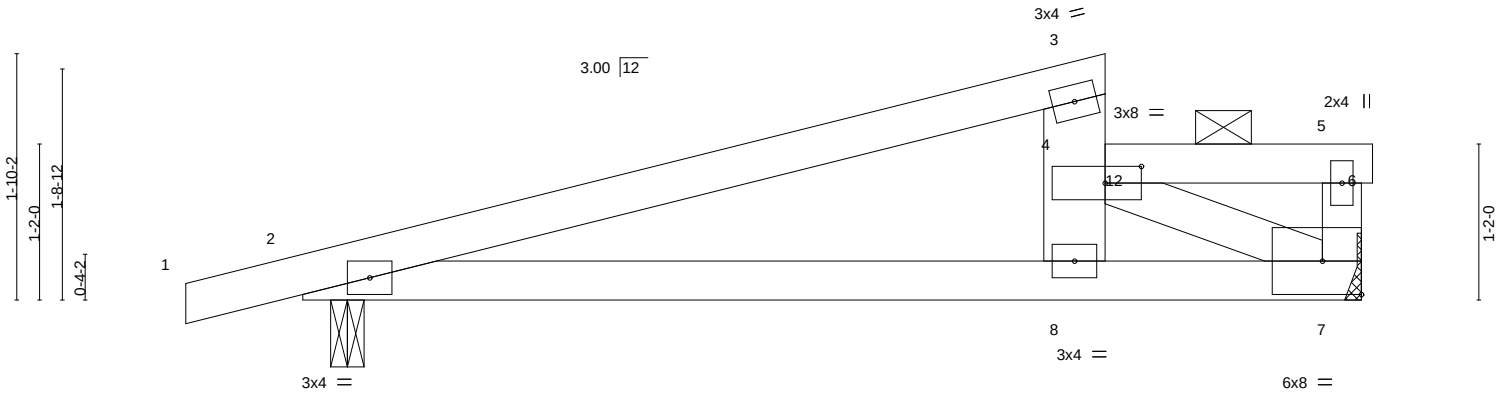
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	M20	Half Hip	8	1	E12810731
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:30 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-KfapDM_jYyq5TPDDQ3dabdfX809f4bY?gTXq?0zajr?

-0-10-8 6-0-0 8-0-0
0-10-8 6-0-0 2-0-0

Scale = 1:17.2



0-2-8 6-0-0 7-11-0 8-0-0
0-2-8 5-9-8 1-11-0 0-1-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	0.09	8-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.08	8-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 32 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
3-8: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-8, 4-6.
BOT CHORD Rigid ceiling directly applied or 7-5-9 oc bracing.

REACTIONS. (lb/size) 7=639/Mechanical, 2=450/0-3-0
Max Horz 2=104(LC 12)
Max Uplift 2=-161(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-803/517
BOT CHORD 2-8=-549/758, 7-8=-576/1054
WEBS 4-7=-1020/575

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 8-0-0 zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2=161.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 4-5=-60, 5-6=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 12=-410

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	N01	KINGPOST	4	1	E12810732
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:31 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-os8CQi?LJGyy4YoPzn8p8qCfvQWHp2u8v7GNXSzajr_

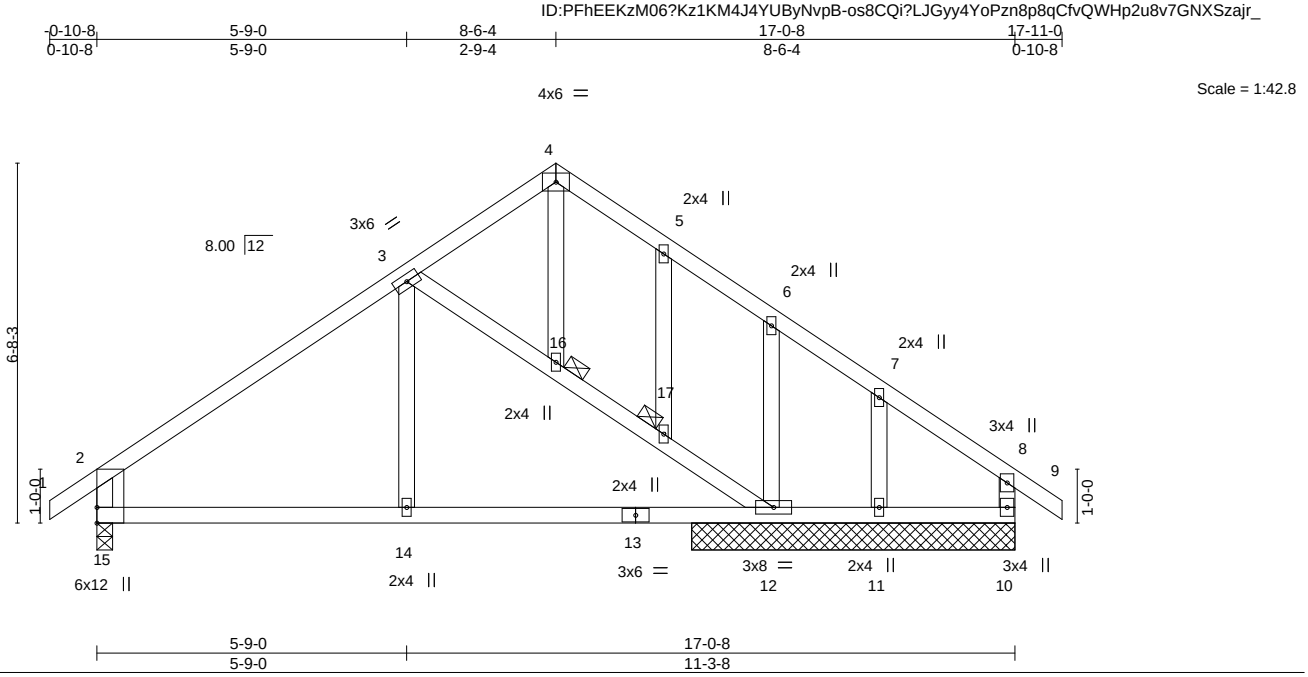


Plate Offsets (X,Y)-- [2:0-1-3,0-1-12], [15:0-0-0,0-1-12]

LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES GRIP
TCLL 20.0		Plate Grip DOL 1.15	TC 0.59	Vert(LL) -0.04 12-14 >999 360	MT20 244/190
TCDL 10.0		Lumber DOL 1.15	BC 0.41	Vert(CT) -0.10 12-14 >999 240	
BCLL 0.0	*	Rep Stress Incr NO	WB 0.21	Horz(CT) 0.01 10 n/a n/a	
BCDL 10.0		Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.01 12-14 >999 240	Weight: 98 lb FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
2-15: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 16, 17

REACTIONS. All bearings 6-0-0 except (jt=length) 15=0-3-8.
(lb) - Max Horz 15=-210(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 12 except 15=-123(LC 12), 11=-169(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 11 except 15=658(LC 1), 12=667(LC 1), 10=390(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-689/144, 3-4=-304/150, 5-6=-325/89, 7-8=-331/14, 2-15=-585/203, 8-10=-321/31
BOT CHORD 14-15=-78/574, 12-14=-78/574
WEBS 3-16=-431/192, 16-17=-399/171, 12-17=-428/190, 6-12=-284/136

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 15=123, 11=169.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
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=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-4=-60, 4-8=-60, 8-9=-60, 10-15=-20, 3-12=-30(F)

March 15,2019

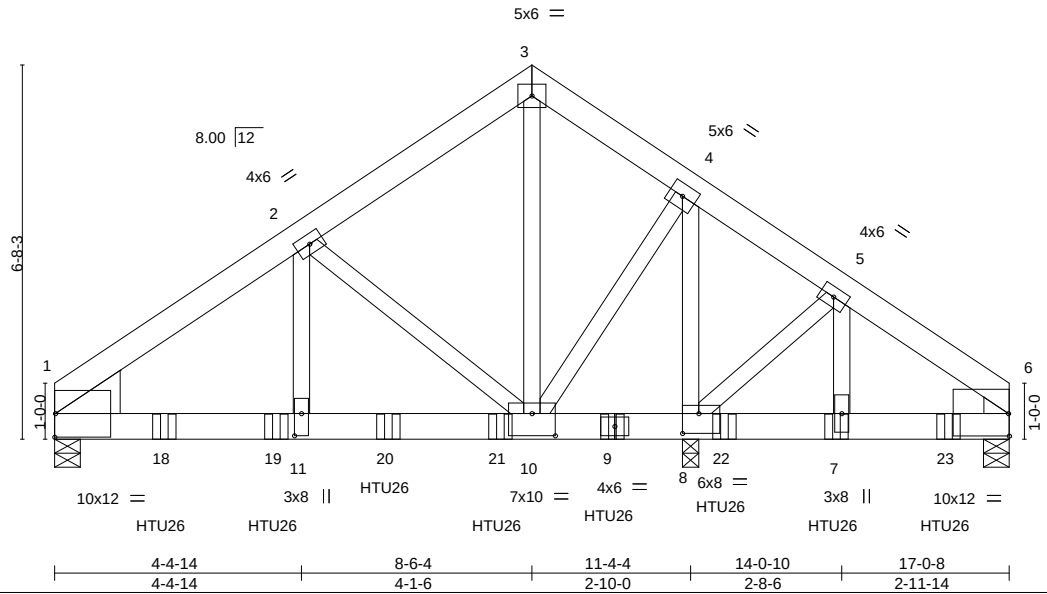
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	N02	Common Girder	4	2	E12810733
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:32 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-G2iae20z4a4piiNbXUf2g2lxWql_YSpI8n0w3uzajqz

4-4-14	8-6-4	11-4-4	14-0-10	17-0-8
4-4-14	4-1-6	2-10-0	2-8-6	2-11-14

Scale = 1:41.1



4-4-14	8-6-4	11-4-4	14-0-10	17-0-8
4-4-14	4-1-6	2-10-0	2-8-6	2-11-14

Plate Offsets (X,Y)-- [1:0-0-1,0-0-1], [1:0-3-11,0-0-2], [1:Edge,0-5-1], [6:Edge,0-4-13], [6:0-3-11,0-0-2], [6:0-0-1,0-0-1], [8:0-3-8,0-4-4], [10:0-5-0,0-4-12], [11:0-4-12,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.04	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.08	10-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.03	10-11	>999	240	Weight: 270 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
WEDGE
Left: 2x10 SP DSS, Right: 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, Except:
6-0-0 oc bracing: 8-10.

REACTIONS. (lb/size) 8=7951/0-3-8 (req. 0-4-11), 1=3886/0-5-8, 6=1903/0-5-8
Max Horz 1=162(LC 26)
Max Uplift 8=-613(LC 9), 1=-527(LC 8), 6=-272(LC 9)
Max Grav 8=7951(LC 1), 1=3886(LC 1), 6=1907(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4563/566, 2-3=-1791/242, 3-4=-1800/254, 4-5=-48/534, 5-6=-1233/145
BOT CHORD 1-11=-507/3701, 10-11=-507/3701, 8-10=-442/123, 7-8=-87/1054, 6-7=-87/1054
WEBS 2-11=-384/3254, 2-10=-2912/546, 3-10=-178/1697, 4-10=-271/3437, 4-8=-4232/373, 5-8=-2008/278, 5-7=-141/2014

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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) WARNING: Required bearing size at joint(s) 8 greater than input bearing size.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=613, 1=527, 6=272.
9) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-11-8 from the left end to 15-11-8 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard

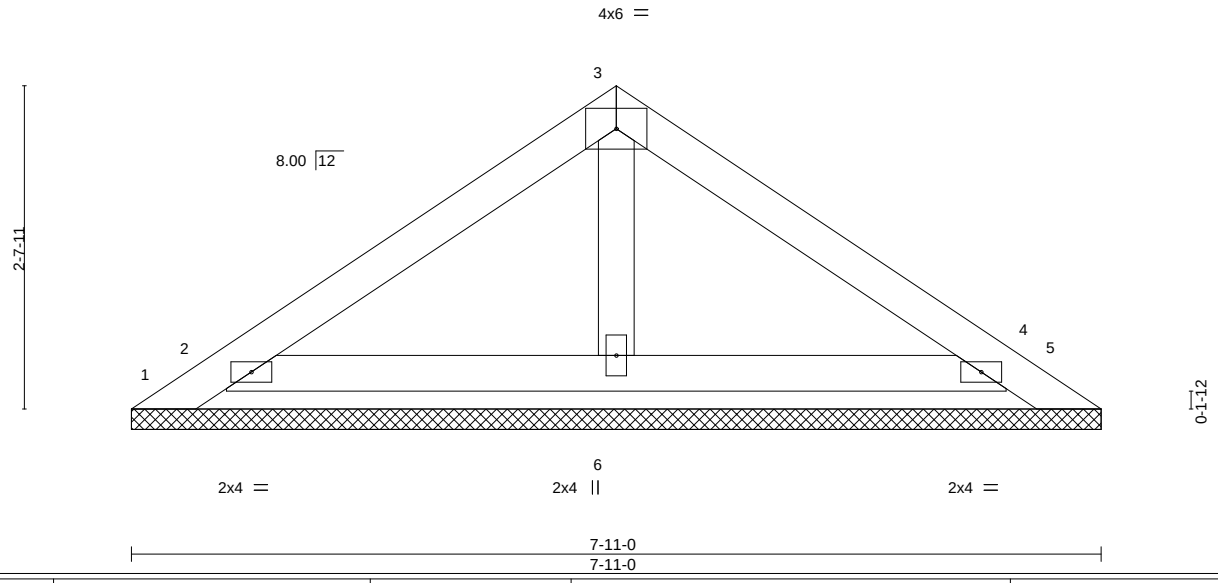
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-6=-60, 12-15=-20
   Concentrated Loads (lb)
   Vert: 9=-1547(B) 7=-1547(B) 18=-1546(B) 19=-1547(B) 20=-1547(B) 21=-1547(B) 22=-1547(B) 23=-1547(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	PB01	GABLE	1	1	E12810734 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:33 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-kEGyrO1crtCgKsxn5BAHDFH6BDHYH?DRMRlUbKzajqy

3-11-8 | 7-11-0
3-11-8 | 3-11-8

Scale = 1:18.8



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	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	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 26 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 7-11-0.
(lb) - Max Horz 1=-70(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-153(LC 19), 5=-123(LC 20), 2=-197(LC 12), 4=-180(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=339(LC 19), 4=320(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 153 lb uplift at joint 1, 123 lb uplift at joint 5, 197 lb uplift at joint 2 and 180 lb uplift at joint 4.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	PB02	GABLE	1	1	E12810735
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:34 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-CQqK3k1EcBKXx0W_fvhWITqI1ddw0SPbb5V17nzajqx

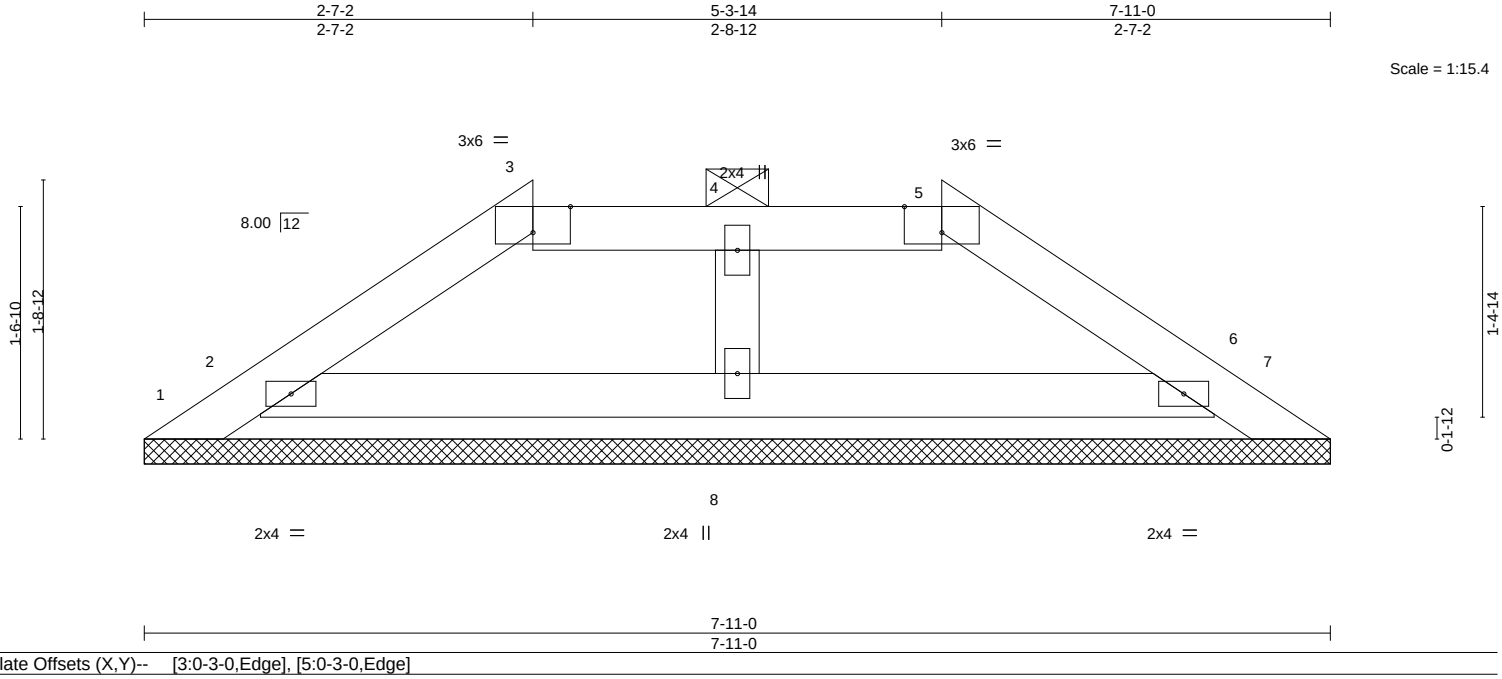


Plate Offsets (X,Y)-- [3:0-3-0,Edge], [5:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 24 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 7-11-0.
(lb) - Max Horz 1=-42(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 2, 6, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6, 8

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 2, 6, 8.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	PB03	GABLE	1	1	E12810736
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:35 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-hdOiG42sMVSOZA5ACcCIlgNT81zClvikqlEbgDzajqw

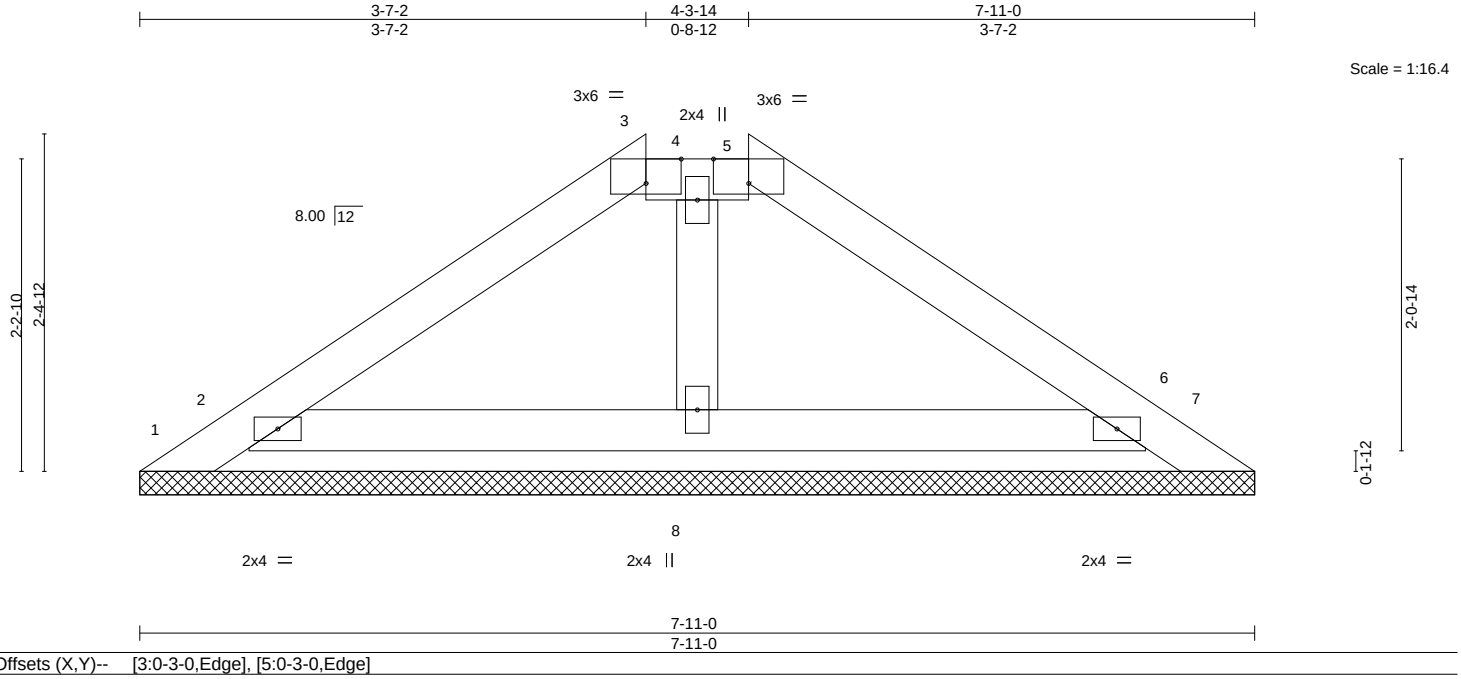


Plate Offsets (X,Y)-- [3:0-3-0,Edge], [5:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 26 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 7-11-0.
(lb) - Max Horz 1=61(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 7 except 1=-114(LC 19), 2=-141(LC 12), 6=-125(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 8 except 2=299(LC 19), 6=281(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 1=114, 2=141, 6=125.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	R01	GABLE	4	1	E12810737
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:36 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-9px5TQ3U7oaFBKgMmKk_ruve_RIqUMYu3P_8Cfzajqv

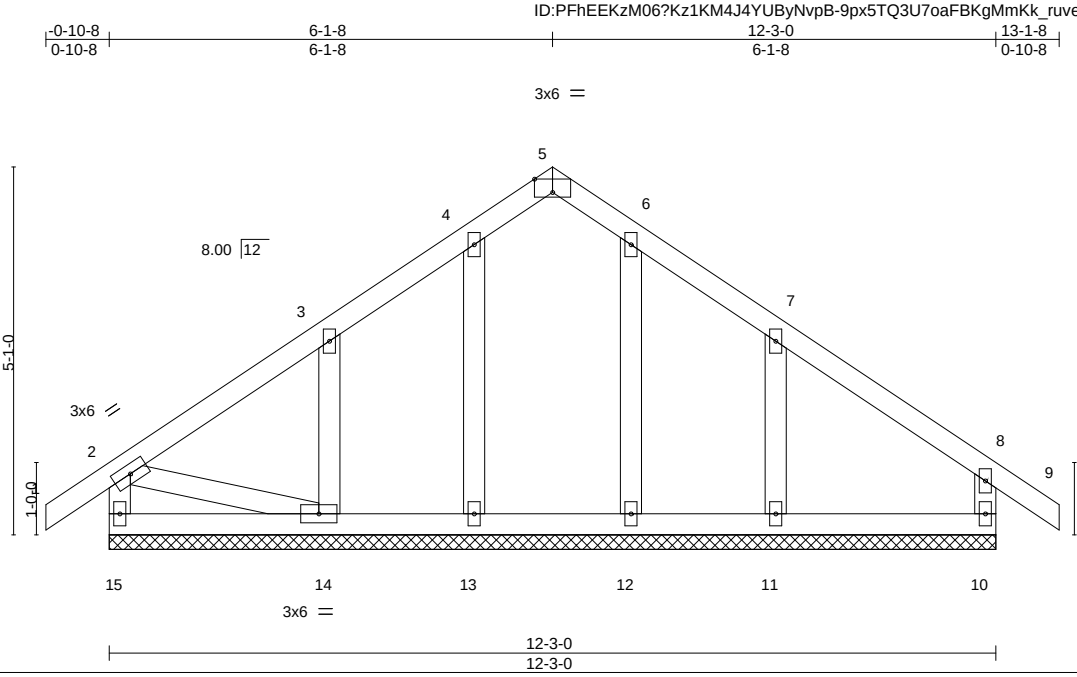


Plate Offsets (X,Y)-- [5:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	8	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 68 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. All bearings 12-3-0.
(lb) - Max Horz 15=165(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 15, 10, 13 except 14=-150(LC 12), 11=-165(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 15, 10, 13, 12 except 14=250(LC 19), 11=252(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 10, 13 except (jt=lb) 14=150, 11=165.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	R02	Common Girder	2	2	E12810738
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:37 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-d?VThm46u6i6oTFZK1FDN5SlJrTbDk81H3jhk6zajqu

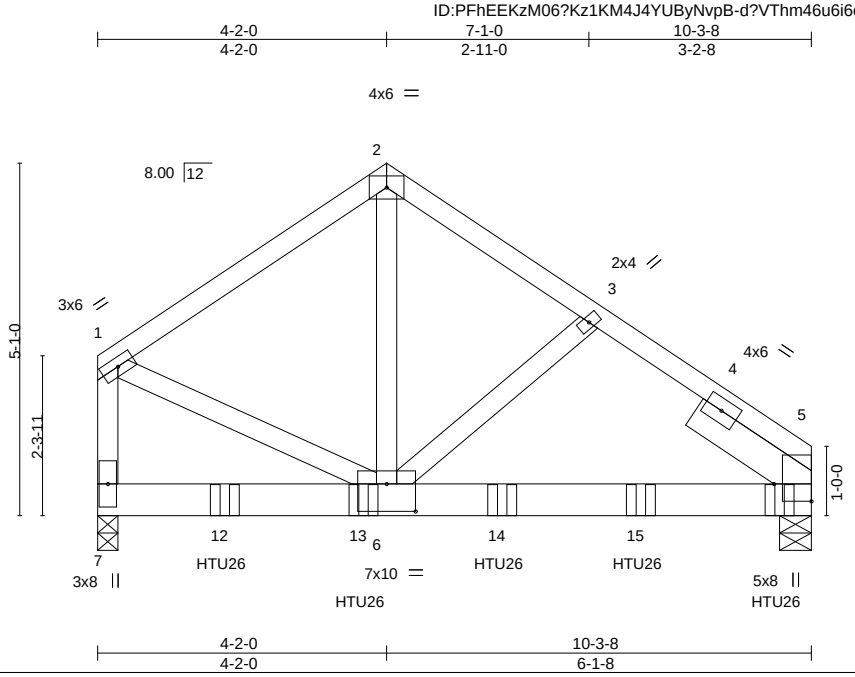


Plate Offsets (X,Y)-- [5:Edge,0-6-8], [6:0-5-0,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.06	6-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.11	6-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.35	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.05	6-10	>999	240	Weight: 136 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Right 2x6 SP No.2 1-11-12

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

REACTIONS. (lb/size) 5=3891/0-5-8, 7=3258/0-3-8
Max Horz 7=-155(LC 6)
Max Uplift 5=-652(LC 9), 7=-428(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2786/456, 2-3=-2782/448, 3-5=-3217/583, 1-7=-2711/423
BOT CHORD 5-6=-359/2491
WEBS 2-6=-423/2864, 3-6=-323/184, 1-6=-345/2422

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=652, 7=428.
8) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-10-0 from the left end to 9-10-0 to connect truss(es) to back face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-5=-60, 7-8=-20
Concentrated Loads (lb)
Vert: 10=-1231(B) 12=-1327(B) 13=-1327(B) 14=-1226(B) 15=-1226(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	R03	Common Girder	2	2	E12810739
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:38 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-5C3ru54kfQqzQdqlulmSwJ?wqEpuyBbAWjTFGYzajqt

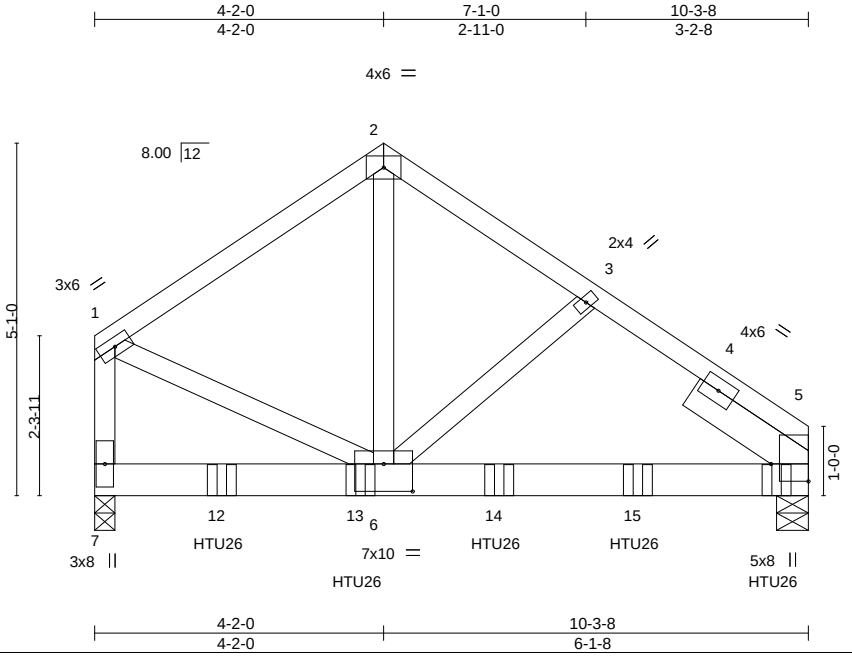


Plate Offsets (X,Y)-- [5:Edge,0-6-8], [6:0-5-0,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.06	6-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.11	6-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.34	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.06	6-10	>999	240	Weight: 136 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Right 2x6 SP No.2 1-11-12

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

REACTIONS. (lb/size) 5=3834/0-5-8, 7=3102/0-3-8
Max Horz 7=-155(LC 6)
Max Uplift 5=-704(LC 9), 7=-571(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2689/545, 2-3=-2688/536, 3-5=-3212/587, 1-7=-2622/505
BOT CHORD 5-6=-423/2422
WEBS 2-6=-519/2761, 3-6=-338/170, 1-6=-418/2343

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=704, 7=571.
8) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-10-0 from the left end to 9-10-0 to connect truss(es) to back face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-5=-60, 7-8=-20
Concentrated Loads (lb)
Vert: 10=-1231(B) 12=-1221(B) 13=-1221(B) 14=-1226(B) 15=-1226(B)

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	S01	GABLE	2	1	E12810740 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:39 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-ZOdD6R5NQjyq2nPxRSHhSWX7GeJ6gicKlNCop_zajqs

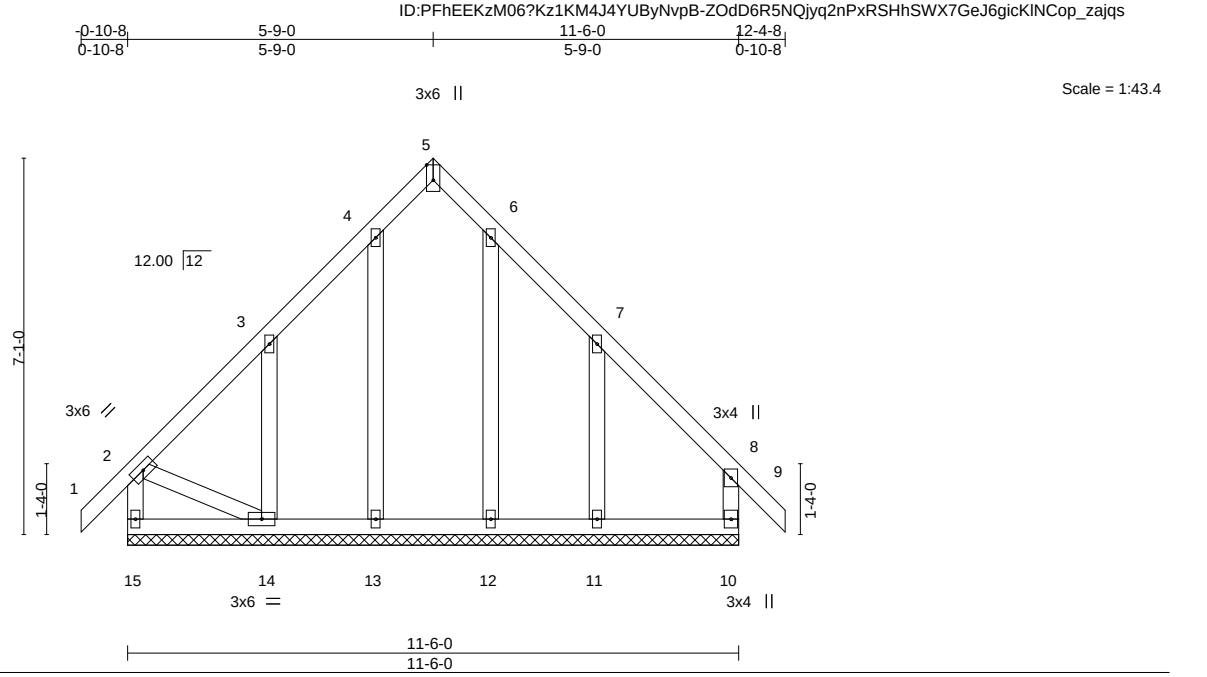


Plate Offsets (X,Y)-- [5:0-3-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.00	9	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.00	9	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 79 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. All bearings 11-6-0.
(lb) - Max Horz 15=235(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 13 except 15=-117(LC 8), 14=-256(LC 12), 11=-290(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 10, 13, 12 except 15=258(LC 20), 14=266(LC 19), 11=267(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-14=-268/221, 7-11=-296/281

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 15=117, 14=256, 11=290.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	S02	Common Girder	2	2	E12810741
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:40 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-1aBbJn6?B14gfx_8?Aow?k4G?2VUP6eTz1yLLQzajqr

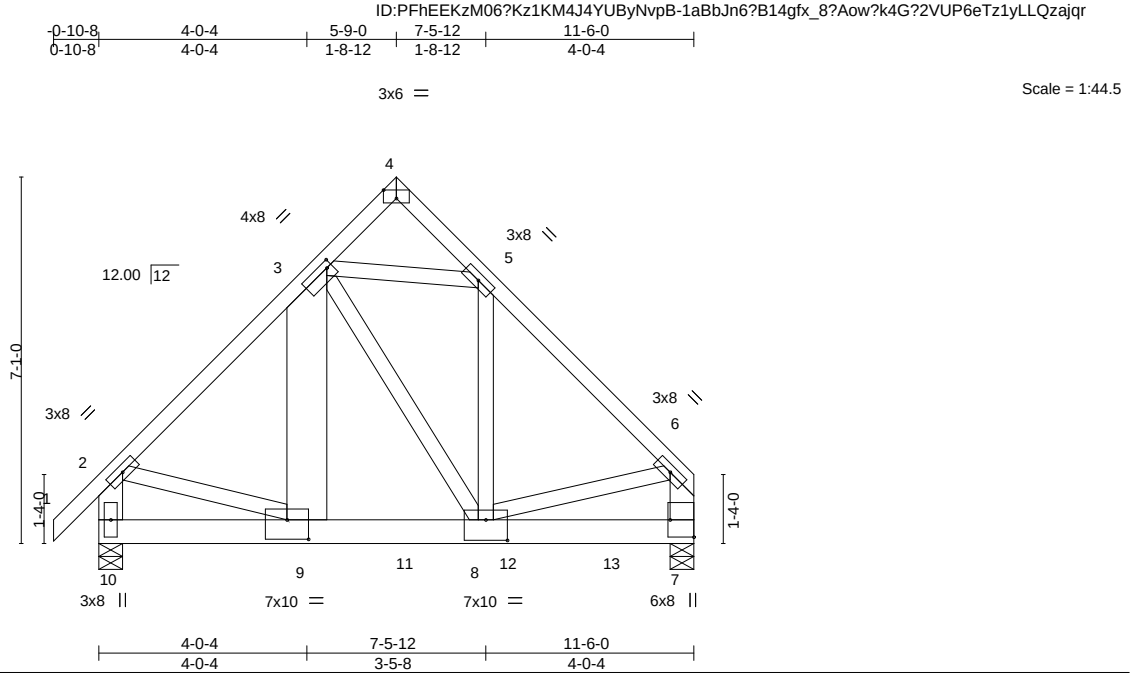


Plate Offsets (X,Y)-- [3:0-1-4,0-1-8], [4:0-3-0,Edge], [7:Edge,0-5-8], [8:0-5-0,0-4-12], [9:0-5-0,0-4-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.02	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.05	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.03	8-9	>999	240	Weight: 214 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except*
3-9: 2x10 SP DSS, 2-10,6-7: 2x6 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. (lb/size) 10=3352/0-5-8, 7=4514/0-5-8
Max Horz 10=225(LC 5)
Max Uplift 10=-1517(LC 8), 7=-1270(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3533/1667, 5-6=-3775/1225, 2-10=-3313/1506, 6-7=-3329/1075
BOT CHORD 9-10=-286/307, 8-9=-1177/2438, 7-8=-150/540
WEBS 3-8=-249/634, 5-8=-824/2471, 3-9=-1532/1936, 2-9=-1093/2380, 6-8=-736/2157, 3-5=-2608/976

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered 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, 2x10 - 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=1517, 7=1270.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2146 lb down and 1855 lb up at 4-0-4, 1587 lb down and 237 lb up at 5-11-8, and 1596 lb down and 273 lb up at 7-11-8, and 1587 lb down and 306 lb up at 9-11-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-4=-60, 4-6=-60, 7-10=-20

March 15,2019

Continued on page 2

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

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 9=-2146(B) 11=-1587(B) 12=-1596(B) 13=-1587(B)

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	T01	GABLE	2	1	E12810742
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:41 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-Vnl_X77dyLCXH5ZKZtJ9YxcSiS?k8bNdChhvttzajqq

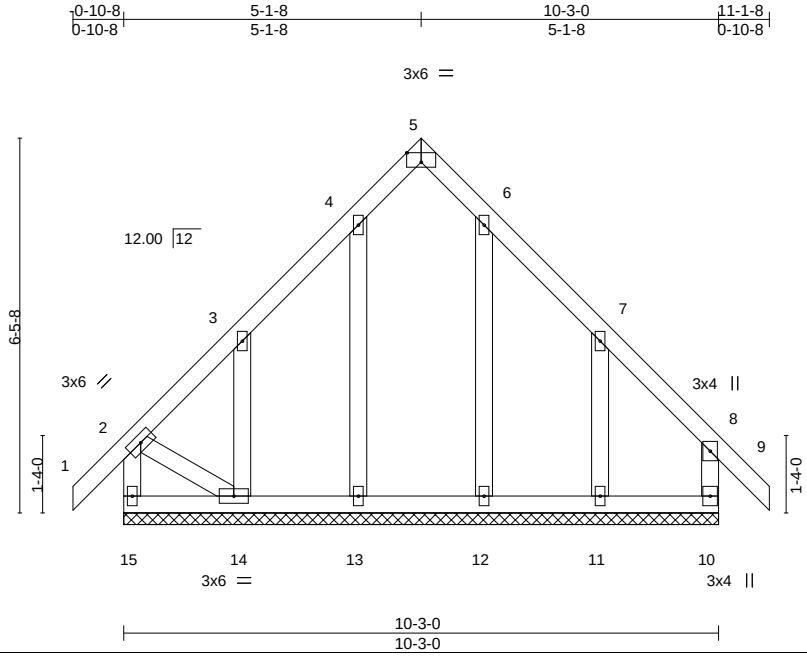


Plate Offsets (X,Y)-- [5:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.00	9	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.00	9	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 70 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, Except: 6-0-0 oc bracing: 14-15.

REACTIONS. All bearings 10-3-0.
(lb) - Max Horz 15=217(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 10, 13 except 15=-114(LC 8), 14=-241(LC 12), 11=-269(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 15, 10, 13, 14, 12, 11

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 7-11=-259/255

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 13 except (jt=lb) 15=114, 14=241, 11=269.

March 15,2019

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

Job	Truss	Truss Type	Qty	Ply	H&H/Dogwood/
1719437	T02	Common Girder	2	2	E12810743
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Mar 15 09:48:42 2019 Page 1
ID:PFhEEKzM06?Kz1KM4J4YUByNvpB-zzJMkT8FjeKOvF7W7aqO499ZusF8t04mRLRSPJzajqp

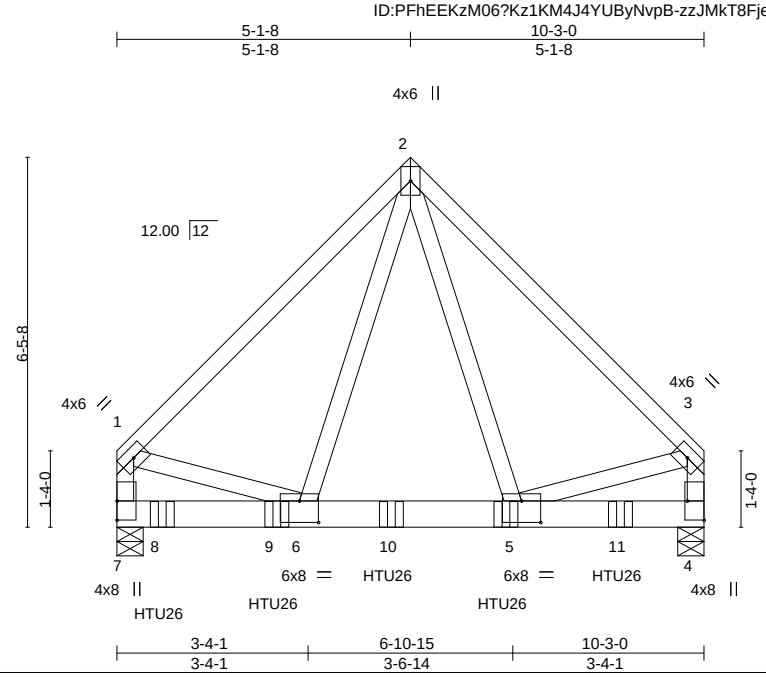


Plate Offsets (X,Y)-- [4:Edge,0-3-8], [5:0-4-0,0-4-8], [6:0-4-0,0-4-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.02	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.05	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.02	5-6	>999	240	Weight: 150 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except*
1-7,3-4: 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. (lb/size) 7=3870/0-5-8, 4=3363/0-5-8
Max Horz 7=185(LC 26)
Max Uplift 7=-452(LC 9), 4=-509(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2928/413, 2-3=-2895/472, 1-7=-2724/356, 3-4=-2699/408
BOT CHORD 6-7=-242/371, 5-6=-207/1418, 4-5=-138/253
WEBS 2-5=-331/1895, 2-6=-190/1974, 1-6=-272/1843, 3-5=-308/1837

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=452, 4=509.
8) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-9-8 from the left end to 8-9-8 to connect truss(es) to back face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.

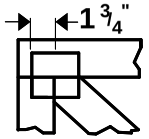
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 4-7=-20
Concentrated Loads (lb)
Vert: 5=-1226(B) 8=-1330(B) 9=-1327(B) 10=-1327(B) 11=-1226(B)

March 15,2019

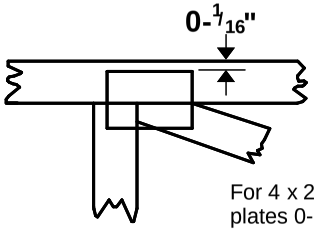
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

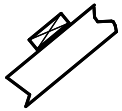
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

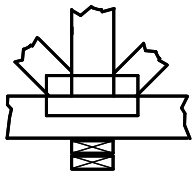
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

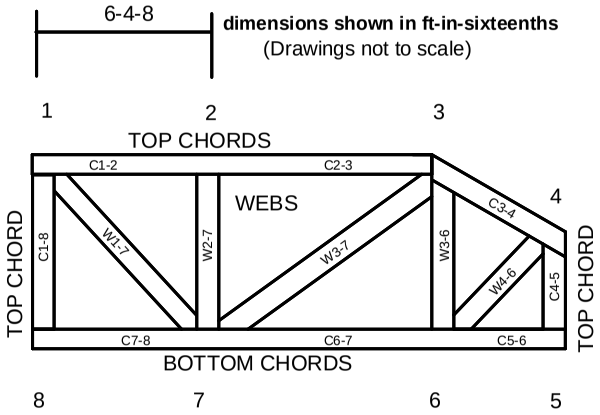


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

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.