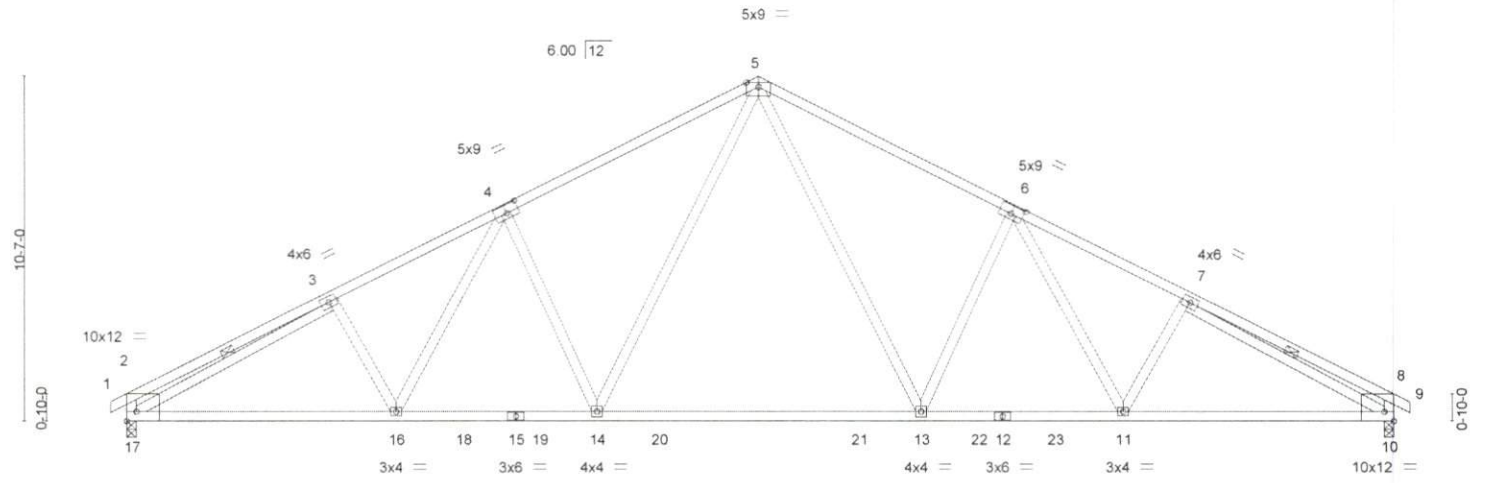
Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master	I39464279
18030341-MASTER	T1	COMMON	13	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.320 s Nov 19 2019 MiTek Industries, Inc. Mon Dec 2 14:54:39 2019 Page 1
ID:2okNGRrr?KSPRlXgb91lA?y8hTY-IsOVCqv2Lc9YnyXJVBEzolVU6wDV1WhqCpbmONyCzXk

-0-6-0	6-4-8	11-8-9	19-6-0	27-3-7	32-7-8	39-0-0	39-6-0
0-6-0	6-4-8	5-4-1	7-9-7	7-9-7	5-4-1	6-4-8	0-6-0

Scale = 1:68.2



8-3-11	14-6-0	17-6-0	21-6-0	24-6-0	30-8-5	39-0-0
8-3-11	6-2-5	3-0-0	4-0-0	3-0-0	6-2-5	8-3-11

Plate Offsets (X,Y)-- [2:Edge,0-3-8], [2:0-1-12,0-0-14], [4:0-4-8,0-3-0], [6:0-4-8,0-3-0], [8:0-1-12,0-0-14], [10:Edge,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	0.94	Vert(LL)	-0.37	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.69	13-14	>675	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.12	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 231 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
12-15: 2x4 SP No.1
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-17, 7-10

REACTIONS. (lb/size) 17=1587/0-3-8, 10=1587/0-3-8
Max Horz 17=126(LC 12)
Max Uplift 17=-95(LC 12), 10=-95(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-820/199, 3-4=-2450/468, 4-5=-2174/485, 5-6=-2174/485, 6-7=-2450/468, 7-8=-820/199, 2-17=-575/185, 8-10=-575/185
BOT CHORD 16-17=-307/2189, 14-16=-219/2047, 13-14=-70/1508, 11-13=-219/2047, 10-11=-306/2189
WEBS 5-13=-125/842, 6-13=-563/234, 6-11=-43/284, 5-14=-125/842, 4-14=-563/234, 4-16=-43/284, 3-17=-1829/257, 7-10=-1829/257

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be User Defined crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 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.

December 2,2019

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Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master	I39464280
18030341-MASTER	T1A	ROOF TRUSS	6	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.320 s Nov 19 2019 MiTek Industries, Inc. Mon Dec 2 14:54:41 2019 Page 1
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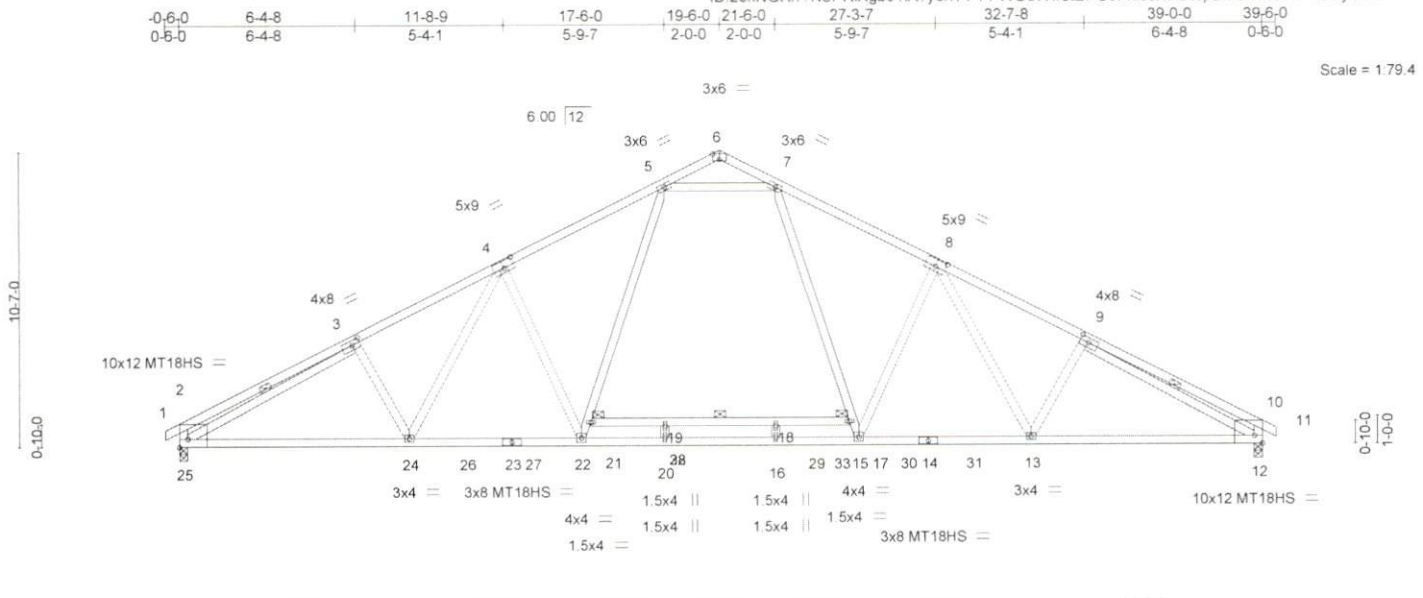

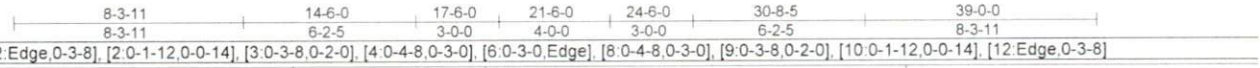

Plate Offsets (X,Y)-- [2:Edge,0-3-8], [2:0-1-12,0-0-14], [3:0-3-8,0-2-0], [4:0-4-8,0-3-0], [6:0-3-0,Edge], [8:0-4-8,0-3-0], [9:0-3-8,0-2-0], [10:0-1-12,0-0-14], [12:Edge,0-3-8]

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	0.97	Vert(LL)	-0.52	16-20	>886	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-1.06	16-20	>436	180	MT18HS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.14	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 247 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
17-21: 2x4 SP No.1, 14-23: 2x4 SP DSS
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied. Except:
6-0-0 oc bracing: 17-21
WEBS 1 Row at midpt 3-25, 9-12

REACTIONS. (lb/size) 25=1758/0-3-8, 12=1758/0-3-8
Max Horz 25=126(LC 16)
Max Grav 25=1835(LC 2), 12=1835(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-866/142, 3-4=-2994/219, 4-5=-2783/176, 7-8=-2783/176, 8-9=-2994/219, 9-10=-866/142, 2-25=-594/155, 10-12=-594/155
BOT CHORD 24-25=-95/2652, 22-24=0/2568, 20-22=0/2172, 16-20=0/2172, 15-16=0/2172, 13-15=0/2568, 12-13=-93/2652
WEBS 7-17=0/1064, 15-17=-12/908, 8-15=-552/249, 8-13=-107/257, 21-22=-12/908, 5-21=0/1064, 4-22=-552/249, 4-24=-107/257, 3-25=-2285/66, 9-12=-2285/66, 5-7=-2090/264

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 150.0lb AC unit load placed on the bottom chord, 19-6-0 from left end, supported at two points, 4-0-0 apart.
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) All bearings are assumed to be User Defined crushing capacity of 425 psi.
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) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

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Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master	I39464281
18030341-MASTER	T1GE	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.320 s Nov 19 2019 MiTek Industries, Inc. Mon Dec 2 14:54:42 2019 Page 1
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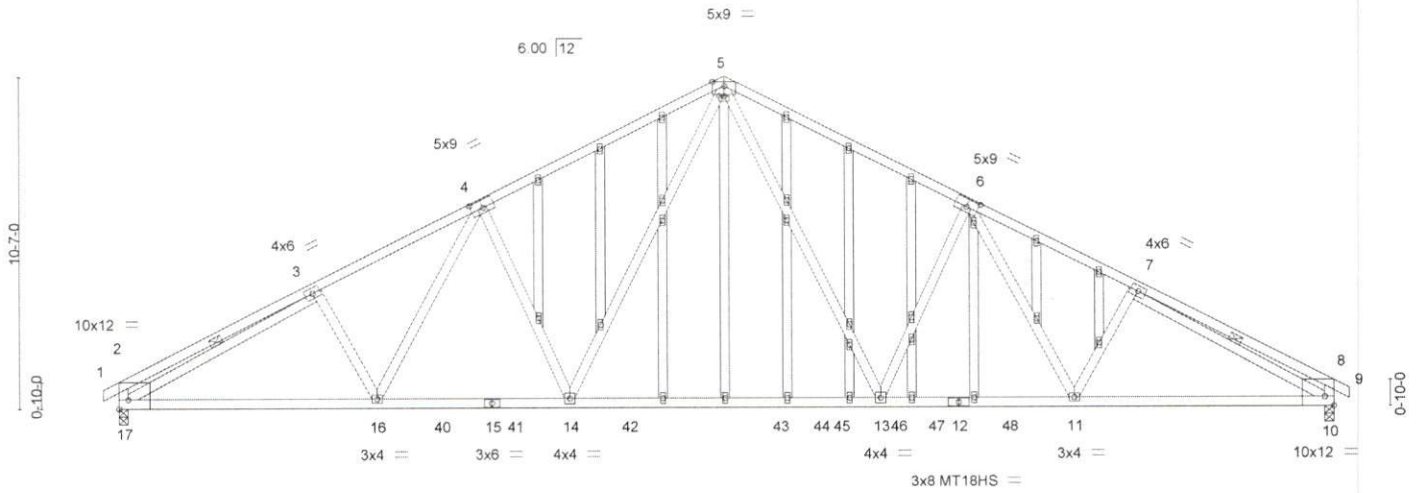
-0-6-0	6-4-8	11-8-9	19-6-0	27-3-7	32-7-8	39-0-0	39-6-0
0-6-0	6-4-8	5-4-1	7-9-7	7-9-7	5-4-1	6-4-8	0-6-0

Scale = 1:71.1



8-3-11	14-6-0	17-6-0	21-6-0	24-6-0	30-8-5	39-0-0
8-3-11	6-2-5	3-0-0	4-0-0	3-0-0	6-2-5	8-3-11

Plate Offsets (X,Y)-- [2:Edge,0-3-8], [2:0-1-12,0-0-14], [4:0-4-8,0-3-0], [5:0-2-0,0-0-0], [6:0-4-8,0-3-0], [8:0-1-12,0-0-14], [10:Edge,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	0.99	Vert(LL)	-0.44	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.83	13-14	>559	180	MT18HS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.13	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 327 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
12-15: 2x4 SP No.1
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-17, 7-10

REACTIONS. (lb/size) 17=1677/0-3-8, 10=1719/0-3-8
Max Horz 17=126(LC 39)
Max Uplift 17=-141(LC 12), 10=-162(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-851/215, 3-4=-2610/554, 4-5=-2338/583, 5-6=-2416/630, 6-7=-2690/595, 7-8=-866/222, 2-17=-590/193, 8-10=-597/196
BOT CHORD 16-17=-382/2335, 14-16=-304/2188, 13-14=-152/1645, 11-13=-343/2255, 10-11=-415/2404
WEBS 5-13=-233/1023, 6-13=-538/250, 6-11=-72/255, 5-14=-138/864, 4-14=-546/245, 4-16=-62/262, 3-17=-1947/328, 7-10=-2003/361

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be User Defined crushing capacity of 425 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=141, 10=162.
11) 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.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 45 lb up at 21-3-4, and 74 lb down and 45 lb up at 23-2-12, and 74 lb down and 45 lb up at 25-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

December 2,2019

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master
18030341-MASTER	T1GE	GABLE	1	1	I39464281 Job Reference (optional)

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, 8-9=-60, 10-17=-20
   Concentrated Loads (lb)
   Vert: 43=-74(F) 45=-74(F) 46=-74(F)

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Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master	I39464282
18030341-MASTER	T1V	COMMON	8	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.320 s Nov 19 2019 MiTek Industries, Inc. Mon Dec 2 14:54:44 2019 Page 1
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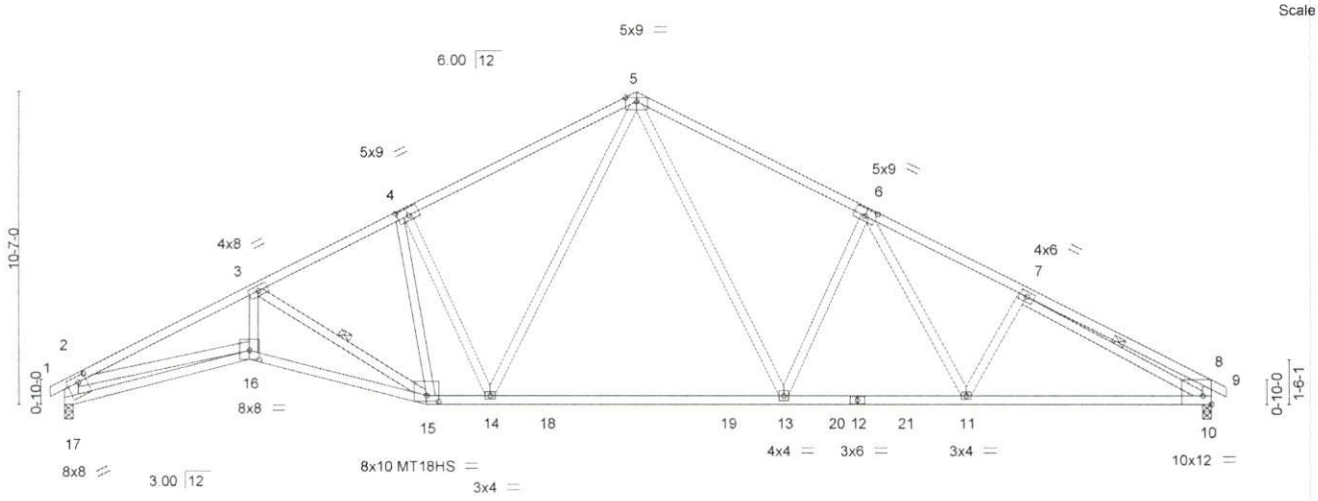
-0-6-0	6-3-12	11-8-9	12-4-0	19-6-0	27-3-7	32-7-8	39-0-0	39-6-0
0-6-0	6-3-12	5-4-13	0-7-7	7-2-0	7-9-7	5-4-1	6-4-8	0-6-0

Scale = 1:75.3



6-3-12	12-4-0	14-6-0	24-6-0	30-8-5	39-0-0
6-3-12	6-0-4	2-2-0	10-0-0	6-2-5	8-3-11

Plate Offsets (X,Y)-- [4:0-4-8,0-3-0], [6:0-4-8,0-3-0], [8:0-1-12,0-0-14], [10:Edge,0-3-8], [15:0-5-0,0-2-4], [16:0-4-0,0-3-10], [17:0-2-12,0-0-10], [17:0-3-8,0-2-4]

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	0.94	Vert(LL)	-0.40	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.77	13-14	>604	180	MT18HS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.22	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-AS							Weight: 238 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
12-15,10-12: 2x4 SP No.1
WEBS 2x4 SP No.3 *Except*
2-17: 2x6 SP No.2, 2-16: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-15, 7-10

REACTIONS. (lb/size) 17=1589/0-3-8, 10=1584/0-3-8
Max Horz 17=-125(LC 17)
Max Uplift 17=-96(LC 12), 10=-95(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4164/623, 3-4=-2254/441, 4-5=-2101/482, 5-6=-2123/484, 6-7=-2433/467, 7-8=-825/201, 2-17=-1680/339, 8-10=-577/186
BOT CHORD 16-17=-243/746, 15-16=-484/3645, 14-15=-219/2001, 13-14=-68/1464, 11-13=-218/2003, 10-11=-305/2184
WEBS 3-16=-120/1568, 3-15=-1828/293, 4-14=-561/239, 5-14=-121/785, 5-13=-127/840, 6-13=-563/233, 6-11=-42/285, 2-16=-309/2952, 7-10=-1783/254

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be User Defined crushing capacity of 425 psi.
7) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 10.
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.

December 2,2019

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master	I39464283
18030341-MASTER	T1VGE	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.320 s Nov 19 2019 MiTek Industries, Inc. Mon Dec 2 14:54:45 2019 Page 1
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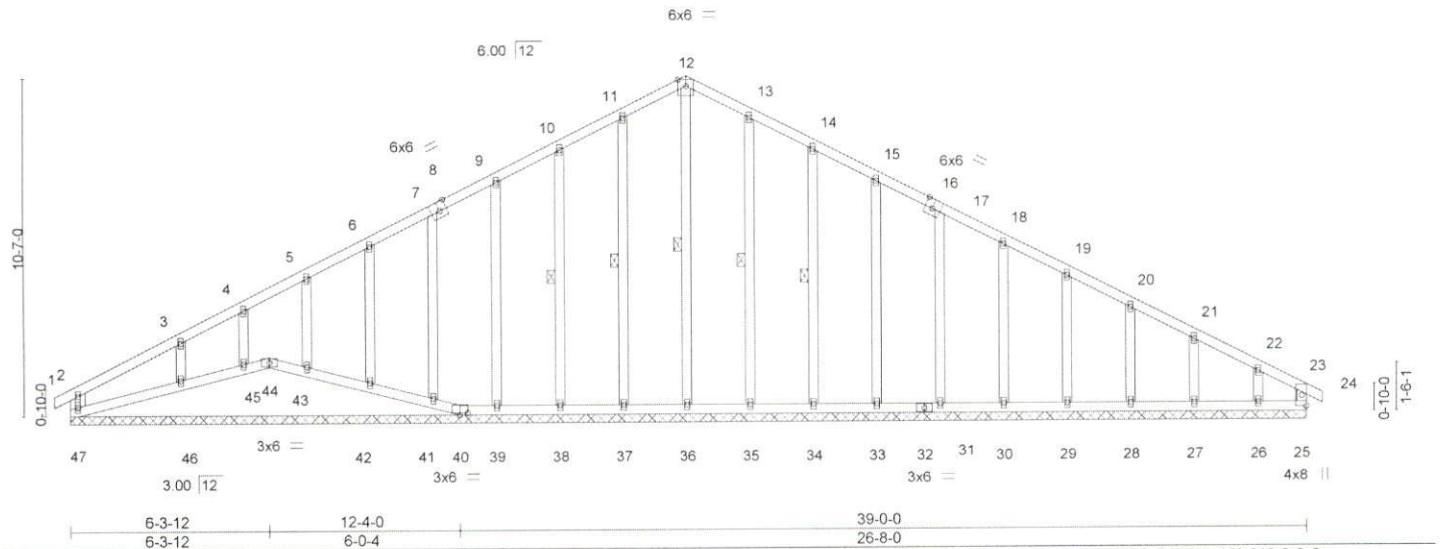
-0-6-0 11-8-9 19-6-0 39-0-0 39-6-0
0-6-0 11-8-9 7-9-7 19-6-0 0-6-0

Scale = 1:69.6



6-3-12 12-4-0 39-0-0
6-3-12 6-0-4 26-8-0

Plate Offsets (X,Y)-- [7:0-1-15,0-0-0], [8:0-2-12,Edge], [8:0-0-0,0-1-12], [16:0-2-12,Edge], [16:0-0-0,0-1-12], [17:0-1-15,0-0-0], [23:0-0-14,0-1-12], [25:0-0-0,0-1-12], [40:0-3-0,0-0-12]

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	0.10	Vert(LL)	-0.00	23	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	23	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	25	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 269 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x6 SP No.2 *Except*
23-25: 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.
WEBS 1 Row at midpt 12-36, 11-37, 10-38, 13-35, 14-34

REACTIONS. All bearings 39-0-0.
(lb) - Max Horz 47=-125(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 47, 44, 40, 25, 37, 38, 39, 41, 42, 43, 45, 35, 34, 33, 31, 30, 29, 28, 27, 26 except 46=-102(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 47, 44, 40, 25, 36, 37, 38, 39, 41, 42, 43, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-120/273, 11-12=-133/309, 12-13=-133/309, 13-14=-120/273

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be User Defined crushing capacity of 425 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 47, 44, 40, 25, 37, 38, 39, 41, 42, 43, 45, 35, 34, 33, 31, 30, 29, 28, 27, 26 except (jt=lb) 46=102.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 44, 41, 42, 43, 45, 46.

December 2,2019

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

Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master	I39464284
18030341-MASTER	T2	Common	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.320 s Nov 19 2019 MiTek Industries, Inc. Mon Dec 2 14:54:46 2019 Page 1
ID:2okNGRrr?KSPRIXgb91IA?y8hTY-bDJ9gE_Rhm1Y61ZfP9scaElmXlcsAg?spPne7TyCzXd

-0-6-0	5-3-12	10-4-0	15-4-4	20-8-0
0-6-0	5-3-12	5-0-4	5-0-4	5-3-12

Scale = 1:38.6

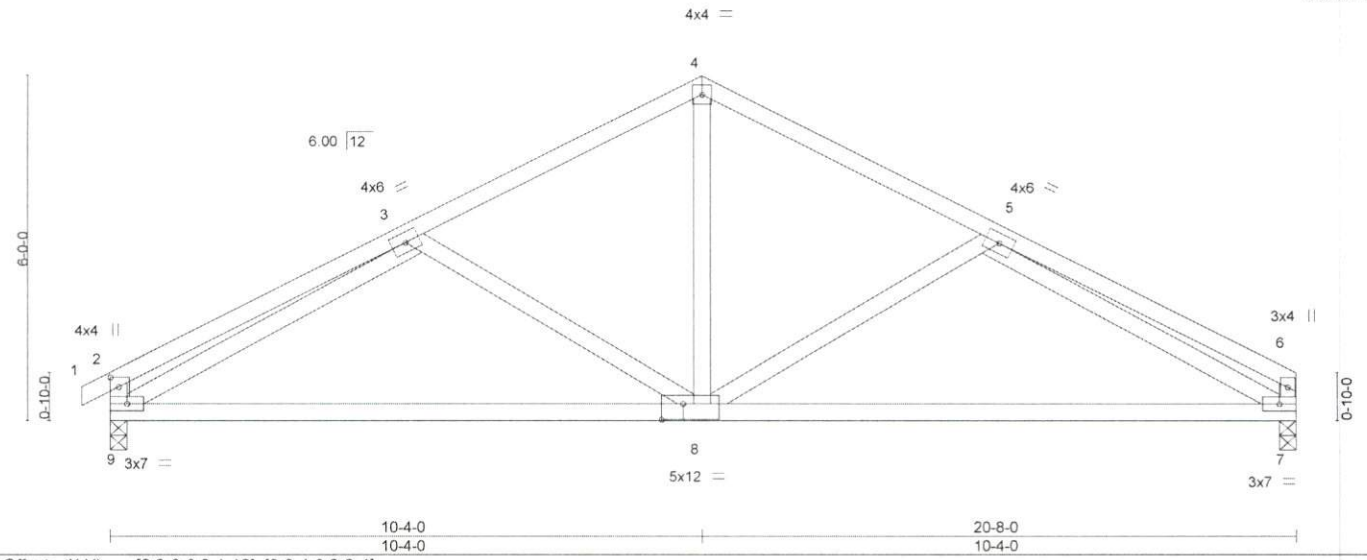


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [8:0-4-8,0-3-4]

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	0.55	Vert(LL)	-0.19	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.38	8-9	>644	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 110 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 9=854/0-3-8, 7=814/0-3-8
Max Horz 9=76(LC 9)
Max Uplift 9=-54(LC 12), 7=-44(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-444/92, 3-4=-944/187, 4-5=-945/187, 5-6=-377/50, 2-9=-356/116, 6-7=-276/69
BOT CHORD 8-9=-175/996, 7-8=-175/1002
WEBS 4-8=-43/530, 5-8=-290/179, 3-8=-284/177, 3-9=-775/175, 5-7=-850/218

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be User Defined crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.

December 2,2019

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master	I39464285
18030341-MASTER	T2GE	Common	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.320 s Nov 19 2019 MiTek Industries, Inc. Mon Dec 2 14:54:47 2019 Page 1
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0-6-0 10-4-0 10-4-0 0-6-0

Scale = 1:39.8

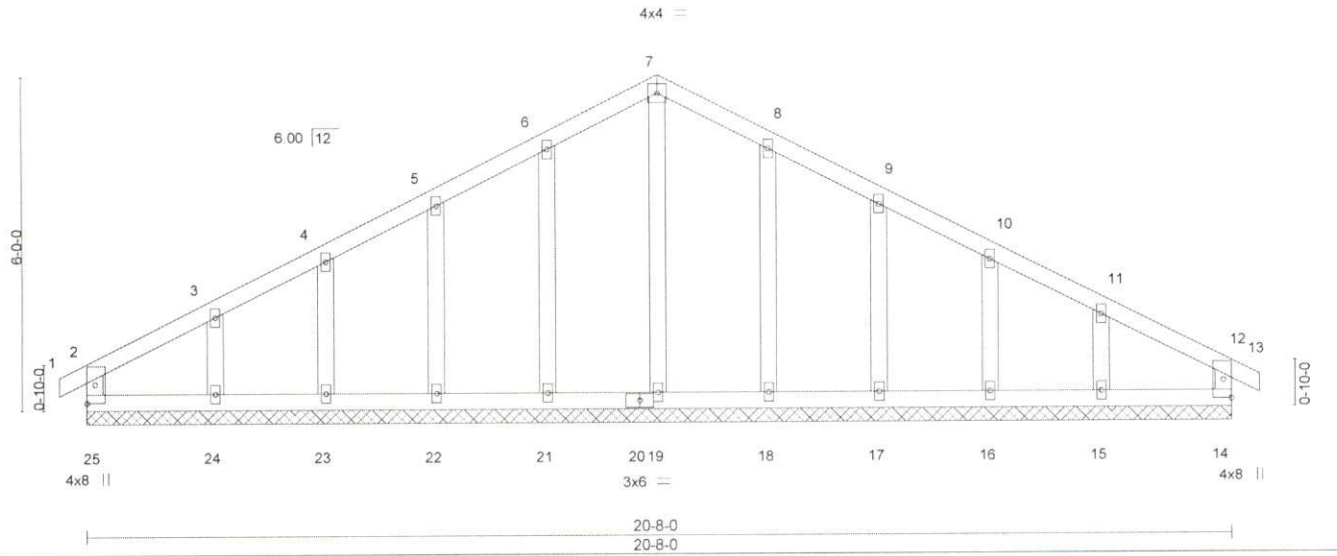

Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [12:0-0-14,0-1-12], [14:0-0-0,0-1-12], [25:0-0-0,0-1-12]

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	0.05	Vert(LL)	0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	12	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 111 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 20-8-0.
(lb) - Max Horz 25=75(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 21, 22, 23, 24, 18, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 25, 14, 19, 21, 22, 23, 24, 18, 17, 16, 15

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be User Defined crushing capacity of 425 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 14, 21, 22, 23, 24, 18, 17, 16, 15.

December 2,2019

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

Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master	I39464286
18030341-MASTER	T3	Common	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334.

8.320 s Nov 19 2019 MiTek Industries, Inc. Mon Dec 2 14:54:48 2019 Page 1
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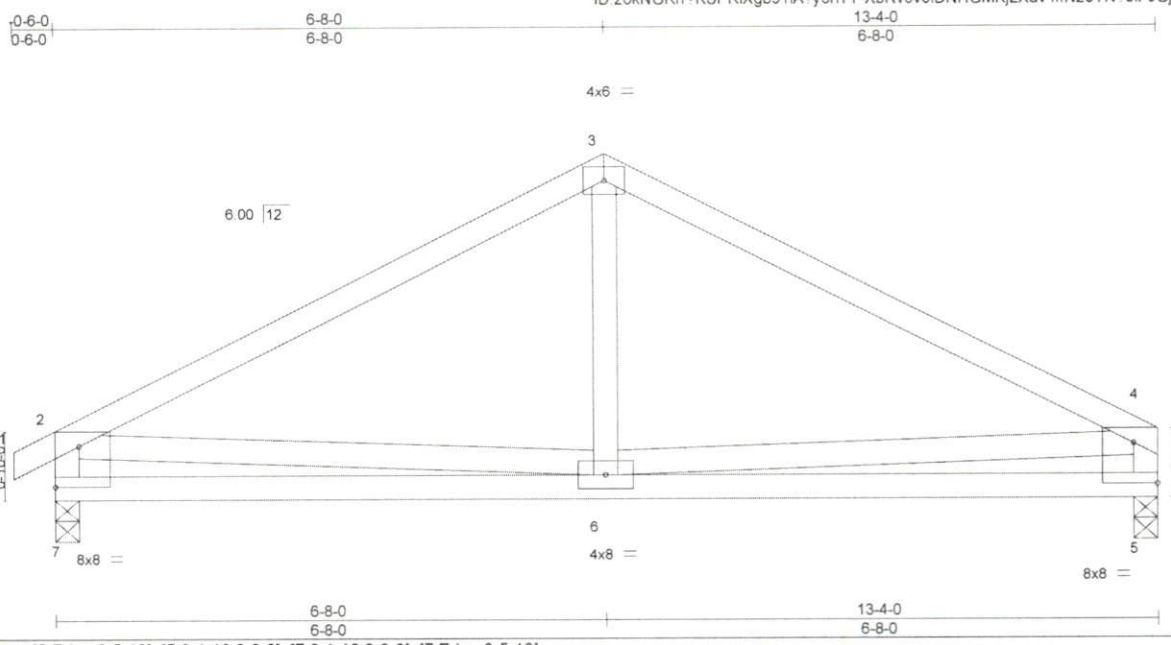

Plate Offsets (X,Y)-- [5:Edge,0-5-13], [5:0-1-12,0-0-0], [7:0-1-12,0-0-0], [7:Edge,0-5-13]

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	0.80	Vert(LL)	-0.04	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.08	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	5	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

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

REACTIONS. (lb/size) 7=561/0-3-8, 5=521/0-3-8
Max Horz 7=57(LC 11)
Max Uplift 7=-38(LC 12), 5=-28(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-646/135, 3-4=-641/132, 2-7=-504/165, 4-5=-463/135
BOT CHORD 6-7=-192/415, 5-6=-103/291
WEBS 3-6=0/262

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be User Defined crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.

December 2,2019

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TRENCO
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cali NP Vault Master	I39464287
18030341-MASTER	T3GE	Common	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.320 s Nov 19 2019 MiTek Industries, Inc. Mon Dec 2 14:54:49 2019 Page 1
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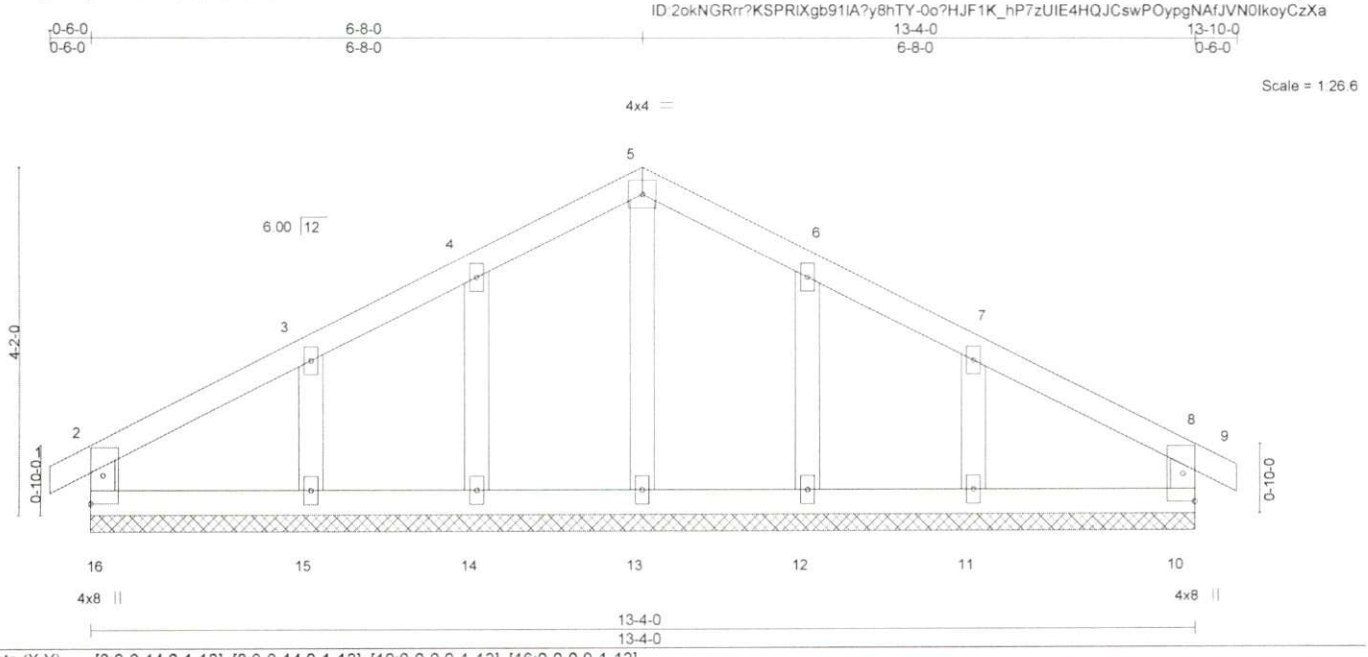

Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [8:0-0-14,0-1-12], [10:0-0-0,0-1-12], [16:0-0-0,0-1-12]

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	0.06	Vert(LL)	0.00	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	9	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 63 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 13-4-0.
(lb) - Max Horz 16=56(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be User Defined crushing capacity of 425 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10, 14, 15, 12, 11.

December 2,2019

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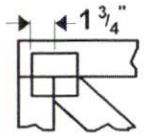
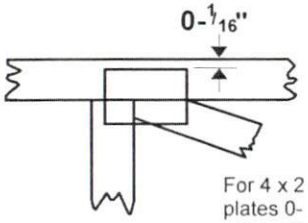
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

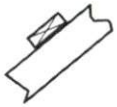
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

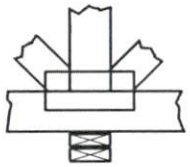
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

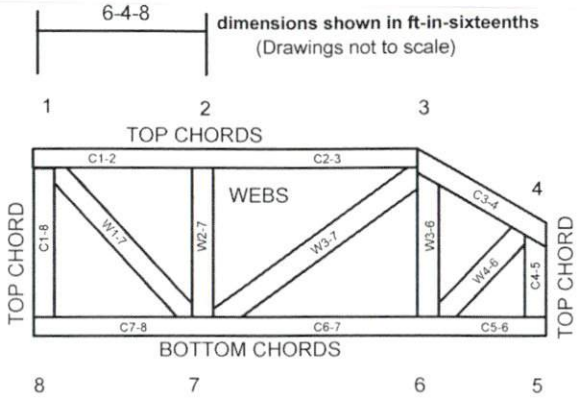


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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

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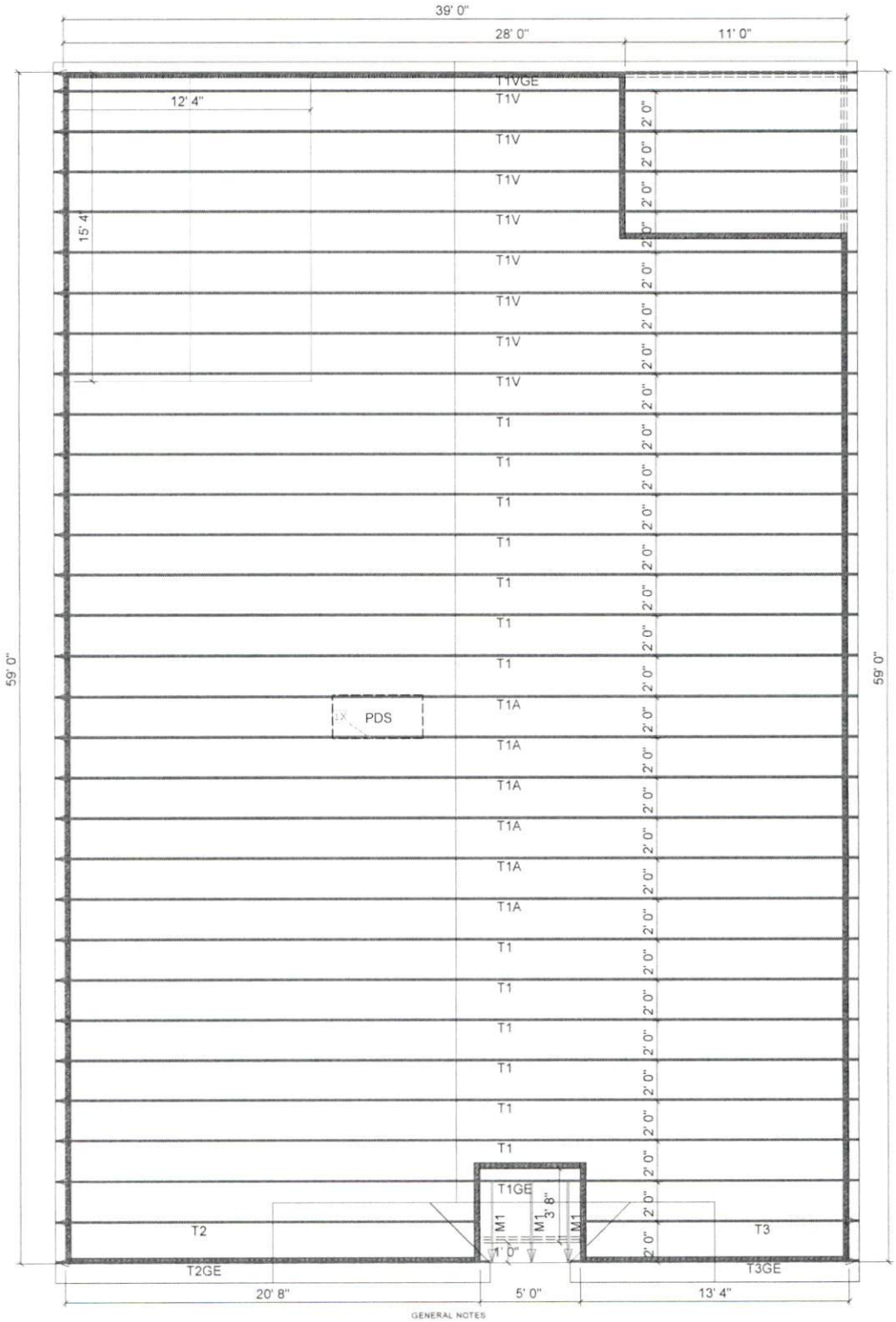
General Safety Notes

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.

THIS LAYOUT IS INTENDED FOR THE PURPOSE OF TRUSS LOCATION AND PLACEMENT ONLY.
REFER TO THE BUILDING PLANS FOR ACTUAL BUILDING CONSTRUCTION.

Project:	Order:
001397	MASTER



GENERAL NOTES

DO NOT CUT OR MODIFY TRUSSES.

TRUSSES ARE SPACED 24" ON CENTER UNLESS NOTED OTHERWISE.

△ - INDICATES LEFT END OF TRUSS.

REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR THE LOCATION OF LATERAL BRACING AND MULTI-PLY AND/OR SCAB CONNECTION REQUIREMENTS.

PER ANSI TPI 1-2002 THE TRUSS ENGINEER IS RESPONSIBLE FOR TRUSS TO TRUSS CONNECTIONS AND TRUSS PLY TO PLY CONNECTIONS. THIS TRUSS PLACEMENT PLAN REGCOMENDS TRUSS TO BEARING CONNECTIONS AND TRUSS TO BEAM CONNECTIONS WHICH SHALL BE REVIEWED BY THE BUILDING DESIGNER. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO RESOLVE ALL ROOF FORCES ADEQUATELY TO THE FOUNDATION.

Hardware List:

A		
B		
C		
D		
	80	H2.5A

84 LUMBER COMPONENTS

DEDICATED TO QUALITY & EXCELLENCE
420 DIXON DAIRY ROAD
KINGS MOUNTAIN, NORTH CAROLINA
PHONE: 704.937.3712
FAX: 877.807.7983

Project: Cali - NP Vault MBR (MASTER)

Customer: EXPRESS HOMES

Model: NP Vault MBR (MASTER)

Scale: NOT TO SCALE		P.O. Number:	Order: MASTER
Quote by: Jason Ledbetter			
Design by:		Ship Date:	Project: 001397
Salesperson: Terry Gonya			