ENGINEERING BY TRENCO
A MiTek Affiliate

Re: 29640-29640A
    68 PRINCE PLACE - ROOF

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by   84 Components - #2383.

Pages or sheets covered by this seal: I49579367 thru I49579400

My license renewal date for the state of North Carolina is   December 31, 2022.

North Carolina COA: C-0844

NORTH CAROLINA
PROFESSIONAL
SEAL
044925
SCOTT M. SEVIER
ENGINEER

Scott Sevier

January 7,2022

Sevier, Scott

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

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	A1E	GABLE	1	1		I49579367
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:34:52 2022 Page 1
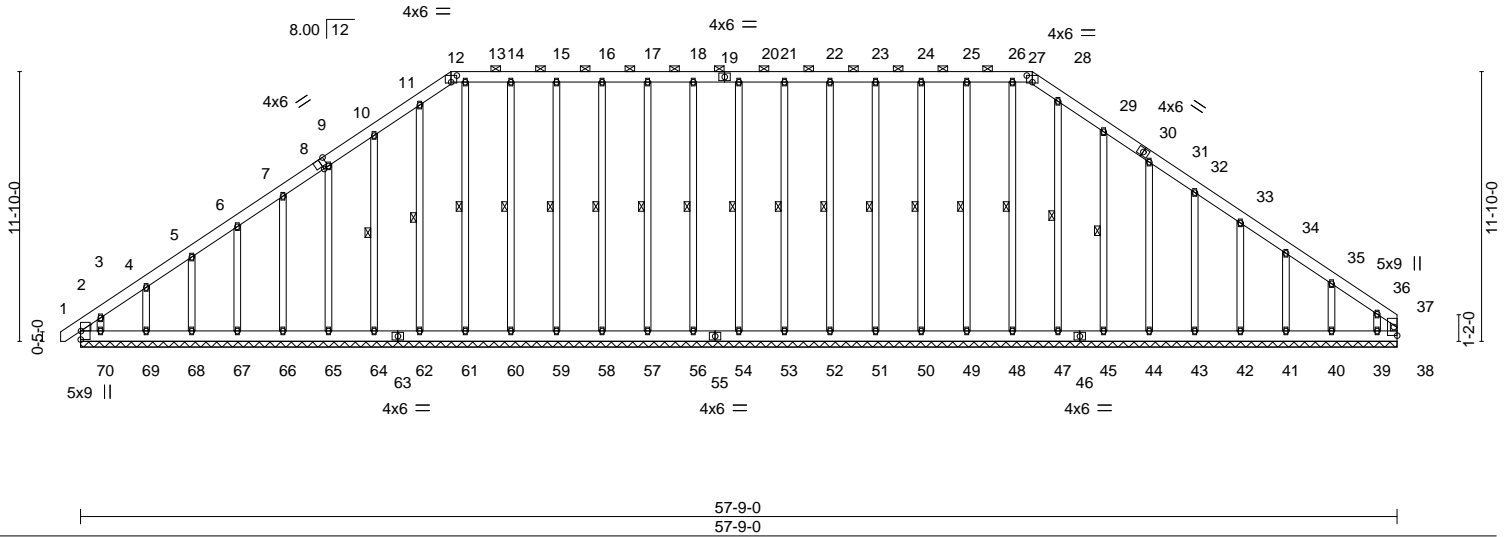ID:wI88M6Te4AKsZPQ32HGjMByhydU-EUg_YAhx?R7lDhVdCrvzJV?YVHYeaOm1Z_QlCFzy3IX
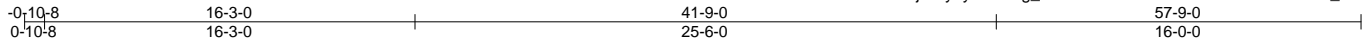
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Plate Offsets (X,Y)-- [8:0-2-10,Edge], [12:0-3-0,0-3-8], [27:0-3-0,0-3-8]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	38	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 630 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3
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 (6-0-0 max.): 12-27.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   20-54, 18-56, 17-57, 16-58, 15-59, 14-60, 13-61, 11-62, 10-64, 21-53, 22-52, 23-51, 24-50, 25-49, 26-48, 28-47, 29-45

REACTIONS.   All bearings 57-9-0.
(lb) - Max Horz 2=228(LC 9)
        Max Uplift   All uplift 100 lb or less at joint(s) 38, 54, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 53, 52, 51, 50, 49, 45, 44, 43, 42, 41, 40 except 2=-147(LC 10), 70=-129(LC 12), 39=-174(LC 13)
        Max Grav   All reactions 250 lb or less at joint(s) 38, 2, 54, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 53, 52, 51, 50, 49, 48, 47, 45, 44, 43, 42, 41, 40, 39

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-294/239

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-9-5 to 4-10-8, Exterior(2) 4-10-8 to 16-3-0, Corner(3) 16-3-0 to 22-0-5, Exterior(2) 22-0-5 to 41-9-0, Corner(3) 41-9-0 to 47-6-5, Exterior(2) 47-6-5 to 57-7-4 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) 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) 38, 54, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 53, 52, 51, 50, 49, 45, 44, 43, 42, 41, 40 except (jt=lb) 2=147, 70=129, 39=174.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
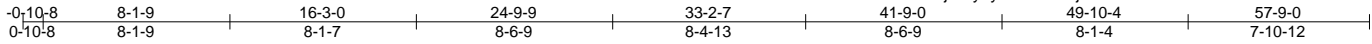
January 7,2022

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

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	A2	Common	7	1		I49579368
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:34:54 2022 Page 1
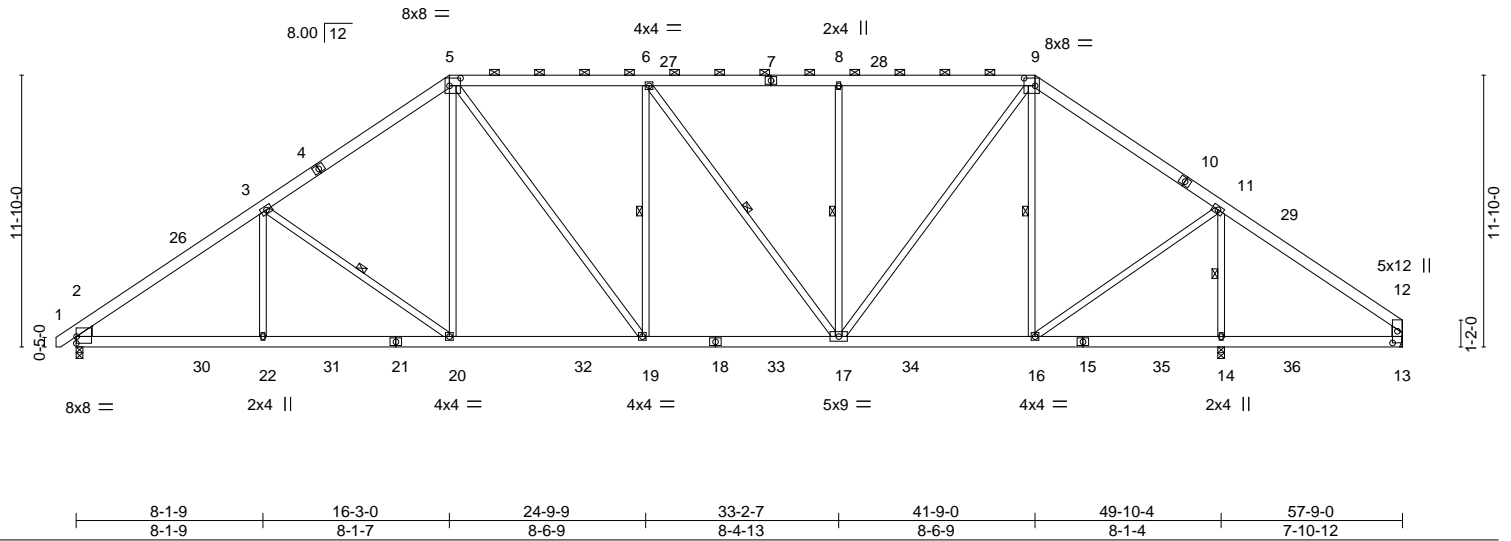ID:wI88M6Te4AKsZPQ32HGjMByhydU-BtokzsjCX2NTT?f0JGxROw5ni40n2AOK0IvPH7zy3IV

-0-10-8 8-1-9 16-3-0 24-9-9 33-2-7 41-9-0 49-10-4 57-9-0
0-10-8 8-1-9 8-1-7 8-6-9 8-4-13 8-6-9 8-1-4 7-10-12

Scale = 1:100.3

8-1-9 16-3-0 24-9-9 33-2-7 41-9-0 49-10-4 57-9-0
8-1-9 8-1-7 8-6-9 8-4-13 8-6-9 8-1-4 7-10-12

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

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	0.54	Vert(LL)	-0.16	19-20	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.28	19-20	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.09	13	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 462 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.2
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3 *Except*
5-19,6-17,9-17: 2x4 SP No.2 or 2x4 SPF No.2, 12-13: 2x6 SP No.2
WEDGE
Left: 2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-6-12 oc purlins,
except end verticals, and 2-0-0 oc purlins (4-5-4 max.): 5-9.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing,   Except:
6-0-0 oc bracing: 14-16,13-14.
WEBS   1 Row at midpt   3-20, 6-19, 6-17, 8-17, 9-16, 11-14

REACTIONS.   (size)   2=0-3-8, 14=0-3-8, 13=Mechanical
Max Horz   2=231(LC 11)
Max Uplift   2=-5(LC 12), 13=-66(LC 13)
Max Grav   2=2131(LC 2), 14=2537(LC 2), 13=292(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-3121/152, 3-5=-2624/219, 5-6=-2385/243, 6-8=-2101/243, 8-9=-2101/243,
9-11=-1668/210
BOT CHORD   2-22=-121/2486, 20-22=-121/2486, 19-20=-105/2094, 17-19=-121/2385, 16-17=-12/1271
WEBS   3-22=0/270, 3-20=-614/188, 5-20=-4/676, 5-19=-187/596, 6-19=-314/250, 6-17=-503/49,
8-17=-542/170, 9-17=-134/1419, 9-16=-668/137, 11-16=-69/1535, 11-14=-2196/149

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
gable end zone and C-C Exterior(2) -0-9-5 to 5-0-0, Interior(1) 5-0-0 to 16-3-0, Exterior(2) 16-3-0 to 24-5-0, Interior(1) 24-5-0 to
41-9-0, Exterior(2) 41-9-0 to 49-10-4, Interior(1) 49-10-4 to 57-6-4 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) 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) 2, 13.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORTH CAROLINA
PROFESSIONAL
Scott Sevier
SEAL
044925
ENGINEER
SCOTT M. SEVIER

January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	A2A	ROOF TRUSS	5	1		I49579369
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:34:56 2022 Page 1
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Scale = 1:102.8

| Plate Offsets (X,Y)-- | [5:0-5-12,0-4-0], [13:0-6-2,0-2-8] |

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	0.56	Vert(LL)	-0.16	22-23	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.31	22-23	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.09	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.11	14-15	822	360	Weight: 495 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.2
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3 *Except*
    5-22,6-20,9-20,9-17: 2x4 SP No.2 or 2x4 SPF No.2
    13-14: 2x6 SP No.2
WEDGE
Left: 2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-5-8 oc purlins,
                    except end verticals, and 2-0-0 oc purlins (4-3-0 max.): 5-10.
BOT CHORD   Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS   1 Row at midpt   3-23, 6-22, 6-20, 8-20, 12-15, 9-17

REACTIONS.   (size)   2=0-3-8, 15=0-3-8, 14=Mechanical
                Max Horz 2=231(LC 11)
                Max Uplift 14=-42(LC 13)
                Max Grav 2=2197(LC 2), 15=2877(LC 2), 14=604(LC 21)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-3227/57, 3-5=-2740/115, 5-6=-2517/118, 6-8=-2394/75, 8-9=-2394/75,
                9-10=-1429/83, 10-12=-1870/70, 12-13=-315/141, 13-14=-336/85
BOT CHORD   2-25=-42/2573, 23-25=-42/2573, 22-23=-18/2190, 20-22=0/2517, 17-20=0/1975
WEBS   3-25=0/259, 3-23=-602/196, 5-23=-1/687, 5-22=-118/656, 6-22=-402/162,
                6-20=-285/138, 8-20=-300/86, 10-17=0/665, 12-17=0/1579, 12-15=-2435/0, 9-20=0/1014,
                9-17=-1329/125

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
    gable end zone and C-C Exterior(2) -0-9-5 to 5-0-0, Interior(1) 5-0-0 to 16-3-0, Exterior(2) 16-3-0 to 24-5-0, Interior(1) 24-5-0 to
    41-9-0, Exterior(2) 41-9-0 to 49-10-4, Interior(1) 49-10-4 to 57-6-4 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) 200.0lb AC unit load placed on the bottom chord, 36-3-10 from left end, supported at two points, 5-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 4x4 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) Ceiling dead load (5.0 psf) on member(s). 10-12, 12-13
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

January 7,2022

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

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	A4	Common	3	1		I49579370
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:34:57 2022 Page 1
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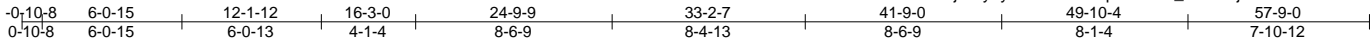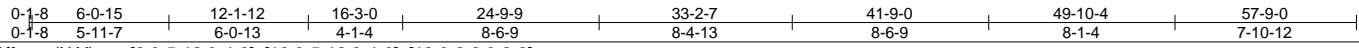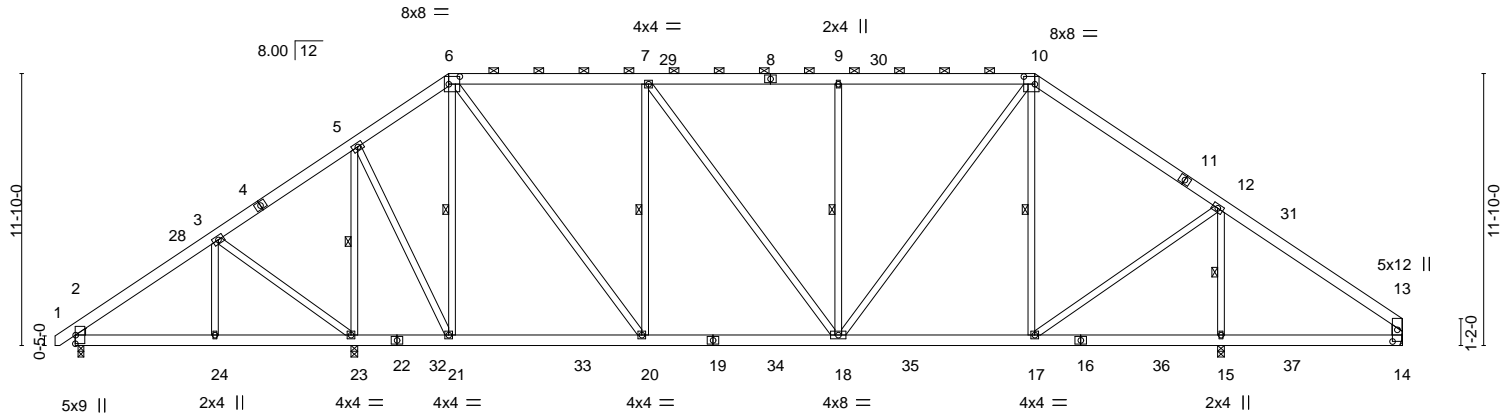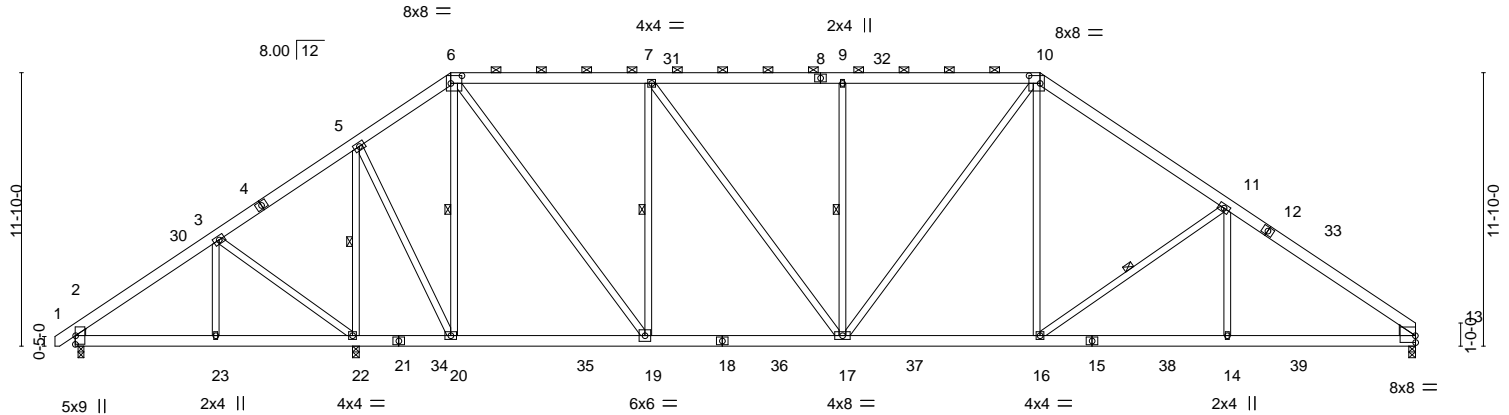
Scale = 1:100.2

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

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	0.40	Vert(LL)	-0.09	17-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.15	18-20	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.03	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 481 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.2
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3 *Except*
   6-20,7-18,10-18: 2x4 SP No.2 or 2x4 SPF No.2, 13-14: 2x6 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 (5-8-13 max.): 6-10.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   5-23, 6-21, 7-20, 9-18, 10-17, 12-15

REACTIONS.   All bearings 0-3-8 except (jt=length) 14=Mechanical, 2=0-3-0.
   (lb) -   Max Horz   2=231(LC 11)
       Max Uplift   All uplift 100 lb or less at joint(s) 23, 14, 2
       Max Grav   All reactions 250 lb or less at joint(s) except 23=1960(LC 2), 15=1954(LC
         2), 14=364(LC 20), 2=633(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-692/82, 3-5=-311/136, 5-6=-869/196, 6-7=-1343/217, 7-9=-1425/216,
   9-10=-1425/216, 10-12=-1301/195, 12-13=-291/111, 13-14=-296/102
BOT CHORD   2-24=-109/561, 23-24=-109/561, 20-21=-95/701, 18-20=-113/1343, 17-18=-9/972
WEBS   3-23=-438/129, 5-23=-1591/88, 5-21=-2/1112, 6-21=-779/81, 6-20=-101/1148,
   7-20=-683/185, 9-18=-538/170, 10-18=-129/800, 10-17=-395/135, 12-17=-65/1040,
   12-15=-1627/136

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) -0-9-5 to 5-0-0, Interior(1) 5-0-0 to 16-3-0, Exterior(2) 16-3-0 to 24-5-0, Interior(1) 24-5-0 to
   41-9-0, Exterior(2) 41-9-0 to 49-10-4, Interior(1) 49-10-4 to 57-6-4 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) 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) 23, 14, 2.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	A5	PIGGYBACK BASE	4	1		I49579371
					Job Reference (optional)	

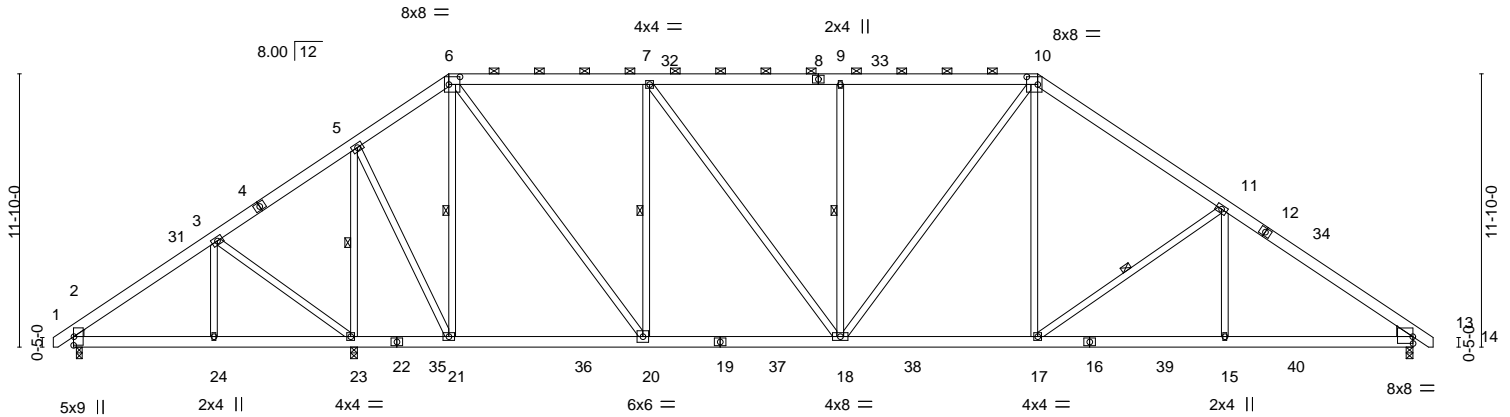84 Components (Dunn), Dunn, NC - 28334,
8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:34:59 2022 Page 1
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Scale = 1:99.7

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

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	0.48	Vert(LL)	-0.15	16-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.27	16-17	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.09	13	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 483 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.2
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3 *Except*
6-19,7-17,10-17: 2x4 SP No.2 or 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-10-8 oc purlins, except
2-0-0 oc purlins (4-10-4 max.): 6-10.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing,   Except:
6-0-0 oc bracing: 20-22.
WEBS   1 Row at midpt   6-20, 7-19, 5-22, 9-17, 11-16

REACTIONS.   (size)   22=0-3-8, 13=0-3-8, 2=0-3-0
Max Horz   2=217(LC 9)
Max Uplift 13=-10(LC 13), 2=-15(LC 12)
Max Grav 22=2491(LC 2), 13=1912(LC 2), 2=528(LC 23)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-524/70, 5-6=-861/191, 6-7=-1623/219, 7-9=-1990/224, 9-10=-1990/224,
10-11=-2316/206, 11-13=-2828/142
BOT CHORD   2-23=-117/399, 22-23=-117/399, 19-20=-86/702, 17-19=-77/1623, 16-17=0/1837,
14-16=-31/2246, 13-14=-31/2246
WEBS   3-22=-453/128, 6-19=-92/1632, 5-20=0/1542, 6-20=-1138/74, 7-19=-1037/178,
7-17=-28/624, 10-16=-4/687, 5-22=-2104/89, 9-17=-534/170, 10-17=-175/406,
11-16=-633/186, 11-14=0/281

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-9-5 to 5-0-5, Interior(1) 5-0-5 to 16-3-0, Exterior(2) 16-3-0 to 24-5-7, Interior(1) 24-5-7 to 41-9-0, Exterior(2) 41-9-0 to 49-10-4, Interior(1) 49-10-4 to 58-0-0 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 2.
8) 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
044925
ENGINEER
SCOTT M. SEVIER

January 7,2022

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

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	A6	PIGGYBACK BASE	5	1		I49579372
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:00 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-?19?Dvny7u8dBw6AgX2reBLq?V5nSs_DOEMjUnzy3IP

Scale = 1:99.8

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

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	0.49	Vert(LL)	-0.15	17-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.27	17-18	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.09	13	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 485 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.2
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3 *Except*
             6-20,7-18,10-18: 2x4 SP No.2 or 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-10-6 oc purlins,
             except
             2-0-0 oc purlins (4-10-5 max.): 6-10.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing,   Except:
             6-0-0 oc bracing: 21-23.
WEBS   1 Row at midpt   6-21, 7-20, 5-23, 9-18, 11-17

REACTIONS.   (size)   23=0-3-8, 13=0-3-8, 2=0-3-0
            Max Horz 2=-221(LC 10)
            Max Uplift 13=-22(LC 13), 2=-17(LC 12)
            Max Grav 23=2492(LC 2), 13=1951(LC 2), 2=528(LC 23)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-523/74, 5-6=-860/193, 6-7=-1622/221, 7-9=-1989/225, 9-10=-1989/225,
             10-11=-2315/205, 11-13=-2826/139
BOT CHORD   2-24=-114/402, 23-24=-114/402, 20-21=-83/710, 18-20=-74/1622, 17-18=0/1836,
             15-17=-22/2243, 13-15=-22/2243
WEBS   3-23=-453/128, 6-20=-91/1632, 5-21=0/1542, 6-21=-1139/72, 7-20=-1037/178,
             7-18=-26/624, 10-17=-4/686, 5-23=-2104/83, 9-18=-534/170, 10-18=-175/406,
             11-17=-631/186, 11-15=0/281

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) -0-9-5 to 5-0-5, Interior(1) 5-0-5 to 16-3-0, Exterior(2) 16-3-0 to 24-5-7, Interior(1) 24-5-7 to
   41-9-0, Exterior(2) 41-9-0 to 49-10-4, Interior(1) 49-10-4 to 58-9-5 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 2.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	A6E	PIGGYBACK BASE SUPPO	1	1		I49579373
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:04 2022 Page 1
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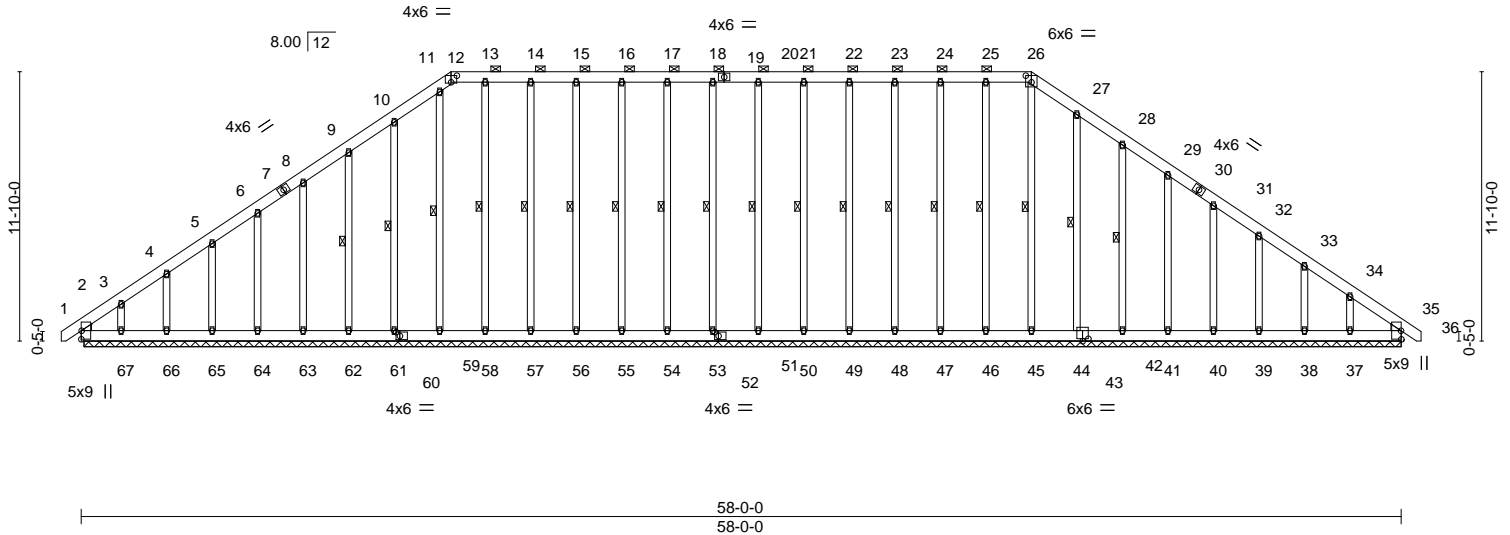
Plate Offsets (X,Y)-- [12:0-3-0,0-3-8], [26:0-3-0,0-3-8], [44:0-3-0,0-1-4], [52:0-2-0,0-2-0], [60:0-2-0,0-2-0]

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	0.05	Vert(LL)	0.00	35	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	35	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	35	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 633 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
OTHERS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 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.): 12-26.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 26-45, 25-46, 24-47, 23-48, 22-49, 21-50,
20-51, 18-53, 17-54, 16-55, 15-56, 14-57,
13-58, 11-59, 10-61, 9-62, 27-44, 28-42

REACTIONS. All bearings 57-10-8.
(lb) - Max Horz 2=-221(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 61, 62, 63, 64, 65, 66, 67, 44, 42, 41, 40, 39, 38, 37, 35
Max Grav All reactions 250 lb or less at joint(s) 2, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 44, 42, 41, 40, 39, 38, 37, 35

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-268/210

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-9-5 to 5-0-5, Exterior(2) 5-0-5 to 16-3-0, Corner(3) 16-3-0 to 22-0-10, Exterior(2) 22-0-10 to 41-9-0, Corner(3) 41-9-0 to 47-9-0, Exterior(2) 47-9-0 to 58-9-5 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) Provide adequate drainage to prevent water ponding.
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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 61, 62, 63, 64, 65, 66, 67, 44, 42, 41, 40, 39, 38, 37, 35.
10) Non Standard bearing condition. Review required.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

January 7,2022

ENGINEERING BY
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Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	B1E	GABLE	1	1		I49579374
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:06 2022 Page 1
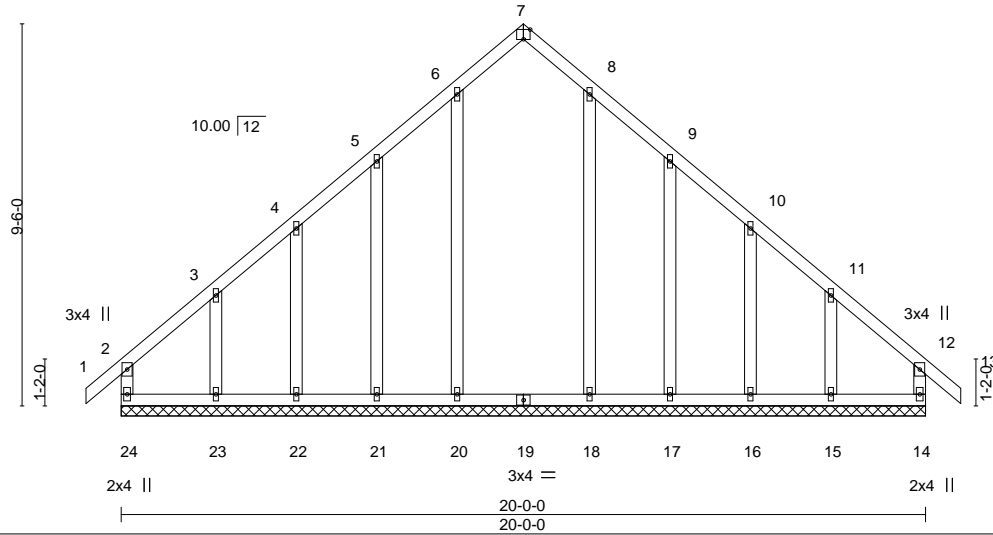ID:wI88M6Te4AKsZPQ32HGjMByhydU-qBWGUysjikumvrZJ0n9FtSawbwIRsjt5n9p1iRzy3IJ

Scale = 1:57.3

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.00	13	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.00	13	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 135 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF 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 20-0-0.
     (lb) - Max Horz 24=202(LC 11)
             Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 22, 16 except 21=-102(LC 12), 23=-171(LC 12), 17=-103(LC
                         13), 15=-169(LC 13)
             Max Grav   All reactions 250 lb or less at joint(s) 24, 14, 21, 22, 23, 17, 16, 15 except 20=262(LC 19),
                        18=258(LC 21)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Corner(3) -0-10-8 to 2-4-4, Exterior(2) 2-4-4 to 10-0-0, Corner(3) 10-0-0 to 13-0-0, Exterior(2) 13-0-0 to
   20-10-8 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 1.5x4 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, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 14, 22, 16
    except (jt=lb) 21=102, 23=171, 17=103, 15=169.

January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	B2	Common	1	1		I49579375
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:07 2022 Page 1
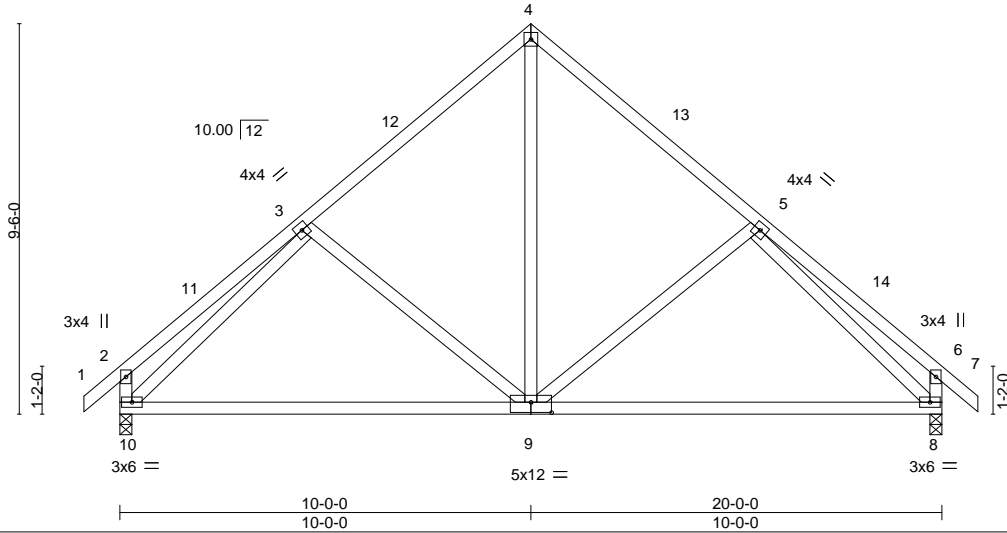ID:wI88M6Te4AKsZPQ32HGjMByhydU-IN4fiItLT20dW?8WaVgUQg714KSNb5xE0pYbEtzy3II
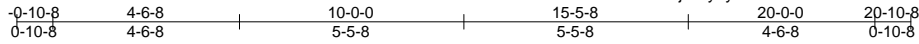
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Plate Offsets (X,Y)--   [9:0-6-0,0-3-0]

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	0.50	Vert(LL)	-0.18	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.37	8-9	>634	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 126 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF No.2
WEBS   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 2-2-0 oc bracing.

REACTIONS.   (size)   10=0-3-8, 8=0-3-8
                  Max Horz 10=202(LC 11)
                  Max Uplift 10=-17(LC 12), 8=-17(LC 13)
                  Max Grav 10=850(LC 1), 8=850(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-262/52, 3-4=-702/97, 4-5=-702/97, 5-6=-262/52, 2-10=-286/82, 6-8=-285/82
BOT CHORD   9-10=-68/636, 8-9=0/585
WEBS   4-9=-21/500, 3-10=-661/38, 5-8=-661/38

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 8.

January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:09 2022 Page 1
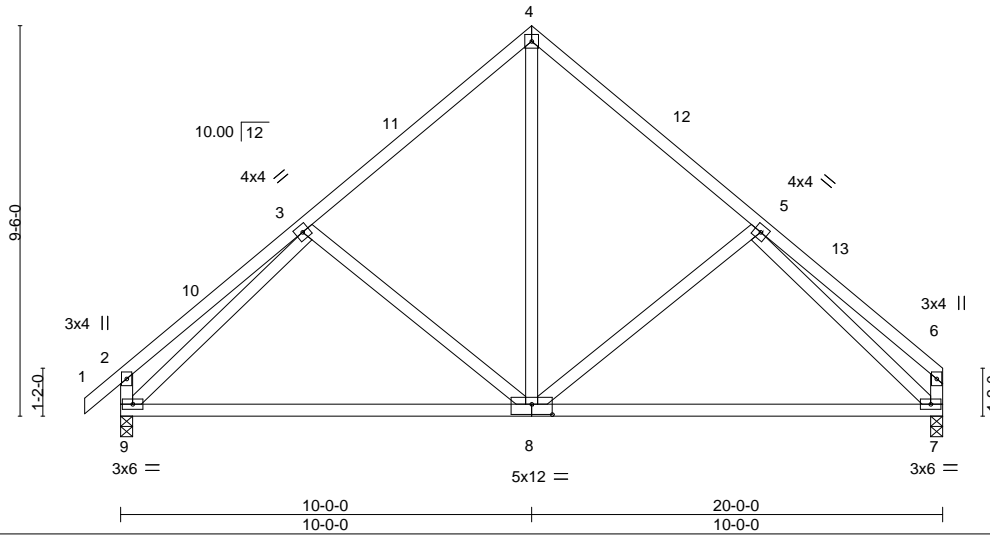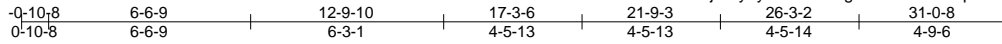ID:wI88M6Te4AKsZPQ32HGjMByhydU-EmCP6_uc?fGLmIIuhwjyV5CNZ77q3?GXT71iJmzy3IG

Scale = 1:56.1

Plate Offsets (X,Y)--   [8:0-6-0,0-3-0]

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	0.50	Vert(LL)	-0.18	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.37	8-9	>634	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 124 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF No.2
WEBS   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 2-2-0 oc bracing.

REACTIONS.   (size)   9=0-3-8, 7=0-3-8
          Max Horz   9=197(LC 9)
          Max Uplift   9=-16(LC 12), 7=-3(LC 13)
          Max Grav   9=851(LC 1), 7=787(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-262/52, 3-4=-704/97, 4-5=-705/100, 5-6=-250/30, 2-9=-286/82
BOT CHORD   8-9=-78/629, 7-8=-17/593
WEBS   4-8=-24/501, 3-9=-663/38, 5-7=-675/53

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 19-10-4 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.

January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	C1E	GABLE	1	1		I49579377
					Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,
8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:11 2022 Page 1
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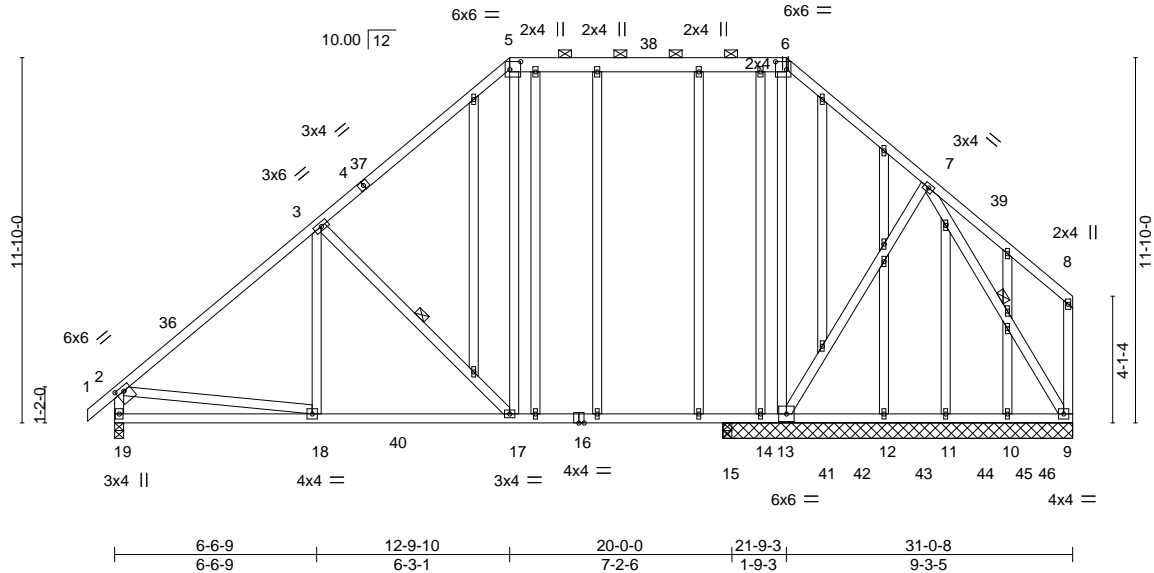
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Plate Offsets (X,Y)-- [2:0-3-0,0-1-12], [5:0-4-4,0-3-0], [6:0-4-4,0-3-0]

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	0.65	Vert(LL)	-0.12	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.21	15-17	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 330 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2 *Except*
5-6: 2x6 SP No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF No.2
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 4-4-3 oc purlins,
except end verticals, and 2-0-0 oc purlins (5-6-4 max.): 5-6.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   3-17, 7-9

REACTIONS. All bearings 11-4-0 except (jt=length) 19=0-3-8, 15=0-3-8.
(lb) - Max Horz   19=272(LC 9)
Max Uplift   All uplift 100 lb or less at joint(s) 19, 12, 11, 10 except 13=-744(LC 19), 9=-148(LC 12),
14=-588(LC 2)
Max Grav   All reactions 250 lb or less at joint(s) 11 except 19=1423(LC 19), 13=329(LC 39), 9=1556(LC 48),
12=355(LC 26), 10=275(LC 23), 15=616(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1645/113, 3-5=-1369/194, 5-6=-991/199, 6-7=-1363/232, 2-19=-1366/110
BOT CHORD   18-19=-278/374, 17-18=-187/1323, 15-17=-159/1061, 13-14=-159/1061,
12-13=-98/842, 11-12=-98/842, 10-11=-98/842, 9-10=-98/842
WEBS   3-17=-377/160, 5-17=-30/492, 6-13=-109/568, 7-13=-121/431, 2-18=0/999,
7-9=-1600/143

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
gable end zone and C-C Exterior(2) -0-10-8 to 2-2-12, Interior(1) 2-2-12 to 12-9-10, Exterior(2) 12-9-10 to 17-2-4, Interior(1) 17-2-4 to
21-9-3, Exterior(2) 21-9-3 to 26-4-0, Interior(1) 26-4-0 to 30-10-12 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) Provide adequate drainage to prevent water ponding.
5) All plates are 1.5x4 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 100 lb uplift at joint(s) 19, 12, 11, 10
except (jt=lb) 13=744, 9=148, 14=588.
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) 203 lb down and 44 lb up at
22-1-4, 203 lb down and 44 lb up at 24-1-4, 203 lb down and 44 lb up at 26-1-4, and 203 lb down and 44 lb up at 28-1-4, and 205
lb down and 42 lb up at 30-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

LOAD CASE(S) Standard

January 7,2022

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| Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	C1E	GABLE	1	1		I49579377
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:11 2022 Page 2
ID:wI88M6Te4AKsZPQ32HGjMByhydU-B8K9XgwsXHW3?cSHpLlQaWIfbxrTXsXqwRWoNezy3IE

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, 6-8=-60, 9-19=-20
    Concentrated Loads (lb)
          Vert: 41=-203 42=-203 43=-203 44=-203 46=-205

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:12 2022 Page 1
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Plate Offsets (X,Y)--   [2:0-3-0,0-1-12], [6:0-3-0,0-2-1], [13:0-4-8,0-3-0]
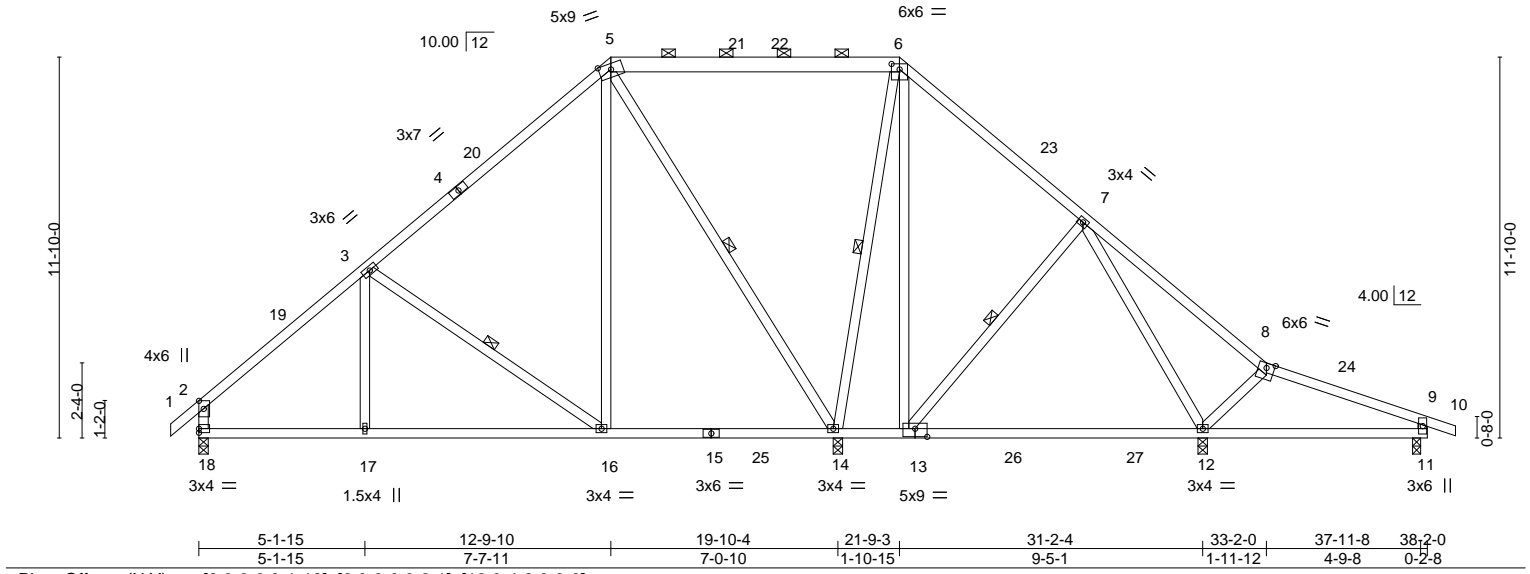
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.20	12-13	>668	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.33	12-13	>415	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.01	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 255 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2 *Except*
   5-6: 2x6 SP No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF No.2
WEBS   2x4 SP No.3 *Except*
   5-14: 2x4 SP No.2 or 2x4 SPF 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 (10-0-0 max.): 5-6.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   1 Row at midpt   3-16, 5-14, 6-14, 7-13

REACTIONS.   All bearings 0-3-8 except (jt=length) 11=0-3-0.
   (lb) -   Max Horz   18=-248(LC 10)
           Max Uplift   All uplift 100 lb or less at joint(s) 18, 12, 11
           Max Grav   All reactions 250 lb or less at joint(s) except 18=567(LC 23), 14=1987(LC 1), 12=523(LC 26), 11=301(LC
                 24)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-538/86, 5-6=0/506, 6-7=0/515, 7-8=-20/285, 2-18=-494/100, 9-11=-252/110
BOT CHORD   17-18=-106/470, 16-17=-106/470, 13-14=-361/139
WEBS   3-16=-412/177, 5-16=-5/496, 5-14=-1012/48, 6-14=-1054/23, 6-13=-47/420,
           7-13=-315/161, 7-12=-153/302, 8-12=-285/140

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) -0-10-8 to 2-11-5, Interior(1) 2-11-5 to 12-9-10, Exterior(2) 12-9-10 to 16-7-6, Interior(1) 16-7-6 to
   21-9-3, Exterior(2) 21-9-3 to 25-7-0, Interior(1) 25-7-0 to 39-0-8 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) 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) 18, 12, 11.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
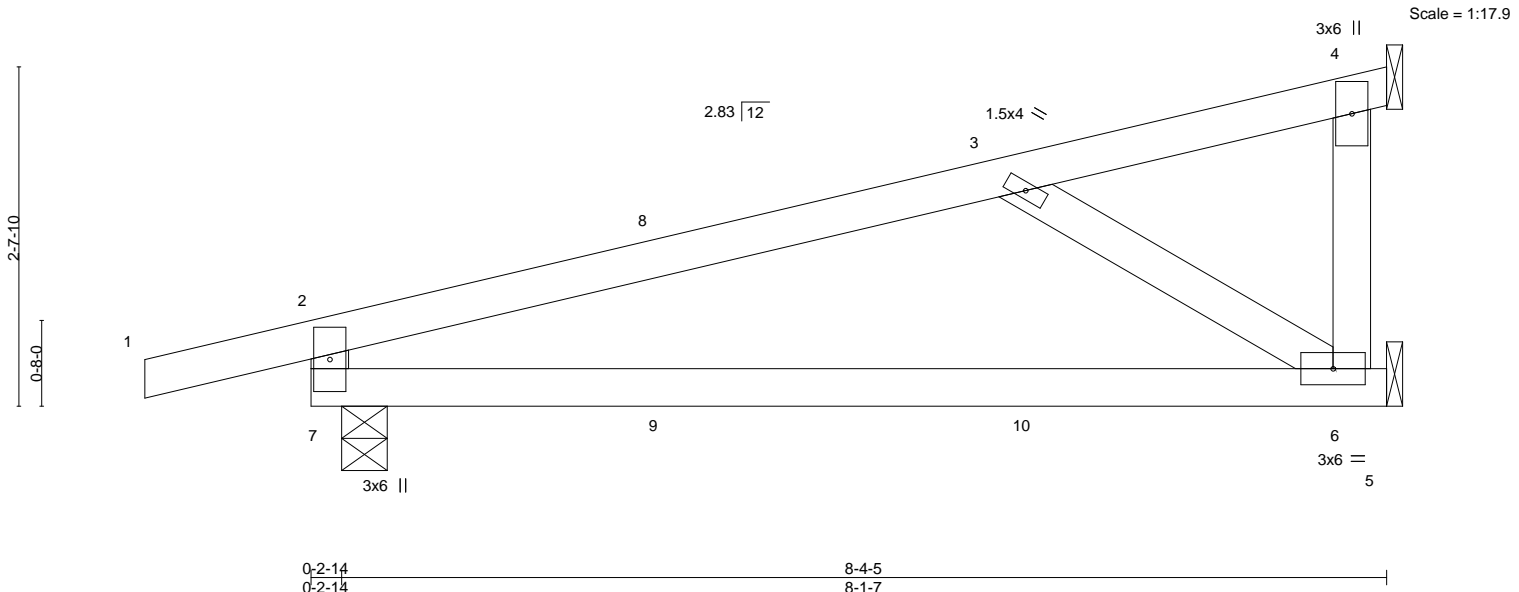
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84 Components (Dunn),   Dunn, NC - 28334,

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:14 2022 Page 1
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Scale = 1:17.9

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	0.59	Vert(LL)	-0.23	6-7	>423	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.46	6-7	>207	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.40	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP							Weight: 35 lb	FT = 20%

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

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

REACTIONS.   (size) 7=0-4-4, 4=Mechanical, 6=Mechanical
            Max Horz 7=76(LC 5)
            Max Uplift 7=-68(LC 4), 4=-59(LC 8)
            Max Grav 7=428(LC 1), 4=248(LC 1), 6=187(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-7=-341/118

NOTES-
1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) 7, 4.
6) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 10 lb down and 12 lb up at
   2-9-8, 10 lb down and 12 lb up at 2-9-8, and 33 lb down and 44 lb up at 5-7-7, and 33 lb down and 44 lb up at 5-7-7 on top chord,
   and 0 lb down and 1 lb up at 2-9-8, 0 lb down and 1 lb up at 2-9-8, and 18 lb down at 5-7-7, and 18 lb down at 5-7-7 on bottom
   chord. The design/selection of such connection device(s) is the responsibility of others.
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, 2-4=-60, 5-7=-20
   Concentrated Loads (lb)
       Vert: 3=-26(F=-13, B=-13) 9=2(F=1, B=1) 10=-27(F=-13, B=-13)

January 7,2022

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Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	D1G	Common Girder	1	**2**		I49579380
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:16 2022 Page 1
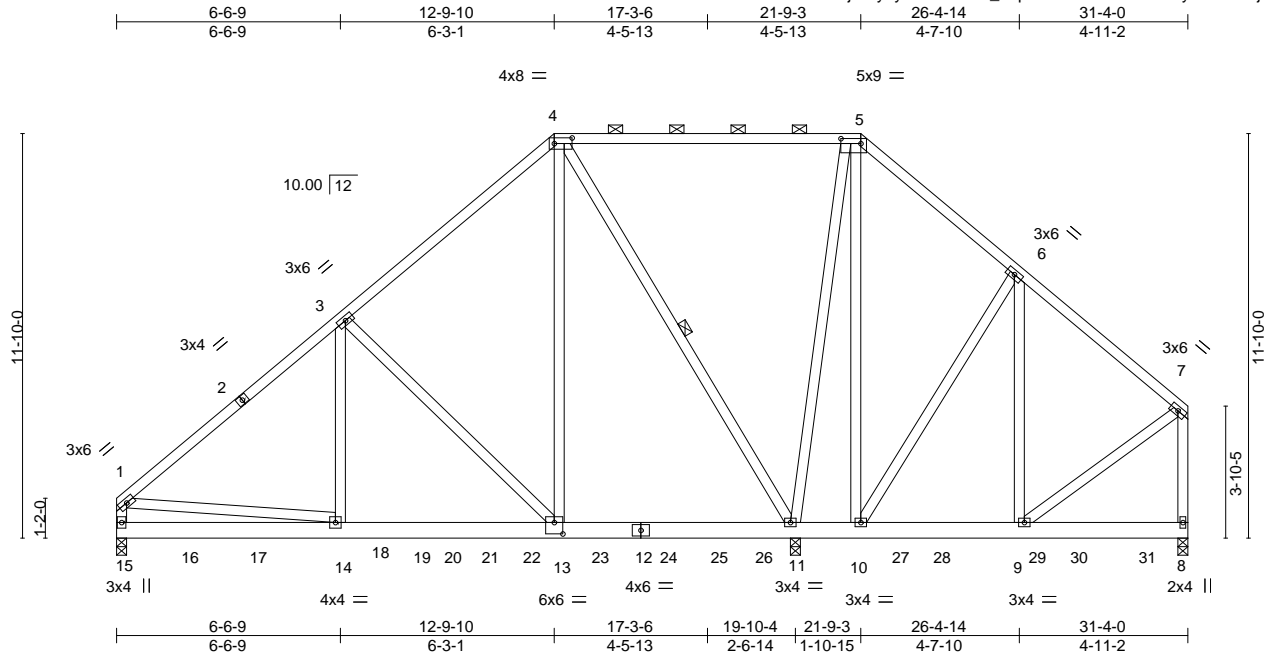ID:wl88M6Te4AKsZPQ32HGjMByhydU-X672aN_?Lp9L5NKEcuLbHZ?WkyZrC7TZ4jEZ2szy3I9

Scale = 1:67.4

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

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	0.69	Vert(LL)	-0.08	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.11	11-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 535 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3 *Except*
             4-11: 2x4 SP No.2 or 2x4 SPF 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 (10-0-0 max.): 4-5.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing,   Except:
             6-0-0 oc bracing: 10-11.
WEBS   1 Row at midpt   4-11

REACTIONS.   (size)   15=0-3-8, 11=0-3-8, 8=0-3-8
           Max Horz 15=257(LC 33)
           Max Uplift 15=-309(LC 8), 11=-548(LC 8), 8=-173(LC 9)
           Max Grav 15=1912(LC 40), 11=4701(LC 2), 8=1176(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-3=-2092/349, 3-4=-1330/247, 6-7=-689/136, 1-15=-1602/266, 7-8=-842/131
BOT CHORD   14-15=-314/545, 13-14=-380/1672, 11-13=-220/1006, 9-10=-69/464
WEBS   3-14=-179/907, 3-13=-992/358, 4-13=-356/2312, 4-11=-2232/333, 5-11=-1016/218,
              5-10=-224/589, 6-10=-860/257, 6-9=-132/799, 1-14=-148/1199, 7-9=-57/540

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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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)
   15=309, 11=548, 8=173.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

January 7,2022

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Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	D1G	Common Girder	1	**2**		I49579380
					Job Reference (optional)	

NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 267 lb down and 86 lb up at 2-0-12, 267 lb down and 86 lb up at 4-0-12, 267 lb down and 86 lb up at 6-0-12, 267 lb down and 86 lb up at 8-0-12, 267 lb down and 86 lb up at 10-0-12, 537 lb down and 62 lb up at 12-0-12, 508 lb down and 62 lb up at 14-0-12, 507 lb down and 62 lb up at 16-0-12, 530 lb down and 62 lb up at 18-0-12, 537 lb down and 62 lb up at 20-0-12, 267 lb down and 86 lb up at 22-0-12, 267 lb down and 86 lb up at 24-0-12, 328 lb down and 79 lb up at 26-0-12, and 328 lb down and 79 lb up at 28-0-12, and 328 lb down and 79 lb up at 30-0-12 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: 1-4=-60, 4-5=-60, 5-7=-60, 8-15=-20

   Concentrated Loads (lb)

       Vert: 11=-285(B) 16=-267(B) 17=-267(B) 18=-267(B) 19=-267(B) 21=-267(B) 22=-285(B) 23=-285(B) 24=-285(B) 26=-285(B) 27=-267(B) 28=-267(B) 29=-328(B) 30=-328(B) 31=-328(B)

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Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	J1	Monopitch	5	1		I49579381
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,
8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:17 2022 Page 1
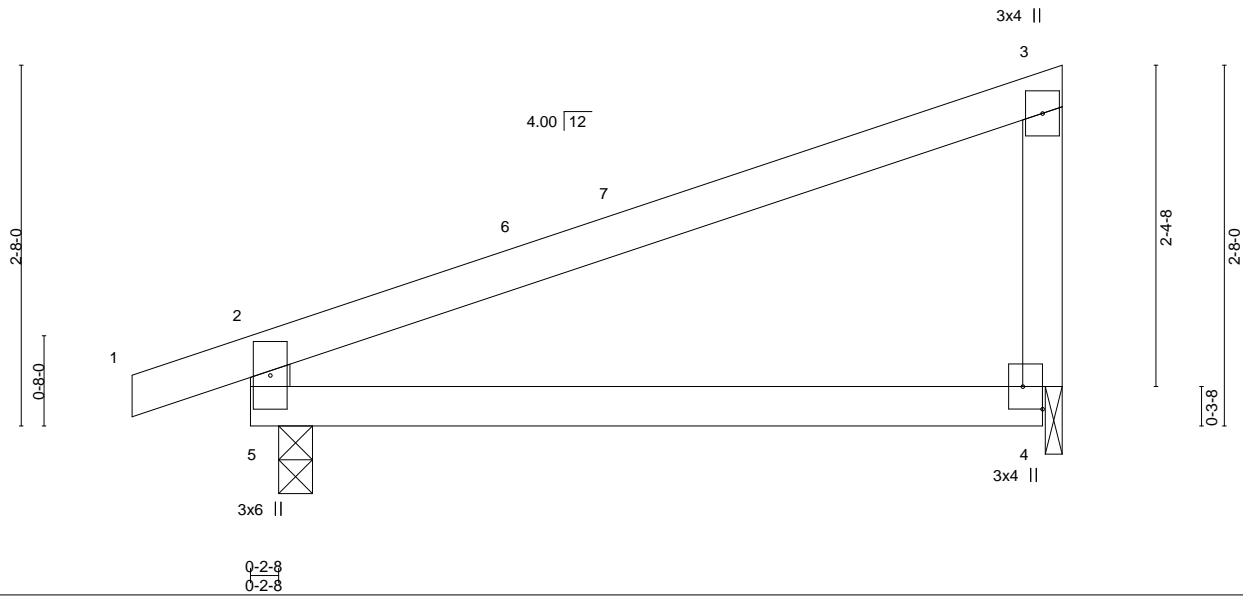ID:wI88M6Te4AKsZPQ32HGjMByhydU-?IhRoj_d67HCjXvR9bsqqnYlnM0bxkAjJNz7bIzy3I8

Scale = 1:17.0

Plate Offsets (X,Y)--   [4:Edge,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	0.42	Vert(LL)	-0.04	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.08	4-5	>845	180		
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: 23 lb	FT = 20%

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

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

REACTIONS.   (size)   5=0-3-0, 4=0-1-8
    Max Horz 5=80(LC 9)
    Max Uplift 5=-43(LC 8), 4=-24(LC 12)
    Max Grav 5=295(LC 1), 4=223(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-5=-252/121

NOTES-
1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-10-4 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
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) 5, 4.

NORTH CAROLINA
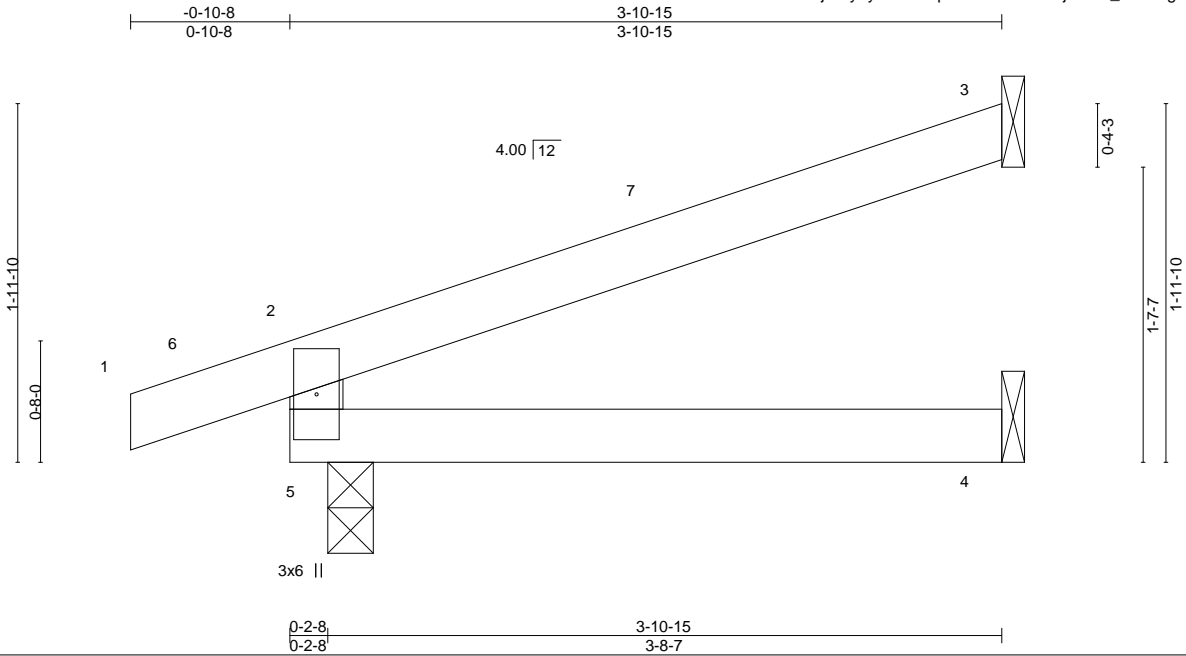PROFESSIONAL
Scott Sevier
SEAL
044925
SCOTT M. SEVIER
ENGINEER

January 7,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	J2	Jack-Open	2	1		I49579382
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:18 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-UUFp?3?FtQP3LhUdjJN3M_4zxlOIgBPsX1jg7kzy3I7

Scale = 1:12.7

4.00 [12]

3x6 ||

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	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	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: 14 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-10-15 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size) 5=0-3-0, 3=Mechanical, 4=Mechanical
Max Horz 5=46(LC 8)
Max Uplift 5=-33(LC 8), 3=-34(LC 12)
Max Grav 5=218(LC 1), 3=98(LC 1), 4=69(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 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
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.
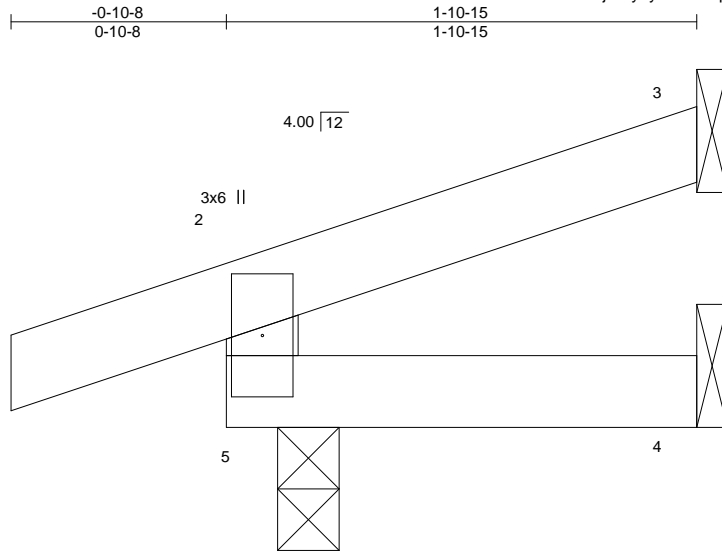
January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	J3	Jack-Open	2	1		I49579383
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:18 2022 Page 1
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Scale = 1:9.4

-0-10-8
0-10-8
1-10-15
1-10-15

4.00 ⌐12

3x6 ||

2

3

1

1-3-10
0-8-0
0-11-7
1-3-10

5

4

0-2-8
0-2-8
1-10-15
1-8-7

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	0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	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: 8 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 1-10-15 oc purlins,
            except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   3=Mechanical, 4=Mechanical, 5=0-3-0
               Max Horz 5=26(LC 8)
               Max Uplift 3=-16(LC 12), 5=-34(LC 8)
               Max Grav 3=38(LC 1), 4=31(LC 3), 5=149(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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
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.
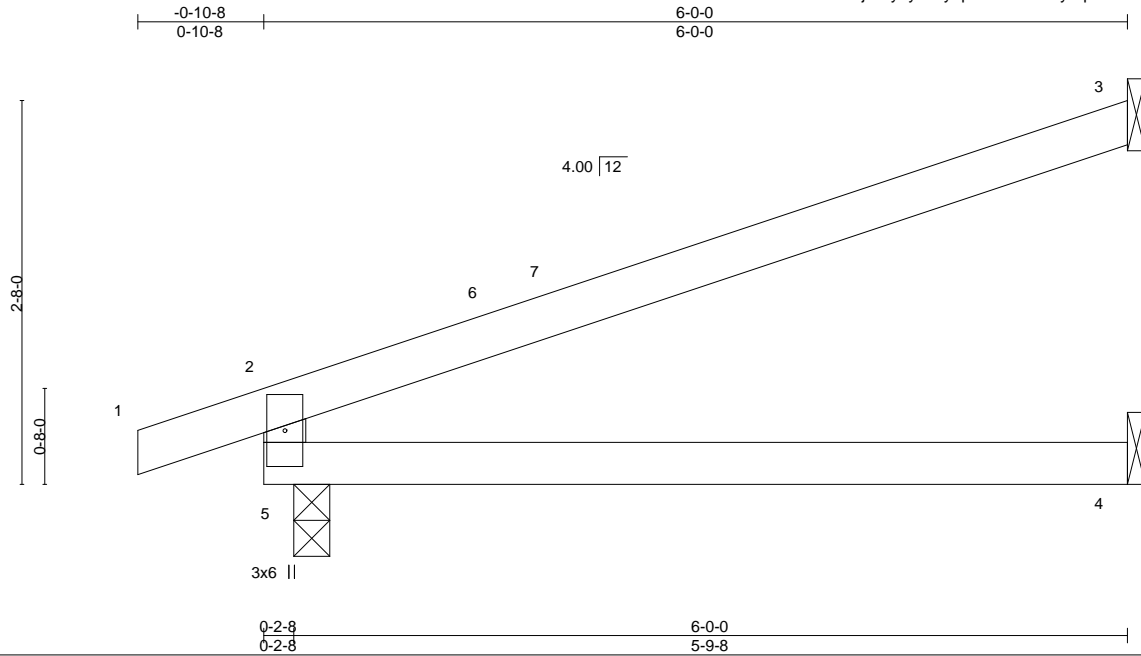
January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	J4	Jack-Open	1	1		I49579384
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:19 2022 Page 1
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-0-10-8 | 6-0-0
0-10-8 | 6-0-0

Scale: 3/4"=1'

4.00 |12

2-8-0

0-8-0

3x6 ||

0-2-8 | 6-0-0
0-2-8 | 5-9-8

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.05	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.12	4-5	>599	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: 20 lb	FT = 20%

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

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

REACTIONS.   (size) 5=0-3-0, 3=Mechanical, 4=Mechanical
                Max Horz 5=67(LC 8)
                Max Uplift 5=-35(LC 8), 3=-53(LC 12)
                Max Grav 5=298(LC 1), 3=157(LC 1), 4=109(LC 3)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-5=-252/115

NOTES-
1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 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
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.

NORTH CAROLINA
PROFESSIONAL
SEAL
044925
SCOTT M. SEVIER
ENGINEER

January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF
29640-29640A	M1GR	Monopitch Girder	1	1	I49579385
					Job Reference (optional)

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:20 2022 Page 1
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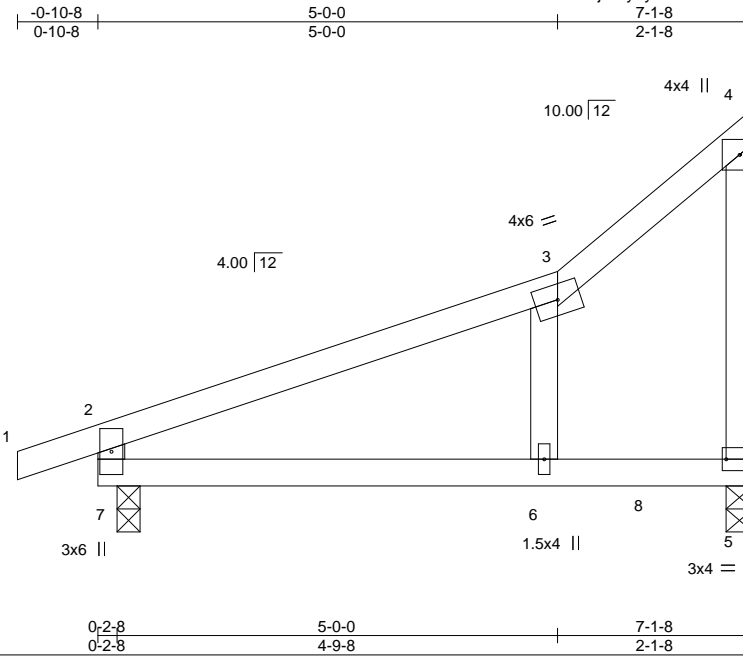
Scale = 1:25.1

Plate Offsets (X,Y)--   [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	0.75	Vert(LL)	-0.10	6-7	>843	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.23	6-7	>359	180		
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-MR							Weight: 32 lb	FT = 20%

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

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

REACTIONS.   (size) 5=0-3-8, 7=0-3-0
            Max Horz 7=118(LC 5)
            Max Uplift 7=-42(LC 4)
            Max Grav 5=383(LC 3), 7=358(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-7=-264/74

NOTES-
1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 210 lb down at 6-0-0 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=-60, 3-4=-60, 5-7=-20
   Concentrated Loads (lb)
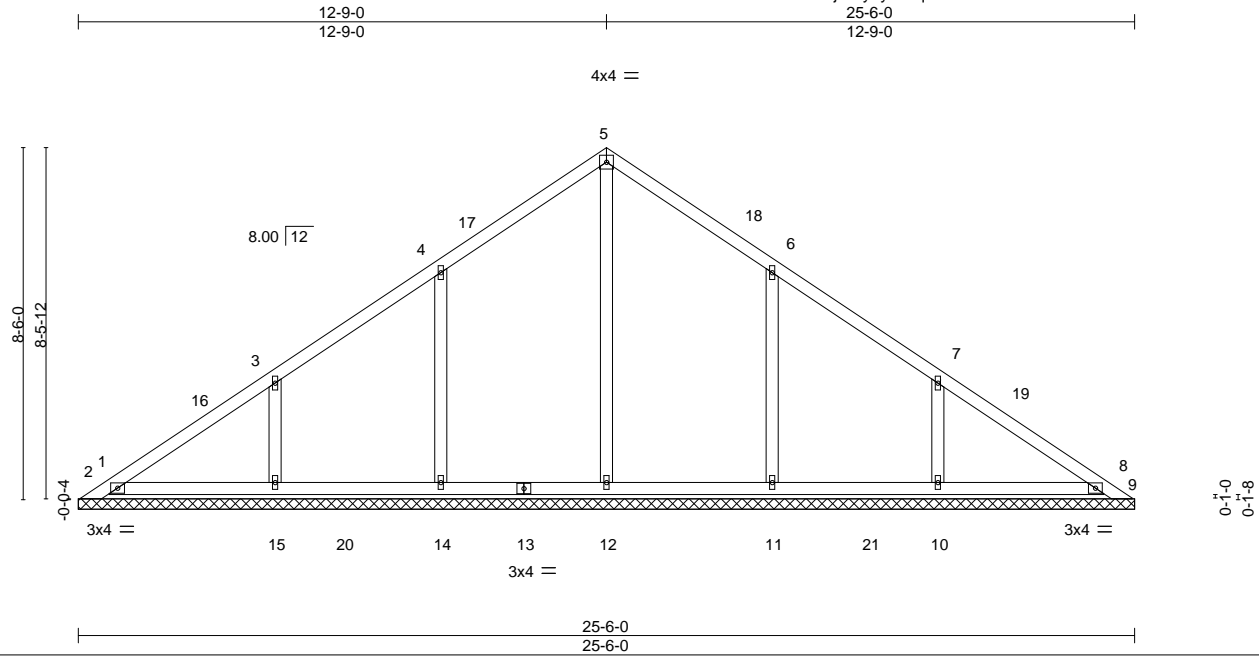   Vert: 8=-129(B)

January 7,2022

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:23 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-qS2i2m3Oiz1MRSNbWszE32nrom56LO7bhJQRoyzy3I2

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 115 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF 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 25-6-0.
(lb) -   Max Horz 1=161(LC 9)
         Max Uplift   All uplift 100 lb or less at joint(s) 2, 14, 15, 11, 10, 8 except 1=-235(LC 19), 9=-169(LC 20)
         Max Grav   All reactions 250 lb or less at joint(s) 1, 9 except 2=388(LC 19), 12=385(LC 22), 14=459(LC 19),
                    15=350(LC 19), 11=459(LC 20), 10=349(LC 20), 8=377(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   4-14=-264/136, 6-11=-264/136

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 12-9-0, Exterior(2) 12-9-0 to 15-9-0, Interior(1) 15-9-0 to
   25-2-5 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 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 14, 15, 11, 10,
   8 except (jt=lb) 1=235, 9=169.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building
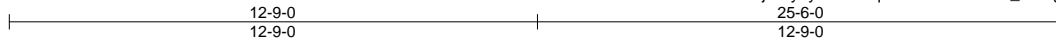   designer.

January 7,2022

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Edenton, NC 27932

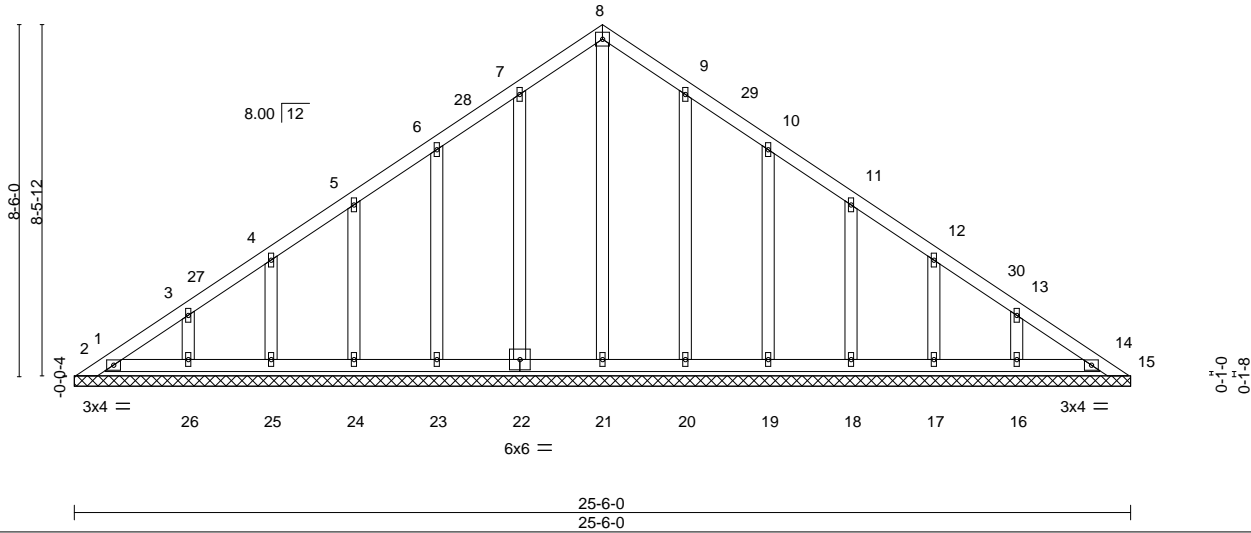| Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	PB2	GABLE	2	1		I49579387
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:26 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-F1kqho5G?uPwIw59B_WxhgPNC_9uYmt1NHf5PHzy3I?

LOADING (psf)
TCLL   20.0
TCDL   10.0
BCLL   0.0 *
BCDL   10.0

SPACING-   2-0-0
Plate Grip DOL   1.15
Lumber DOL   1.15
Rep Stress Incr   YES
Code IRC2015/TPI2014

CSI.
TC   0.05
BC   0.03
WB   0.16
Matrix-S

DEFL.   in   (loc)   l/defl   L/d
Vert(LL)   n/a   -   n/a   999
Vert(CT)   n/a   -   n/a   999
Horz(CT)   0.00   14   n/a   n/a

PLATES   **GRIP**
MT20   197/144

Weight: 150 lb   FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.2 or 2x4 SPF 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 25-6-0.
(lb) -   Max Horz 1=161(LC 9)
Max Uplift   All uplift 100 lb or less at joint(s) 15, 2, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16 except 1=-102(LC 10)
Max Grav   All reactions 250 lb or less at joint(s) 1, 15, 2, 21, 22, 23, 24, 25, 14, 26, 20, 19, 18, 17, 16

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 12-9-0, Exterior(2) 12-9-0 to 15-9-0, Interior(1) 15-9-0 to 25-2-5 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 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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) 15, 2, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16 except (jt=lb) 1=102.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

January 7,2022

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818 Soundside Road
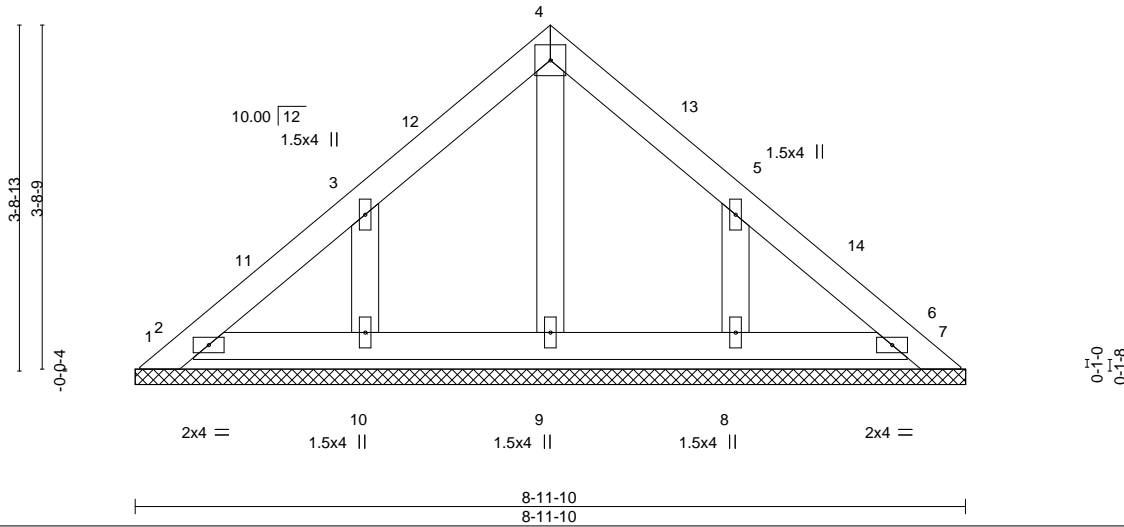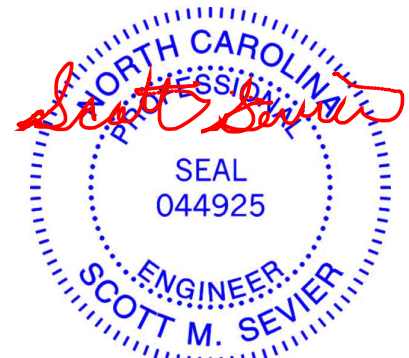Edenton, NC 27932

84 Components (Dunn), Dunn, NC - 28334,
8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:28 2022 Page 1
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4-5-13			8-11-10		
4-5-13			4-5-13		

4x4 =

Scale = 1:24.9

LOADING (psf)
TCLL 20.0
TCDL 10.0
BCLL 0.0 *
BCDL 10.0

SPACING- 2-0-0
Plate Grip DOL 1.15
Lumber DOL 1.15
Rep Stress Incr YES
Code IRC2015/TPI2014

CSI.
TC 0.06
BC 0.03
WB 0.03
Matrix-P

DEFL. in (loc) l/defl L/d
Vert(LL) n/a - n/a 999
Vert(CT) n/a - n/a 999
Horz(CT) 0.00 6 n/a n/a

PLATES **GRIP**
MT20 197/144

Weight: 37 lb FT = 20%

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

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

REACTIONS. All bearings 8-11-10.
(lb) - Max Horz 1=-68(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 2, 6, 10, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6, 9, 10, 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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-3-3 to 3-3-3, Interior(1) 3-3-3 to 4-5-13, Exterior(2) 4-5-13 to 7-5-13, Interior(1) 7-5-13 to 8-8-7 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 2, 6, 10, 8.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	PB4	Piggyback	3	1		I49579389
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:29 2022 Page 1
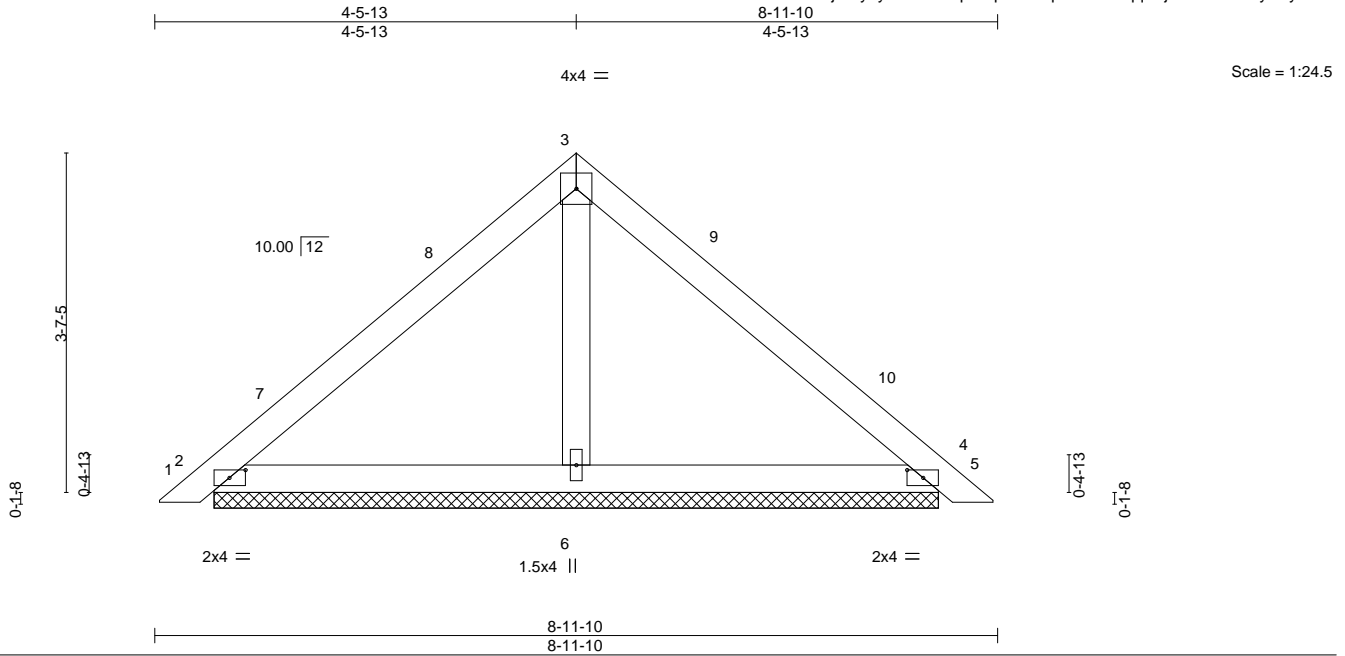ID:wI88M6Te4AKsZPQ32HGjMByhydU-fcPzJq89HpnV9Nqks64eJJ1qqB8jl9TU3Etl?bzy3Hy

4x4 ═

Scale = 1:24.5

10.00 ‾12‾

4-5-13
4-5-13
8-11-10
4-5-13

2x4 ═   1.5x4 ‖   2x4 ═

8-11-10
8-11-10

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

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.01	5	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	0.01	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 33 lb	FT = 20%

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

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

REACTIONS.   (size)   2=7-8-7, 4=7-8-7, 6=7-8-7
              Max Horz 2=-68(LC 10)
              Max Uplift 2=-24(LC 12), 4=-33(LC 13)
              Max Grav 2=200(LC 1), 4=200(LC 1), 6=260(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-3-3 to 3-3-3, Interior(1) 3-3-3 to 4-5-13, Exterior(2) 4-5-13 to 7-5-13, Interior(1) 7-5-13 to 8-8-7 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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January 7, 2022

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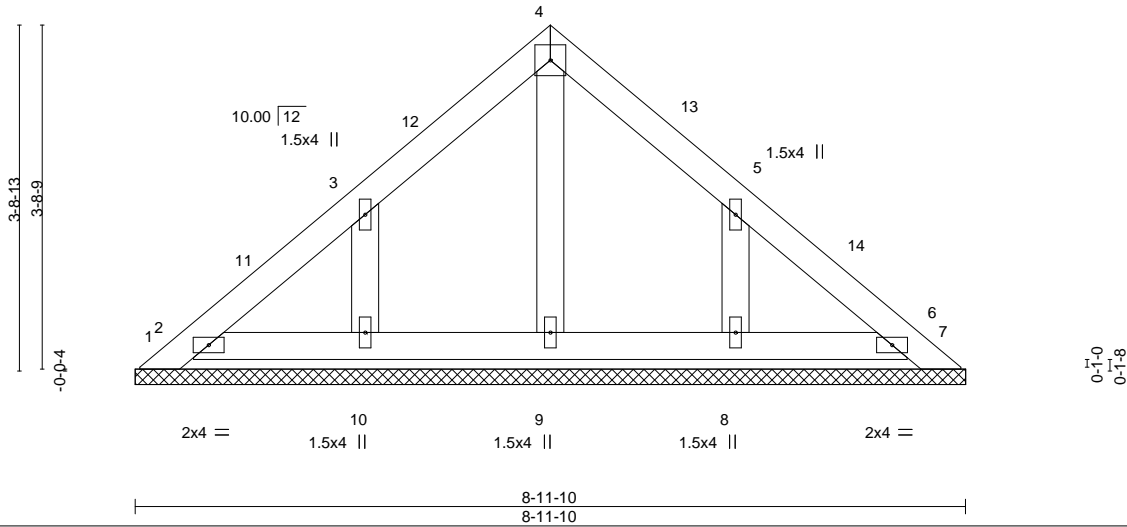| Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	I49579390
29640-29640A	PB5	GABLE	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:30 2022 Page 1
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4-5-13 | 8-11-10
4-5-13 | 4-5-13

4x4 ∥

Scale = 1:24.9

3-8-13
3-8-9
-0-0-4

10.00 ⌐12
1.5x4 ∥

12   13

3   5
1.5x4 ∥   1.5x4 ∥

11   14

1 2   6 7

0-1-0
0-1-8

2x4 ∥

10   9   8
1.5x4 ∥   1.5x4 ∥   1.5x4 ∥   2x4 ∥

8-11-10
8-11-10

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)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 37 lb	FT = 20%

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

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

REACTIONS.   All bearings 8-11-10.
     (lb) - Max Horz 1=-68(LC 8)
         Max Uplift   All uplift 100 lb or less at joint(s) 1, 7, 2, 6, 10, 8
         Max Grav   All reactions 250 lb or less at joint(s) 1, 7, 2, 6, 9, 10, 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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
gable end zone and C-C Exterior(2) 0-3-3 to 3-3-3, Interior(1) 3-3-3 to 4-5-13, Exterior(2) 4-5-13 to 7-5-13, Interior(1) 7-5-13 to 8-8-7
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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 2, 6, 10, 8.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building
designer.

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PROFESSIONAL ENGINEER

January 7, 2022

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Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	V1	GABLE	1	1		I49579391
84 Components (Dunn),	Dunn, NC - 28334,				Job Reference (optional)	

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:31 2022 Page 1
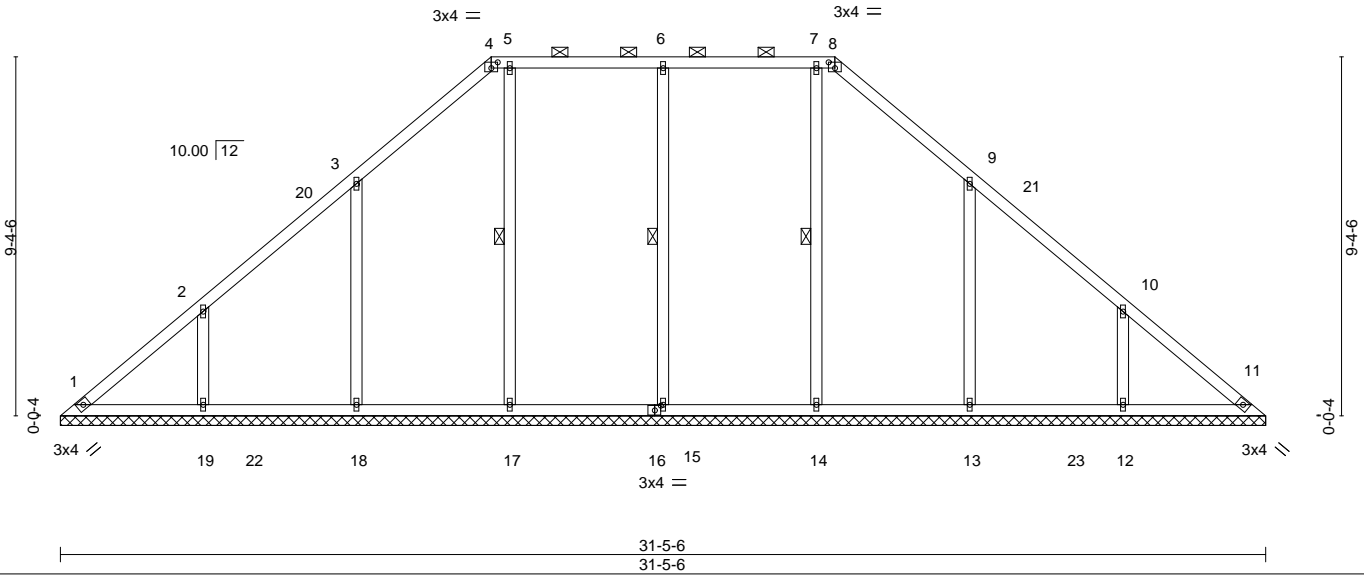ID:wI88M6Te4AKsZPQ32HGjMByhydU-b_XjkV9PpQ2DPh_7_X66Ok79V?qzD1InXYMs3Uzy3Hw
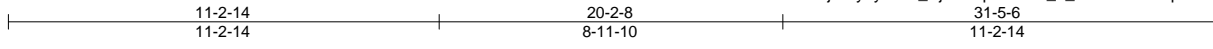
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Plate Offsets (X,Y)--   [4:0-2-0,0-1-13], [8:0-2-0,0-1-13], [16:0-1-14,0-1-8]

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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 166 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2 *Except*
4-8: 2x4 SP No.3
BOT CHORD   2x4 SP No.2 or 2x4 SPF 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.): 4-8.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   6-15, 5-17, 7-14

REACTIONS.   All bearings 31-5-6.
(lb) -   Max Horz   1=-176(LC 8)
Max Uplift   All uplift 100 lb or less at joint(s) 1, 15, 17 except 18=-110(LC 12), 19=-111(LC 12), 13=-108(LC 13),
12=-112(LC 13)
Max Grav   All reactions 250 lb or less at joint(s) 1, 11 except 15=408(LC 25), 17=396(LC 22), 18=462(LC 19),
19=364(LC 19), 14=383(LC 26), 13=460(LC 20), 12=365(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   6-15=-258/90, 3-18=-262/159, 2-19=-253/155, 9-13=-260/157, 10-12=-253/155

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
gable end zone and C-C Exterior(2) 0-4-13 to 3-8-11, Interior(1) 3-8-11 to 11-2-14, Exterior(2) 11-2-14 to 15-8-11, Interior(1) 15-8-11
to 20-2-8, Exterior(2) 20-2-8 to 24-7-12, Interior(1) 24-7-12 to 31-0-9 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) Provide adequate drainage to prevent water ponding.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
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) 1, 15, 17 except
(jt=lb) 18=110, 19=111, 13=108, 12=112.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

January 7,2022

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

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	V2	VALLEY	1	1		I49579392
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:33 2022 Page 1
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4x4

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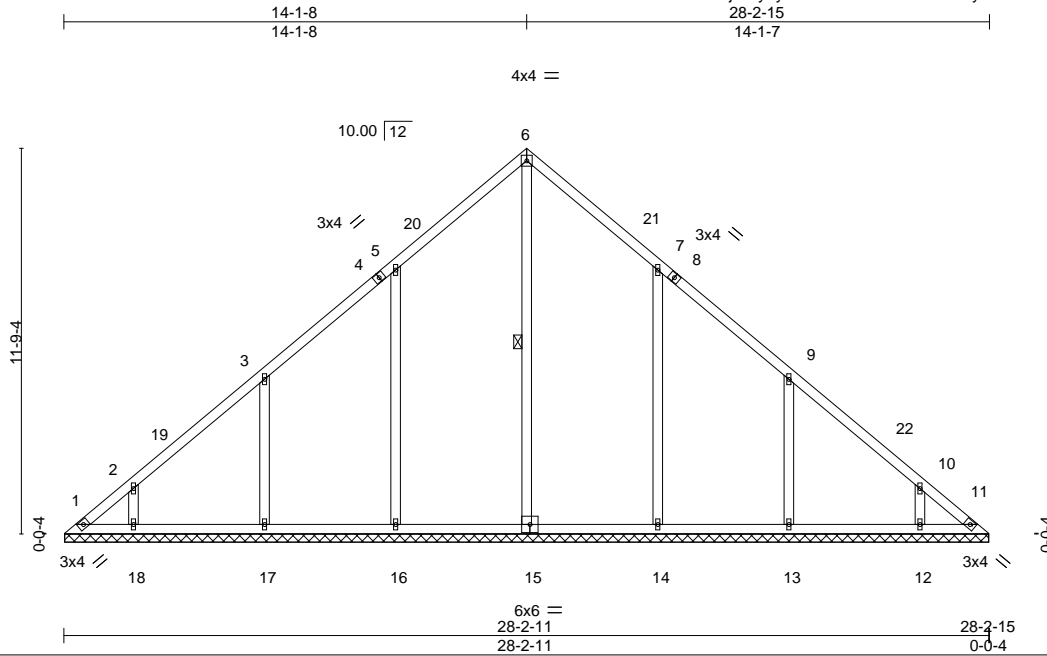
Scale = 1:70.3

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 152 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   6-15

REACTIONS.   All bearings 28-2-6.
      (lb) -   Max Horz   1=-221(LC 8)
           Max Uplift   All uplift 100 lb or less at joint(s) 1, 18, 12, 11 except 16=-118(LC 12), 17=-110(LC 12),
                     14=-120(LC 13), 13=-110(LC 13)
           Max Grav   All reactions 250 lb or less at joint(s) 1, 11 except 15=398(LC 22), 16=483(LC 19), 17=401(LC 19),
                     18=272(LC 19), 14=475(LC 20), 13=403(LC 20), 12=271(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-275/184
WEBS   5-16=-272/167, 3-17=-258/159, 7-14=-272/166, 9-13=-259/160

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
    gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 14-1-8, Exterior(2) 14-1-8 to 17-1-8, Interior(1) 17-1-8 to
    27-10-2 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 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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) 1, 18, 12, 11
    except (jt=lb) 16=118, 17=110, 14=120, 13=110.

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January 7,2022

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Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	V3	Valley	1	1		I49579393
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:34 2022 Page 1
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25-0-9
12-6-4
12-6-4
12-6-4

4x4 =
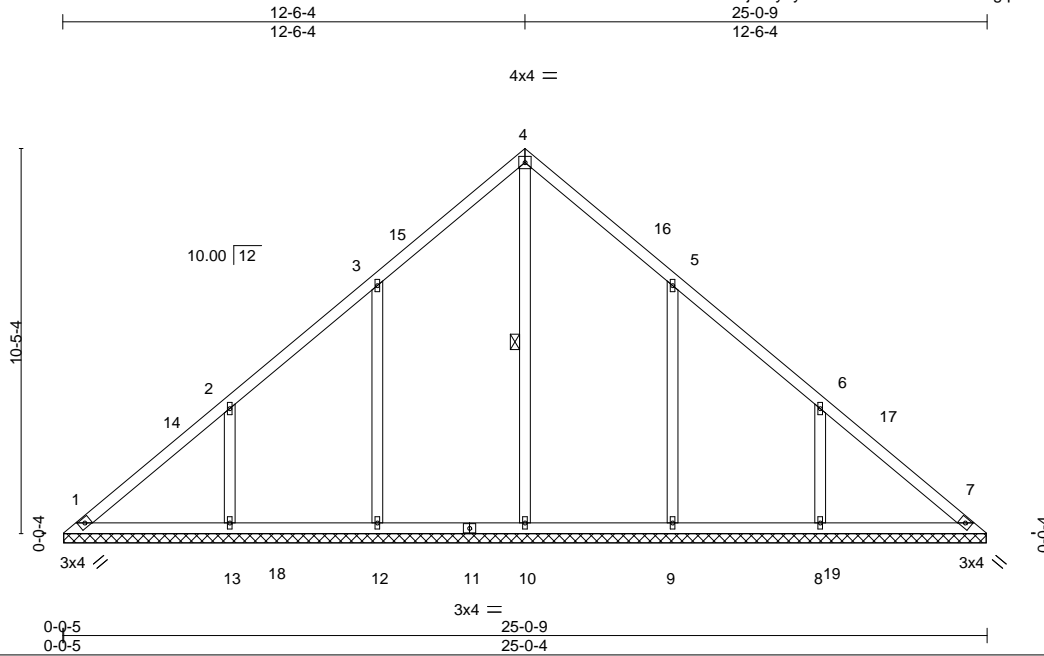
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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 128 lb	FT = 20%

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

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

REACTIONS.   All bearings 24-11-15.
     (lb) - Max Horz 1=-195(LC 8)
          Max Uplift   All uplift 100 lb or less at joint(s) 1 except 12=-116(LC 12), 13=-123(LC 12), 9=-115(LC 13),
                       8=-124(LC 13)
          Max Grav   All reactions 250 lb or less at joint(s) 1, 7 except 10=387(LC 22), 12=468(LC 19), 13=426(LC 19),
                       9=468(LC 20), 8=427(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   3-12=-266/164, 2-13=-281/170, 5-9=-266/164, 6-8=-281/170

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 12-6-4, Exterior(2) 12-6-4 to 15-6-4, Interior(1) 15-6-4 to
   24-7-12 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 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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) 1 except (jt=lb)
   12=116, 13=123, 9=115, 8=124.

January 7,2022

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:36 2022 Page 1
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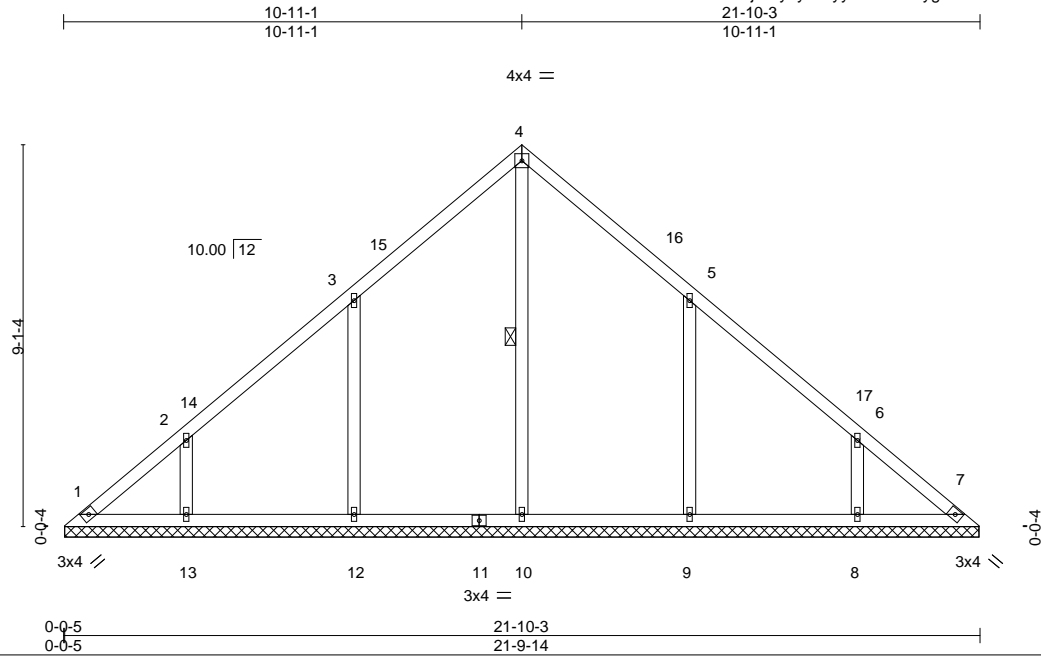
Scale = 1:54.9

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 107 lb	FT = 20%

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

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

REACTIONS.   All bearings 21-9-9.
      (lb) - Max Horz 1=-170(LC 8)
              Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 13, 8 except 12=-123(LC 12), 9=-123(LC 13)
              Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=390(LC 22), 12=420(LC 19), 13=290(LC 19),
                        9=420(LC 20), 8=290(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   3-12=-280/173, 5-9=-280/172

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 10-11-1, Exterior(2) 10-11-1 to 13-11-1, Interior(1) 13-11-1
   to 21-5-5 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 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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) 1, 7, 13, 8 except
   (jt=lb) 12=123, 9=123.

January 7,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	V5	Valley	1	1		I49579395
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:36 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-yyKcnDDYeygWVSs4n5iH5nqz?0UYuIQWgq4dllhzy3Hr

9-3-14
18-7-12
9-3-14
9-3-14

4x4 ═

Scale = 1:47.3

10.00 ⟌12
1.5x4 ‖
11
1.5x4 ‖
12
1.5x4 ‖
4

7-9-4

10

13

1

5

3x4 ⫽
3x4 ⫽

9   8   7   6
1.5x4 ‖   3x4 ═   1.5x4 ‖   1.5x4 ‖

0-0-5
0-0-5
18-7-12
18-7-7

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	0.54	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 84 lb	FT = 20%

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

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

REACTIONS.   All bearings 18-7-3.
     (lb) - Max Horz 1=144(LC 9)
          Max Uplift   All uplift 100 lb or less at joint(s) except 9=-152(LC 12), 6=-152(LC 13)
          Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=350(LC 22), 9=512(LC 19), 6=512(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-9=-339/205, 4-6=-339/204

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 9-3-14, Exterior(2) 9-3-14 to 12-3-14, Interior(1) 12-3-14 to
   18-2-15 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 9 and 152 lb uplift at
   joint 6.

January 7,2022

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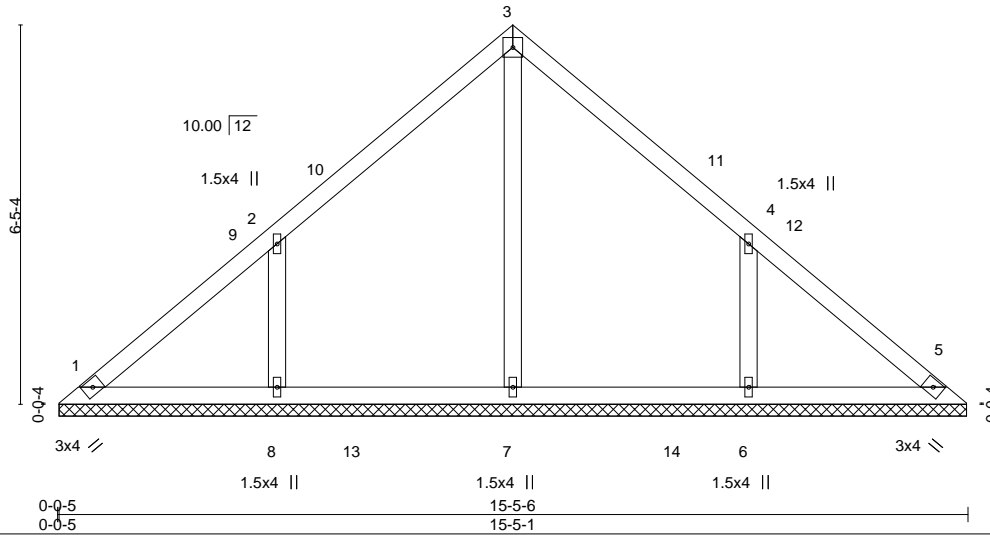| Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	V6	Valley	1	1		I49579396
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:37 2022 Page 1
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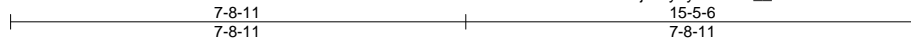
Scale = 1:39.1

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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 68 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.3
BOT CHORD   2x4 SP No.2 or 2x4 SPF 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 15-4-12.
      (lb) - Max Horz 1=-118(LC 8)
              Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-123(LC 12), 6=-123(LC 13)
              Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=347(LC 19), 8=385(LC 19), 6=384(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-274/167, 4-6=-274/167

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 7-8-11, Exterior(2) 7-8-11 to 10-8-11, Interior(1) 10-8-11 to 15-0-8 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=123, 6=123.

January 7,2022

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Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	V7	Valley	1	1		I49579397
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:38 2022 Page 1
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4x4

Scale = 1:31.0

LOADING (psf)
TCLL   20.0
TCDL   10.0
BCLL   0.0 *
BCDL   10.0

SPACING-   2-0-0
Plate Grip DOL   1.15
Lumber DOL   1.15
Rep Stress Incr   YES
Code IRC2015/TPI2014

CSI.
TC   0.30
BC   0.12
WB   0.07
Matrix-S

DEFL.   in   (loc)   l/defl   L/d
Vert(LL)   n/a   -   n/a   999
Vert(CT)   n/a   -   n/a   999
Horz(CT)   0.00   5   n/a   n/a

PLATES   **GRIP**
MT20   197/144

Weight: 51 lb   FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.3
BOT CHORD   2x4 SP No.2 or 2x4 SPF 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 12-2-6.
(lb) - Max Horz 1=92(LC 9)
        Max Uplift   All uplift 100 lb or less at joint(s) 1, 5 except 8=-109(LC 12), 6=-109(LC 13)
        Max Grav   All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=306(LC 19), 6=306(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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 6-1-8, Exterior(2) 6-1-8 to 9-1-8, Interior(1) 9-1-8 to 11-10-2
   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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb)
   8=109, 6=109.

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PROFESSIONAL ENGINEER

January 7,2022

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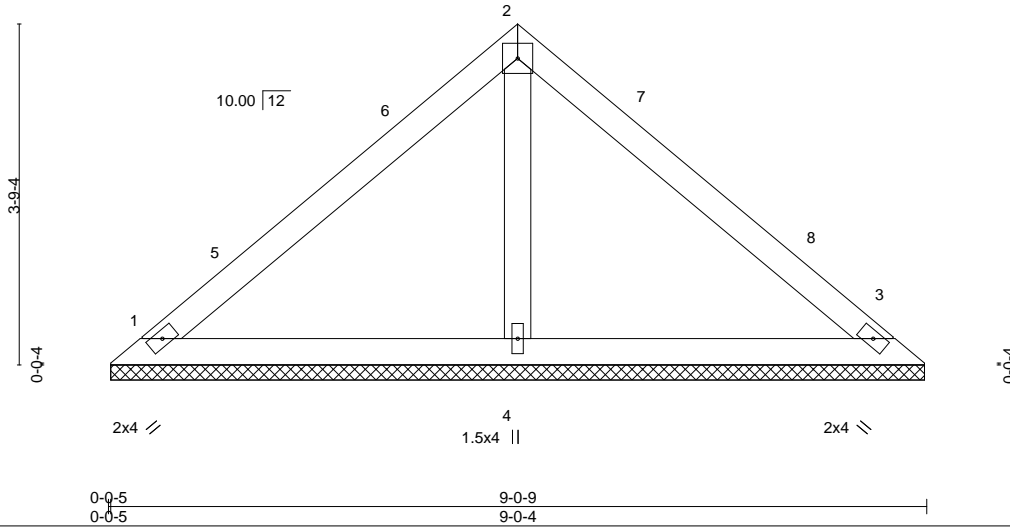| Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	V8	Valley	1	1		I49579398
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,
8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:39 2022 Page 1
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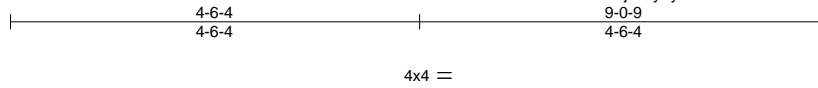
4-6-4 | 9-0-9
4-6-4 | 4-6-4

4x4

Scale = 1:25.5

10.00 ⌐12

3-9-4

0-0-4

2x4

1.5x4

2x4

0-0-4

0-0-5 | 9-0-9
0-0-5 | 9-0-4

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	0.57	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 34 lb	FT = 20%

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

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

REACTIONS.   (size) 1=8-11-15, 3=8-11-15, 4=8-11-15
            Max Horz 1=-66(LC 8)
            Max Uplift 1=-20(LC 13), 3=-28(LC 13)
            Max Grav 1=187(LC 1), 3=187(LC 1), 4=285(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 4-6-4, Exterior(2) 4-6-4 to 7-6-4, Interior(1) 7-6-4 to 8-7-12
   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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

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January 7,2022

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LOADING (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 21 lb	FT = 20%

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

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

REACTIONS.   (size)   1=5-9-9, 3=5-9-9, 4=5-9-9
                Max Horz 1=-41(LC 8)
                Max Uplift 1=-12(LC 13), 3=-17(LC 13)
                Max Grav 1=115(LC 1), 3=115(LC 1), 4=174(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

January 7,2022

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Job	Truss	Truss Type	Qty	Ply	68 PRINCE PLACE - ROOF	
29640-29640A	V10	Valley	1	1		I49579400
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Thu Jan 6 13:35:32 2022 Page 1
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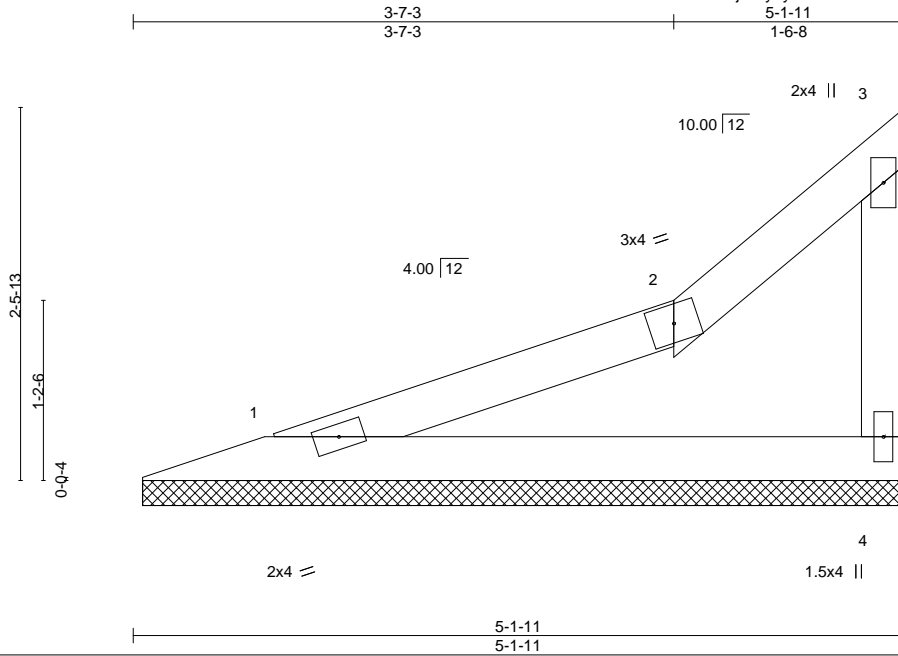
3-7-3 / 3-7-3

5-1-11 / 1-6-8

Scale = 1:15.3

2x4 ∥ 3

10.00 �12

3x4 =

4.00 ⎜12

2

1

2x4 =

1.5x4 ∥

4

5-1-11 / 5-1-11

2-5-13

1-2-6

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	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	n/a	-	n/a	999		
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-R							Weight: 18 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 5-1-11 oc purlins,
             except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   1=5-0-15, 4=5-0-15
              Max Horz 1=63(LC 9)
              Max Uplift 1=-11(LC 8), 4=-21(LC 12)
              Max Grav 1=162(LC 1), 4=162(LC 1)

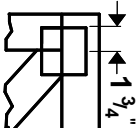FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)
   gable end zone and C-C Exterior(2) 0-11-5 to 3-7-3, Interior(1) 3-7-3 to 4-11-15 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
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) 1, 4.

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January 7,2022

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Symbols

PLATE LOCATION AND ORIENTATION

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

↑ 1 ³/₄ "

0- ¹/₁₆ "

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

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

* 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.
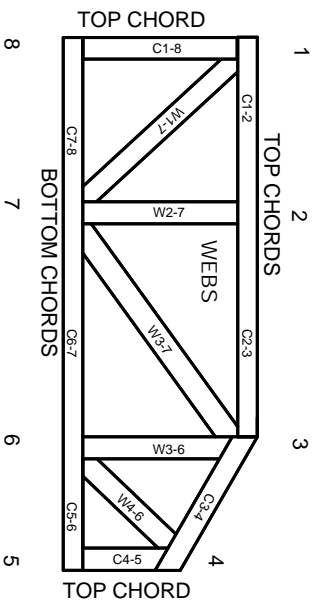
BEARING

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.

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

Numbering System

6-4-8   **dimensions shown in ft-in-sixteenths** (Drawings not to scale)

TOP CHORD

C1-8

C1-2

W1-7

1

2   TOP CHORDS

3

C7-8

BOTTOM CHORDS

W2-7

WEBS

C2-3

C6-7

W3-7

8   7   6   5

W3-6

C3-4

C5-6   W4-6

C4-5

TOP CHORD

4

JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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⚠ 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 T or I bracing should be considered.

3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.

4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.

5. Cut members to bear tightly against each other.

6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.

7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.

8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.

11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.

12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.

13. Top chords must be sheathed or purlins provided at spacing indicated on design.

14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.

15. Connections not shown are the responsibility of others.

16. Do not cut or alter truss member or plate without prior approval of an engineer.

17. Install and load vertically unless indicated otherwise.

18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.

19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.

20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.

21. The design does not take into account any dynamic or other loads other than those expressly stated.

MiTek
ENGINEERING BY
TRENCO
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