ENGINEERING BY TRENCO

A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 30941-30941A
    22 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: I50904827 thru I50904869

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

North Carolina COA: C-0844

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ERIC A. GILBERT
ENGINEER

March 22,2022

Gilbert, Eric

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	22 PRINCE PLACE - ROOF	
30941-30941A	A1E	GABLE	1	1		I50904827
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:20:56 2022 Page 1
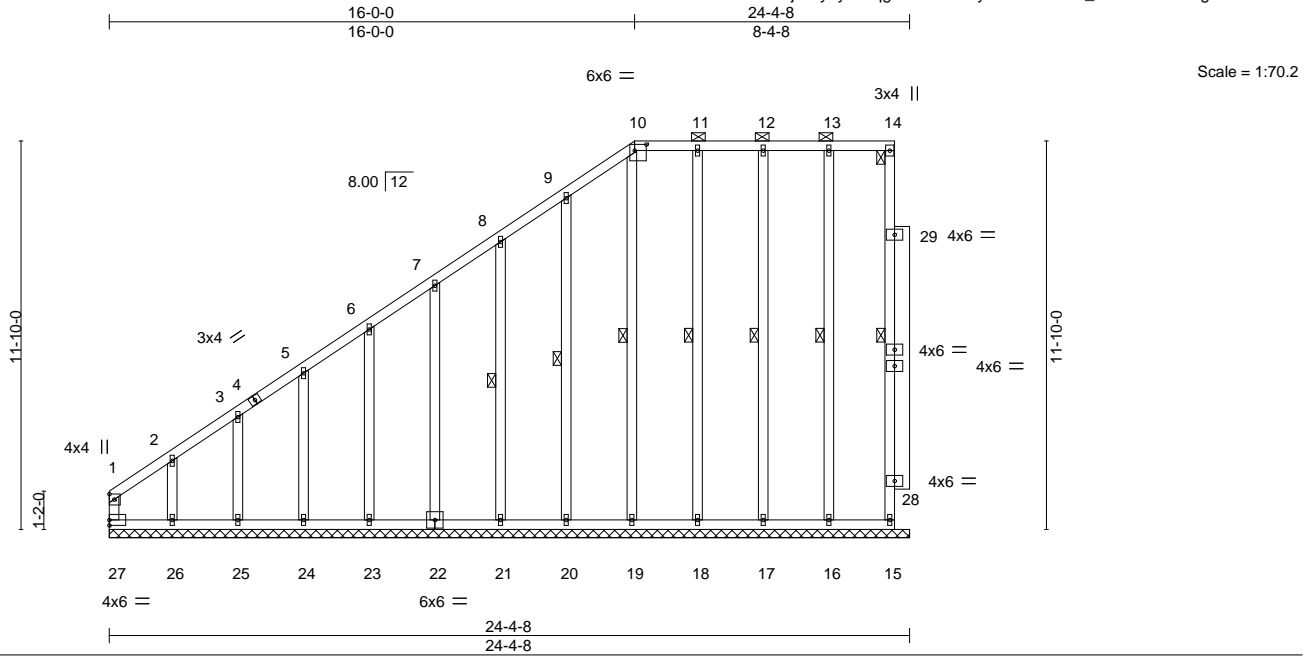ID:wI88M6Te4AKsZPQ32HGjMByhydU-qg9EiOi571ssyPowbBiLTKkl_Hc4OKtNQIxTg0zYcuL
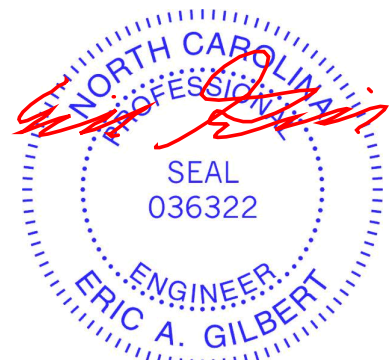
Scale = 1:70.2

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	n/a	-	n/a	999	MT20	197/144
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	0.13	Horz(CT)	-0.00	15	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 241 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 *Except*
28-29: 2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 10-14.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   1 Row at midpt   14-15, 13-16, 12-17, 11-18, 10-19, 9-20,
8-21

REACTIONS.   All bearings 24-4-8.
(lb) -   Max Horz   27=340(LC 9)
Max Uplift   All uplift 100 lb or less at joint(s) 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 except 27=-178(LC 10),
26=-225(LC 12)
Max Grav   All reactions 250 lb or less at joint(s) 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 except 27=342(LC
9), 26=273(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-520/493, 2-3=-393/377, 3-5=-363/355, 5-6=-315/313, 6-7=-270/276,
1-27=-358/314

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 Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 16-0-0, Corner(3) 16-0-0 to 19-0-0, Exterior(2) 19-0-0 to
23-9-4 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 16, 17, 18,
19, 20, 21, 22, 23, 24 except (jt=lb) 27=178, 26=225.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

North Carolina Professional Engineer SEAL 036322 ERIC A. GILBERT

March 22,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	A2	COMMON	10	1		I50904828
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:20:57 2022 Page 1
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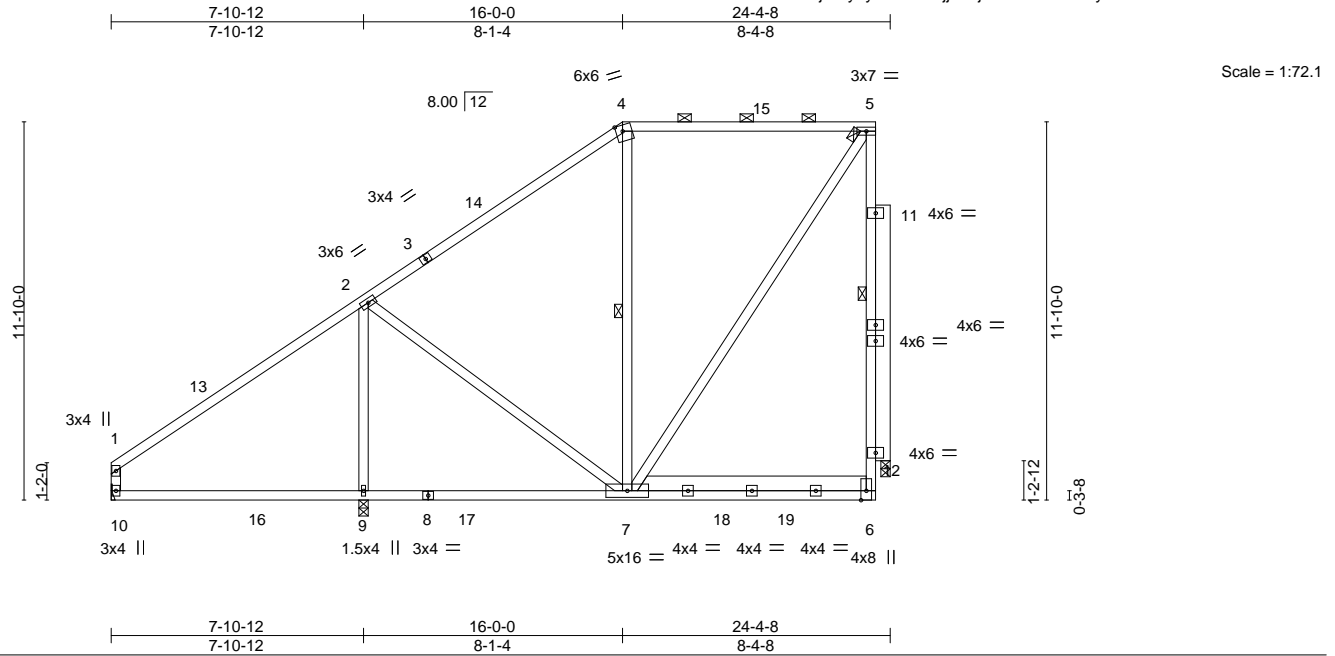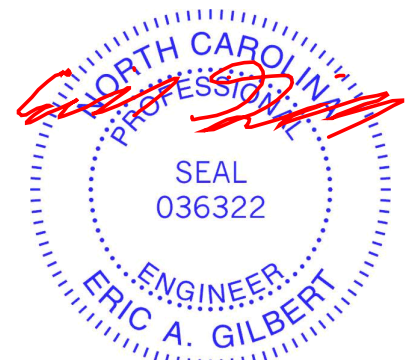

Scale = 1:72.1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.08	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.15	9-10	>603	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.52	Horz(CT)	-0.04	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 190 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2 *Except*
4-5: 2x4 SP No.1
BOT CHORD   2x4 SP No.2 or 2x4 SPF No.2 *Except*
6-7: 2x6 SP No.2
WEBS   2x4 SP No.3 *Except*
5-6,5-7: 2x4 SP No.2 or 2x4 SPF No.2
OTHERS   2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 4-10-14 oc purlins,
except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD   Rigid ceiling directly applied or 8-10-14 oc bracing.
WEBS   1 Row at midpt   5-6, 4-7

REACTIONS.   (size)   10=Mechanical, 9=0-3-8, 12=0-3-8
Max Horz 10=340(LC 9)
Max Uplift 10=-66(LC 12)
Max Grav 10=408(LC 19), 9=979(LC 22), 12=872(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-340/122, 2-4=-515/111, 4-5=-373/128, 6-12=0/296, 5-12=-654/173, 1-10=-328/109
BOT CHORD   9-10=-420/577, 7-9=-420/577
WEBS   2-9=-711/0, 2-7=-164/308, 4-7=-260/162, 5-7=-154/604

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 16-0-0, Exterior(2) 16-0-0 to 20-2-15, Interior(1) 20-2-15 to
23-9-4 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, 20-0-0 from left end, supported at two points, 2-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF
30941-30941A	A3	Common	5	1	I50904829
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:20:58 2022 Page 1
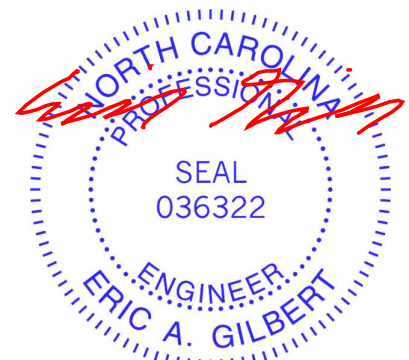ID:wI88M6Te4AKsZPQ32HGjMByhydU-n3G?73jLfe7aBjxlickpYlpAM5GKs8bgu3QaluzYcuJ
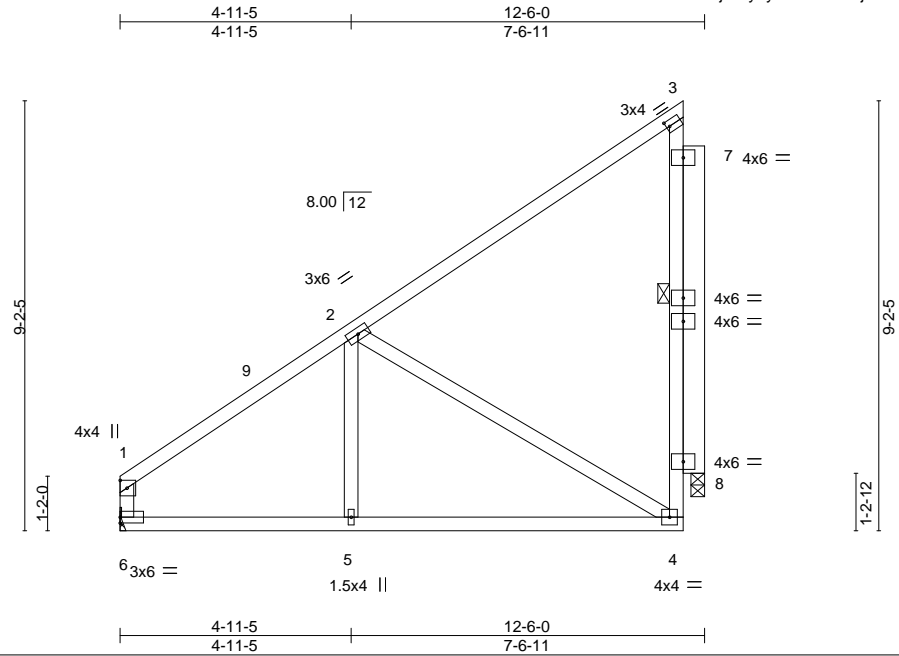
Scale = 1:49.3

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

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.08	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.18	4-5	>772	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.56	Horz(CT)	-0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 87 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   2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
              except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   3-4

REACTIONS.   (size)   6=Mechanical, 8=0-3-8
              Max Horz 6=258(LC 9)
              Max Uplift 8=-86(LC 12)
              Max Grav 6=470(LC 1), 8=504(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-523/56, 4-8=-33/304, 1-6=-386/50
BOT CHORD   5-6=-188/492, 4-5=-188/492
WEBS   2-4=-457/145

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 11-10-12 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
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) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
   capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8.

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	B1E	Monopitch Supported Gable	1	1		I50904830
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:20:59 2022 Page 1
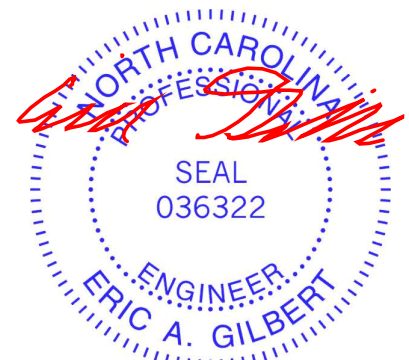ID:wI88M6Te4AKsZPQ32HGjMByhydU-FFqNKPkzQyFRptWUGKF24zMPoVgpbhXp6jA8HLzYcuI
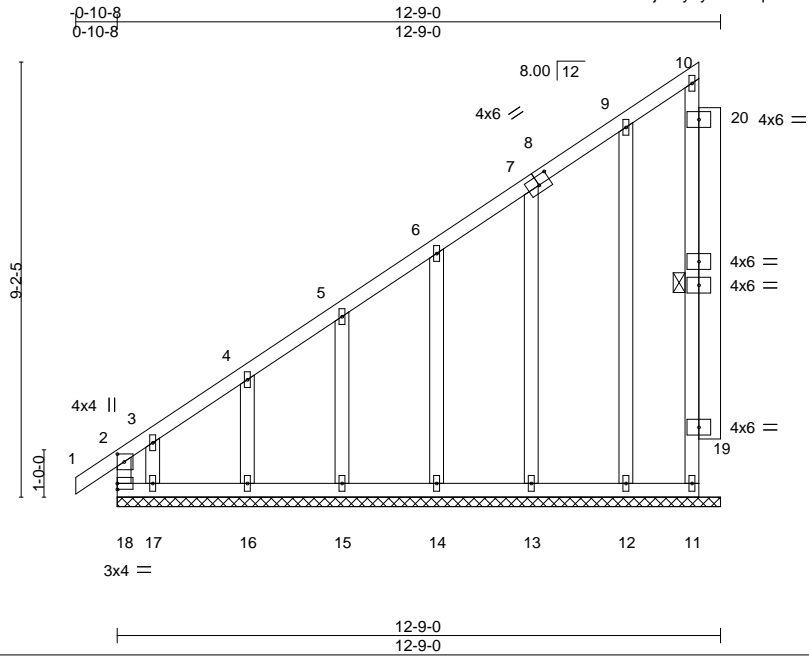
Plate Offsets (X,Y)--   [2:0-2-0,0-1-12], [8:0-3-0,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.00	2	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	0.00	2	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 110 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 *Except*
             19-20: 2x6 SP No.2

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

REACTIONS.   All bearings 12-9-0.
     (lb) -   Max Horz 18=267(LC 9)
              Max Uplift All uplift 100 lb or less at joint(s) 11, 12, 13, 14, 15, 16 except 18=-215(LC 10), 17=-291(LC 9)
              Max Grav All reactions 250 lb or less at joint(s) 11, 12, 13, 14, 15, 16 except 18=408(LC 9), 17=254(LC 10)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-18=-409/341, 2-3=-493/464, 3-4=-341/335, 4-5=-294/296, 5-6=-246/257
WEBS   3-17=-273/268

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 Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 12-1-12 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
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) 11, 12, 13, 14, 15,
   16 except (jt=lb) 18=215, 17=291.

March 22,2022

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	B2	MONOPITCH	5	1		I50904831
					Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:00 2022 Page 1
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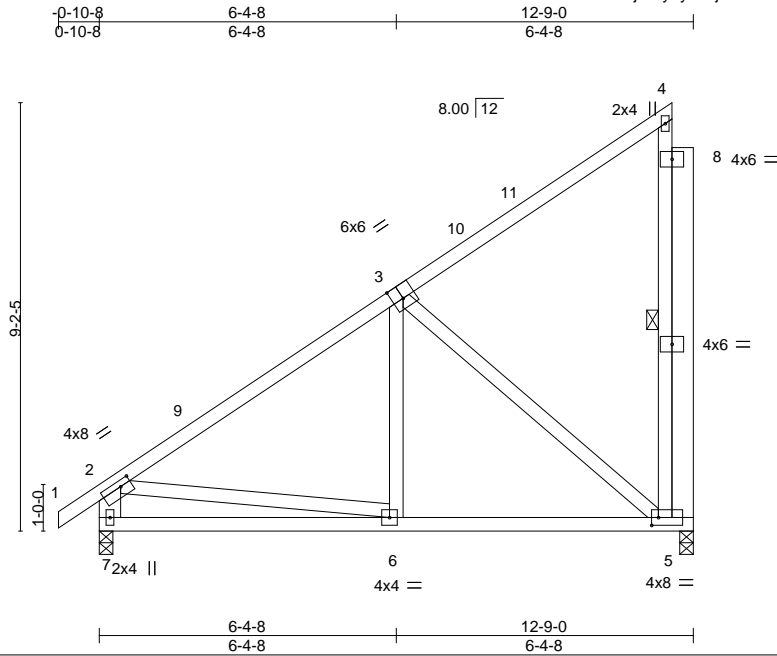
Scale = 1:49.5

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.03	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.06	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 102 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
    1-3: 2x4 SP No.1
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.3 *Except*
    2-7: 2x6 SP No.2
OTHERS 2x6 SP No.2

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

REACTIONS. (size) 7=0-3-8, 5=0-3-8
    Max Horz 7=267(LC 9)
    Max Grav 7=907(LC 1), 5=600(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-839/0, 2-7=-853/0
BOT CHORD 6-7=-70/876, 5-6=-25/567
WEBS 3-6=0/281, 3-5=-635/0, 2-6=-310/47

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 12-1-12 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
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) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34,
    35, 36, 37, 38, 39, 40 has/have been modified. Building designer must review loads to verify that they are correct for the intended
    use of this truss.
5) 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, 4-10=-60, 5-7=-20
    Trapezoidal Loads (plf)
       Vert: 2=-177(F=-117)-to-10=-60
2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
    Uniform Loads (plf)
       Vert: 1-2=-50, 4-10=-50, 5-7=-20
    Trapezoidal Loads (plf)
       Vert: 2=-167(F=-117)-to-10=-50

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	B2	MONOPITCH	5	1		I50904831
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:00 2022 Page 2
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LOAD CASE(S) Standard

3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
    Uniform Loads (plf)
        Vert: 1-2=-20, 4-10=-20, 5-7=-40
    Trapezoidal Loads (plf)
        Vert: 2=-137(F=-117)-to-10=-20
4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=33, 4-10=13, 5-8=-28, 5-7=-12
        Horz: 1-2=-45, 2-9=-30, 4-9=-25, 4-5=28, 2-7=17
    Trapezoidal Loads (plf)
        Vert: 2=-99(F=-117)-to-9=-70(F=-88), 9=-75(F=-88)-to-10=13
5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=9, 10-11=13, 4-11=18, 5-8=17, 5-7=-12
        Horz: 1-2=-21, 2-11=-25, 4-11=-30, 4-5=-17, 2-7=-28
    Trapezoidal Loads (plf)
        Vert: 2=-104(F=-117)-to-10=13
6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 4-10=-44, 5-8=25, 5-7=-20
        Horz: 1-2=-20, 2-4=24, 4-5=-25, 2-7=-19
    Trapezoidal Loads (plf)
        Vert: 2=-161(F=-117)-to-10=-44
7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-40, 4-10=-44, 5-8=-19, 5-7=-20
        Horz: 1-2=20, 2-4=24, 4-5=19, 2-7=25
    Trapezoidal Loads (plf)
        Vert: 2=-161(F=-117)-to-10=-44
8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-4, 4-10=-14, 5-8=-16, 5-7=-12
        Horz: 1-2=-8, 2-4=2, 4-5=16, 2-7=12
    Trapezoidal Loads (plf)
        Vert: 2=-131(F=-117)-to-10=-14
9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=1, 4-10=5, 5-8=12, 5-7=-12
        Horz: 1-2=-13, 2-4=-17, 4-5=-12, 2-7=-16
    Trapezoidal Loads (plf)
        Vert: 2=-111(F=-117)-to-10=5
10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-27, 4-10=-31, 5-8=-7, 5-7=-20
        Horz: 1-2=7, 2-4=11, 4-5=7, 2-7=21
    Trapezoidal Loads (plf)
        Vert: 2=-147(F=-117)-to-10=-31
11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-7, 4-10=-12, 5-8=21, 5-7=-20
        Horz: 1-2=-13, 2-4=-8, 4-5=21, 2-7=-7
    Trapezoidal Loads (plf)
        Vert: 2=-128(F=-117)-to-10=-12
12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=14, 4-10=18, 5-8=-15, 5-7=-12
        Horz: 1-2=-26, 2-4=-30, 4-5=15, 2-7=10
    Trapezoidal Loads (plf)
        Vert: 2=-98(F=-117)-to-10=18
13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=1, 4-10=5, 5-8=10, 5-7=-12
        Horz: 1-2=-13, 2-4=-17, 4-5=-10, 2-7=-15
    Trapezoidal Loads (plf)
        Vert: 2=-111(F=-117)-to-10=5
14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=14, 4-10=18, 5-8=-15, 5-7=-12
        Horz: 1-2=-26, 2-4=-30, 4-5=15, 2-7=10
    Trapezoidal Loads (plf)
        Vert: 2=-98(F=-117)-to-10=18
15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=1, 4-10=5, 5-8=10, 5-7=-12
        Horz: 1-2=-13, 2-4=-17, 4-5=-10, 2-7=-15

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	B2	MONOPITCH	5	1		I50904831
					Job Reference (optional)	

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

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ID:wI88M6Te4AKsZPQ32HGjMByhydU-jSOlYIlbBGNIR15hq1mHdAuUsuySK09zLNvhpnzYcuH

LOAD CASE(S) Standard

    Trapezoidal Loads (plf)
        Vert: 2=-111(F=-117)-to-10=5

16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=6, 4-10=2, 5-8=-6, 5-7=-20
        Horz: 1-2=-26, 2-4=-22, 4-5=6, 2-7=19
    Trapezoidal Loads (plf)
        Vert: 2=-115(F=-117)-to-10=2

17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-7, 4-10=-12, 5-8=19, 5-7=-20
        Horz: 1-2=-13, 2-4=-8, 4-5=-19, 2-7=-6
    Trapezoidal Loads (plf)
        Vert: 2=-128(F=-117)-to-10=-12

18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
    Uniform Loads (plf)
        Vert: 1-2=-20, 4-10=-20, 5-7=-20
    Trapezoidal Loads (plf)
        Vert: 2=-137(F=-117)-to-10=-20

19) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-55, 4-10=-58, 5-8=-5, 5-7=-20
        Horz: 1-2=5, 2-4=8, 4-5=5, 2-7=16
    Trapezoidal Loads (plf)
        Vert: 2=-175(F=-117)-to-10=-58

20) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-40, 4-10=-44, 5-8=16, 5-7=-20
        Horz: 1-2=-10, 2-4=-6, 4-5=-16, 2-7=-5
    Trapezoidal Loads (plf)
        Vert: 2=-160(F=-117)-to-10=-44

21) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-31, 4-10=-34, 5-8=-5, 5-7=-20
        Horz: 1-2=-19, 2-4=-16, 4-5=5, 2-7=14
    Trapezoidal Loads (plf)
        Vert: 2=-150(F=-117)-to-10=-34

22) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-40, 4-10=-44, 5-8=14, 5-7=-20
        Horz: 1-2=-10, 2-4=-6, 4-5=-14, 2-7=-5
    Trapezoidal Loads (plf)
        Vert: 2=-160(F=-117)-to-10=-44

23) Reversal: Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=33, 4-10=13, 5-8=-28, 5-7=-12
        Horz: 1-2=-45, 2-9=-30, 4-9=-25, 4-5=28, 2-7=17
    Trapezoidal Loads (plf)
        Vert: 2=-99(F=-117)-to-9=-70(F=-88), 9=-75(F=-88)-to-10=13

24) Reversal: Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=9, 10-11=13, 4-11=18, 5-8=17, 5-7=-12
        Horz: 1-2=-21, 2-11=-25, 4-11=-30, 4-5=-17, 2-7=-28
    Trapezoidal Loads (plf)
        Vert: 2=-104(F=-117)-to-10=13

25) Reversal: Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 4-10=-44, 5-8=25, 5-7=-20
        Horz: 1-2=-20, 2-4=24, 4-5=-25, 2-7=-19
    Trapezoidal Loads (plf)
        Vert: 2=-161(F=-117)-to-10=-44

26) Reversal: Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-40, 4-10=-44, 5-8=-19, 5-7=-20
        Horz: 1-2=20, 2-4=24, 4-5=19, 2-7=25
    Trapezoidal Loads (plf)
        Vert: 2=-161(F=-117)-to-10=-44

27) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
        Vert: 1-2=-4, 4-10=-14, 5-8=-16, 5-7=-12
        Horz: 1-2=-8, 2-4=2, 4-5=16, 2-7=12
    Trapezoidal Loads (plf)
        Vert: 2=-131(F=-117)-to-10=-14

28) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	B2	MONOPITCH	5	1		I50904831
					Job Reference (optional)	

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

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ID:wI88M6Te4AKsZPQ32HGjMByhydU-jSOlYIlbBGNIR15hq1mHdAuUsuySK09zLNvhpnzYcuH

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-2=1, 4-10=5, 5-8=12, 5-7=-12
Horz: 1-2=-13, 2-4=-17, 4-5=-12, 2-7=-16
Trapezoidal Loads (plf)
Vert: 2=-111(F=-117)-to-10=5
29) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-27, 4-10=-31, 5-8=-7, 5-7=-20
Horz: 1-2=7, 2-4=11, 4-5=7, 2-7=21
Trapezoidal Loads (plf)
Vert: 2=-147(F=-117)-to-10=-31
30) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-7, 4-10=-12, 5-8=21, 5-7=-20
Horz: 1-2=-13, 2-4=-8, 4-5=21, 2-7=-7
Trapezoidal Loads (plf)
Vert: 2=-128(F=-117)-to-10=-12
31) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=14, 4-10=18, 5-8=-15, 5-7=-12
Horz: 1-2=-26, 2-4=-30, 4-5=15, 2-7=10
Trapezoidal Loads (plf)
Vert: 2=-98(F=-117)-to-10=18
32) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=1, 4-10=5, 5-8=10, 5-7=-12
Horz: 1-2=-13, 2-4=-17, 4-5=-10, 2-7=-15
Trapezoidal Loads (plf)
Vert: 2=-111(F=-117)-to-10=5
33) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=14, 4-10=18, 5-8=-15, 5-7=-12
Horz: 1-2=-26, 2-4=-30, 4-5=15, 2-7=10
Trapezoidal Loads (plf)
Vert: 2=-98(F=-117)-to-10=18
34) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=1, 4-10=5, 5-8=10, 5-7=-12
Horz: 1-2=-13, 2-4=-17, 4-5=-10, 2-7=-15
Trapezoidal Loads (plf)
Vert: 2=-111(F=-117)-to-10=5
35) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 4-10=2, 5-8=-6, 5-7=-20
Horz: 1-2=-26, 2-4=-22, 4-5=6, 2-7=19
Trapezoidal Loads (plf)
Vert: 2=-115(F=-117)-to-10=2
36) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-7, 4-10=-12, 5-8=19, 5-7=-20
Horz: 1-2=-13, 2-4=-8, 4-5=-19, 2-7=-6
Trapezoidal Loads (plf)
Vert: 2=-128(F=-117)-to-10=-12
37) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-55, 4-10=-58, 5-8=-5, 5-7=-20
Horz: 1-2=5, 2-4=8, 4-5=5, 2-7=16
Trapezoidal Loads (plf)
Vert: 2=-175(F=-117)-to-10=-58
38) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-40, 4-10=-44, 5-8=16, 5-7=-20
Horz: 1-2=-10, 2-4=-6, 4-5=-16, 2-7=-5
Trapezoidal Loads (plf)
Vert: 2=-160(F=-117)-to-10=-44
39) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate
Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-31, 4-10=-34, 5-8=-5, 5-7=-20
Horz: 1-2=-19, 2-4=-16, 4-5=5, 2-7=14
Trapezoidal Loads (plf)
Vert: 2=-150(F=-117)-to-10=-34
40) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate
Increase=1.60

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
						I50904831
30941-30941A	B2	MONOPITCH	5	1		
					Job Reference (optional)	

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

LOAD CASE(S) Standard
    Uniform Loads (plf)
        Vert: 1-2=-40, 4-10=-44, 5-8=14, 5-7=-20
        Horz: 1-2=-10, 2-4=-6, 4-5=-14, 2-7=-5
    Trapezoidal Loads (plf)
        Vert: 2=-160(F=-117)-to-10=-44

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	B3	Monopitch	4	1		I50904832
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:00 2022 Page 1
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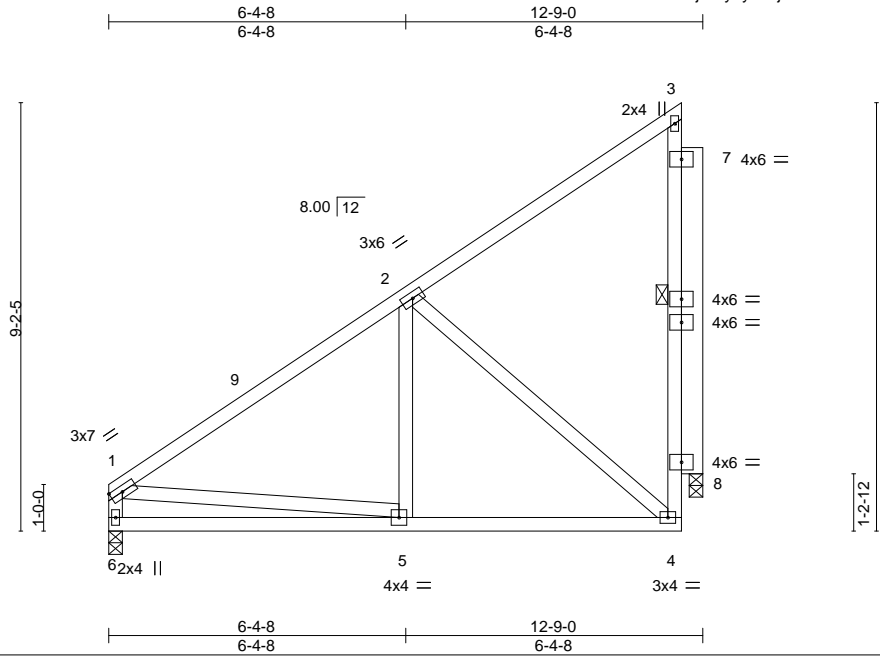
Scale = 1:49.5

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.07	5-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.51	Horz(CT)	-0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 97 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   2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 9-9-4 oc bracing.
WEBS   1 Row at midpt   3-4

REACTIONS.   (size)   6=0-3-8, 8=0-3-8
Max Horz 6=258(LC 9)
Max Uplift 8=-86(LC 12)
Max Grav 6=480(LC 1), 8=513(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-519/60, 4-8=-55/359, 1-6=-424/61
BOT CHORD   5-6=-361/502, 4-5=-149/439
WEBS   2-5=0/256, 2-4=-475/132, 1-5=-63/251

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 12-1-12 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
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) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8.

March 22,2022

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Scale = 1:58.1

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 10)
              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.

March 22,2022

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	C2	Common	1	1		I50904834
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:03 2022 Page 1
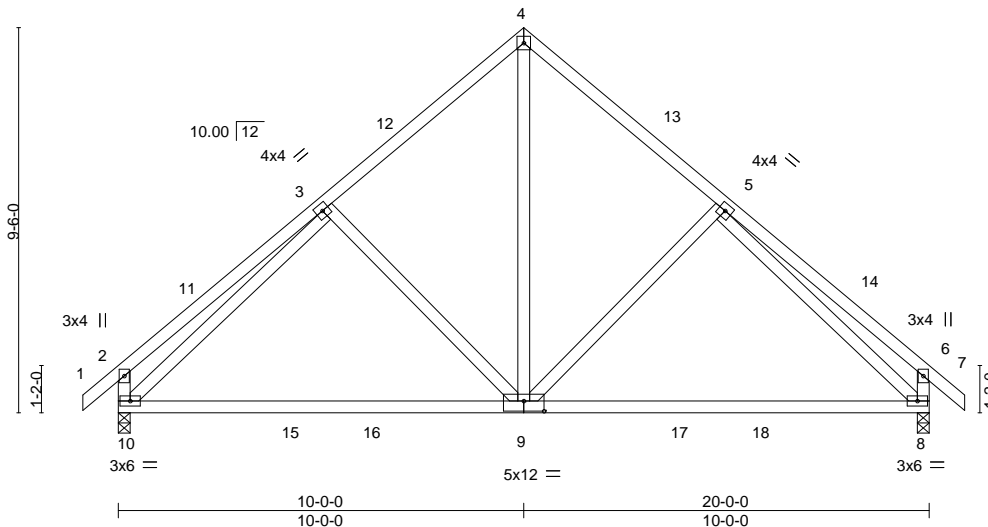ID:wI88M6Te4AKsZPQ32HGjMByhydU-714uAnnUUBltIUqGVAK_FpW4l6sLXOzP1K8LQ6zYcuE

-0-10-8   5-1-12   10-0-0   14-10-4   20-0-0   20-10-8
0-10-8   5-1-12   4-10-4   4-10-4   5-1-12   0-10-8

4x4

Scale = 1:56.8

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	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.37	9-10	>635	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							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
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 10)
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=-367/98, 3-4=-689/102, 4-5=-689/102, 5-6=-367/97, 2-10=-378/110, 6-8=-378/110
BOT CHORD   9-10=-53/665, 8-9=0/579
WEBS   4-9=-40/515, 3-10=-588/17, 5-8=-588/16

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, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 8.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

March 22,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	C3	Common	3	1		I50904835
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:03 2022 Page 1
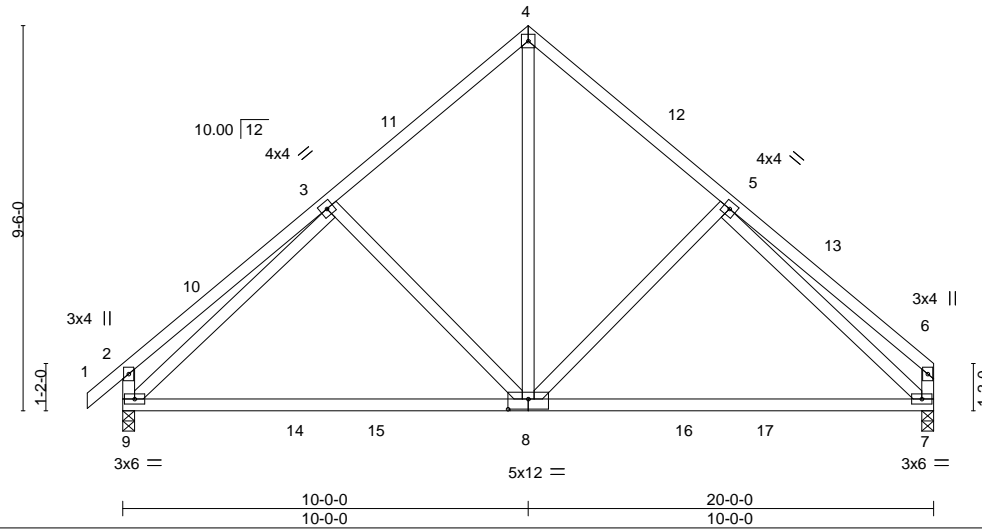ID:wI88M6Te4AKsZPQ32HGjMByhydU-714uAnnUUBltIUqGVAK_FpW4l6sLXNUP1K8LQ6zYcuE

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	0.59	Horz(CT)	0.02	7	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)   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=-367/98, 3-4=-691/102, 4-5=-693/105, 5-6=-333/62, 2-9=-378/110, 6-7=-293/63
BOT CHORD   8-9=-63/658, 7-8=-7/583
WEBS   4-8=-44/518, 3-9=-590/16, 5-7=-620/37

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, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.
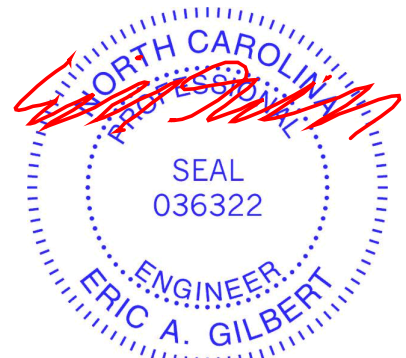
March 22,2022

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

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	CJ1	DIAGONAL HIP GIRDER	1	1		I50904836
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:04 2022 Page 1
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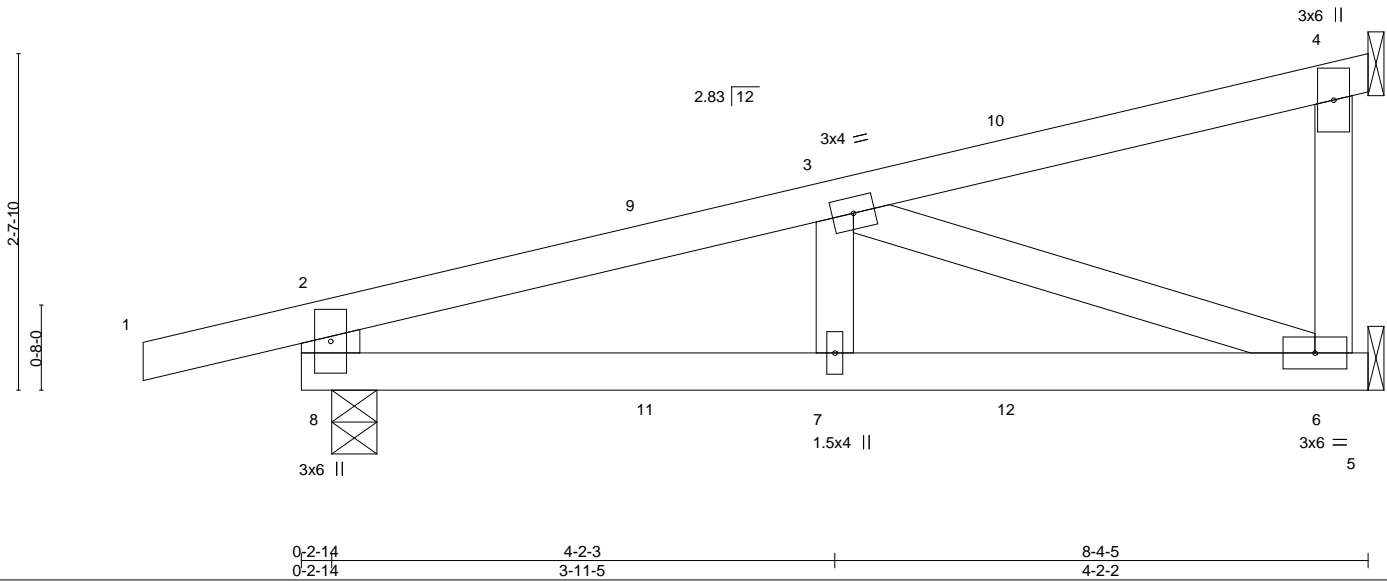
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.22	7	>433	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.45	7	>209	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.26	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP							Weight: 38 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3 *Except*
                  2-8: 2x6 SP No.2

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

REACTIONS.   (size)   8=0-4-4, 4=Mechanical, 6=Mechanical
                  Max Horz 8=76(LC 7)
                  Max Uplift 8=-68(LC 4), 4=-34(LC 8)
                  Max Grav 8=426(LC 1), 4=194(LC 1), 6=165(LC 3)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-8=-289/84

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) 8, 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, 5-8=-20
    Concentrated Loads (lb)
          Vert: 10=-26(F=-13, B=-13) 11=2(F=1, B=1) 12=-27(F=-13, B=-13)

March 22,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	D1E	GABLE Gable I Gable COMMON	1	1		I50904837
					Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,
8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:06 2022 Page 1
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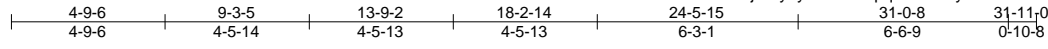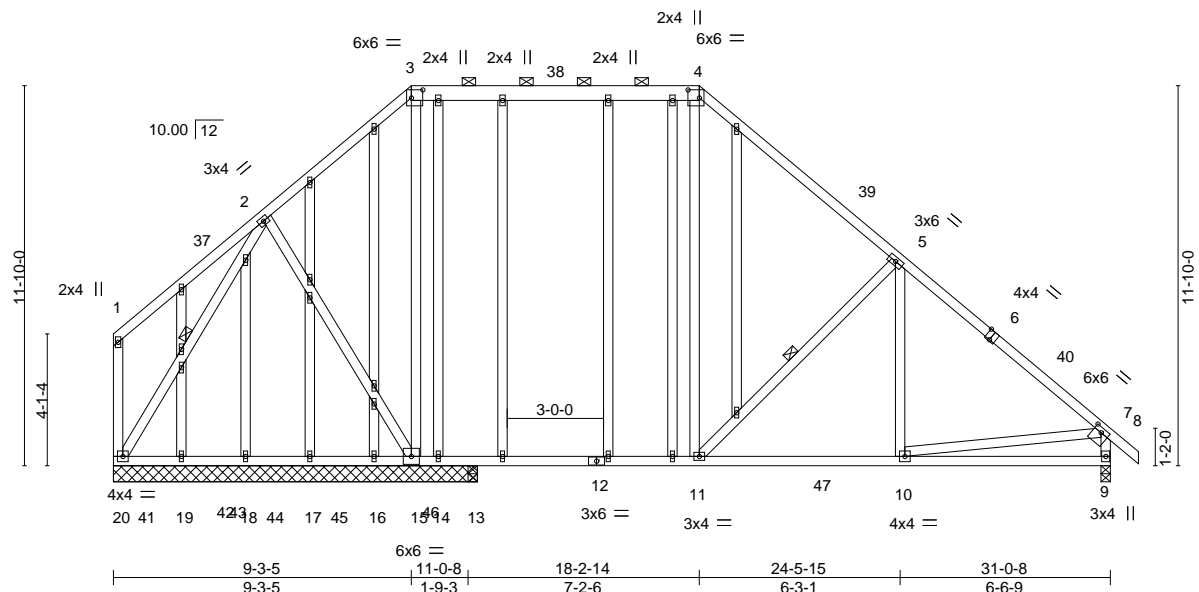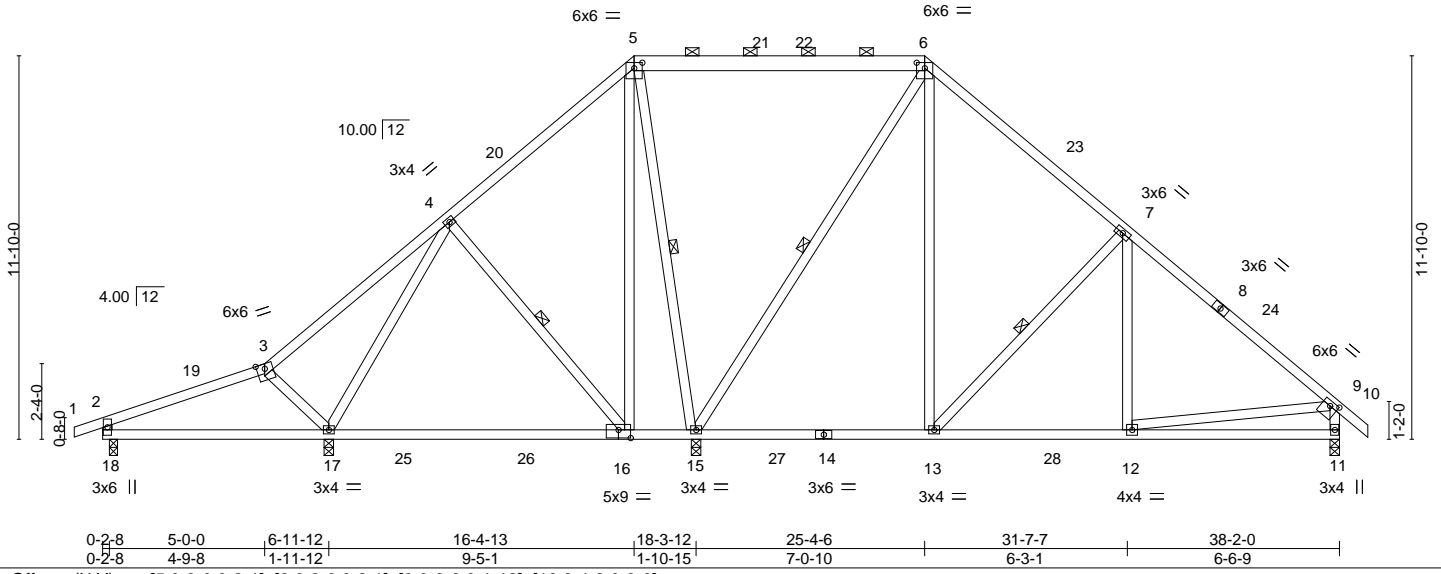
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Plate Offsets (X,Y)-- [3:0-4-4,0-3-0], [4:0-4-4,0-3-0], [6:0-2-0,Edge], [7:0-3-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.12	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.21	11-13	>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: 333 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
3-4: 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.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-11, 2-20

REACTIONS. All bearings 11-4-0 except (jt=length) 9=0-3-8, 13=0-3-8.
(lb) - Max Horz 20=-272(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 9, 16, 17, 18, 19 except 15=-753(LC 20), 20=-149(LC 13), 14=-433(LC 20)
Max Grav All reactions 250 lb or less at joint(s) 15, 14, 16 except 20=1560(LC 49), 9=1424(LC 20), 17=279(LC 26), 18=273(LC 2), 19=266(LC 24), 13=607(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1365/233, 3-4=-992/200, 4-5=-1370/195, 5-7=-1646/114, 7-9=-1367/110
BOT CHORD 19-20=0/795, 18-19=0/795, 17-18=0/795, 16-17=0/795, 15-16=0/795, 14-15=0/968, 13-14=0/968, 11-13=0/968, 10-11=0/1170
WEBS 2-15=-121/431, 3-15=-110/570, 4-11=-31/492, 5-11=-376/159, 2-20=-1602/146, 7-10=0/999

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) 0-1-12 to 3-3-0, Interior(1) 3-3-0 to 9-3-5, Exterior(2) 9-3-5 to 13-8-0, Interior(1) 13-8-0 to 18-2-14, Exterior(2) 18-2-14 to 22-7-9, Interior(1) 22-7-9 to 31-11-0 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) 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) 9, 16, 17, 18, 19 except (jt=lb) 15=753, 20=149, 14=433.
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) 205 lb down and 42 lb up at 0-11-4, 203 lb down and 44 lb up at 2-11-4, 203 lb down and 44 lb up at 4-11-4, 203 lb down and 44 lb up at 6-11-4, and 203 lb down and 44 lb up at 8-11-4, and 203 lb down and 44 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

March 22,2022

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

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF
30941-30941A	D1E	GABLE Gable I Gable COMMON	1	1	I50904837
					Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
    Uniform Loads (plf)
        Vert: 1-3=-60, 3-4=-60, 4-7=-60, 7-8=-60, 9-20=-20
    Concentrated Loads (lb)
        Vert: 14=-203 41=-205 43=-203 44=-203 45=-203 46=-203

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	D2	Roof Special	2	1		I50904838
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:07 2022 Page 1
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Scale = 1:71.1

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

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	0.60	Vert(LL)	-0.20	16-17	>667	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.32	16-17	>415	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.02	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 265 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*
6-15: 2x4 SP No.2 or 2x4 SPF No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 5-10-8 oc purlins,
except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 5-6.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   4-16, 5-15, 6-15, 7-13

REACTIONS.   All bearings 0-3-8 except (jt=length) 18=0-3-0.
(lb) - Max Horz 18=248(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 18, 17, 11.
Max Grav   All reactions 250 lb or less at joint(s) except 18=325(LC 23), 17=736(LC 25), 15=1336(LC 2), 11=829(LC 24)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-250/112, 6-7=-529/150, 7-9=-849/71, 9-11=-769/92, 2-18=-274/118
BOT CHORD   13-15=-2/366, 12-13=0/564
WEBS   3-17=-302/128, 4-17=-386/50, 5-16=-62/324, 5-15=-639/70, 6-15=-736/46,
6-13=-36/569, 7-13=-427/166, 9-12=0/410

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 16-4-13, Exterior(2) 16-4-13 to 20-2-10, Interior(1) 20-2-10 to 25-4-6, Exterior(2) 25-4-6 to 29-2-3, Interior(1) 29-2-3 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, 17, 11.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 22,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	D3G	Common Girder	1	**2**		I50904839
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:10 2022 Page 1
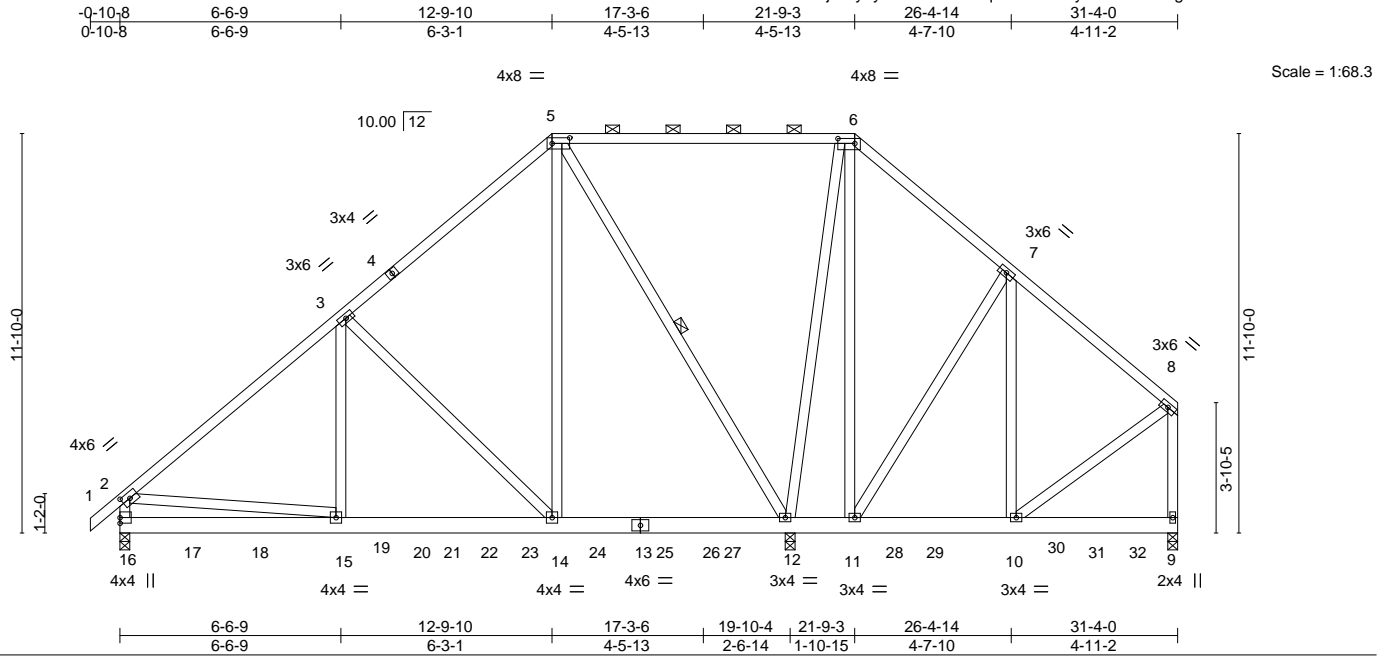ID:wI88M6Te4AKsZPQ32HGjMByhydU-QN?XeAttqKdtdZscP8yd1HJD?wLhgW2RewKDACzYcu7

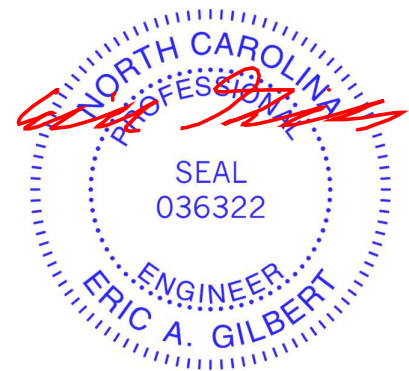Plate Offsets (X,Y)-- [2:0-2-14,0-2-0], [5:0-6-4,0-2-0], [6:0-6-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.04	14-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.09	14-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.73	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 538 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*
            5-12: 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 10-0-0 oc bracing.
WEBS   1 Row at midpt   5-12

REACTIONS.   (size) 16=0-3-8, 12=0-3-8, 9=0-3-8
Max Horz 16=268(LC 5)
Max Uplift 16=-303(LC 8), 12=-301(LC 8)
Max Grav 16=2366(LC 19), 12=4603(LC 1), 9=1529(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2489/325, 3-5=-1350/221, 6-7=-254/113, 7-8=-899/0, 2-16=-1944/260,
            8-9=-1094/0
BOT CHORD   15-16=-341/675, 14-15=-358/1839, 12-14=-203/978, 10-11=0/624
WEBS   3-15=-180/1213, 3-14=-1237/353, 5-14=-431/2176, 5-12=-2129/442, 6-11=0/929,
            7-11=-990/0, 7-10=0/1066, 2-15=-136/1292, 8-10=0/734, 6-12=-1322/0

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)
   16=303, 12=301.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 366 lb down and 86 lb up at
    2-0-12, 366 lb down and 86 lb up at 4-0-12, 366 lb down and 86 lb up at 6-0-12, 366 lb down and 86 lb up at 8-0-12, 366 lb down
    and 86 lb up at 10-0-12, 366 lb down and 86 lb up at 12-0-12, 366 lb down and 86 lb up at 14-0-12, 366 lb down and 86 lb up at
    16-0-12, 366 lb down and 86 lb up at 18-0-12, 366 lb down and 86 lb up at 20-0-12, 450 lb down at 22-0-12, 450 lb down at
    24-0-12, 450 lb down at 26-0-12, and 450 lb down at 28-0-12, and 450 lb down at 30-0-12 on bottom chord. The design/selection
    of such connection device(s) is the responsibility of others.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

March 22,2022

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	D3G	Common Girder	1	**2**		I50904839
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:10 2022 Page 2
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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, 9-16=-20
    Concentrated Loads (lb)
        Vert: 12=-366(F) 17=-366(F) 18=-366(F) 19=-366(F) 20=-366(F) 22=-366(F) 23=-366(F) 24=-366(F) 25=-366(F) 27=-366(F) 28=-450(F) 29=-450(F) 30=-450(F)
        31=-450(F) 32=-450(F)

⚠ WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not
a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall
building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing
is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the
fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	E1E	GABLE	1	1		I50904840
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:11 2022 Page 1
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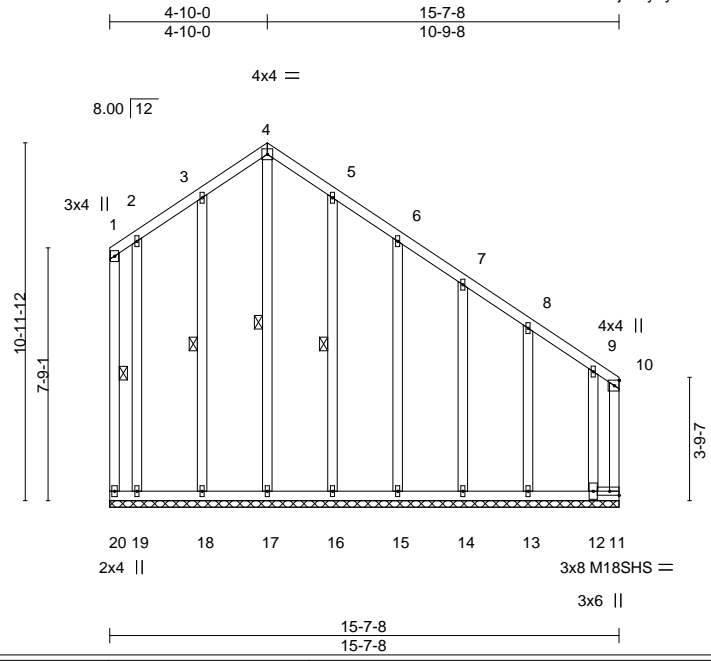
LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	n/a	-	n/a	999		MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	n/a	-	n/a	999		M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	11	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R								Weight: 156 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.
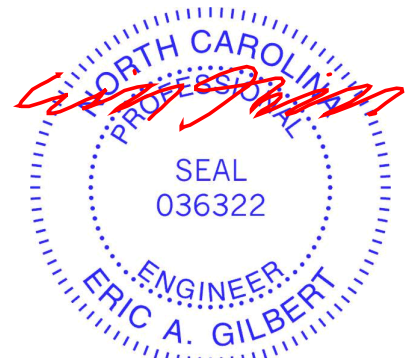WEBS   1 Row at midpt   1-20, 4-17, 3-18, 5-16

REACTIONS.   All bearings 15-7-8.
    (lb) - Max Horz 20=-161(LC 13)
            Max Uplift   All uplift 100 lb or less at joint(s) 18, 19, 16, 15, 14, 13 except 20=-203(LC 13), 11=-597(LC 11), 12=-873(LC 13)
            Max Grav   All reactions 250 lb or less at joint(s) 20, 17, 18, 19, 16, 15, 14, 13 except 11=924(LC 13), 12=632(LC 11)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   9-10=-374/247, 10-11=-458/294
WEBS   9-12=-293/403

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) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 4-10-0, Corner(3) 4-10-0 to 7-10-0, Exterior(2) 7-10-0 to 15-5-12 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 19, 16, 15, 14, 13 except (jt=lb) 20=203, 11=597, 12=873.

March 22,2022

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:12 2022 Page 1
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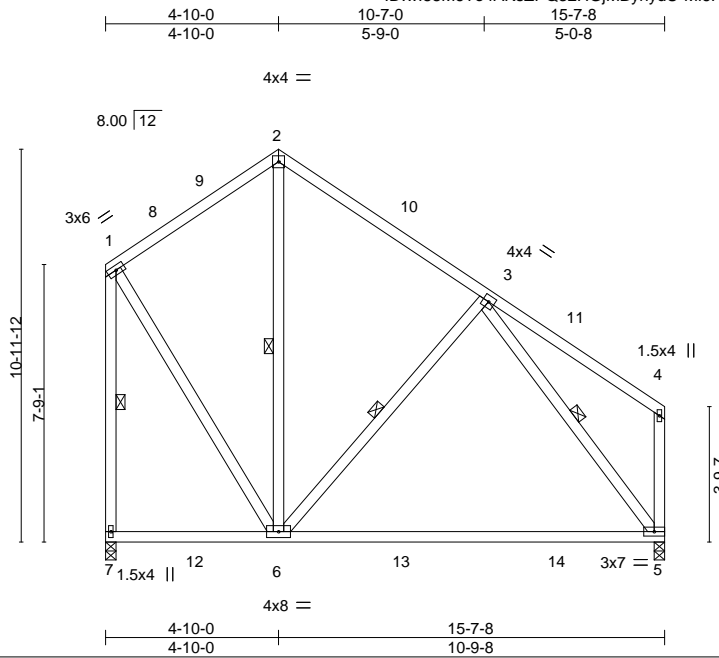
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.39	5-6	>473	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.69	5-6	>266	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 120 lb	FT = 20%

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

REACTIONS.   (size)   7=0-3-8, 5=0-3-8
Max Horz 7=-279(LC 8)
Max Uplift 7=-32(LC 13), 5=-2(LC 13)
Max Grav 7=703(LC 20), 5=658(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-357/125, 2-3=-409/125, 1-7=-675/93
BOT CHORD   5-6=-70/340
WEBS   1-6=-63/507, 3-5=-481/90

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
             except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   1 Row at midpt   2-6, 3-6, 1-7, 3-5

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-10-0, Exterior(2) 4-10-0 to 7-10-0, Interior(1) 7-10-0 to
   15-5-12 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	E3	Common	14	1		I50904842
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:13 2022 Page 1
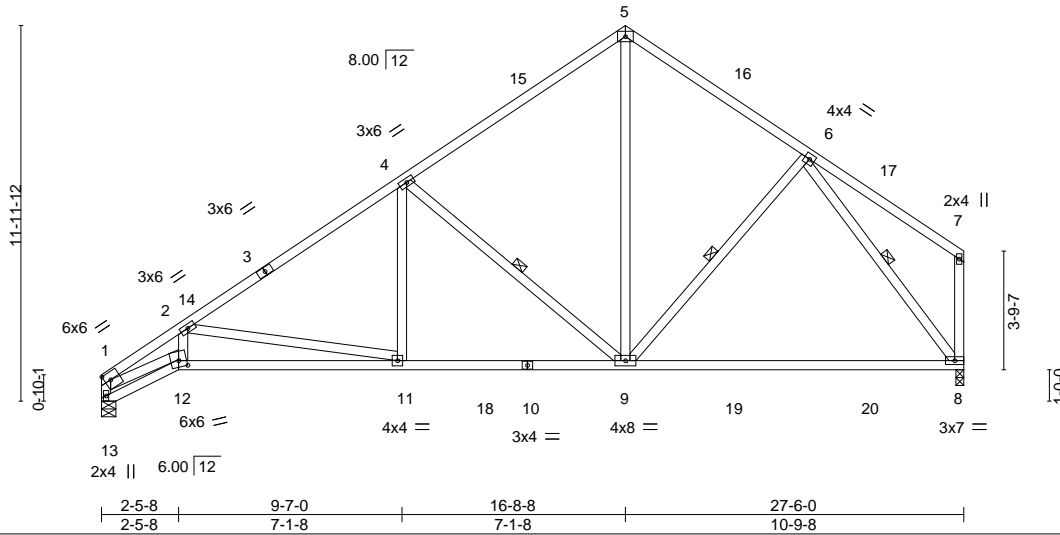ID:wI88M6Te4AKsZPQ32HGjMByhydU-rygfGCvl7F0SV0bB4GVKfwxii8H2tq4tKuZtnXzYcu4
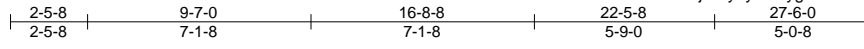
Plate Offsets (X,Y)-- [1:0-2-4,0-2-12], [12:0-3-0,0-2-8]

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	0.79	Vert(LL)	-0.41	8-9	>792	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.74	8-9	>441	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 174 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 *Except*
8-10: 2x4 SP No.1
WEBS   2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-5-8 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 9-10-2 oc bracing.
WEBS   1 Row at midpt   4-9, 6-9, 6-8

REACTIONS.   (size)   13=0-5-8, 8=0-3-0
Max Horz 13=261(LC 9)
Max Uplift 13=-23(LC 12), 8=-7(LC 12)
Max Grav 13=1088(LC 1), 8=1112(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-2637/246, 2-4=-1545/88, 4-5=-962/120, 5-6=-951/131, 1-13=-1133/96
BOT CHORD   12-13=-271/277, 11-12=-345/2272, 9-11=-99/1341, 8-9=-58/658
WEBS   2-12=-37/528, 2-11=-946/249, 4-11=0/376, 4-9=-735/189, 5-9=-34/638, 1-12=-203/2153, 6-8=-1040/76

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 16-8-8, Exterior(2) 16-8-8 to 19-8-8, Interior(1) 19-8-8 to 27-4-4 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, with BCDL = 10.0psf.
5) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 8.
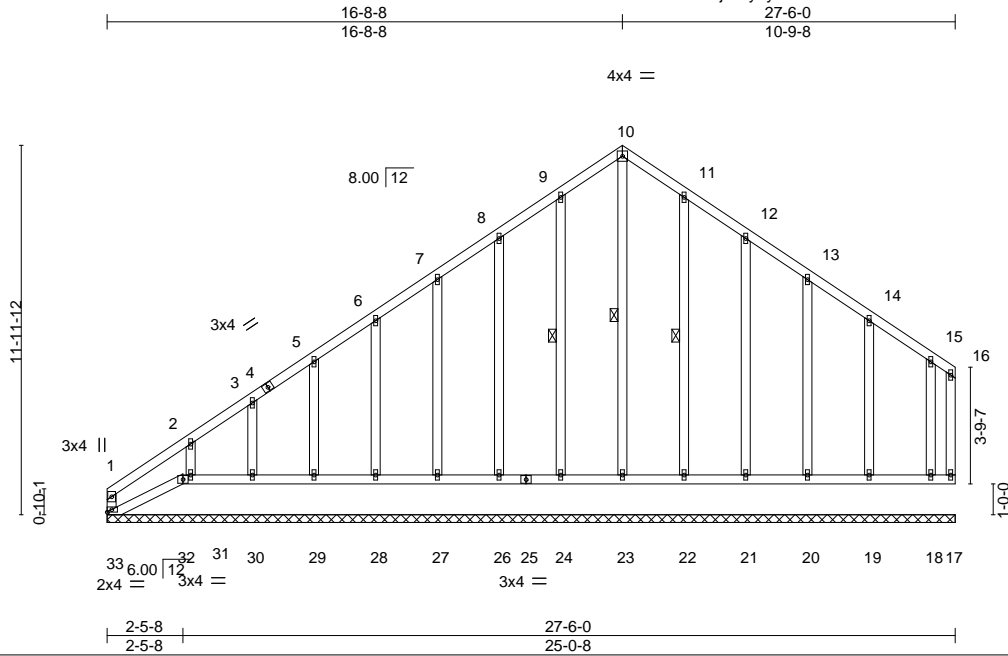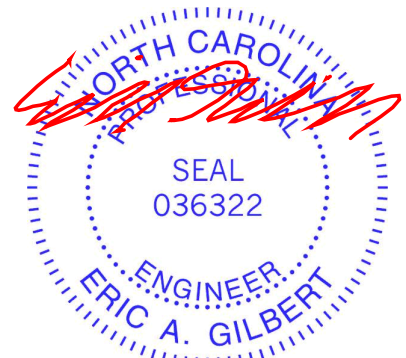
March 22,2022

TRENCO
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A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:14 2022 Page 1
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16-8-8

27-6-0

16-8-8

10-9-8

4x4 =

Scale = 1:74.7

8.00 [12]

11-11-12

3x4 //

3x4 ||

0-10-1

3-9-7

1-0-0

33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17

6.00 [12]

2x4 =   3x4 =

3x4 =

2-5-8

27-6-0

2-5-8

25-0-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	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	0.15	Horz(CT)	-0.00	17	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 213 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.
WEBS   1 Row at midpt   10-23, 9-24, 11-22

REACTIONS.   All bearings 27-6-0.
 (lb) - Max Horz 33=261(LC 9)
        Max Uplift   All uplift 100 lb or less at joint(s) 17, 23, 24, 26, 27, 28, 29, 30, 31, 22, 21, 20, 19, 18 except
                     33=-167(LC 8), 32=-148(LC 9)
        Max Grav   All reactions 250 lb or less at joint(s) 32, 17, 23, 24, 26, 27, 28, 29, 30, 31, 22, 21, 20, 19, 18
                     except 33=263(LC 11)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-273/244, 9-10=-239/276, 10-11=-239/276
WEBS   10-23=-254/159

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) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 16-8-8, Corner(3) 16-8-8 to 19-8-8, Exterior(2) 19-8-8 to 27-4-4 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) 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 23, 24, 26, 27, 28, 29, 30, 31, 22, 21, 20, 19, 18 except (jt=lb) 33=167, 32=148.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 32, 17, 23, 24, 26, 27, 28, 29, 30, 31, 22, 21, 20, 19, 18.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ERIC A. GILBERT
ENGINEER

March 22,2022

TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	J1	JACK-OPEN	2	1		I50904844
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:15 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-nKoQhtx?ftGAkKlZChYokL0BNx8VLydAoC2_rPzYcu2

Scale = 1:12.7

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	0.20	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.

North Carolina Professional Engineer Seal 036322 — Eric A. Gilbert

March 22,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	J2	JACK-OPEN	2	1		I50904845
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,
8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:15 2022 Page 1
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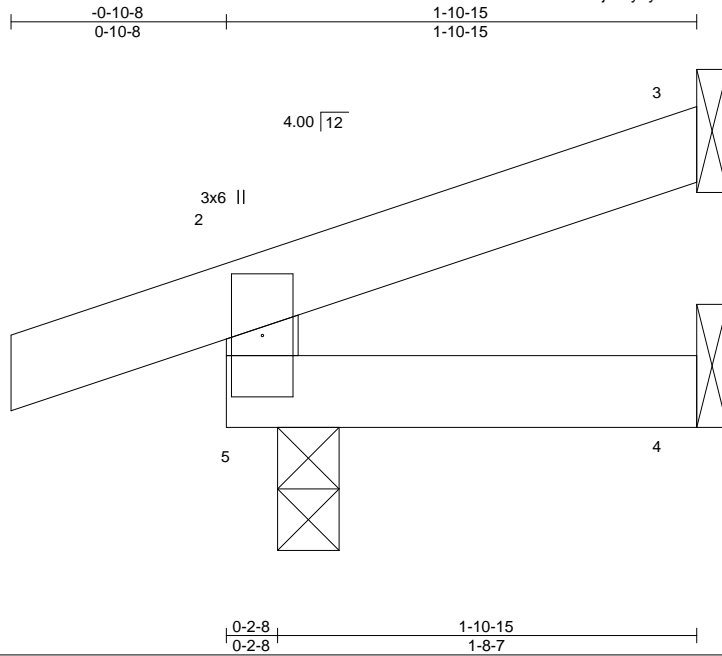
Scale = 1:9.4

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	0.07	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.
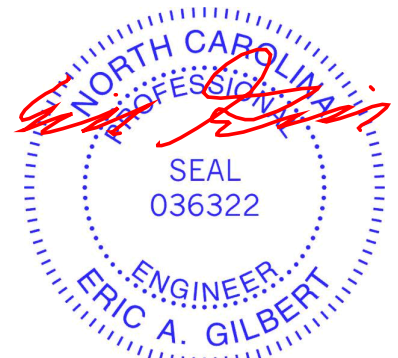BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

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.

March 22,2022

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. Mon Mar 21 19:21:16 2022 Page 1
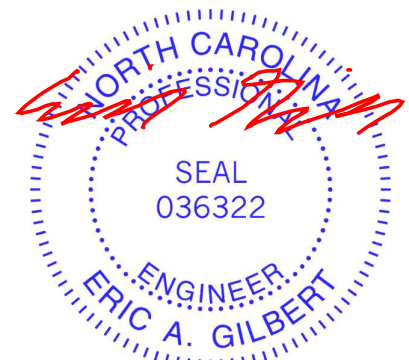ID:wI88M6Te4AKsZPQ32HGjMByhydU-FXMovDxdQAO1MUKmmO31GYZHdLR?4PsJ0snXNszYcu1
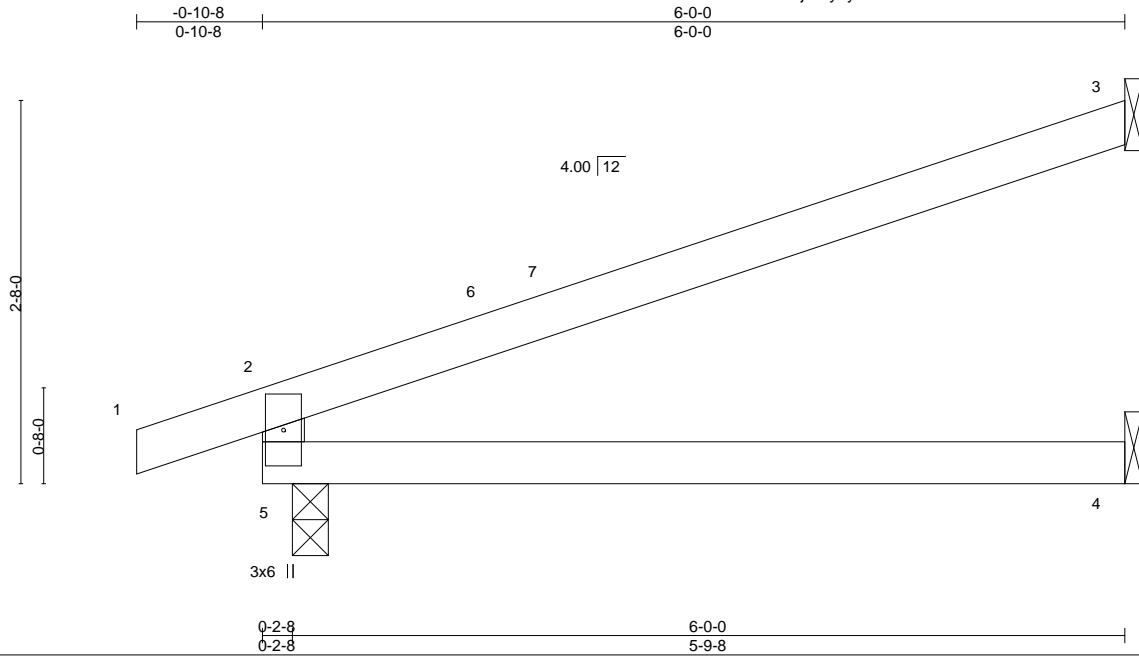
Scale: 3/4"=1'

-0-10-8
0-10-8
6-0-0
6-0-0

4.00 ⌐12

3x6 ||

0-2-8
0-2-8
6-0-0
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.
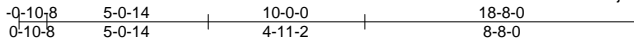
NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

March 22,2022

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

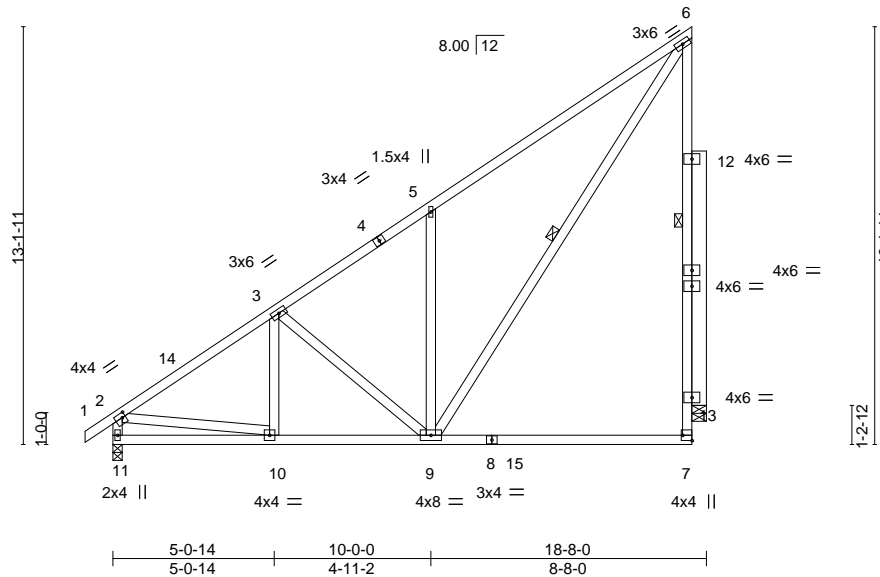| Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	M1	Monopitch	12	1		I50904847
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:17 2022 Page 1
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Plate Offsets (X,Y)--   [2:0-1-4,0-1-12], [7:Edge,0-3-8]

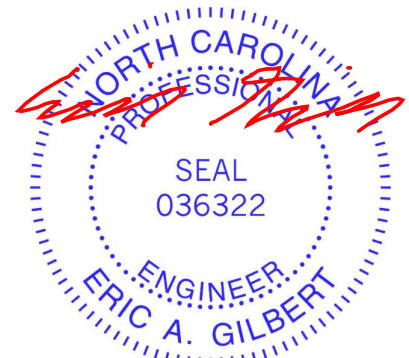| LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.20	7-9	>999	240		MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.32	7-9	>671	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	-0.06	13	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS								Weight: 153 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 *Except*
                 6-7: 2x4 SP DSS, 6-9: 2x4 SP No.2 or 2x4 SPF No.2
OTHERS   2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 8-4-8 oc bracing.
WEBS   1 Row at midpt   6-7, 6-9

REACTIONS.   (size)   11=0-3-8, 13=0-5-8
         Max Horz   11=383(LC 9)
         Max Uplift   11=-1(LC 12), 13=-125(LC 12)
         Max Grav   11=780(LC 1), 13=901(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-866/47, 3-5=-715/94, 5-6=-748/234, 6-13=-715/212, 2-11=-728/79
BOT CHORD   10-11=-496/655, 9-10=-237/774
WEBS   5-9=-482/236, 6-9=-242/992, 2-10=0/523

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 18-0-12 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
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, with BCDL = 10.0psf.
4) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
   capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb)
   13=125.

March 22,2022

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

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	M1E	GABLE	1	1		I50904848
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:18 2022 Page 1
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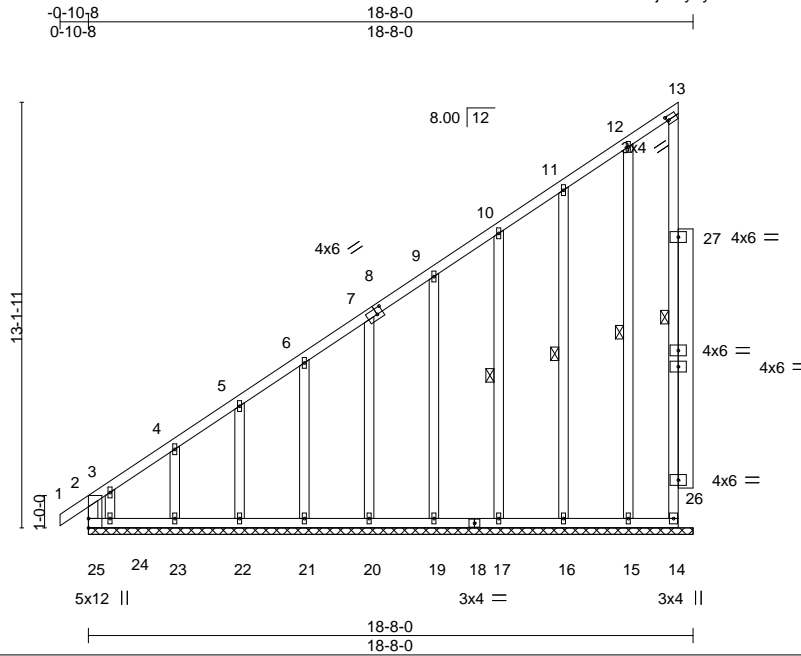
Scale = 1:71.1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.00	2	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.00	2	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 183 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 *Except*
             13-14: 2x4 SP No.2 or 2x4 SPF No.2
OTHERS   2x4 SP No.3 *Except*
             26-27: 2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
             except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   13-14, 12-15, 11-16, 10-17

REACTIONS.   All bearings 18-8-0.
     (lb) - Max Horz 25=383(LC 9)
             Max Uplift   All uplift 100 lb or less at joint(s) 14, 15, 16, 17, 19, 20, 21, 22, 23
                 except 25=-375(LC 10), 24=-480(LC 9)
             Max Grav   All reactions 250 lb or less at joint(s) 14, 15, 16, 17, 19, 20, 21, 22, 23
                 except 25=659(LC 9), 24=371(LC 10)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-25=-619/536, 2-3=-717/671, 3-4=-501/483, 4-5=-455/443, 5-6=-409/406,
             6-7=-364/368, 7-9=-318/330, 9-10=-272/292, 10-11=-226/254
WEBS   3-24=-380/382

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 Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 18-0-12 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
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) 14, 15, 16, 17, 19,
   20, 21, 22, 23 except (jt=lb) 25=375, 24=480.

March 22,2022

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

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF
30941-30941A	M2	Monopitch	3	1	I50904849
					Job Reference (optional)

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:19 2022 Page 1
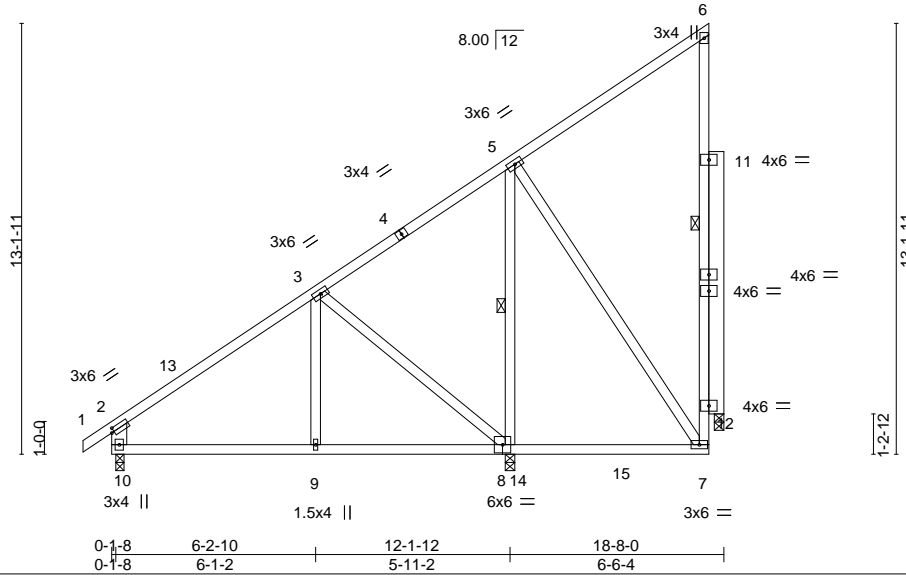ID:wl88M6Te4AKsZPQ32HGjMByhydU-f62xXF_Wj5mbDx2KRXckuBBjZZTkHc8mjq0B_AzYcu_
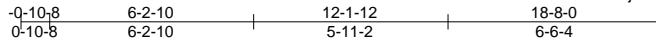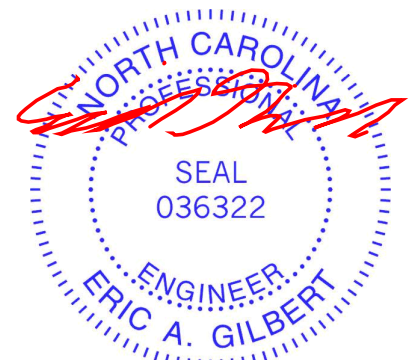
Scale = 1:70.3

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

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	0.89	Vert(LL)	-0.06	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.09	7-8	>821	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.67	Horz(CT)	-0.07	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 146 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 *Except*
            6-7: 2x4 SP No.2 or 2x4 SPF No.2, 2-10: 2x6 SP No.2
OTHERS   2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
            except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   1 Row at midpt   6-7, 5-8

REACTIONS.   (size)   8=0-3-8, 10=0-3-0, 12=0-3-8
        Max Horz 10=384(LC 9)
        Max Uplift 10=-48(LC 12), 12=-291(LC 9)
        Max Grav 8=903(LC 20), 10=489(LC 1), 12=318(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-419/92, 7-12=-291/327, 2-10=-428/114
BOT CHORD   9-10=-381/601, 8-9=-381/601, 7-8=-307/292
WEBS   3-8=-405/120, 5-8=-503/11, 5-7=-313/376

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 18-0-12 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
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, with BCDL = 10.0psf.
4) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
   capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb)
   12=291.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

March 22, 2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	M3	Monopitch	9	1		I50904850
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:20 2022 Page 1
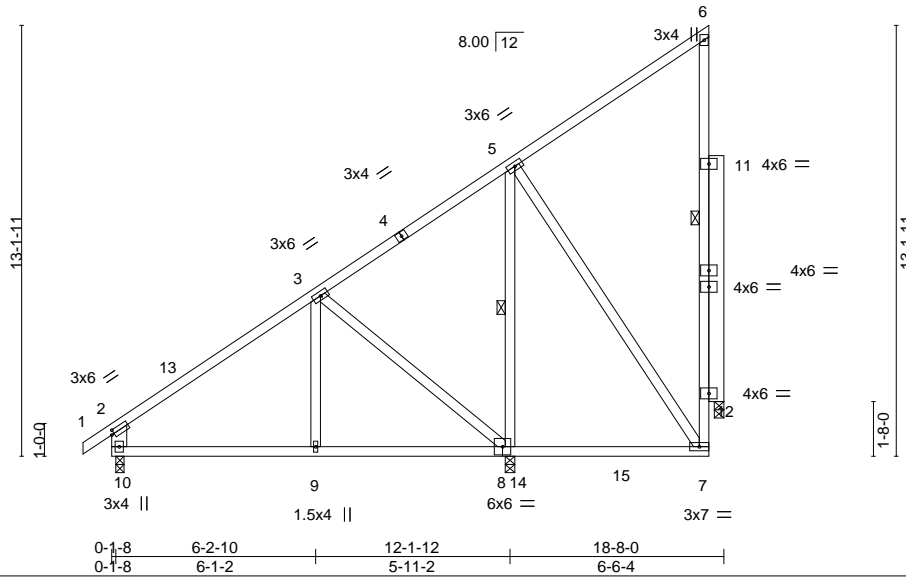ID:wI88M6Te4AKsZPQ32HGjMByhydU-7IbJkb_8UPuSq5dX?E7zROjuPypx02SvxUllVdzYctz
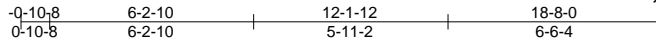
Scale = 1:70.3

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

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	0.88	Vert(LL)	-0.06	7-8	>999	240		MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.09	7-8	>806	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.67	Horz(CT)	-0.10	12	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS								Weight: 145 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 *Except*
           6-7: 2x4 SP No.2 or 2x4 SPF No.2, 2-10: 2x6 SP No.2
OTHERS   2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,
             except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   1 Row at midpt   6-7, 5-8
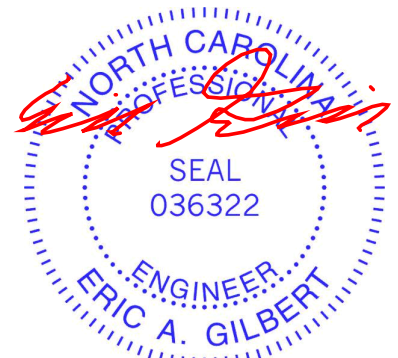
REACTIONS.   (size) 8=0-3-8, 10=0-3-0, 12=0-3-8
      Max Horz 10=384(LC 11)
      Max Uplift 10=-47(LC 12), 12=-290(LC 9)
      Max Grav 8=903(LC 20), 10=489(LC 1), 12=318(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-419/92, 7-12=-290/326, 2-10=-428/114
BOT CHORD 9-10=-380/600, 8-9=-380/600, 7-8=-307/291
WEBS   3-8=-404/120, 5-8=-501/9, 5-7=-311/374

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 18-0-12 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
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, with BCDL = 10.0psf.
4) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
   capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb)
   12=290.

March 22,2022

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	M3E	GABLE	1	1		I50904851
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:21 2022 Page 1
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Scale = 1:71.3

-0-10-8 / 0-10-8

18-8-0 / 18-8-0

8.00 ⌐12

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.02	1	n/r	120		MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.02	1	n/r	120			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.00	13	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R								Weight: 181 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.2 or 2x4 SPF No.2 *Except*
             2-23: 2x6 SP No.2
OTHERS   2x4 SP No.3 *Except*
             24-25: 2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
             except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   12-13, 11-14, 10-15, 9-16

REACTIONS.   All bearings 18-8-0.
    (lb) - Max Horz 23=384(LC 11)
            Max Uplift   All uplift 100 lb or less at joint(s) 13, 14, 15, 16, 18, 19, 20 except
                         23=-111(LC 8), 22=-203(LC 12)
            Max Grav   All reactions 250 lb or less at joint(s) 13, 14, 15, 16, 18, 19, 20, 21
                         except 23=317(LC 9), 22=271(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-572/549, 3-4=-432/421, 4-5=-413/410, 5-6=-362/366, 6-8=-317/329, 8-9=-271/291,
             9-10=-226/253, 2-23=-361/277
WEBS   3-22=-271/223

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 Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 18-0-12 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
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) 13, 14, 15, 16, 18,
   19, 20 except (jt=lb) 23=111, 22=203.

March 22,2022

ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	M4	Monopitch	6	1		I50904852
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:21 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-cU9hyx?mFj0JSFCjYxfCzcGASM9Qlf62A8VI23zYcty

-0-10-8   6-0-0
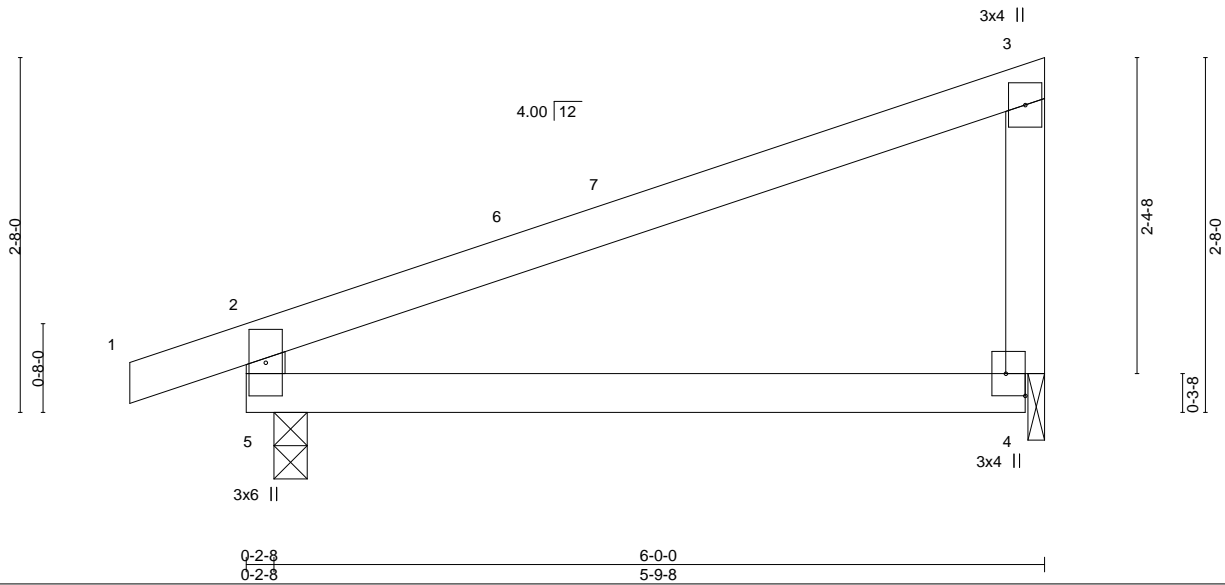0-10-8   6-0-0

Scale = 1:17.3

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.
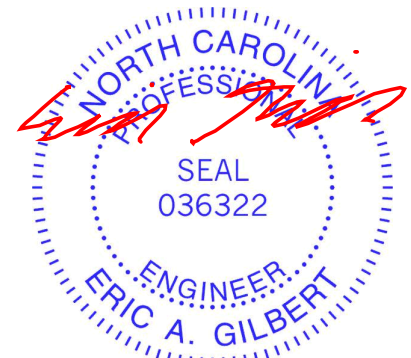BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

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.

March 22,2022

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	M5G	Roof Special Girder	1	1		I50904853
					Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,
8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:22 2022 Page 1
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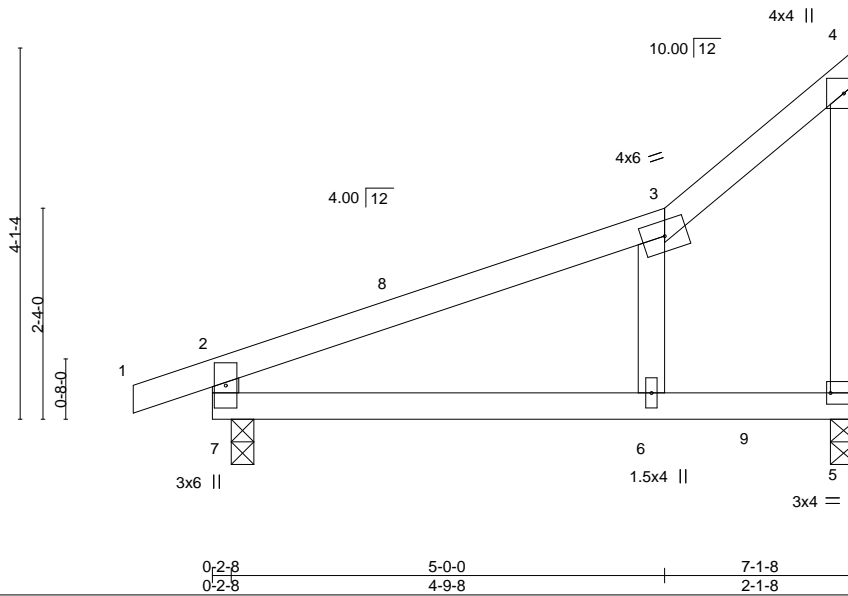
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Plate Offsets (X,Y)--   [5:Edge,0-1-8]

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	0.81	Vert(LL)	-0.11	6-7	>750	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.24	6-7	>340	180		
BCLL	0.0 *	Rep Stress Incr	YES	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 9)
            Max Uplift 7=-41(LC 8)
            Max Grav 5=423(LC 1), 7=365(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
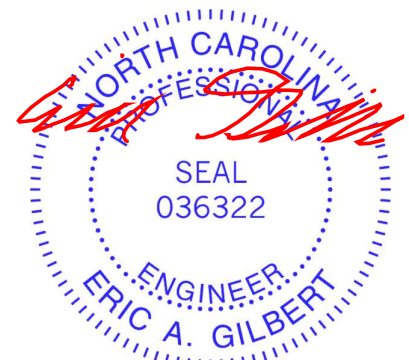TOP CHORD   2-7=-268/100

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 6-11-12 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
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) 188 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: 9=-180(F)

March 22,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	PB1	GABLE	10	1		I50904854
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:23 2022 Page 1
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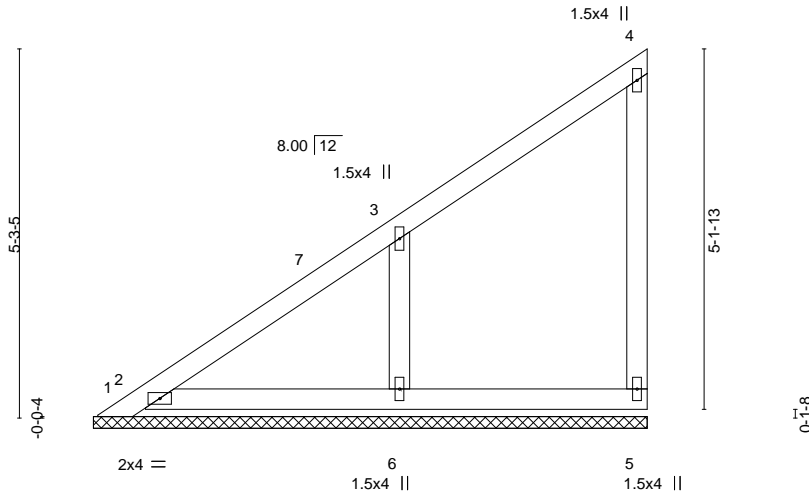
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 35 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 7-11-0.
        (lb) - Max Horz 1=144(LC 9)
                Max Uplift   All uplift 100 lb or less at joint(s) 5, 2, 6 except 1=-148(LC 19)
                Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 2=282(LC 19), 6=336(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-300/319

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) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 7-9-4 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
7) Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
   capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6 except
   (jt=lb) 1=148.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building
   designer.

March 22,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	PB2	GABLE	1	1		I50904855
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:24 2022 Page 1
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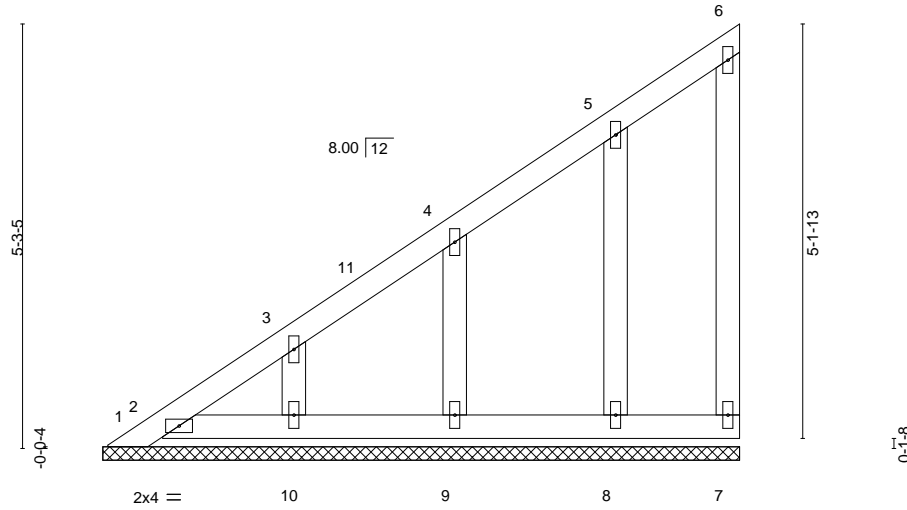
8.00 12

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	0.30	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	0.04	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 41 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 7-11-0.
   (lb) - Max Horz 1=144(LC 9)
           Max Uplift   All uplift 100 lb or less at joint(s) 1, 7, 2, 8, 9, 10
           Max Grav   All reactions 250 lb or less at joint(s) 1, 7, 2, 8, 9, 10

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-278/272

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) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 7-9-4 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 1.5x4 MT20 unless otherwise indicated.
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) Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 2, 8, 9, 10.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

March 22,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	I50904856
30941-30941A	PB3	Piggyback	3	1	Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:25 2022 Page 1
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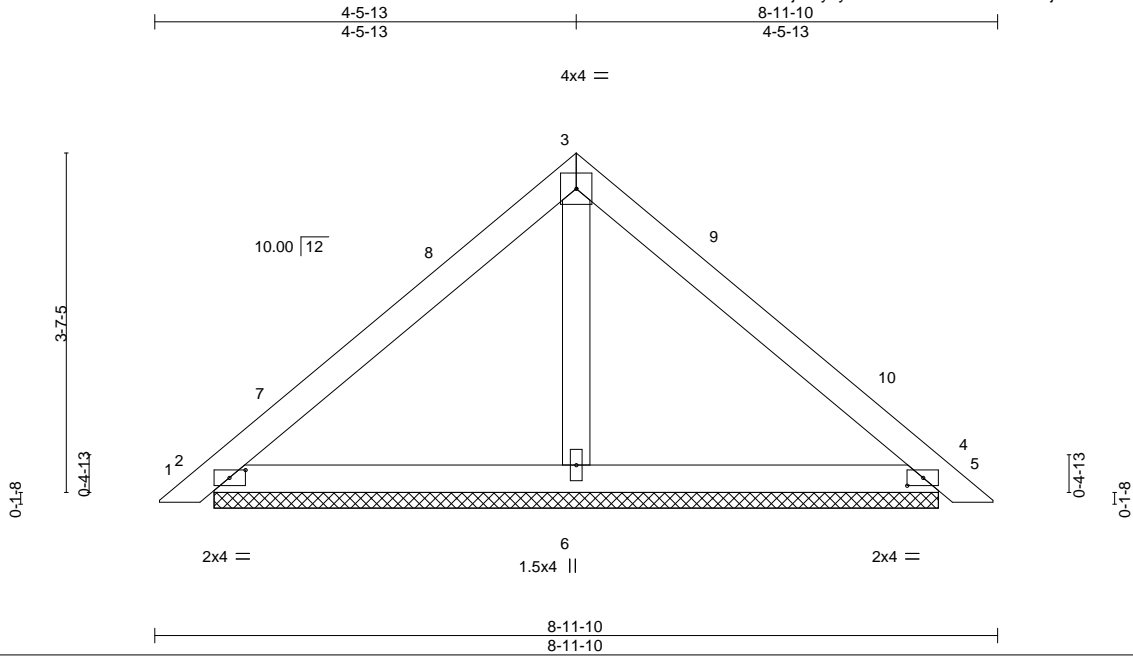
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Plate Offsets (X,Y)--   [2:0-2-1,0-1-0], [4:0-2-1,0-1-0]

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	0.28	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

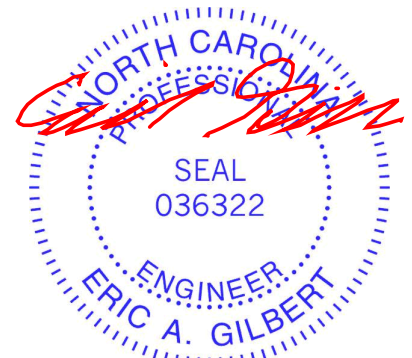BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

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.

SEAL
036322
ERIC A. GILBERT
NORTH CAROLINA
PROFESSIONAL
ENGINEER

March 22,2022

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

4x4 =

Scale = 1:25.1

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 74 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 9)
            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) 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: 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 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
5) 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.
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) 1, 7, 2, 6, 10, 8.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building
    designer.

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	PB5	GABLE	1	1		I50904858
					Job Reference (optional)	

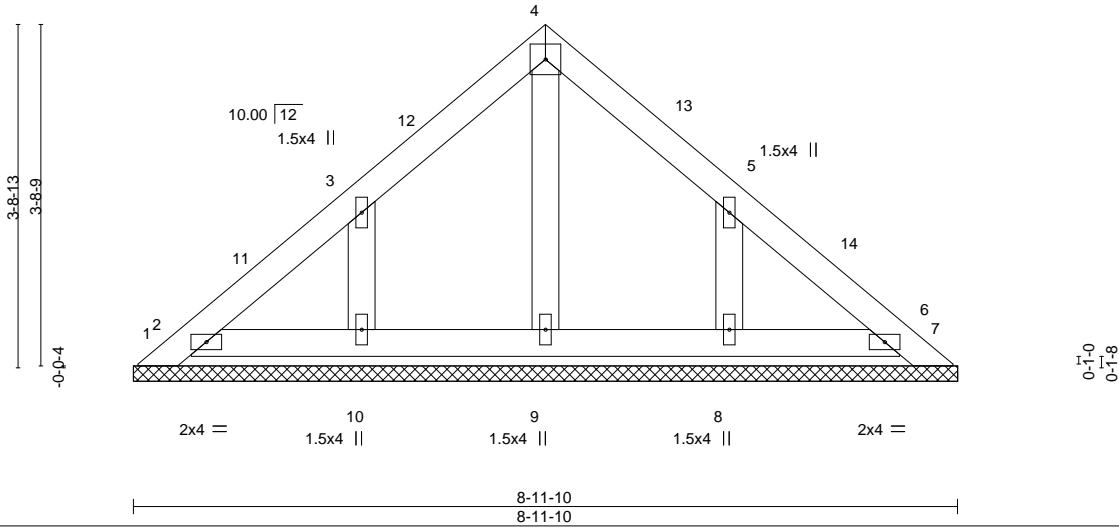84 Components (Dunn), Dunn, NC - 28334,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:27 2022 Page 1
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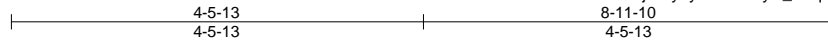
LOADING (psf)

LOADING (psf)		SPACING-		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 9)
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.

March 22,2022

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	V1	VALLEY	1	1		I50904859
					Job Reference (optional)	

84 Components (Dunn),　　Dunn, NC - 28334,　　　　　　　　　　　8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:28 2022 Page 1
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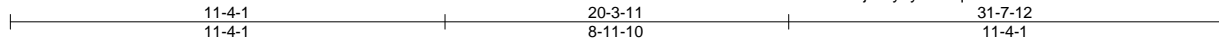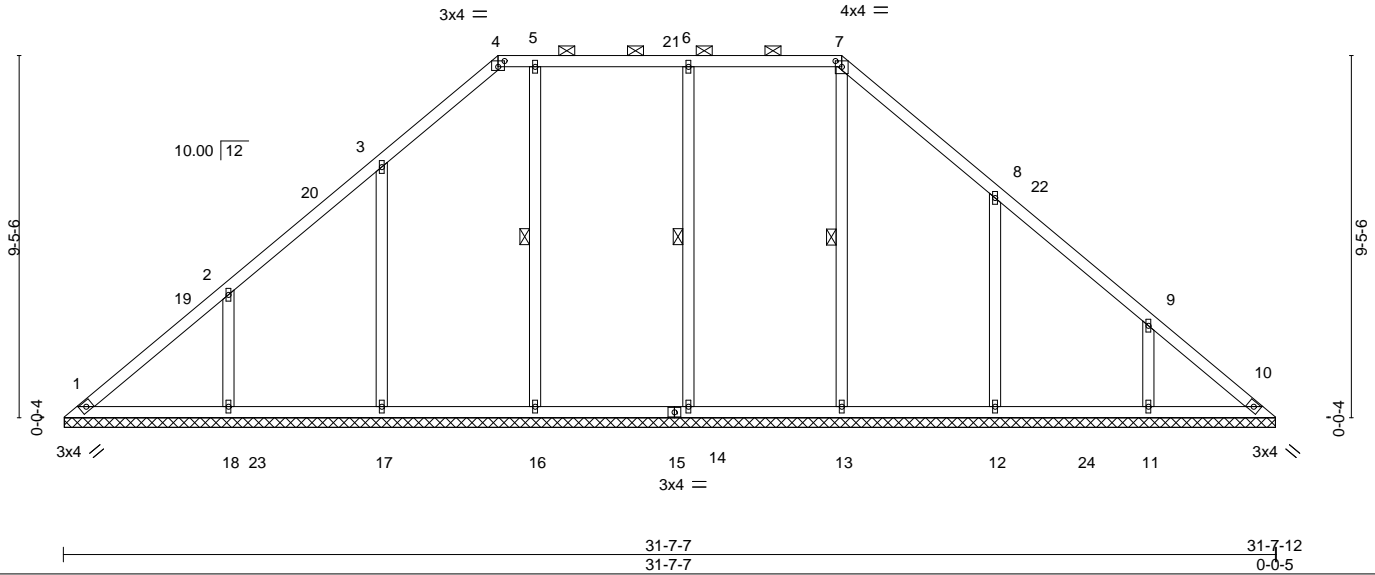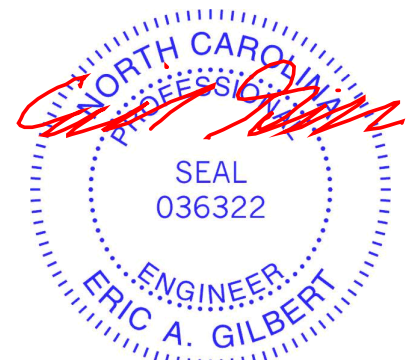
Scale = 1:60.1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	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	0.20	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 168 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, except
              2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   7-13, 6-14, 5-16

REACTIONS.   All bearings 31-7-3.
(lb) - Max Horz 1=-178(LC 8)
          Max Uplift   All uplift 100 lb or less at joint(s) 10, 14, 16, 17 except 18=-125(LC 12), 12=-124(LC 13), 11=-101(LC 13)
          Max Grav   All reactions 250 lb or less at joint(s) 1, 10 except 13=365(LC 26), 14=420(LC 26), 16=380(LC 22), 17=447(LC 19), 18=414(LC 19), 12=475(LC 20), 11=333(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   6-14=-265/89, 2-18=-278/171, 8-12=-279/174

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 3-6-12, Interior(1) 3-6-12 to 11-4-1, Exterior(2) 11-4-1 to 15-9-11, Interior(1) 15-9-11 to 20-3-11, Exterior(2) 20-3-11 to 24-9-5, Interior(1) 24-9-5 to 31-2-15 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) 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) 10, 14, 16, 17 except (jt=lb) 18=125, 12=124, 11=101.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 22,2022

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	V2	VALLEY	1	1		I50904860
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:31 2022 Page 1
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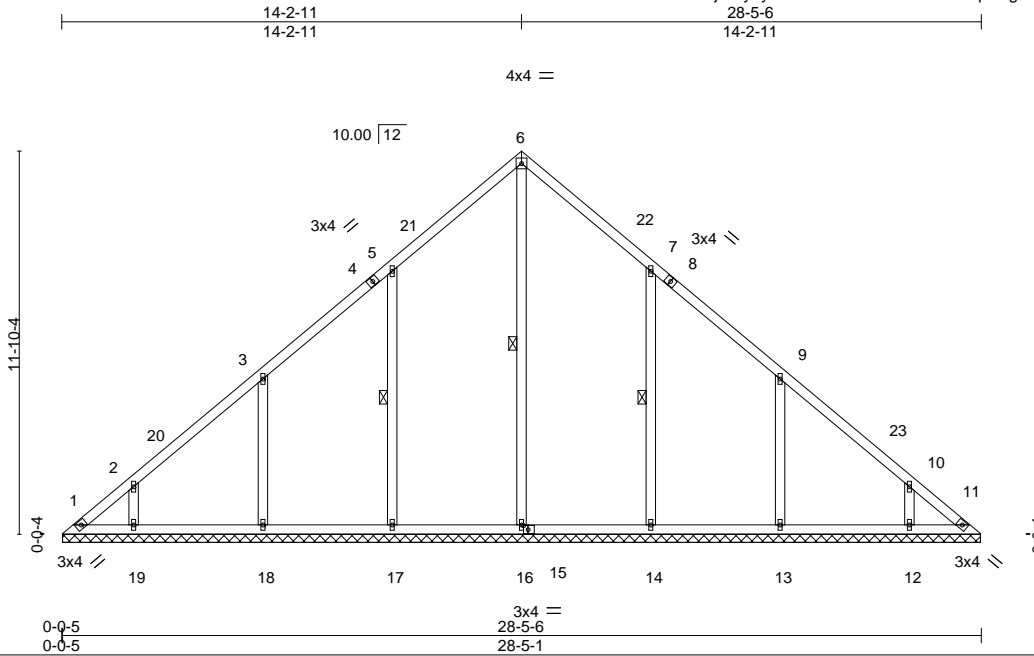
Scale = 1:71.3

Plate Offsets (X,Y)--   [7:0-0-0,0-0-0], [9:0-0-0,0-0-0], [10:0-0-0,0-0-0], [15:0-1-11,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	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	0.13	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 154 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   6-16, 5-17, 7-14

REACTIONS.   All bearings 28-4-12.
   (lb) - Max Horz 1=-223(LC 8)
           Max Uplift All uplift 100 lb or less at joint(s) 1, 19, 12, 11 except 17=-119(LC 12), 18=-110(LC 12),
                       14=-118(LC 13), 13=-110(LC 13)
           Max Grav   All reactions 250 lb or less at joint(s) 1, 11 except 16=393(LC 22), 17=480(LC 19), 18=402(LC 19),
                       19=274(LC 19), 14=479(LC 20), 13=402(LC 20), 12=273(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-274/184
WEBS   5-17=-272/167, 3-18=-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 14-2-11, Exterior(2) 14-2-11 to 17-2-11, Interior(1) 17-2-11
   to 28-0-9 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) All plates are 1.5x4 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 19, 12, 11
   except (jt=lb) 17=119, 18=110, 14=118, 13=110.
7) Non Standard bearing condition. Review required.

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March 22,2022

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84 Components (Dunn),   Dunn, NC - 28334,
8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:32 2022 Page 1
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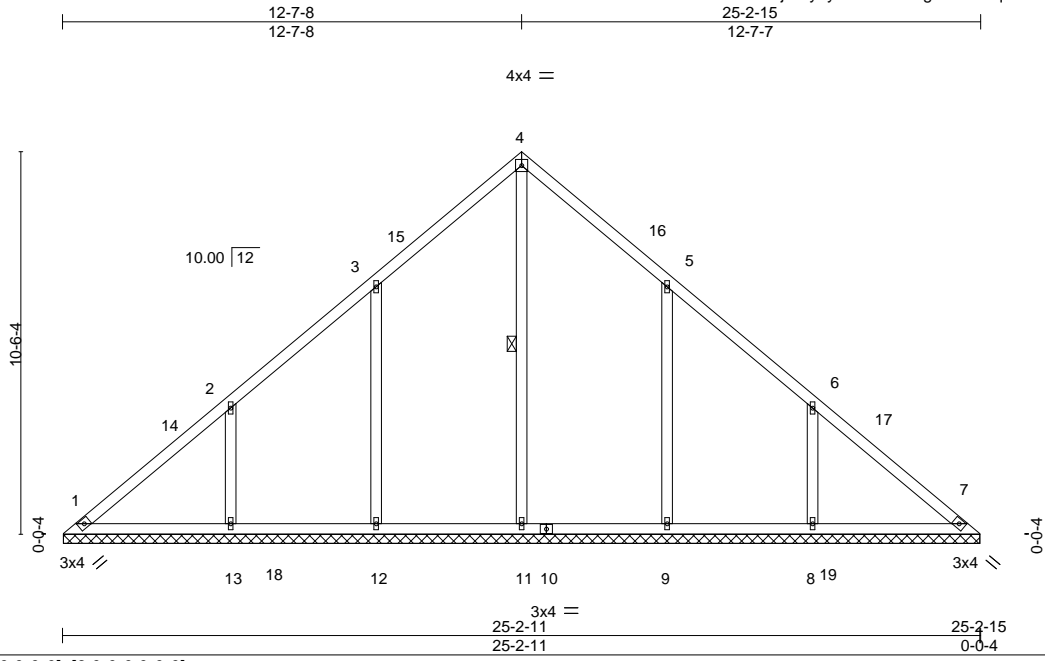
Scale = 1:63.3

Plate Offsets (X,Y)--   [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	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	0.24	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 129 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   4-11

REACTIONS.   All bearings 25-2-6.
(lb) -   Max Horz 1=-197(LC 8)
Max Uplift   All uplift 100 lb or less at joint(s) 1 except 12=-115(LC 12), 13=-125(LC 12), 9=-115(LC 13),
8=-126(LC 13)
Max Grav   All reactions 250 lb or less at joint(s) 1, 7 except 11=388(LC 22), 12=466(LC 19), 13=435(LC 19),
9=466(LC 20), 8=435(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   3-12=-265/163, 2-13=-285/173, 5-9=-264/163, 6-8=-285/173

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 12-7-8, Exterior(2) 12-7-8 to 15-7-8, Interior(1) 15-7-8 to
24-10-2 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 except (jt=lb)
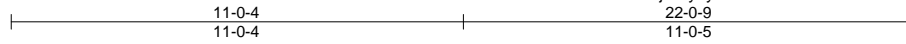12=115, 13=125, 9=115, 8=126.

March 22,2022

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Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	V4	VALLEY	1	1		I50904862
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:33 2022 Page 1
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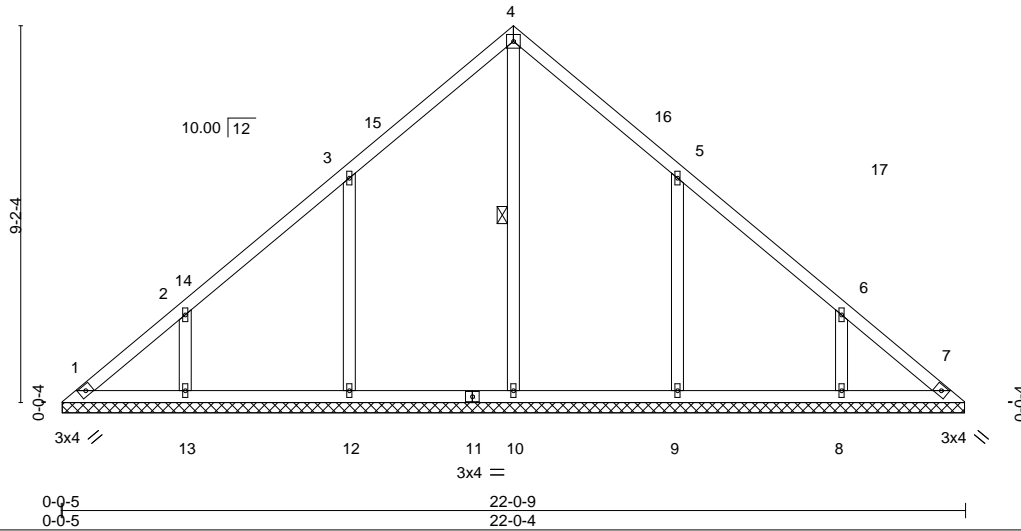| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 108 lb	FT = 20%

Plate Offsets (X,Y)--   [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

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 21-11-15.
     (lb) - Max Horz 1=-171(LC 8)
        Max Uplift   All uplift 100 lb or less at joint(s) 1, 7, 13, 8 except 12=-123(LC 12), 9=-122(LC 13)
        Max Grav   All reactions 250 lb or less at joint(s) 1, 7 except 10=388(LC 22), 12=419(LC 19), 13=295(LC 19),
                9=419(LC 20), 8=295(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   3-12=-280/172, 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 11-0-4, Exterior(2) 11-0-4 to 14-0-4, Interior(1) 14-0-4 to
   21-7-12 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, 7, 13, 8 except
   (jt=lb) 12=123, 9=122.

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ERIC A. GILBERT
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	V5	VALLEY	1	1		I50904863
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:34 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-j_ScgN9wBifTWFiDpAOF?LIPTcczIWtz9f8U?pzYctl
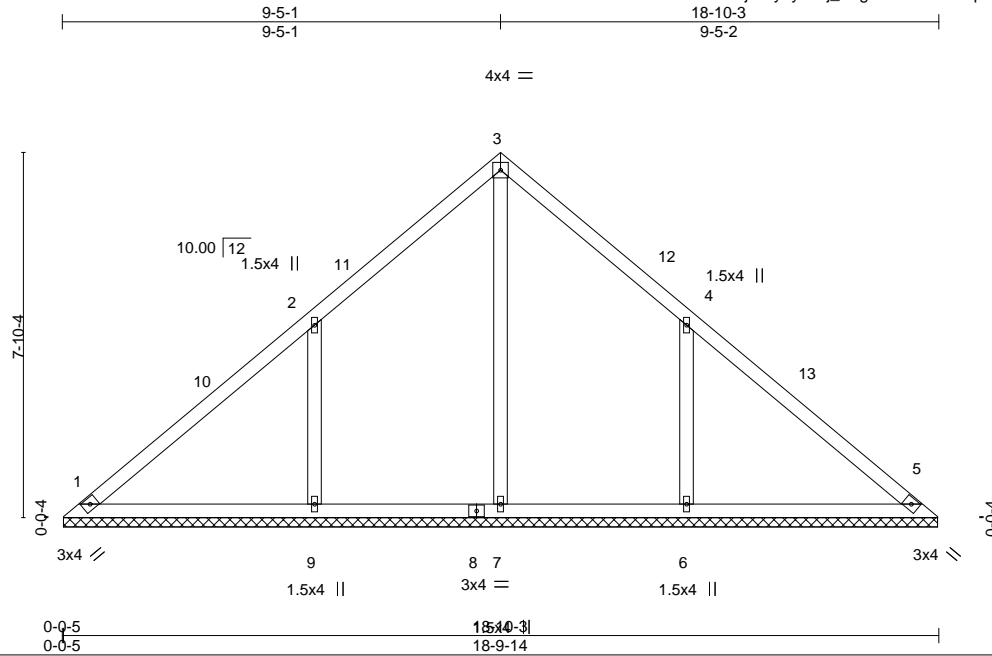
Plate Offsets (X,Y)--   [4:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	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: 85 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 18-9-9.
        (lb) - Max Horz 1=-146(LC 8)
            Max Uplift   All uplift 100 lb or less at joint(s) except 9=-154(LC 12), 6=-154(LC 13)
            Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=346(LC 22), 9=518(LC 19), 6=518(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-9=-344/207, 4-6=-344/207

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 9-5-1, Exterior(2) 9-5-1 to 12-5-1, Interior(1) 12-5-1 to
    18-5-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for
    reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
    will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 154 lb uplift at joint 9 and 154 lb uplift at
    joint 6.
6) Non Standard bearing condition. Review required.

March 22,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Scale = 1:39.8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.35	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	0.12	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 69 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 15-7-3.
     (lb) - Max Horz 1=-120(LC 8)
             Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-125(LC 12), 6=-125(LC 13)
             Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=349(LC 22), 8=392(LC 19), 6=391(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-277/169, 4-6=-277/169

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 7-9-14, Exterior(2) 7-9-14 to 10-9-14, Interior(1) 10-9-14 to
   15-2-15 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 100 lb uplift at joint(s) 1 except (jt=lb)
   8=125, 6=125.

March 22,2022

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

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	V7	VALLEY	1	1		I50904865
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:35 2022 Page 1
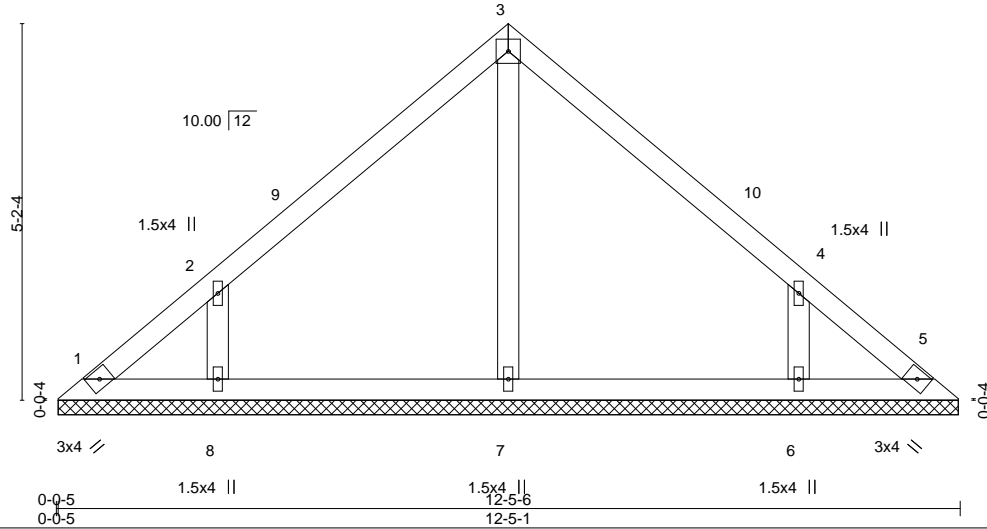ID:wI88M6Te4AKsZPQ32HGjMByhydU-BB?_ujAYy0nK7PGPNuvUYYrbo?_T1_N6OJu2XFzYctk

4x4 =

10.00 [12]

Scale: 3/8"=1'

6-2-11 / 12-5-6
6-2-11 / 6-2-11

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 52 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 12-4-12.
      (lb) - Max Horz 1=94(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=307(LC 19), 6=307(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 6-2-11, Exterior(2) 6-2-11 to 9-2-11, Interior(1) 9-2-11 to
   12-0-9 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) 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, 5 except (jt=lb)
   8=109, 6=109.
6) Non Standard bearing condition. Review required.
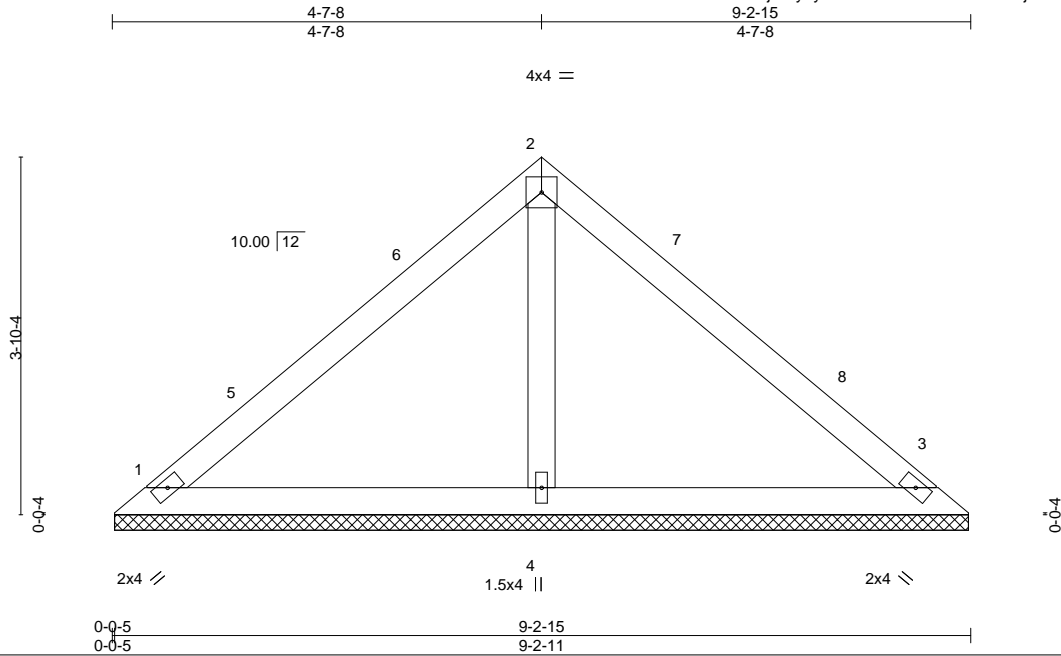
March 22,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	V8	Valley	1	1		I50904866
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:36 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-fNZM53BAiKvBlZrcxbQj4mOkaPHsmSxGdzdb4hzYctj

4-7-8 | 9-2-15
4-7-8 | 4-7-8

4x4

Scale = 1:24.8

10.00 ⎡12

3-10-4

0-0-4

2x4 ⫽   1.5x4 ‖   2x4 ⟍

0-0-5 | 9-2-15
0-0-5 | 9-2-11

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 35 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=9-2-6, 3=9-2-6, 4=9-2-6
            Max Horz 1=-68(LC 8)
            Max Uplift 1=-12(LC 13), 3=-20(LC 13)
            Max Grav 1=177(LC 1), 3=177(LC 1), 4=322(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 4-7-8, Exterior(2) 4-7-8 to 7-7-8, Interior(1) 7-7-8 to 8-10-2
   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, 3.

March 22,2022

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A MiTek Affiliate

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Edenton, NC 27932

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

3-0-4 | 6-0-9
3-0-4 | 3-0-4

4x4 =

Scale = 1:17.9

10.00 [12

2-6-4

0-0-4

1

2

3

4

0-0-4

2x4 //   1.5x4 || 2x4 \\

0-0-5 | 6-0-9
0-0-5 | 6-0-4

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	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: 22 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=5-11-15, 3=5-11-15, 4=5-11-15
Max Horz 1=42(LC 9)
Max Uplift 1=-13(LC 13), 3=-18(LC 13)
Max Grav 1=119(LC 1), 3=119(LC 1), 4=181(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.

SEAL
036322
ERIC A. GILBERT

March 22,2022

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	V10	Valley	1	1		I50904868
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:29 2022 Page 1
ID:wI88M6Te4AKsZPQ32HGjMByhydU-N1ejdg5nMA1BPUpF0do4IHbdXbxkdH4E0NRjKbzYctq

1-5-1　　2-10-3
1-5-1　　1-5-1

Scale = 1:8.7

3x4 =
2

10.00 [12]

3

1

1-2-4

0-0-4

2x4 //   2x4 \\

0-0-5   2-10-3
0-0-5   2-9-14

Plate Offsets (X,Y)--   [2:0-2-0,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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
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-P							Weight: 8 lb	FT = 20%

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

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

REACTIONS.   (size)   1=2-9-9, 3=2-9-9
                Max Horz 1=-16(LC 8)
                Max Uplift 1=-1(LC 12), 3=-1(LC 13)
                Max Grav 1=82(LC 1), 3=82(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.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

March 22,2022

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	22 PRINCE PLACE - ROOF	
30941-30941A	V11	Valley	1	1		I50904869
					Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Mar 21 19:21:30 2022 Page 1
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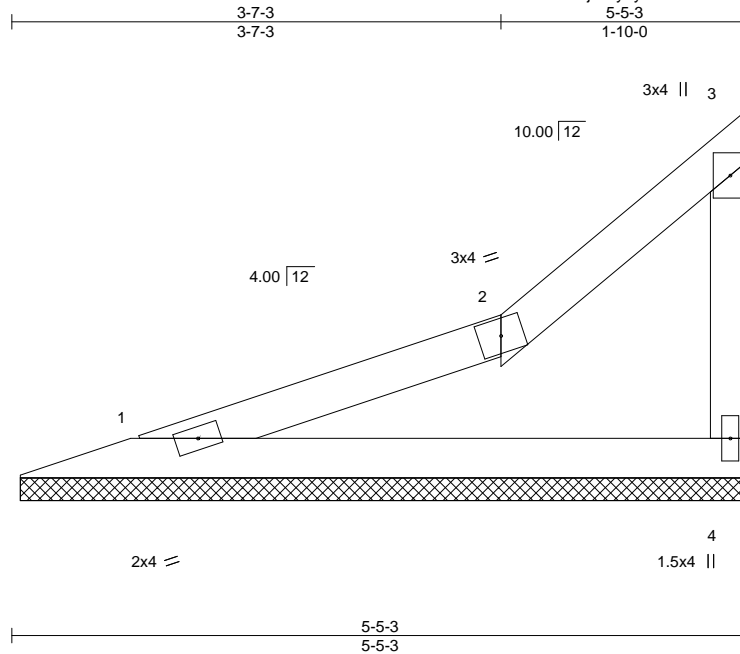
Scale = 1:17.0

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
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	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 19 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 5-5-3 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   1=5-4-7, 4=5-4-7
Max Horz 1=70(LC 9)
Max Uplift 1=-11(LC 8), 4=-23(LC 12)
Max Grav 1=174(LC 1), 4=174(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 5-3-7 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
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.

March 22,2022

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

Symbols

PLATE LOCATION AND ORIENTATION

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

1 3/4"

0-1/16"

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

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

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

PLATE SIZE

4 x 4

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

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.

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.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

dimensions shown in ft-in-sixteenths
(Drawings not to scale)

6-4-8

TOP CHORD

TOP CHORDS

C1-8
C1-2
W1-7
C7-8
W2-7
WEBS
C2-3
BOTTOM CHORDS
C6-7
W3-7
C5-6
W3-6
W4-6
C3-4
C4-5

TOP CHORD

1 2 3 4

8 7 6 5

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.

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