

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 28587-28587A  
10 PRINCE PLACE - FLOOR

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: I48477515 thru I48477536

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



October 25, 2021

Sevier, Scott

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

Job 28587-28587A	Truss F1	Truss Type Floor	Qty 5	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477515
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:33 2021 Page 1

ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-WHMLJR1ItSWWapqr9CQCINvx4fxB4fRabzFMz7yR92m



Scale = 1:28.6

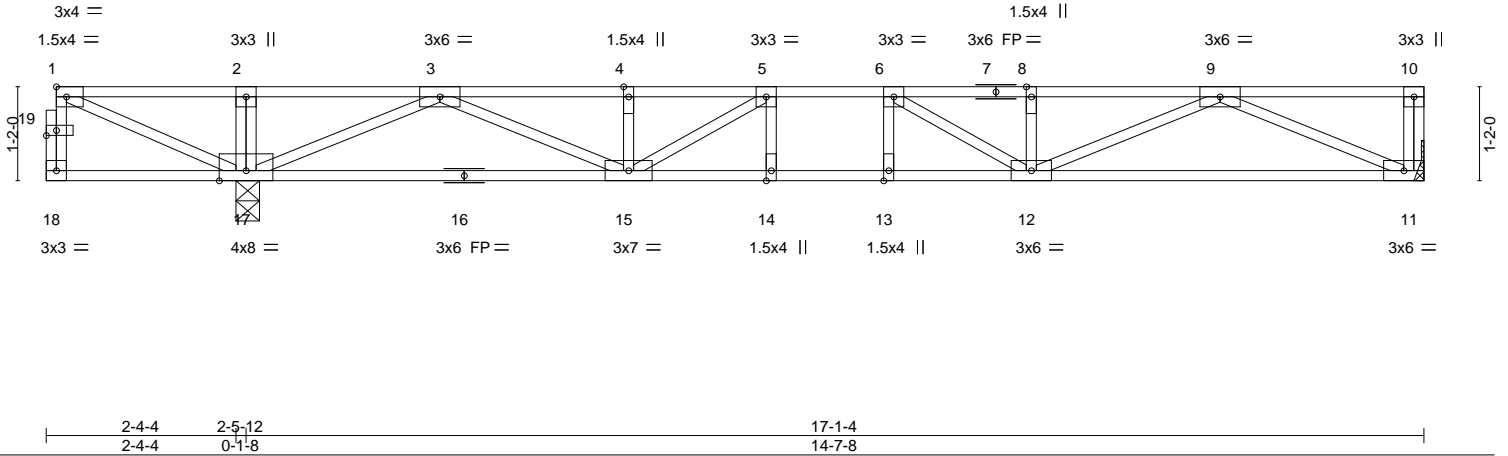


Plate Offsets (X,Y)--	[19:0-1-8,0-0-12]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00		TC 0.50	Vert(LL) -0.17	13-14	>999	480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00		BC 0.93	Vert(CT) -0.22	13	>789	360		
BCLL 0.0	Rep Stress Incr NO		WB 0.52	Horz(CT) 0.04	11	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 88 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 17=0-3-8, 11=Mechanical  
Max Grav 17=1198(LC 1), 11=774(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=0/462, 2-3=0/463, 3-4=-2258/0, 4-5=-2258/0, 5-6=-2589/0, 6-8=-2379/0, 8-9=-2379/0  
BOT CHORD 15-17=-29/1297, 14-15=0/2589, 13-14=0/2589, 12-13=0/2589, 11-12=0/1517  
WEBS 2-17=-273/0, 1-17=-507/0, 3-17=-1703/0, 9-11=-1653/0, 3-15=0/1094, 9-12=0/944, 5-15=-655/0, 6-12=-472/146

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 110 lb down at 0-2-4 on top 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)  
2) Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)



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Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b> 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 28587-28587A	Truss F1	Truss Type Floor	Qty 5	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	I48477515
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:34 2021 Page 2  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-\_twjWn2NeleNCzP1jvxRraS6q3HQp6hkqd\_vZyR92l

**LOAD CASE(S)** Standard

- 3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-100, 2-10=-20  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-20, 2-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-100, 2-10=-20  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-20, 2-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-20, 2-6=-100, 6-10=-20  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-100, 2-5=-20, 5-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 9) 3rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-20, 2-6=-100, 6-10=-20  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 10) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-100, 2-5=-20, 5-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)

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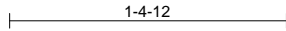


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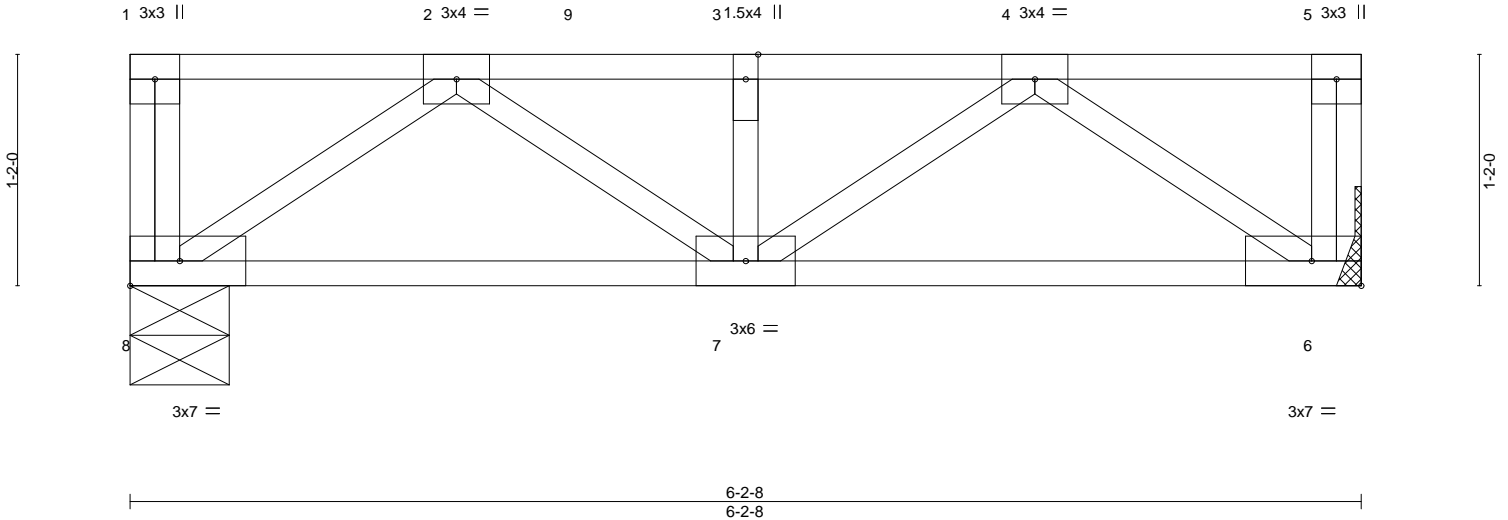
Job 28587-28587A	Truss F1G	Truss Type Floor Girder	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	I48477516
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:42 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-IQPkCW8ODeEAB0ZBb4J9GnNIH7thmuvfswKn5yR92d



Scale = 1:11.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.89	Vert(LL)	-0.02	7	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.44	Vert(CT)	-0.03	7	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.38	Horz(CT)	0.01	6	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-P						
								Weight: 35 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)

**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=0-6-0, 6=Mechanical  
Max Grav 8=1480(LC 1), 6=990(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-8=-653/0, 2-3=-1610/0, 3-4=-1610/0  
BOT CHORD 7-8=0/1187, 6-7=0/1314  
WEBS 2-8=-1439/0, 2-7=0/520, 3-7=-482/0, 4-7=0/364, 4-6=-1593/0

- NOTES-**
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - Refer to girder(s) for truss to truss connections.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 631 lb down at 0-1-8, and 592 lb down at 2-4-4, and 592 lb down at 4-4-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 6-8=-10, 1-5=-100  
Concentrated Loads (lb)  
Vert: 1=-631(F) 4=-592(F) 9=-592(F)



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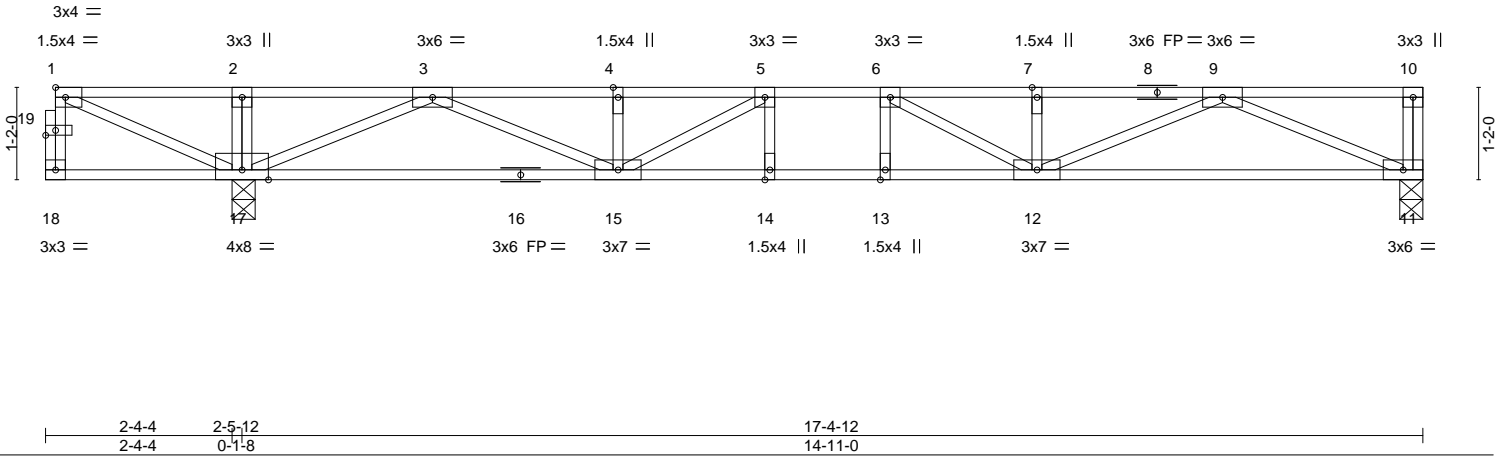
Job 28587-28587A	Truss F2	Truss Type Floor	Qty 2	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	I48477517
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:43 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-Dcz7Ps90Wm5nLbmlbYiUKdPhKuQAd2uWguKXyR92c



Scale = 1:29.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.51	Vert(LL)	-0.18 13-14	>986	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.97	Vert(CT)	-0.24 13	>747	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.54	Horz(CT)	0.05 11	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 89 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 17=0-3-8, 11=0-3-8  
Max Grav 17=1214(LC 1), 11=791(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=0/462, 2-3=0/463, 3-4=-2331/0, 4-5=-2331/0, 5-6=-2704/0, 6-7=-2457/0, 7-9=-2457/0  
BOT CHORD 15-17=-20/1332, 14-15=0/2704, 13-14=0/2704, 12-13=0/2704, 11-12=0/1554  
WEBS 2-17=-274/0, 1-17=-507/0, 3-17=-1741/0, 9-11=-1693/0, 3-15=0/1135, 9-12=0/988, 7-12=-253/0, 5-15=-698/0, 6-12=-511/131

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 110 lb down at 0-2-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 11-18=-10, 1-10=-100
Concentrated Loads (lb)
Vert: 1=-110(F)
2) Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 11-18=-10, 1-10=-100
Concentrated Loads (lb)
Vert: 1=-110(F)



October 25, 2021

Job 28587-28587A	Truss F2	Truss Type Floor	Qty 2	Ply 1	10 PRINCE PLACE - FLOOR I48477517 Job Reference (optional)
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:44 2021 Page 2  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-hoWVdBAfHquyPVAYJ?6nFhso95g79dtC7APRs\_yR92b

**LOAD CASE(S)** Standard

- 3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-100, 2-10=-20  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-20, 2-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-100, 2-10=-20  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-20, 2-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-20, 2-6=-100, 6-10=-20  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-100, 2-5=-20, 5-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 9) 3rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-20, 2-6=-100, 6-10=-20  
Concentrated Loads (lb)  
Vert: 1=-110(F)
- 10) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-18=-10, 1-2=-100, 2-5=-20, 5-10=-100  
Concentrated Loads (lb)  
Vert: 1=-110(F)

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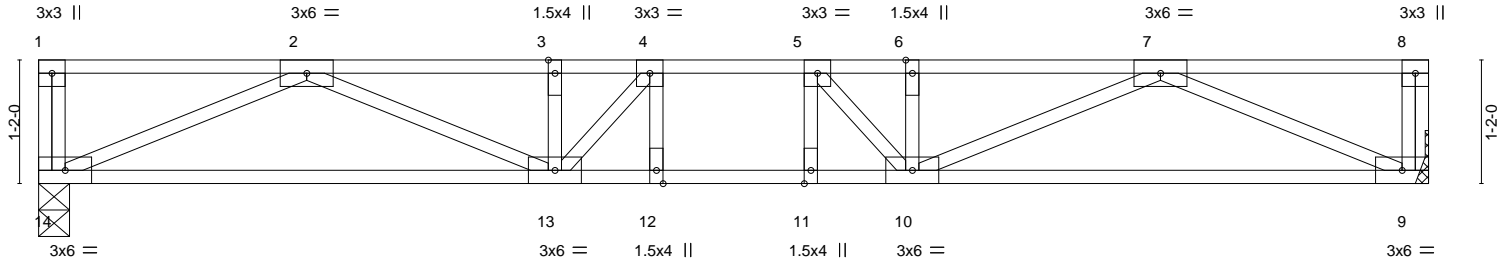
Job 28587-28587A	Truss F3	Truss Type Floor	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477518
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:44 2021 Page 1  
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Scale = 1:21.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.37	Vert(LL)	-0.11 11-12	>999	480	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.65	Vert(CT)	-0.15 11-12	>999	360		
BCLL 0.0	Lumber DOL 1.00	WB 0.39	Horz(CT)	0.03 9	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-S					Weight: 68 lb	FT = 20%F, 11%E
	Code IRC2015/TPI2014							

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 WEBS 2x4 SP No.3(flat)

**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) 14=0-3-8, 9=Mechanical  
 Max Grav 14=708(LC 1), 9=708(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2072/0, 3-4=-2072/0, 4-5=-2159/0, 5-6=-2072/0, 6-7=-2072/0  
 BOT CHORD 13-14=0/1367, 12-13=0/2159, 11-12=0/2159, 10-11=0/2159, 9-10=0/1367  
 WEBS 2-14=-1490/0, 7-9=-1490/0, 2-13=0/771, 7-10=0/771, 4-13=-360/125, 5-10=-360/125

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



October 25, 2021

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 818 Soundside Road  
 Edenton, NC 27932



Job 28587-28587A	Truss F3G	Truss Type Floor Girder	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477519
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:45 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-974tqXAH280p1f8sjd0nvP\_EVBKu9VLMq9\_OQyR92a



Scale = 1:16.8

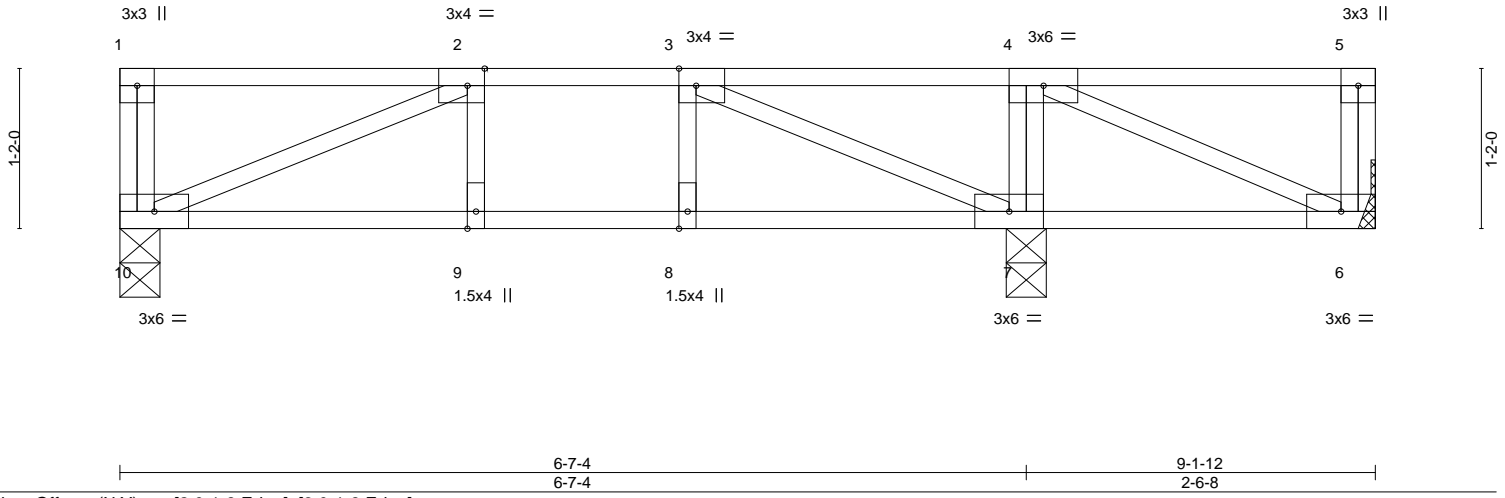


Plate Offsets (X,Y)--	[2:0-1-8,Edge], [3:0-1-8,Edge]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 40.0	Plate Grip DOL	1.00	TC 0.49	Vert(LL)	-0.02	9-10	>999
TCDL 10.0	Lumber DOL	1.00	BC 0.27	Vert(CT)	-0.03	9-10	>999
BCLL 0.0	Rep Stress Incr	NO	WB 0.20	Horz(CT)	0.01	6	n/a
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							197/144
							Weight: 49 lb
							FT = 20%F, 11%E

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 6-7.
WEBS	2x4 SP No.3(flat)		

**REACTIONS.** (size) 10=0-3-8, 6=Mechanical, 7=0-3-8  
Max Uplift 6=37(LC 3)  
Max Grav 10=363(LC 7), 6=136(LC 7), 7=703(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-569/0, 3-4=-54/269  
BOT CHORD 9-10=0/569, 8-9=0/569, 7-8=0/569, 6-7=-269/54  
WEBS 4-7=-409/0, 2-10=-617/0, 3-7=-745/0, 4-6=-59/293

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 152 lb down at 4-2-4 on top 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 6-10=-10, 1-5=-100  
Concentrated Loads (lb)  
Vert: 3=-72(F)



October 25, 2021

**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



818 Soundside Road  
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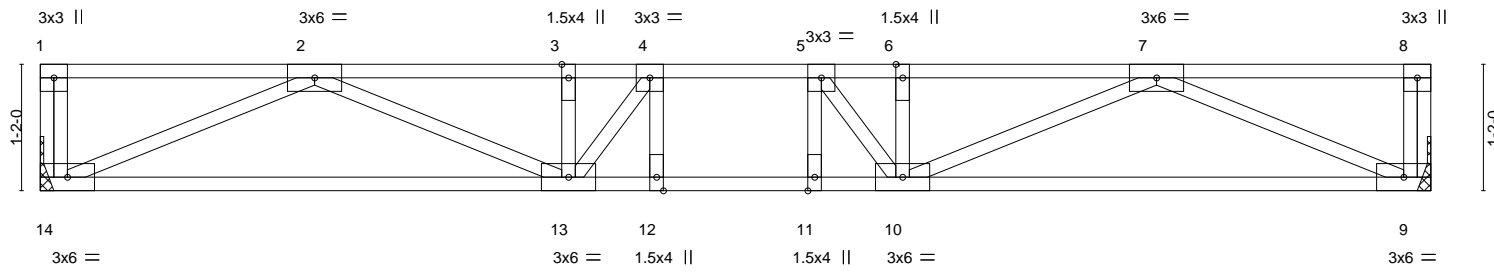
Job 28587-28587A	Truss F4	Truss Type Floor	Qty 3	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477520
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:46 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-eBeF2tBvpR9gepKLQ8FK6yByvS\_darVaUuYwsyR92Z



Scale = 1:21.3



12-10-0  
12-10-0

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.37	Vert(LL)	-0.10 11-12	>999	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.63	Vert(CT)	-0.14 11-12	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.38	Horz(CT)	0.03 9	n/a	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 67 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 14=Mechanical, 9=Mechanical  
Max Grav 14=692(LC 1), 9=692(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2000/0, 3-4=-2000/0, 4-5=-2062/0, 5-6=-2000/0, 6-7=-2000/0  
BOT CHORD 13-14=0/1330, 12-13=0/2062, 11-12=0/2062, 10-11=0/2062, 9-10=0/1330  
WEBS 2-14=-1450/0, 7-9=-1450/0, 2-13=0/732, 7-10=0/732, 4-13=-340/146, 5-10=-340/146

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



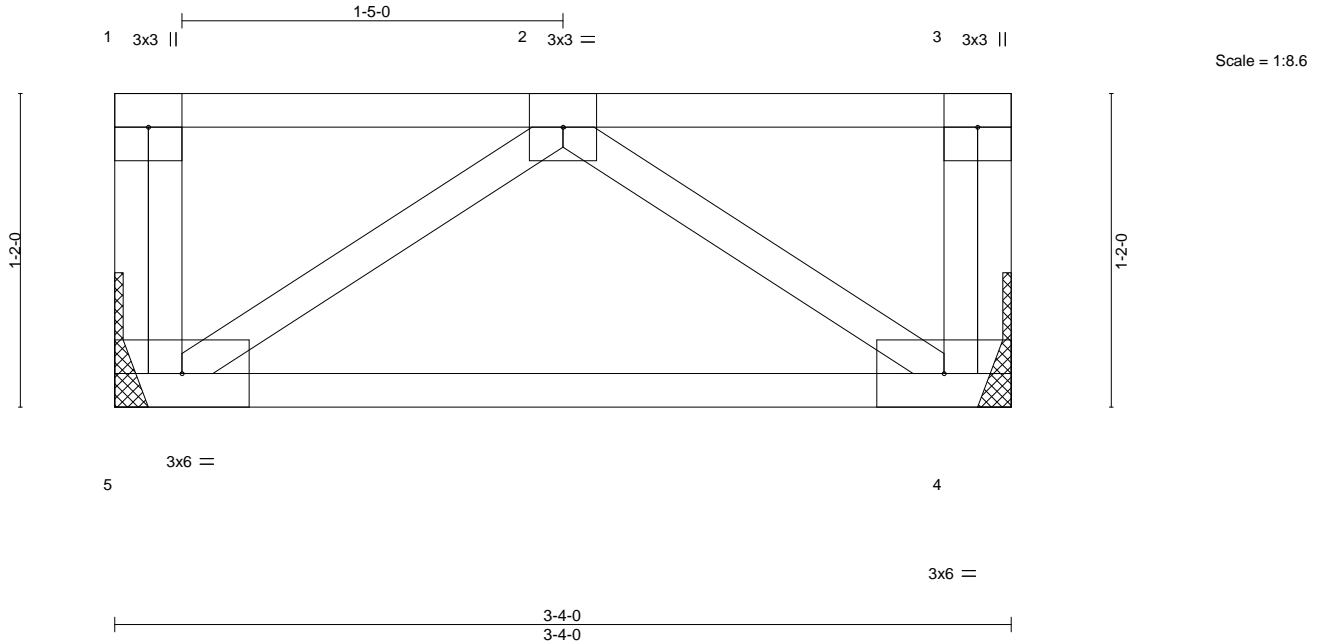
October 25, 2021

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b> 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 28587-28587A	Truss F4G	Truss Type Floor Girder	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477521
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:46 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-eBeF2tBvpR9gepKLQ8FK6yE6vZhd9VaUuYwsyR92Z



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0 Plate Grip DOL 1.00	TC 0.16	Vert(LL) 0.00	5	****	480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.13	Vert(CT) -0.01	4-5	>999	360		
BCLL 0.0	Rep Stress Incr NO	WB 0.04	Horz(CT) 0.00	4	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P					Weight: 20 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=Mechanical, 4=Mechanical  
Max Grav 5=172(LC 1), 4=172(LC 1)

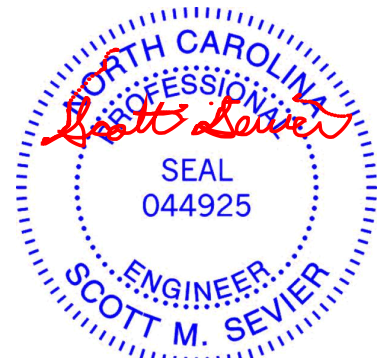
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4 lb down at 1-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 4-5=-10, 1-3=-100  
Concentrated Loads (lb)  
Vert: 2=-4(B)



October 25, 2021

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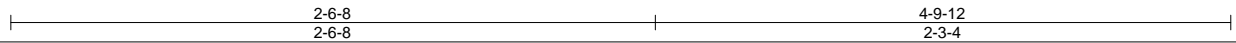
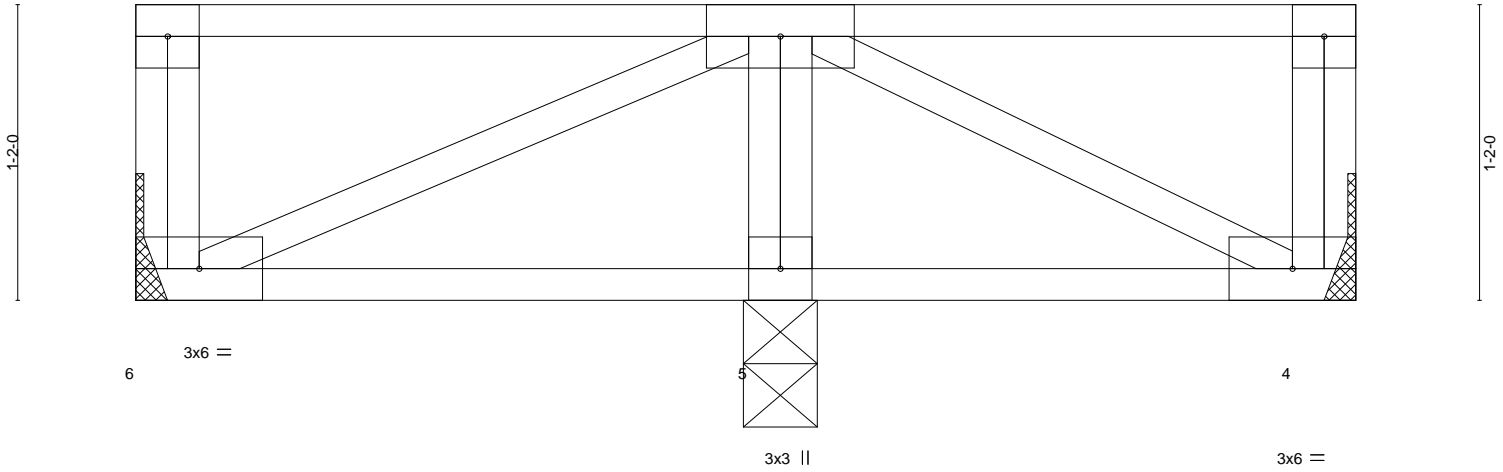
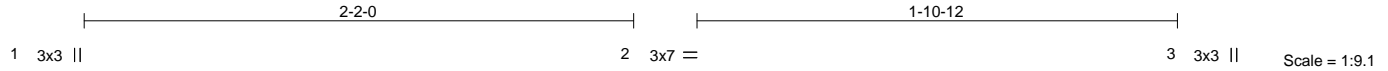


818 Soundside Road  
Edenton, NC 27932

Job 28587-28587A	Truss F5	Truss Type Floor	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477522
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:47 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-6NCdFDCXalHXGzvX\_8gUsKUM9IxOM6aep8e5TJyR92Y



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.34	Vert(LL)	0.00	5 ****	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.04	Vert(CT)	-0.00	5-6 >999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4 n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-P					Weight: 29 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-9-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 6=Mechanical, 4=Mechanical, 5=0-3-8  
Max Grav 6=115(LC 3), 4=102(LC 4), 5=303(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-5=-274/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.



October 25, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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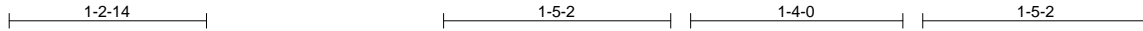


818 Soundside Road  
Edenton, NC 27932

Job 28587-28587A	Truss F6	Truss Type Floor	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477523
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:48 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-aam0SZD9L3POu6TjYrBjPX1a6IFU5Y4n2oNf?lyR92X



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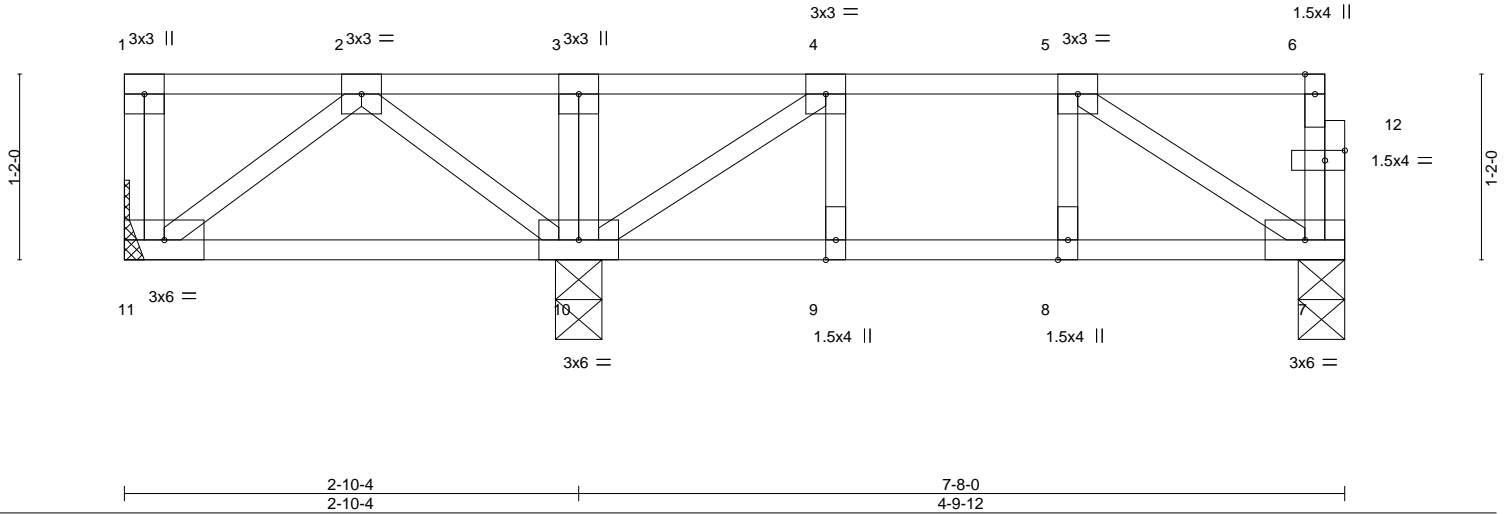


Plate Offsets (X,Y)--	[12:0-1-8,0-0-12]						
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>		
TCLL 40.0	Plate Grip DOL 1.00	TC 0.13	Vert(LL) -0.01 8 >999 480	MT20	197/144		
TCDL 10.0	Lumber DOL 1.00	BC 0.11	Vert(CT) -0.01 8 >999 360				
BCLL 0.0	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00 7 n/a n/a				
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P					
						Weight: 43 lb	FT = 20%F, 11%E

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		

**REACTIONS.** (size) 11=Mechanical, 7=0-3-8, 10=0-3-8  
Max Grav 11=177(LC 8), 7=245(LC 8), 10=461(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 4-5=-265/0  
BOT CHORD 9-10=0/265, 8-9=0/265, 7-8=0/265  
WEBS 4-10=-328/0, 5-7=-311/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.



October 25, 2021

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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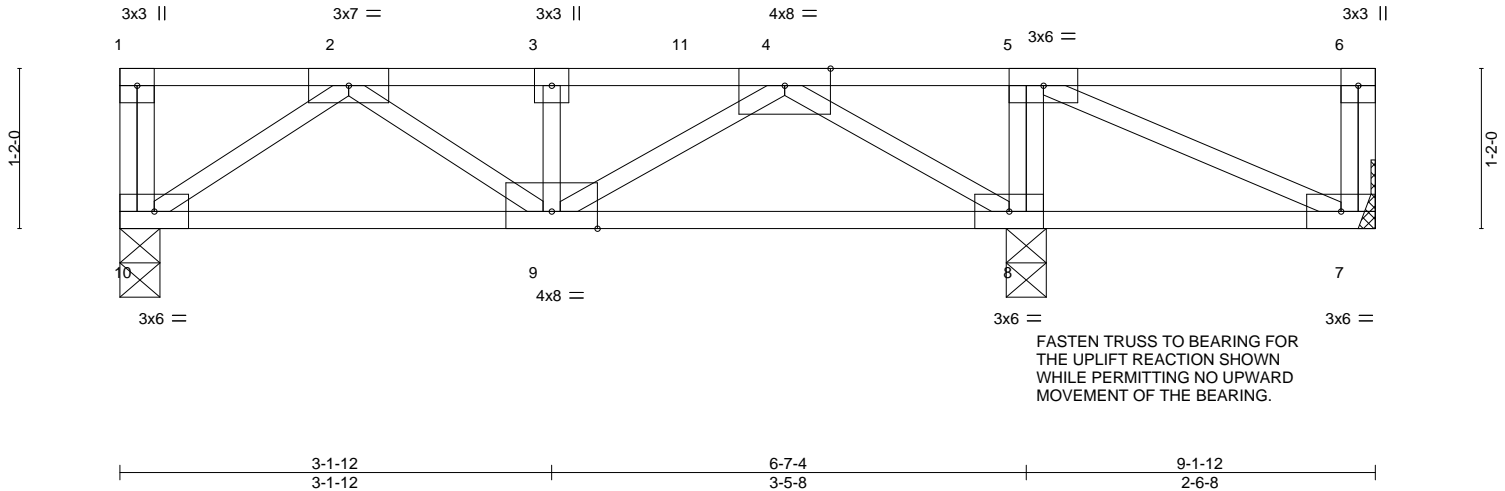
Job 28587-28587A	Truss F6G	Truss Type Floor Girder	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477524
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:48 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-aam0SZD9L3POu6TjYrBjPX1UNiAM5PWn2oNf?lyR92X



Scale = 1:16.8



FASTEN TRUSS TO BEARING FOR THE UPLIFT REACTION SHOWN WHILE PERMITTING NO UPWARD MOVEMENT OF THE BEARING.

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.56	Vert(LL)	-0.03	9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.44	Vert(CT)	-0.05	9	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.69	Horz(CT)	0.01	8	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 51 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)

**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.

**REACTIONS.** (size) 10=0-3-8, 7=Mechanical, 8=0-3-8  
Max Uplift 7=296(LC 3)  
Max Grav 10=906(LC 3), 8=1568(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2153/0, 3-4=-2153/0, 4-5=0/729  
BOT CHORD 9-10=0/1224, 8-9=0/935, 7-8=-729/0  
WEBS 3-9=-1384/0, 5-8=-564/0, 5-7=0/794, 2-10=-1477/0, 2-9=0/1169, 4-9=0/1449, 4-8=-1934/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=296.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1292 lb down at 3-1-12, and 152 lb down at 4-2-4 on top 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 7-10=-10, 1-6=-100  
Concentrated Loads (lb)  
Vert: 3=-1212(F) 11=-72(B)



October 25, 2021

**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



818 Soundside Road  
Edenton, NC 27932

Job 28587-28587A	Truss F7	Truss Type Floor	Qty 2	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477525
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:49 2021 Page 1  
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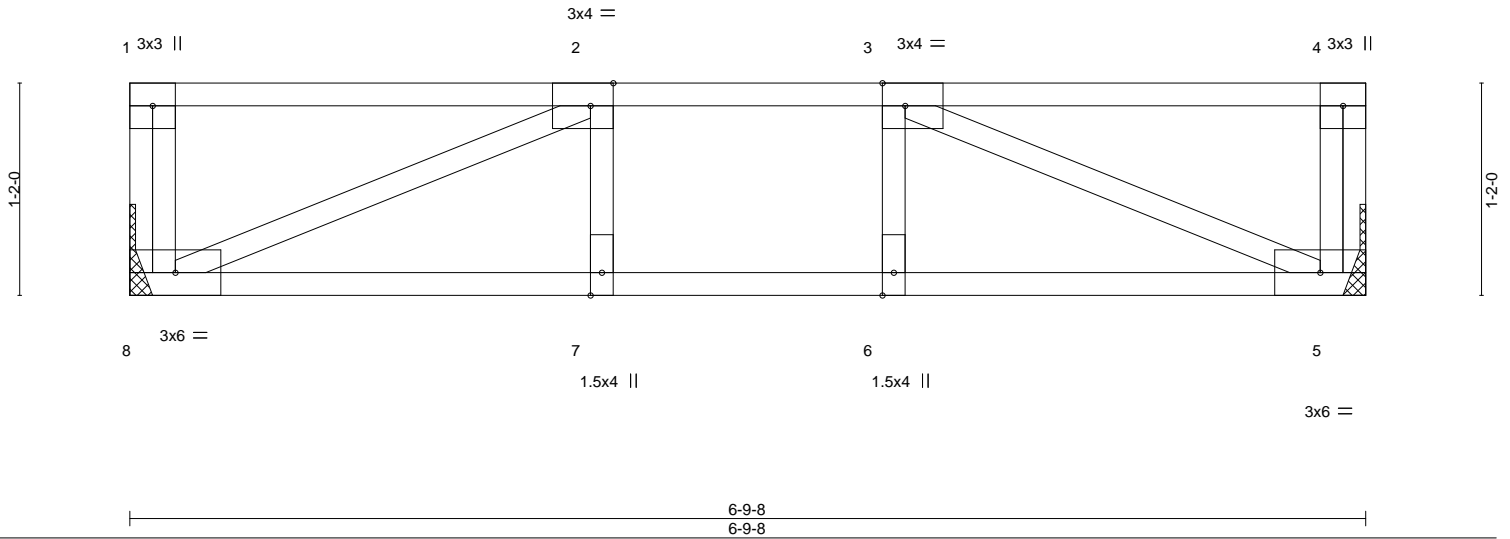


Plate Offsets (X,Y)--	[2:0-1-8,Edge], [3:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.41	Vert(LL) -0.03 7-8 >999 480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.30	Vert(CT) -0.04 7-8 >999 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.16	Horz(CT) 0.01 5 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 36 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 8=Mechanical, 5=Mechanical  
Max Grav 8=360(LC 1), 5=360(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-576/0  
BOT CHORD 7-8=0/576, 6-7=0/576, 5-6=0/576  
WEBS 2-8=-626/0, 3-5=-626/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



October 25, 2021



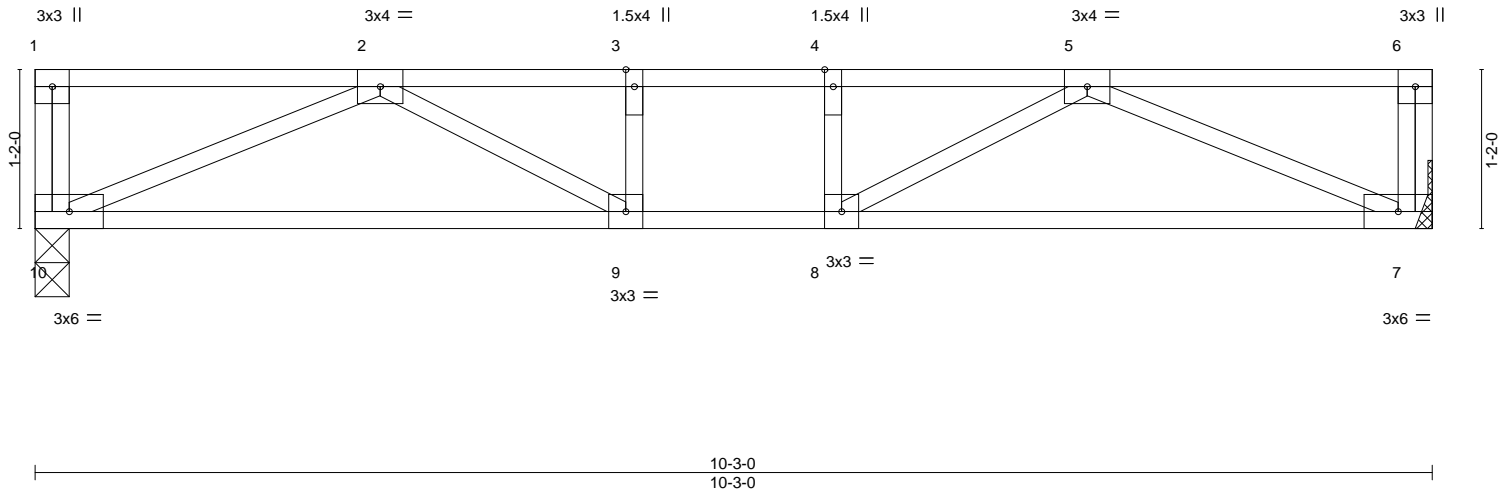
Job 28587-28587A	Truss F8	Truss Type Floor	Qty 3	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477526
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:50 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-WyumtFEPsgf57Qd6fGDBUy6uiWsqZPL4V6sl3dyR92V



Scale = 1:16.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.32	Vert(LL)	-0.07 7-8	>999	480	MT20	197/144
TCDL 10.0	1.00	BC 0.44	Vert(CT)	-0.10 9-10	>999	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.29	Horz(CT)	0.02 7	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S					Weight: 52 lb	FT = 20%F, 11%E

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 WEBS 2x4 SP No.3(flat)

**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) 10=0-3-0, 7=Mechanical  
 Max Grav 10=550(LC 1), 7=550(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1314/0, 3-4=-1314/0, 4-5=-1314/0  
 BOT CHORD 9-10=0/998, 8-9=0/1314, 7-8=0/998  
 WEBS 2-10=-1087/0, 5-7=-1087/0, 2-9=0/461, 5-8=0/461

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



October 25, 2021

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



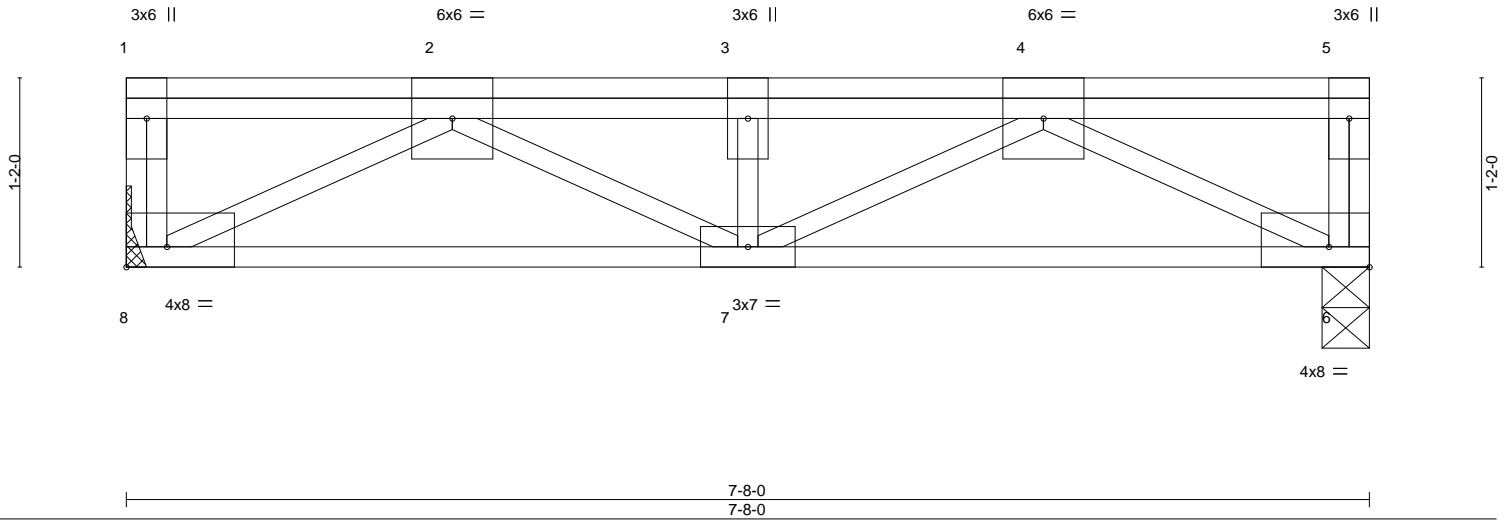
Job 28587-28587A	Truss F8G	Truss Type FLOOR GIRDER	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477527
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:50 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-WyumtFEPsgf57Qd6fGDBUy6vbWmIzJ24V6sl3dyR92V

1-9-2

Scale = 1:14.2



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	-0.05	7	>999	480	MT20	197/144
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.08	7	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.03	6	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P								
											Weight: 52 lb	FT = 20%F, 11%E

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		

**REACTIONS.** (size) 8=Mechanical, 6=0-3-8  
Max Grav 8=1336(LC 1), 6=1426(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3299/0, 3-4=-3299/0  
BOT CHORD 7-8=0/2340, 6-7=0/2505  
WEBS 2-8=-2636/0, 2-7=0/1089, 3-7=-903/0, 4-7=0/902, 4-6=-2822/0

**NOTES-**  
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.  
2) Refer to girder(s) for truss to truss connections.  
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.  
4) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 450 lb down at 1-10-4, 77 lb down at 1-10-4, 450 lb down at 3-10-4, 260 lb down at 3-10-4, and 450 lb down at 5-10-4, and 260 lb down at 5-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.  
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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 6-8=10, 1-5=-100  
Concentrated Loads (lb)  
Vert: 2=-527(F=-77, B=-450) 3=-710(F=-260, B=-450) 4=-710(F=-260, B=-450)



October 25, 2021

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Job 28587-28587A	Truss F9	Truss Type Floor	Qty 6	Ply 1	10 PRINCE PLACE - FLOOR 148477528 Job Reference (optional)
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:51 2021 Page 1  
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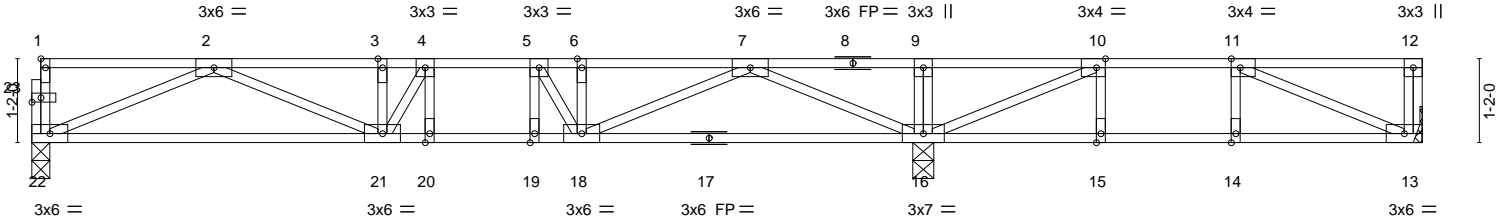


Plate Offsets (X,Y)--	[1:Edge,0-0-12], [10:0-1-8,Edge], [11:0-1-8,Edge], [23:0-1-8,0-0-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.52	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.61	Vert(LL) -0.09 20 >999 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.40	Vert(CT) -0.12 20 >999 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 13 n/a n/a		
	Code IRC2015/TPI2014			Weight: 98 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 22=0-3-0, 16=0-3-8, 13=Mechanical  
Max Grav 22=642(LC 10), 16=1179(LC 9), 13=347(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1806/0, 3-4=-1806/0, 4-5=-1807/0, 5-6=-1731/0, 6-7=-1731/0, 7-9=0/627, 9-10=0/627, 10-11=-519/69  
BOT CHORD 21-22=0/1228, 20-21=0/1807, 19-20=0/1807, 18-19=0/1807, 16-18=0/1041, 15-16=-69/519, 14-15=-69/519, 13-14=-69/519  
WEBS 2-22=-1332/0, 7-16=-1474/0, 2-21=0/632, 7-18=0/840, 5-18=-402/81, 10-16=-871/0, 11-13=-563/75

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.



October 25, 2021

Job 28587-28587A	Truss F10	Truss Type Floor	Qty 3	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477529
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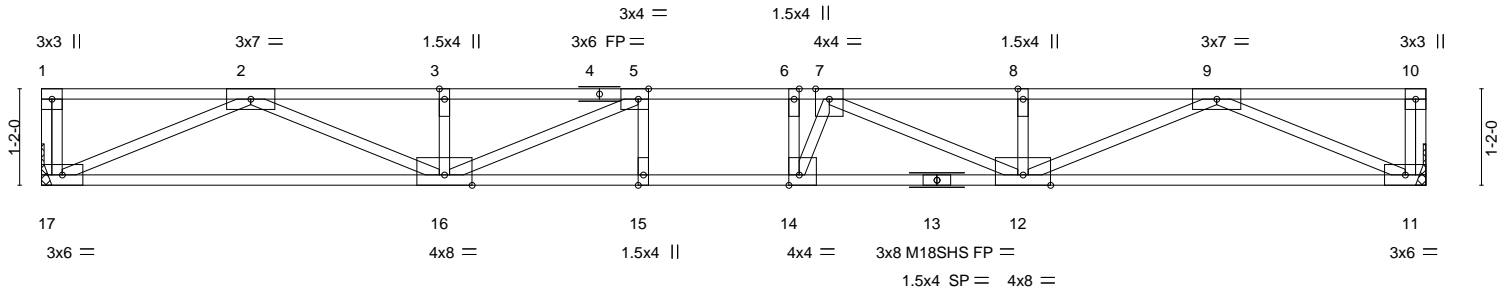
84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:36 2021 Page 1

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Scale = 1:27.9



16-9-0  
16-9-0

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

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.77	Vert(LL) -0.26 14-15 >765 480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.99	Vert(CT) -0.36 14-15 >554 360	M18SHS	197/144
BCLL 0.0	Rep Stress Incr YES	WB 0.61	Horz(CT) 0.06 11 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 84 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat) *Except* 11-13: 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 12-14.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 17=Mechanical, 11=Mechanical  
Max Grav 17=907(LC 1), 11=907(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2990/0, 3-5=-2990/0, 5-6=-3557/0, 6-7=-3557/0, 7-8=-2991/0, 8-9=-2991/0  
BOT CHORD 16-17=0/1821, 15-16=0/3557, 14-15=0/3557, 12-14=0/3539, 11-12=0/1820  
WEBS 2-17=-1984/0, 9-11=-1984/0, 2-16=0/1280, 3-16=-267/2, 9-12=0/1281, 5-16=-845/0,  
7-12=-666/0, 7-14=-335/518, 6-14=-389/244

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) The Fabrication Tolerance at joint 13 = 11%
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



Job 28587-28587A	Truss F10G	Truss Type Floor Girder	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477530
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:40 2021 Page 1  
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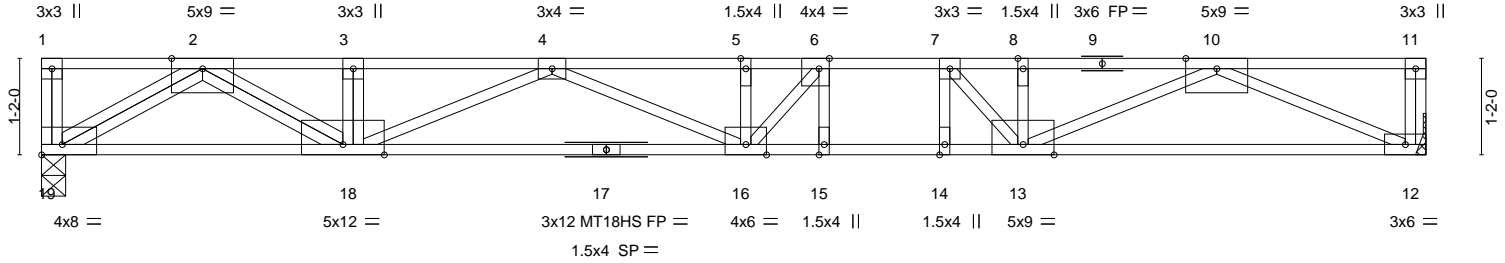


Plate Offsets (X, Y)--	3-9-4 3-9-4	16-9-0 12-11-12
	[6:0-1-8,Edge], [19:Edge,0-1-8]	

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.75	Vert(LL) -0.33 15-16 >594 480	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.89	Vert(CT) -0.46 15-16 >429 360	MT18HS	244/190
BCLL 0.0	Rep Stress Incr NO	WB 0.81	Horz(CT) 0.07 12 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 93 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP DSS(flat) *Except* 9-11: 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 5-4-6 oc purlins, except end verticals.
BOT CHORD 2x4 SP DSS(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 19=0-3-8, 12=Mechanical  
Max Grav 19=1601(LC 1), 12=1104(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4923/0, 3-4=-4923/0, 4-5=-5174/0, 5-6=-5174/0, 6-7=-4591/0, 7-8=-3832/0, 8-10=-3832/0  
BOT CHORD 18-19=0/2635, 16-18=0/5324, 15-16=0/4591, 14-15=0/4591, 13-14=0/4591, 12-13=0/2277  
WEBS 3-18=-1095/0, 2-19=-3035/0, 2-18=0/2635, 4-18=-437/0, 10-12=-2481/0, 4-16=-349/0, 5-16=-402/0, 10-13=0/1702, 6-16=0/1063, 7-13=-1303/0, 6-15=-431/0, 7-14=0/412

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) The Fabrication Tolerance at joint 17 = 11%
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.
  - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 970 lb down at 3-9-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 12-19=-10, 1-11=-100  
Concentrated Loads (lb)  
Vert: 3=-890(F)



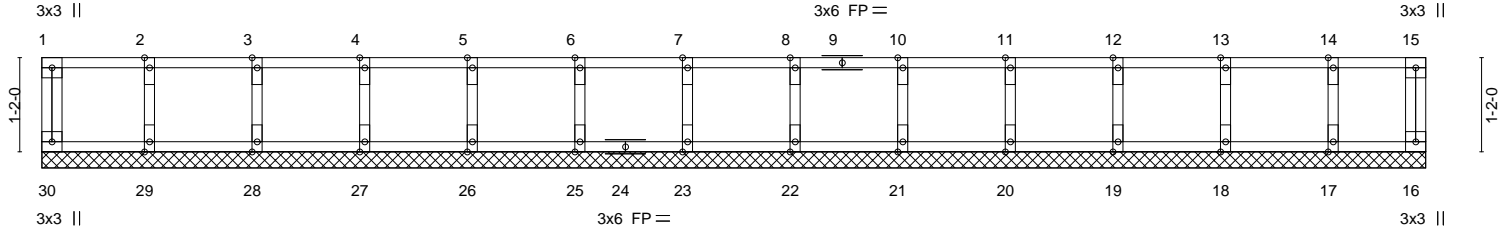


Job 28587-28587A	Truss KW1	Truss Type Floor Supported Gable	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477532
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:52 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-SL?WlwGgOHvpMknUnhFZnChxJez1NoNzQLs8WYr92T

Scale = 1:28.5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.00	WB 0.03	Horz(CT)	0.00	16	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-R					Weight: 73 lb	FT = 20%F, 11%E
	Code IRC2015/TPI2014							

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**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 17-1-12.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 27, 26, 25, 23, 22, 21, 20, 19, 18, 17

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

- NOTES-**
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - Non Standard bearing condition. Review required.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



October 25, 2021

**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



818 Soundside Road  
Edenton, NC 27932

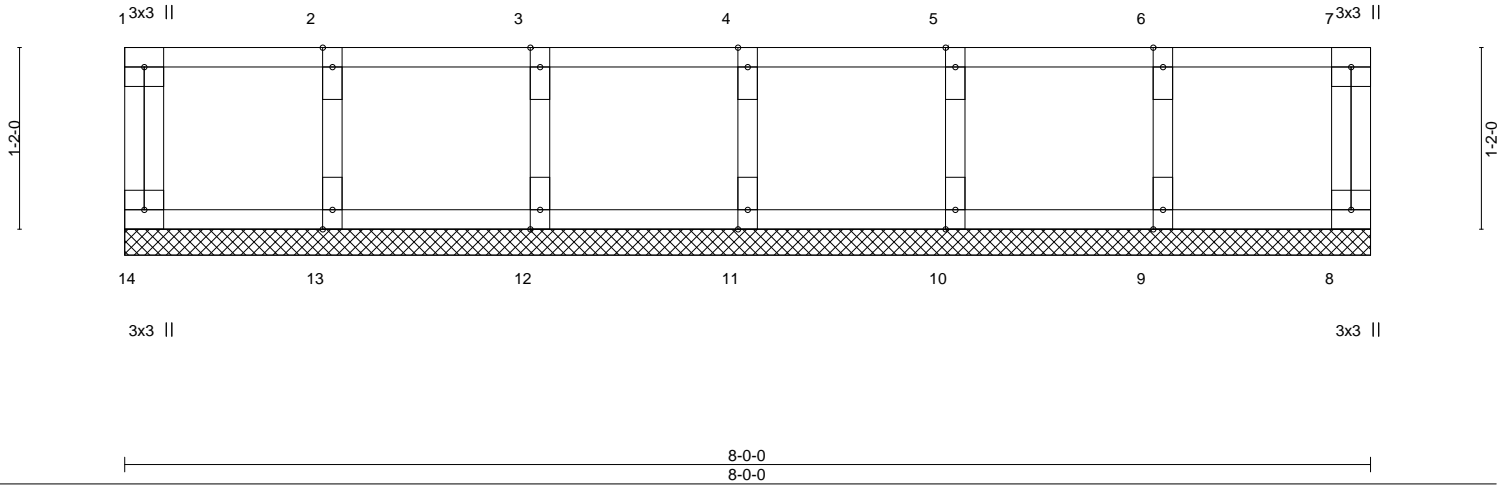


Job 28587-28587A	Truss KW3	Truss Type Floor Supported Gable	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	I48477533
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:54 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-Pj7HjcHwvv9Xc1xtu6I7foHdT7JSVHJgQkqzCPyR92R

Scale = 1:14.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.00	WB 0.03	Horz(CT)	0.00	8	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-R					Weight: 36 lb	FT = 20%F, 11%E
	Code IRC2015/TPI2014							

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**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 8-0-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 13, 12, 11, 10, 9

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

- NOTES-**
- 1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 2) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



October 25, 2021

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Edenton, NC 27932



Job 28587-28587A	Truss KW5	Truss Type Floor Supported Gable	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477534
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:54 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-Pj7HjcHwwv9Xc1xtu6l7foHdO7JIVHlgQkqzCPyR92R

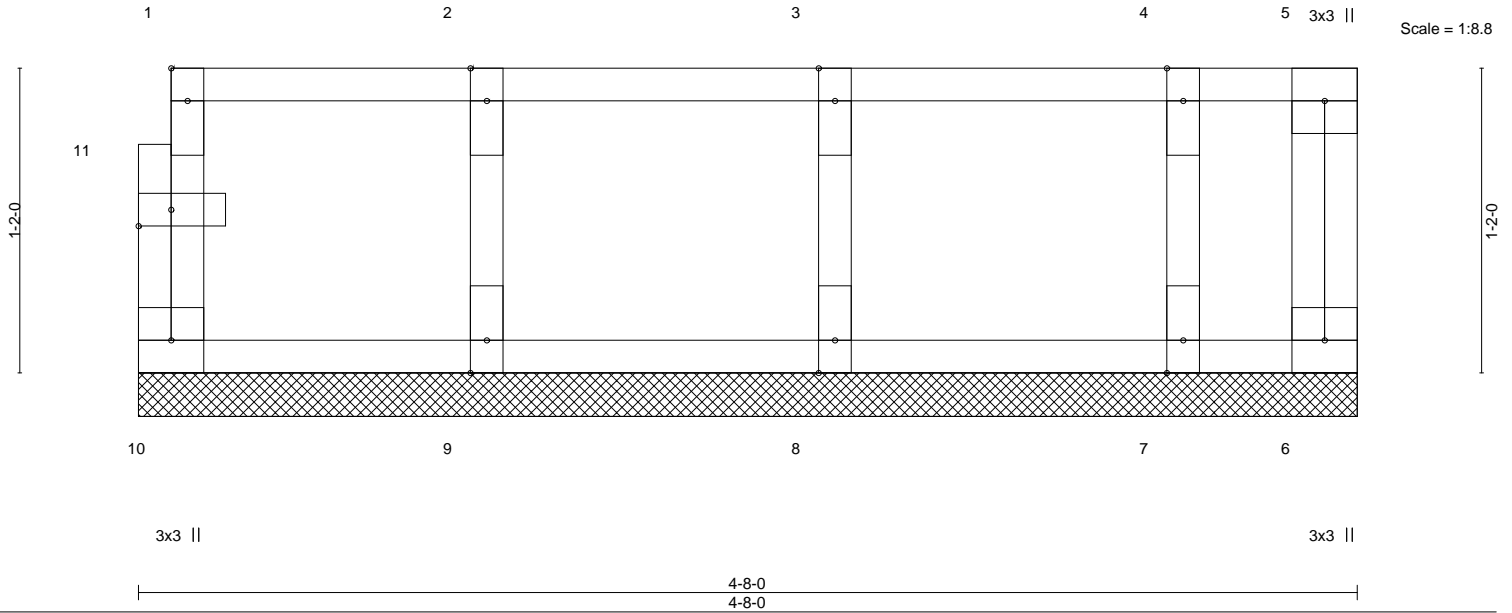


Plate Offsets (X,Y)--	[1:Edge,0-0-12], [11:0-1-8,0-0-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.08	Vert(LL) n/a - n/a 999	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.02	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 6 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-R		Weight: 23 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-8-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 4-8-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 9, 8, 7

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

**NOTES-**

- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



October 25, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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



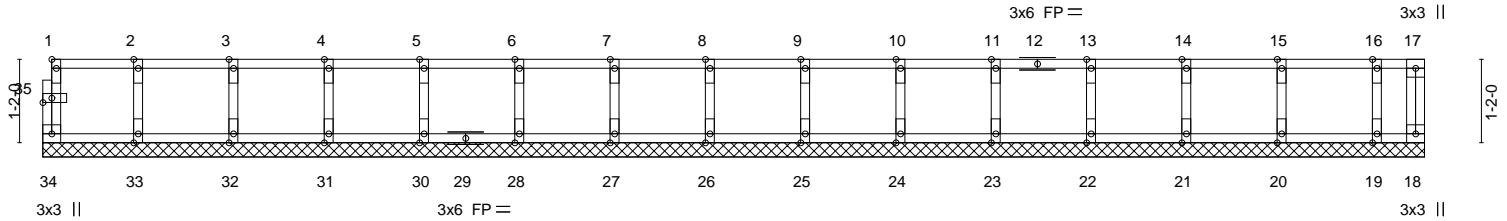
818 Soundside Road  
Edenton, NC 27932

Job 28587-28587A	Truss KW9	Truss Type GABLE	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477535
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:22:05 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-arIR1NQqKHYzQkH\_1w\_ib7EVdZ4waF0lyx?25GyR92G

Scale: 3/8"=1'



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	19-4-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-8-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [35:0-1-8,0-0-12]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.08	Vert(LL) n/a - n/a 999	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.02	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 18 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-R		Weight: 82 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 19-4-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 31, 30, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

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

- NOTES-**
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



October 25, 2021

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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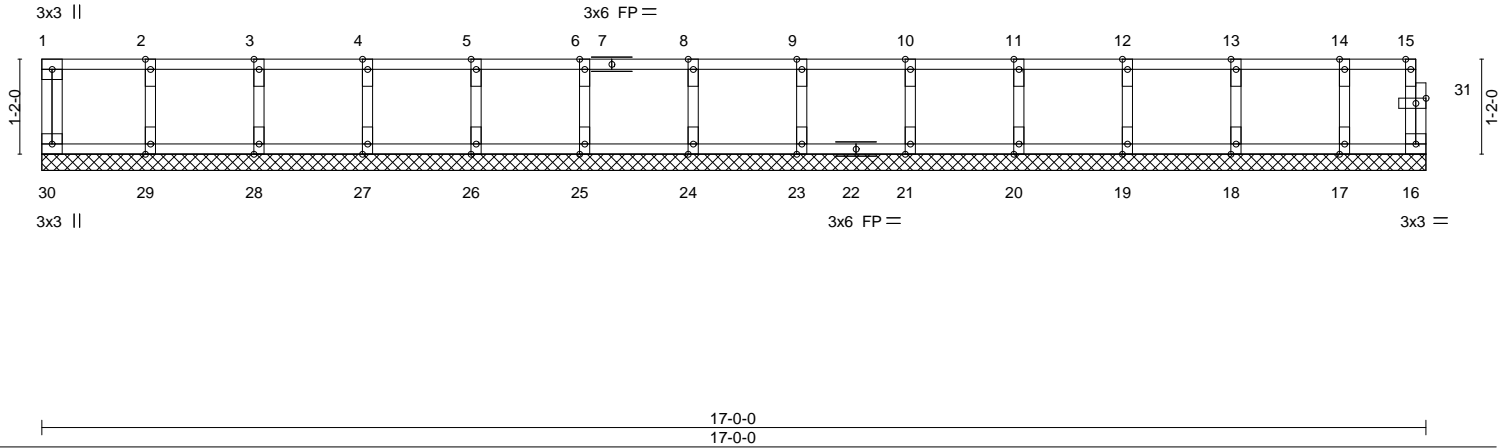
Job 28587-28587A	Truss KW11	Truss Type Floor Supported Gable	Qty 1	Ply 1	10 PRINCE PLACE - FLOOR Job Reference (optional)	148477536
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Thu Oct 21 15:21:53 2021 Page 1  
ID:minGCUqRdNuhOuAvJVJ87Dz\_qbA-wXZvWGGI9b1g\_uMhKOmu6bkSgj\_Bmq2XB45QgyyR92S

0-1r8

Scale = 1:28.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.08	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.01	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.00	WB 0.03	Vert(CT) n/a - n/a 999		
BCDL 5.0	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 16 n/a n/a		
	Code IRC2015/TPI2014			Weight: 72 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**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 17-0-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 27, 26, 25, 24, 23, 21, 20, 19, 18, 17

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

- NOTES-**
- 1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 2) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.

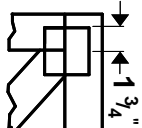


**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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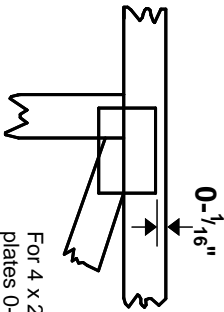
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

4 X 4

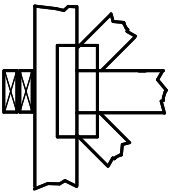
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

## BEARING



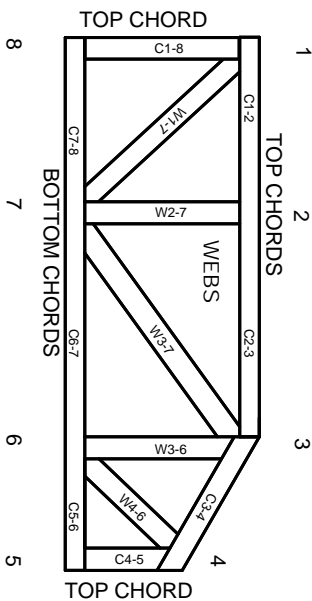
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

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