

*To Match (E) before fabrication

ARROW TRUSS CO.
CERTIFIED INSPECTION IN STRICT
ACCORDANCE
2018 IBC

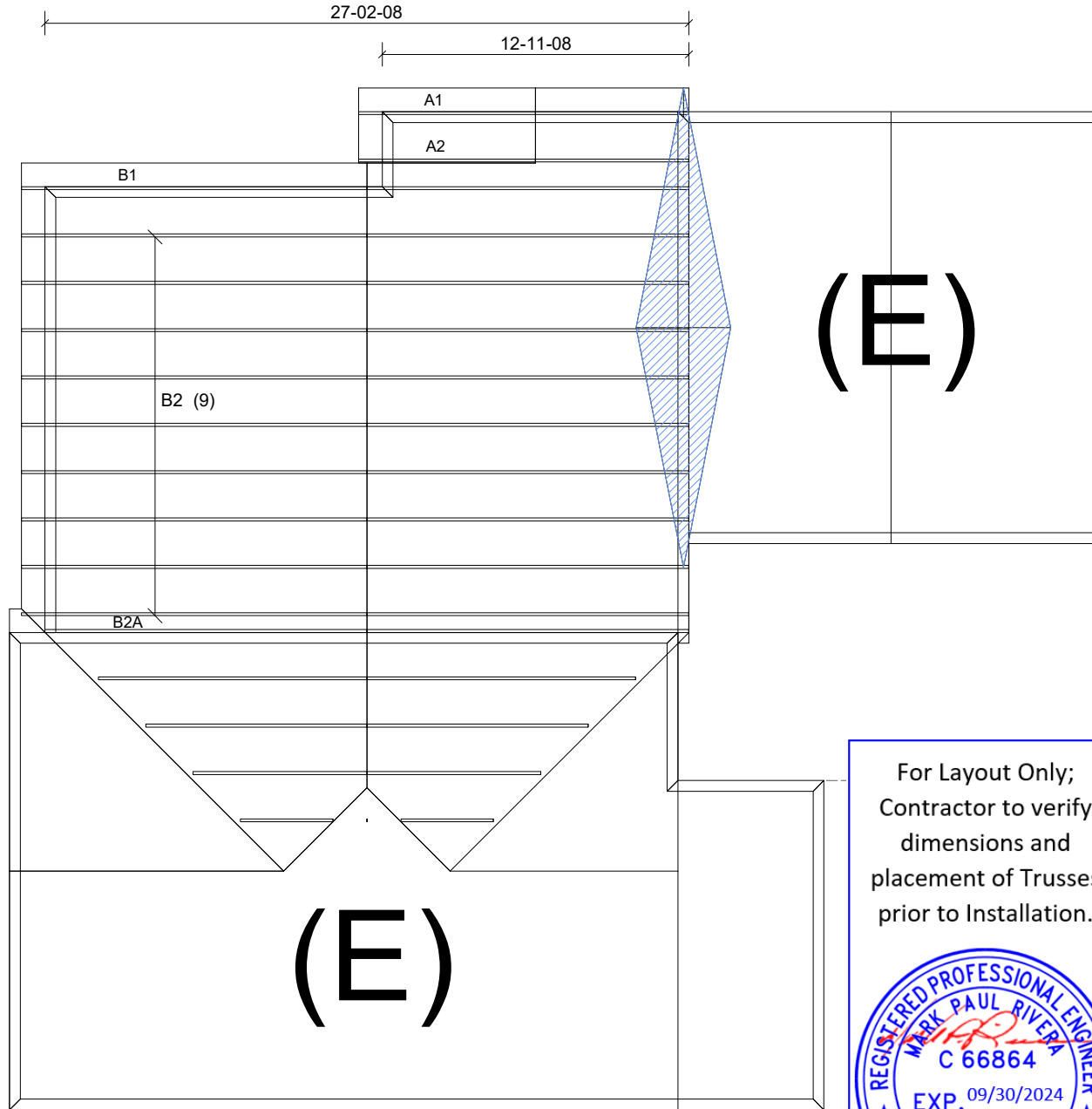
Customer Name: Powell & Associates
Address: 4124 Descanso rd.
Chino Hills CA 91709

Pitch: 3:12
Overhang: 12"
Truss Spacing: 24: O.C
Top Chord: 2x4
Tile Loading: 45
Job#: 30094
Date: 2/8/23
Drawn By: CJ

CONTRACTOR SHALL VERIFY ALL
DIMENSIONS PRIOR TO TRUSS FABRICATION

CONTRACTOR SHALL READ AND IMPLEMENT
ALL SPECIFICATIONS INCLUDED WITHIN
FOLLOWING DETAILS AND CALCULATIONS

HATCHED AREA REPRESENTS VAULTED
CEILING



For Layout Only;
Contractor to verify
dimensions and
placement of Trusses
prior to Installation.



CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO TRUSS FABRICATION
CONTRACTOR SHALL READ AND IMPLEMENT ALL SPECIFICATIONS INCLUDED WITHIN FOLLOWING DETAILS AND CALCULATIONS
HATCHED AREA REPRESENTS VAULTED CEILING



ABOVE PLACEMENT PLAN PROVIDED FOR TRUSS PLACEMENT ONLY. REFER TO TRUSS CALCULATIONS AND ENGINEERED DRAWINGS FOR ALL FURTHER INFORMATION. BUILDING DESIGNER/ENGINEER OF RECORD RESPONSIBLE FOR ALL NON-TRUSS TO TRUSS CONNECTIONS. BUILDING DESIGNER/ENGINEER OF RECORD TO REVIEW AND APPROVE OF ALL DESIGNS PRIOR TO CONSTRUCTION.
All designs property of ARROW TRUSS and are null and void if not fabricated by ARROW TRUSS.



MiTek USA, Inc.
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661
Telephone 916-755-3571

Re: 30094

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Arrow Truss Co..

Pages or sheets covered by this seal: R74658643 thru R74658647

My license renewal date for the state of California is September 30, 2024.



February 8, 2023

Zhao, Xiaoming

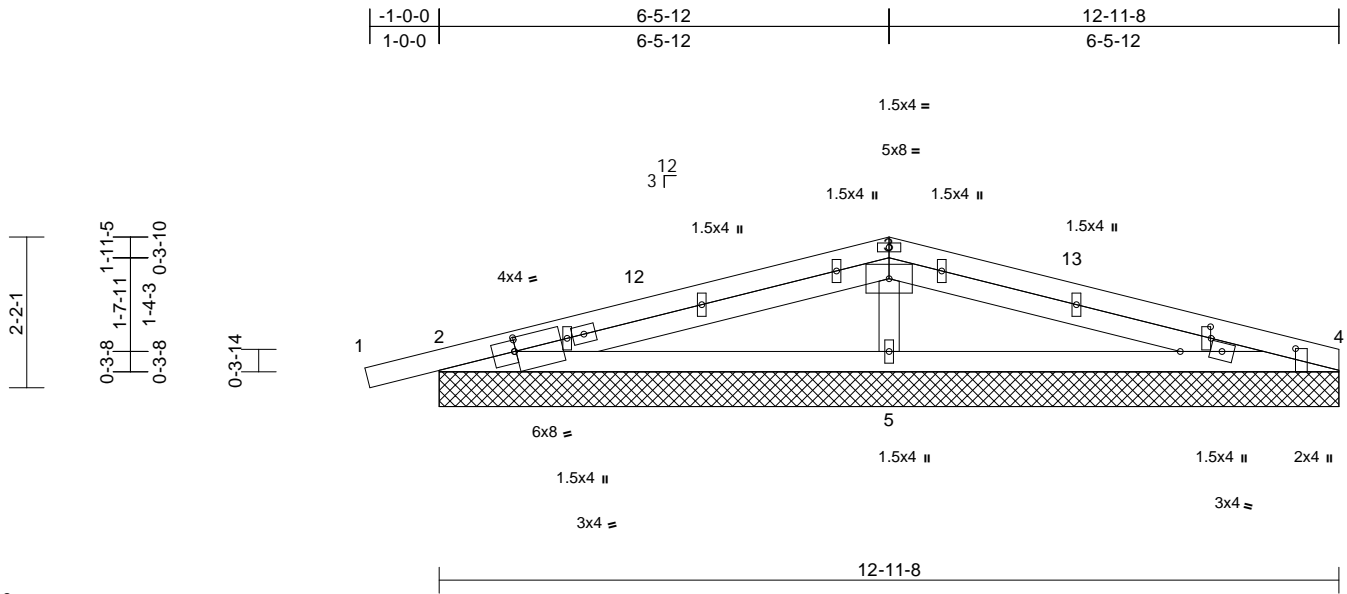
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 30094	Truss A1	Truss Type Common	Qty 1	Ply 1	Job Reference (optional) R74658643
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Arrow Truss Co., Upland, CA - 91786,

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Page: 1



Scale = 1:33.2
Plate Offsets (X, Y): [2:0-0-4,0-2-6], [2:0-0-4,0-2-0], [4:0-5-0,0-3-4], [4:0-0-8,1-7-15], [10:0-2-0,0-0-2]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.43	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.35	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IBC2018/TPI2014	Matrix-AS							Weight: 54 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
OTHERS 2X4 DF Std G

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

REACTIONS All bearings 12-11-8.
(lb) - Max Horiz 2=505 (LC 23), 6=505 (LC 23)
Max Uplift All uplift 100 (lb) or less at joint(s) except 2=529 (LC 22), 4=326 (LC 33), 5=109 (LC 23), 6=529 (LC 22), 9=326 (LC 33)
Max Grav All reactions 250 (lb) or less at joint (s) except 2=567 (LC 43), 4=393 (LC 42), 5=705 (LC 1), 6=567 (LC 43), 9=393 (LC 42)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-12=-1329/1288, 3-12=-729/690, 3-13=-514/499, 4-13=-1194/1155
BOT CHORD 2-5=-810/852, 4-5=-794/784
WEBS 3-5=-492/552

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -1-0-7 to 2-11-9, Corner(3R) 2-11-9 to 8-11-8, Corner(3E) 8-11-8 to 12-11-8 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

- 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.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 528 lb uplift at joint 2, 326 lb uplift at joint 4, 109 lb uplift at joint 5, 528 lb uplift at joint 2 and 326 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- This truss has been designed for a total drag load of 2500 lb. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 12-11-8 for 192.9 plf.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- No notches allowed in overhang and 10000 from left end and 0 from right end or 12" along rake from scarf, whichever is larger. Minimum 1.5x4 tie plates required at 2-0-0 o.c. maximum between the stacking chords. For edge-wise notching, provide at least one tie plate between each notch.

LOAD CASE(S) Standard



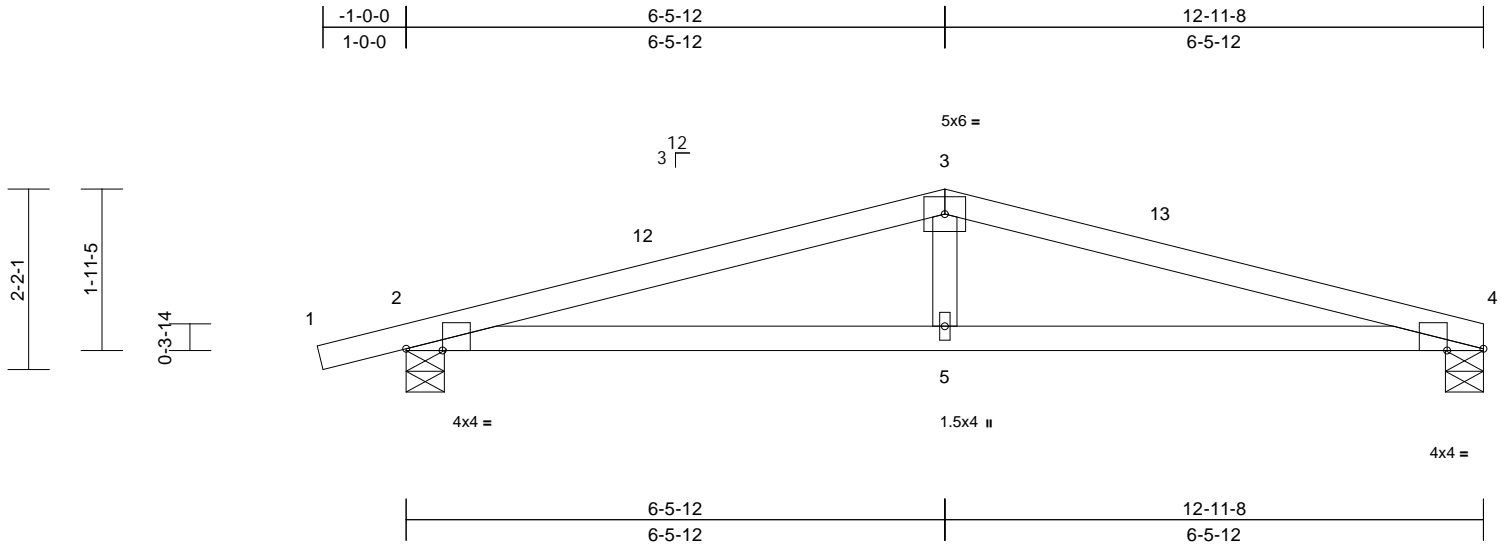
February 8, 2023

Job 30094	Truss A2	Truss Type Common	Qty 1	Ply 1	Job Reference (optional) R74658644
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Arrow Truss Co., Upland, CA - 91786,

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Page: 1



Scale = 1:27.7
Plate Offsets (X, Y): [2:0-5-4,Edge], [4:0-5-4,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	-0.06	5-8	>999	360	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	-0.19	5-8	>802	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.03	4	n/a	n/a		
BCDL	10.0	Code	IBC2018/TPI2014	Matrix-AS		Wind(LL)	0.08	5-8	>999	240	Weight: 39 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G

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

REACTIONS (size) 2=0-5-8, 4=0-5-8
Max Horiz 2=48 (LC 13)
Max Uplift 2=-167 (LC 5), 4=-111 (LC 6)
Max Grav 2=658 (LC 1), 4=580 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-3=-1403/897, 3-4=-1402/896
BOT CHORD 2-5=-781/1334, 4-5=-781/1334
WEBS 3-5=-9/214

- 6) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-7 to 2-11-9, Exterior(2R) 2-11-9 to 8-11-8, Exterior(2E) 8-11-8 to 12-11-8 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 4) A plate rating reduction of 20% has been applied for the green lumber members.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 4 and 167 lb uplift at joint 2.



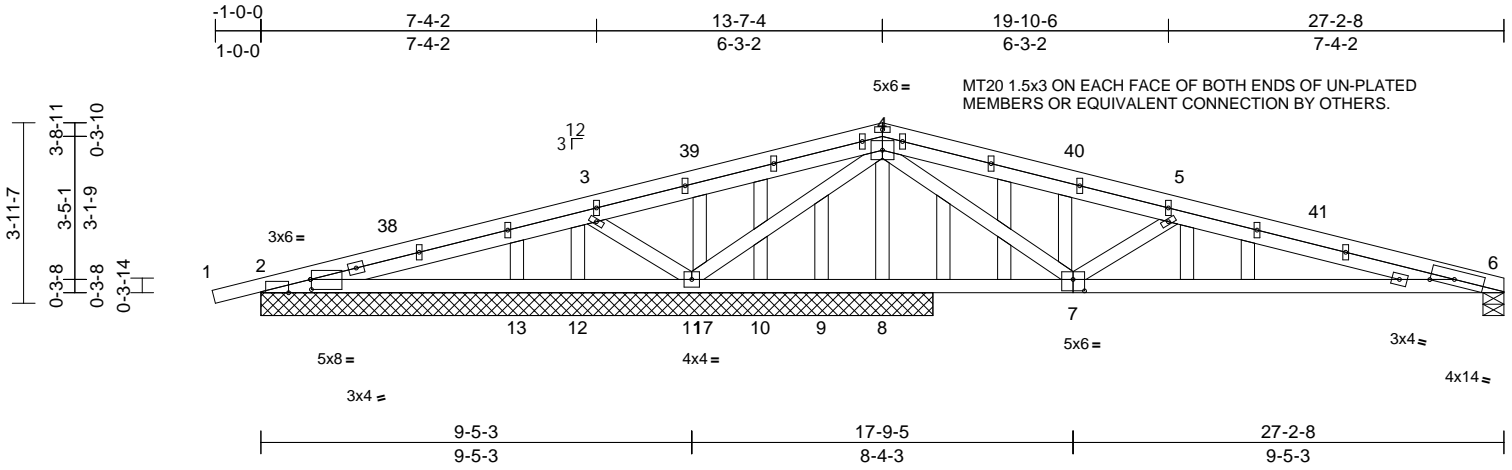
February 8, 2023

Job 30094	Truss B1	Truss Type Common	Qty 1	Ply 1	Job Reference (optional) R74658645
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Scale = 1:50.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.55	Vert(LL)	-0.06	7-34	>999	360	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.46	Vert(CT)	-0.43	7-34	>371	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IBC2018/TPI2014	Matrix-AS		Wind(LL)	0.13	7-34	>999	240	Weight: 156 lb	FT = 20%

LUMBER

TOP CHORD	2X4 DF Std G *Except* 2-4,4-6:2X4 DF No.1&Btr G
BOT CHORD	2X4 DF No.1&Btr G
WEBS	2X4 DF Std G
OTHERS	2X4 DF Std G

BRACING

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

REACTIONS (size)

Max Horiz	2=315 (LC 31), 35=315 (LC 31)
Max Uplift	2=-426 (LC 22), 6=-444 (LC 25), 8=-159 (LC 25), 9=-99 (LC 1), 10=-24 (LC 33), 11=-865 (LC 22), 12=-116 (LC 46), 13=-25 (LC 30), 17=-966 (LC 1), 35=-426 (LC 22)
Max Grav	2=418 (LC 43), 6=668 (LC 47), 8=174 (LC 1), 9=163 (LC 25), 10=48 (LC 47), 11=2312 (LC 1), 12=54 (LC 30), 13=291 (LC 46), 17=438 (LC 24), 35=418 (LC 43)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/18, 2-3=-1175/1172, 3-4=-558/989, 4-5=-1371/862, 5-6=-2251/1713
BOT CHORD	2-13=-1001/1016, 12-13=-696/711, 11-12=-551/588, 10-11=-266/495, 9-10=-128/354, 8-9=-74/354, 6-8=-1530/2001
WEBS	5-7=-792/423, 11-17=-2248/897, 4-17=-1552/596, 3-11=-680/371, 4-7=-208/957

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-7 to 2-11-9, Interior (1) 2-11-9 to 9-7-4, Exterior(2R) 9-7-4 to 17-7-4, Interior (1) 17-7-4 to 22-11-12, Exterior(2E) 22-11-12 to 26-11-12 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
- 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.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 444 lb uplift at joint 6, 426 lb uplift at joint 2, 865 lb uplift at joint 11, 159 lb uplift at joint 8, 99 lb uplift at joint 9, 24 lb uplift at joint 10, 966 lb uplift at joint 17, 116 lb uplift at joint 12, 25 lb uplift at joint 13 and 426 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- This truss has been designed for a total drag load of 2500 lb. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 27-2-8 for 91.9 plf.

- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- No notches allowed in overhang and 10000 from left end and 0 from right end or 12" along rake from scarf, whichever is larger. Minimum 1.5x4 tie plates required at 2-0-0 o.c. maximum between the stacking chords. For edge-wise notching, provide at least one tie plate between each notch.

LOAD CASE(S) Standard



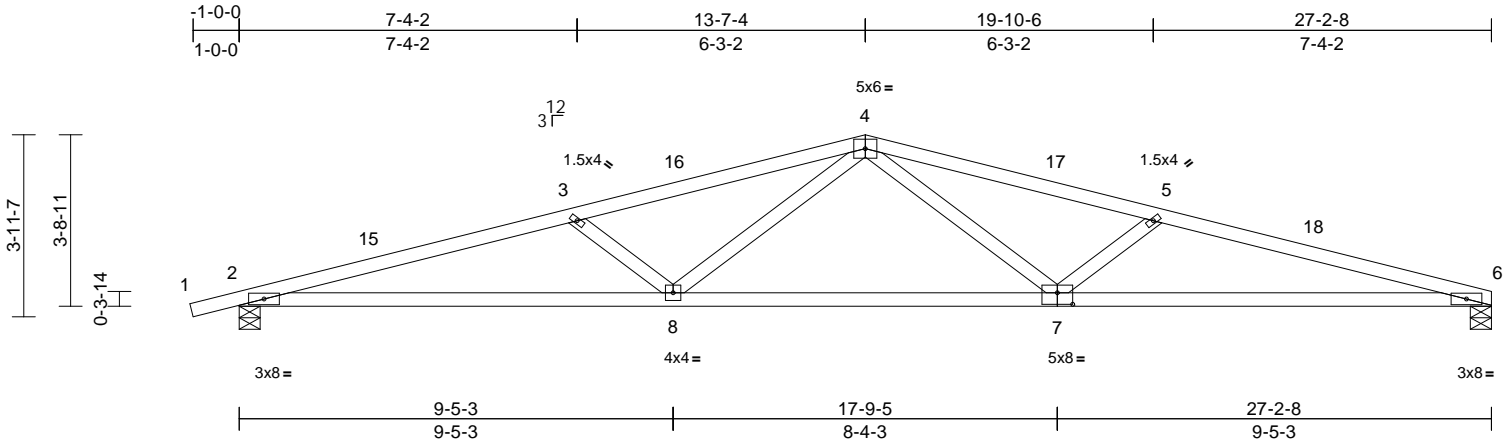
February 8, 2023

Job 30094	Truss B2	Truss Type Common	Qty 9	Ply 1	Job Reference (optional) R74658646
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Page: 1



Scale = 1:50.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.52	Vert(LL)	-0.20	7-11	>999	360	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.67	Vert(CT)	-0.81	7-11	>406	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.16	6	n/a	n/a		
BCDL	10.0	Code	IBC2018/TPI2014	Matrix-AS		Wind(LL)	0.23	7-11	>999	240	Weight: 98 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G

BRACING

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

REACTIONS

(size) 2=0-5-8, 6=0-5-8
Max Horiz 2=88 (LC 13)
Max Uplift 2=288 (LC 5), 6=234 (LC 6)
Max Grav 2=1298 (LC 1), 6=1223 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-3=-3789/1112, 3-4=-3323/959,
4-5=-3332/983, 5-6=-3801/1148
BOT CHORD 2-8=-1002/3649, 6-8=-1040/3662
WEBS 4-7=-176/954, 5-7=-647/323, 4-8=-163/944,
3-8=-641/314

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) -1-0-7 to 2-11-9,
Interior (1) 2-11-9 to 9-7-4, Exterior(2R) 9-7-4 to 17-7-4,
Interior (1) 17-7-4 to 23-2-8, Exterior(2E) 23-2-8 to
27-2-8 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
- * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- A plate rating reduction of 20% has been applied for the
green lumber members.

- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 234 lb uplift at
joint 6 and 288 lb uplift at joint 2.
- This truss is designed in accordance with the 2018
International Building Code section 2306.1 and
referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16"
structural wood sheathing be applied directly to the top
chord and 1/2" gypsum sheetrock be applied directly to
the bottom chord.

LOAD CASE(S) Standard



February 8, 2023

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



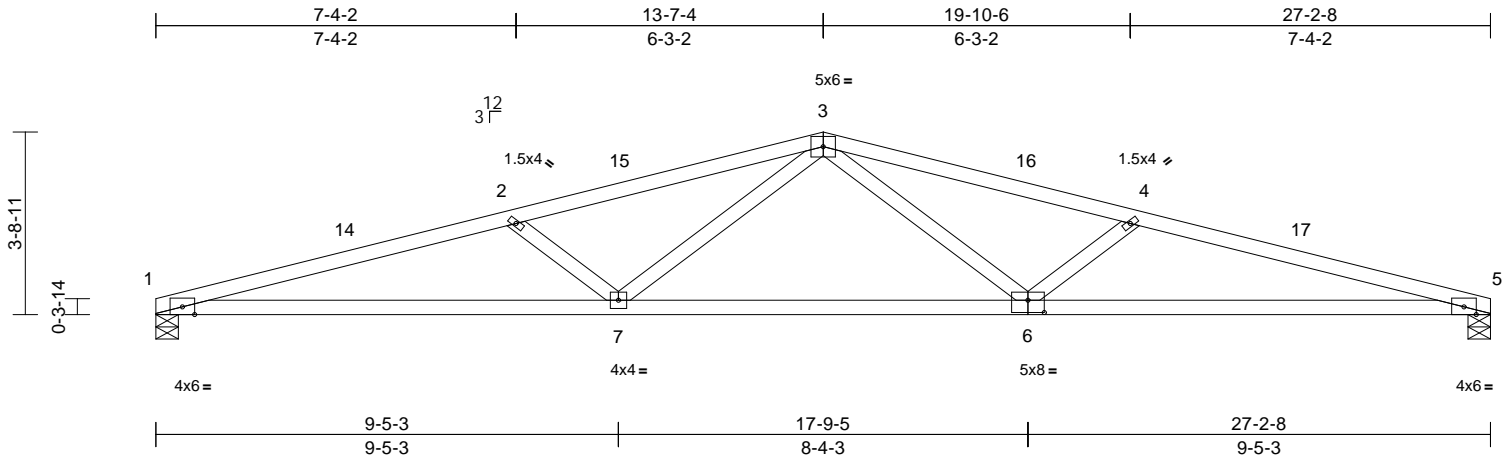
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job 30094	Truss B2A	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional) R74658647
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Arrow Truss Co., Upland, CA - 91786,

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Page: 1



Scale = 1:47

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.62	Vert(LL)	-0.20	7-10	>999	360	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.74	Vert(CT)	-0.81	7-10	>405	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.16	5	n/a	n/a		
BCDL	10.0	Code	IBC2018/TPI2014	Matrix-AS		Wind(LL)	0.25	7-10	>999	240	Weight: 97 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G

BRACING

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

REACTIONS

(size) 1=0-5-8, 5=0-5-8
Max Horiz 1=77 (LC 31)
Max Uplift 1=-549 (LC 22), 5=-549 (LC 25)
Max Grav 1=1224 (LC 1), 5=1224 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-3807/1867, 2-3=-3337/1133,
3-4=-3337/1133, 4-5=-3807/1867
BOT CHORD 1-7=-1835/3667, 5-7=-1773/3667
WEBS 4-6=-647/328, 3-7=-185/954, 2-7=-647/327,
3-6=-185/954

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TC DL=9.0psf; BCDL=6.0psf; h=25ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) 0-0-0 to 4-0-0,
Interior (1) 4-0-0 to 9-7-4, Exterior(2R) 9-7-4 to 17-7-4,
Interior (1) 17-7-4 to 23-2-8, Exterior(2E) 23-2-8 to
27-2-8 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
- * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- A plate rating reduction of 20% has been applied for the
green lumber members.

- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 549 lb uplift at
joint 1 and 549 lb uplift at joint 5.
- This truss is designed in accordance with the 2018
International Building Code section 2306.1 and
referenced standard ANSI/TPI 1.
- This truss has been designed for a total drag load of
2500 lb. Lumber DOL=(1.33) Plate grip DOL=(1.33)
Connect truss to resist drag loads along bottom chord
from 0-0-0 to 27-2-8 for 91.9 plf.
- This truss design requires that a minimum of 7/16"
structural wood sheathing be applied directly to the top
chord and 1/2" gypsum sheetrock be applied directly to
the bottom chord.

LOAD CASE(S) Standard



February 8, 2023

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

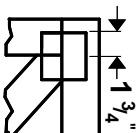
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



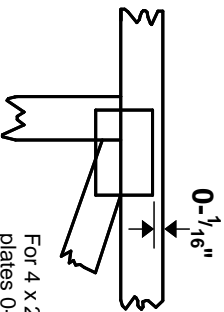
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

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

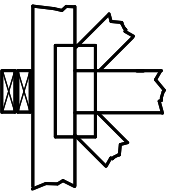
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



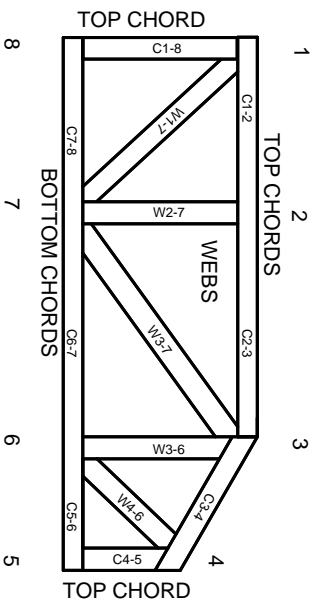
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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



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