

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Spradley House - Roof
Barefoot - Spradley House

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Stock Building Supply.

Pages or sheets covered by this seal: T32847761 thru T32847768

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



February 7, 2024

O'Regan, Philip

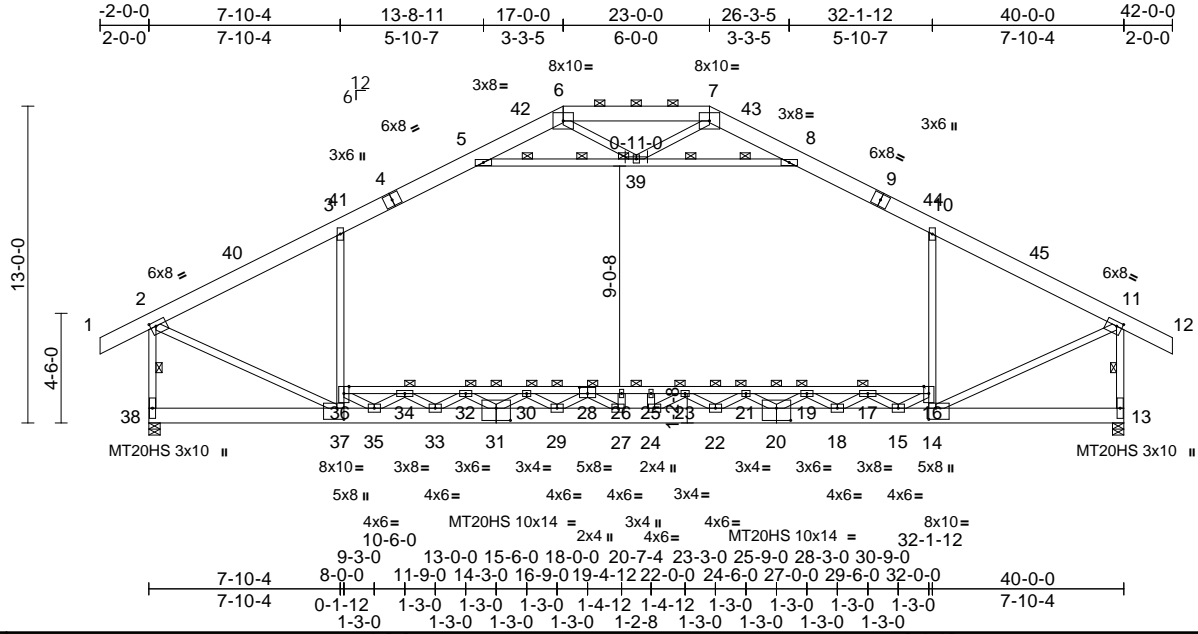
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 Spradley House -	Truss A01	Truss Type Attic	Qty 17	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847761
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Feb 06 06:53:23
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Page: 1



Scale = 1:94.5

Plate Offsets (X, Y): [2:0-2-12,0-2-4], [11:0-2-12,0-2-4], [14:0-3-8,0-5-8], [20:0-7-0,0-6-0], [28:0-4-0,0-3-0], [31:0-7-0,0-6-0], [37:0-3-8,0-5-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.78	25-26	>614	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	Vert(CT)	-1.31	25-26	>364	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.09	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS	Attic	-0.53	16-36	>546	360		
BCDL	10.0										
										Weight: 434 lb	FT = 20%

LUMBER
TOP CHORD 2x8 SP DSS
BOT CHORD 2x8 SP DSS *Except* 36-28,28-16:2x4 SP SS
WEBS 2x4 SP No.3 *Except* 3-37,10-14,5-8,38-2,37-2,13-11,14-11:2x4 SP No.2

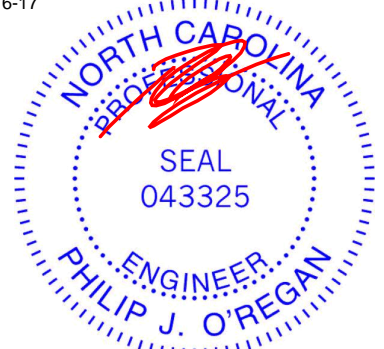
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7
BOT CHORD Rigid ceiling directly applied or 9-5-9 oc bracing. Except:
2-2-0 oc bracing: 28-30, 23-28, 21-23
2-8-0 oc bracing: 30-32, 19-21
3-7-0 oc bracing: 32-34, 17-19
6-0-0 oc bracing: 34-36, 16-17
WEBS 1 Row at midpt 2-38, 11-13
WEBS 2 Rows at 1/3 pts 5-39, 8-39
JOINTS 1 Brace at Jt(s): 28, 17, 34, 19, 32, 21, 30, 23, 39

RECTIONS (size) 13=0-5-8, 38=0-5-8
Max Horiz 38=-202 (LC 14)
Max Grav 13=2987 (LC 46), 38=2987 (LC 46)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/96, 2-3=-2996/0, 3-5=-2659/53, 5-6=-747/563, 6-7=-684/572, 7-8=-747/563, 8-10=-2659/53, 10-11=-2996/0, 11-12=0/96, 2-38=-3025/0, 11-13=-3025/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) ** TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=14.5 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface

- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Ceiling dead load (5.0 psf) on member(s). 3-5, 8-10, 5-39, 8-39; Wall dead load (5.0psf) on member(s).3-36, 10-16
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 34-36, 32-34, 30-32, 28-30, 26-28, 25-26, 23-25, 21-23, 19-21, 17-19, 16-17



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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
Edenton, NC 27932

Job Spradley House -	Truss A01	Truss Type Attic	Qty 17	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847761
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

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Page: 2

- 13) All bearings are assumed to be SP DSS crushing capacity of 660 psi.
- 14) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-2=-49, 2-3=-49, 3-5=-59, 5-6=-49, 6-7=-60,
7-8=-49, 8-10=-59, 10-11=-49, 11-12=-49,
13-38=-20, 16-36=-30, 5-39=-10, 8-39=-10
Drag: 3-36=-10, 10-16=-10

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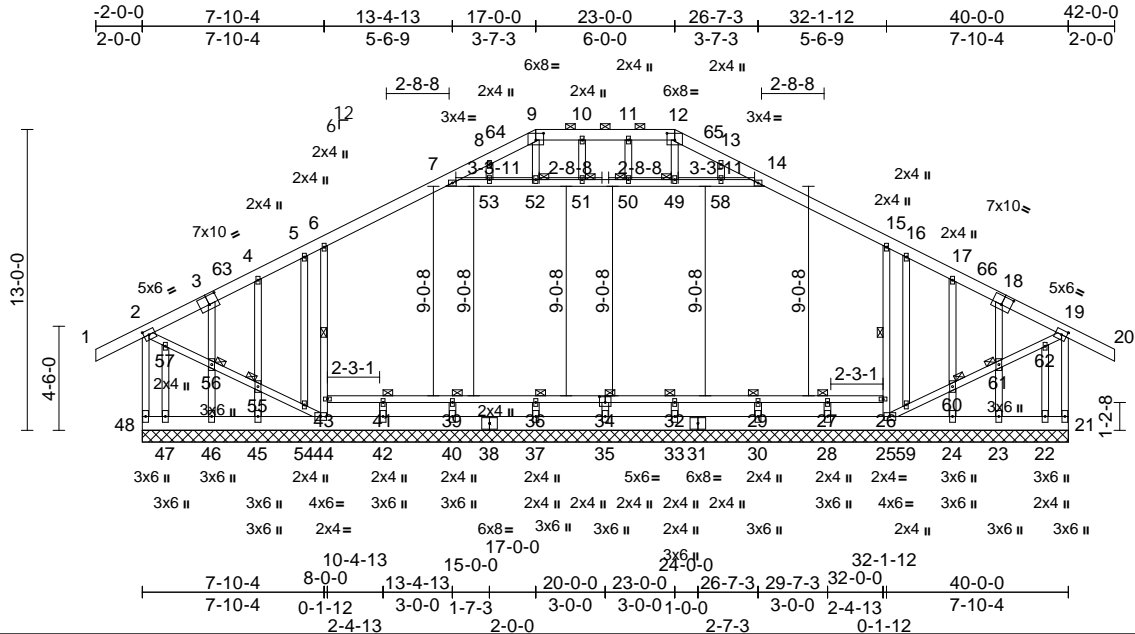
818 Soundside Road
Edenton, NC 27932

Job Spradley House -	Truss A01G	Truss Type Attic Supported Gable	Qty 1	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847762
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Page: 1



Scale = 1:99.5

Plate Offsets (X, Y): [2:0-2-11,0-2-8], [3:0-5-0,0-4-8], [9:0-4-0,0-3-8], [12:0-4-0,0-3-8], [18:0-5-0,0-4-8], [19:0-2-11,0-2-8], [34:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.01	21	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 429 lb	FT = 20%

LUMBER	Max Grav	WEBS
TOP CHORD 2x6 SP No.2	21=1088 (LC 40), 22=65 (LC 15), 23=103 (LC 56), 24=329 (LC 40), 25=117 (LC 13), 28=223 (LC 7), 30=273 (LC 7), 33=273 (LC 7), 35=221 (LC 7), 37=273 (LC 7), 40=273 (LC 7), 42=223 (LC 7), 44=121 (LC 12), 45=329 (LC 40), 46=103 (LC 55), 47=65 (LC 14), 48=1088 (LC 40)	2-57=-123/944, 56-57=-126/928, 55-56=-119/901, 54-55=-124/923, 44-54=-130/994, 43-44=-364/64, 6-43=-344/76, 25-26=-364/64, 15-26=-344/76, 25-59=-128/994, 59-60=-122/923, 60-61=-117/901, 61-62=-124/928, 19-62=-121/944, 7-53=-161/133, 52-53=-162/133, 51-52=-162/133, 50-51=-162/133, 49-50=-162/133, 49-58=-162/133, 14-58=-161/133, 12-49=-25/100, 11-50=-57/14, 10-51=-57/14, 9-52=-25/100, 8-53=-70/20, 5-54=-13/155, 4-55=-227/82, 45-55=-278/92, 3-56=-101/59, 46-56=-65/73, 47-57=-4/35, 13-58=-70/20, 16-59=-13/155, 17-60=-227/81, 24-60=-278/90, 18-61=-101/59, 23-61=-65/73, 22-62=-4/35, 39-40=-135/0, 29-30=-135/0, 36-37=-137/0, 32-33=-137/0, 34-35=-111/0, 41-42=-119/0, 27-28=-119/0
BOT CHORD 2x8 SP DSS *Except* 43-34,34-26:2x4 SP No.3		
WEBS 2x4 SP No.3 *Except* 6-44,15-25,7-14:2x4 SP No.2		
OTHERS 2x4 SP No.3		
BRACING	FORCES	NOTES
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-12.	(lb) - Maximum Compression/Maximum Tension	
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.	TOP CHORD 2-48=-1073/295, 1-2=0/96, 2-4=-971/227, 4-5=-977/274, 5-6=-832/273, 6-7=-947/303, 7-8=-972/247, 8-9=-966/268, 9-10=-882/264, 10-11=-880/264, 11-12=-882/264, 12-13=-966/268, 13-14=-972/247, 14-15=-947/303, 15-16=-832/276, 16-17=-977/272, 17-19=-971/229, 19-20=0/96, 19-21=-1073/293	
WEBS 1 Row at midpt 6-44, 15-25	BOT CHORD 47-48=-164/139, 46-47=-164/139, 45-46=-164/139, 44-45=-164/139, 42-44=-128/806, 40-42=-128/806, 37-40=-128/806, 35-37=-128/806, 33-35=-128/806, 30-33=-128/806, 28-30=-128/806, 25-28=-128/806, 24-25=-43/49, 23-24=-43/49, 22-23=-43/49, 21-22=-43/49, 41-43=-3/19, 39-41=-3/19, 36-39=-3/19, 32-36=-3/19, 29-32=-3/19, 27-29=-3/19, 26-27=-3/19	
JOINTS 1 Brace at Jt(s): 49, 50, 51, 52, 55, 56, 60, 61, 39, 29, 36, 32, 34, 41, 27		
REACTIONS (size)		
21=40-0-0, 22=40-0-0, 23=40-0-0, 24=40-0-0, 25=40-0-0, 28=40-0-0, 30=40-0-0, 33=40-0-0, 35=40-0-0, 37=40-0-0, 40=40-0-0, 42=40-0-0, 44=40-0-0, 45=40-0-0, 46=40-0-0, 47=40-0-0, 48=40-0-0		
Max Horiz 48=180 (LC 14)		
Max Uplift 21=130 (LC 13), 22=13 (LC 39), 23=36 (LC 22), 24=24 (LC 16), 25=266 (LC 24), 44=266 (LC 25), 45=24 (LC 17), 46=36 (LC 22), 47=13 (LC 39), 48=133 (LC 12)		



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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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
Edenton, NC 27932

Job Spradley House -	Truss A01G	Truss Type Attic Supported Gable	Qty 1	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847762
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Page: 2

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) ** TCELL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=14.5 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 5) Roof design snow load has been reduced to account for slope.
- 6) Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 8) Provide adequate drainage to prevent water ponding.
- 9) Gable requires continuous bottom chord bearing.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 11) Gable studs spaced at 2-0-0 oc.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * 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.
- 14) Ceiling dead load (5.0 psf) on member(s). 6-7, 14-15, 7-53, 52-53, 51-52, 50-51, 49-50, 49-58, 14-58; Wall dead load (5.0psf) on member(s).43-44, 6-43, 25-26, 15-26
- 15) All bearings are assumed to be SP DSS crushing capacity of 660 psi.
- 16) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 133 lb uplift at joint 48, 130 lb uplift at joint 21, 266 lb uplift at joint 44, 266 lb uplift at joint 25, 24 lb uplift at joint 45, 36 lb uplift at joint 46, 13 lb uplift at joint 47, 24 lb uplift at joint 24, 36 lb uplift at joint 23 and 13 lb uplift at joint 22.
- 17) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 18) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 19) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-2=-49, 2-6=-49, 7-9=-49, 9-12=-60,
12-14=-49, 15-19=-49, 19-20=-49, 21-48=-20,
26-43=-20

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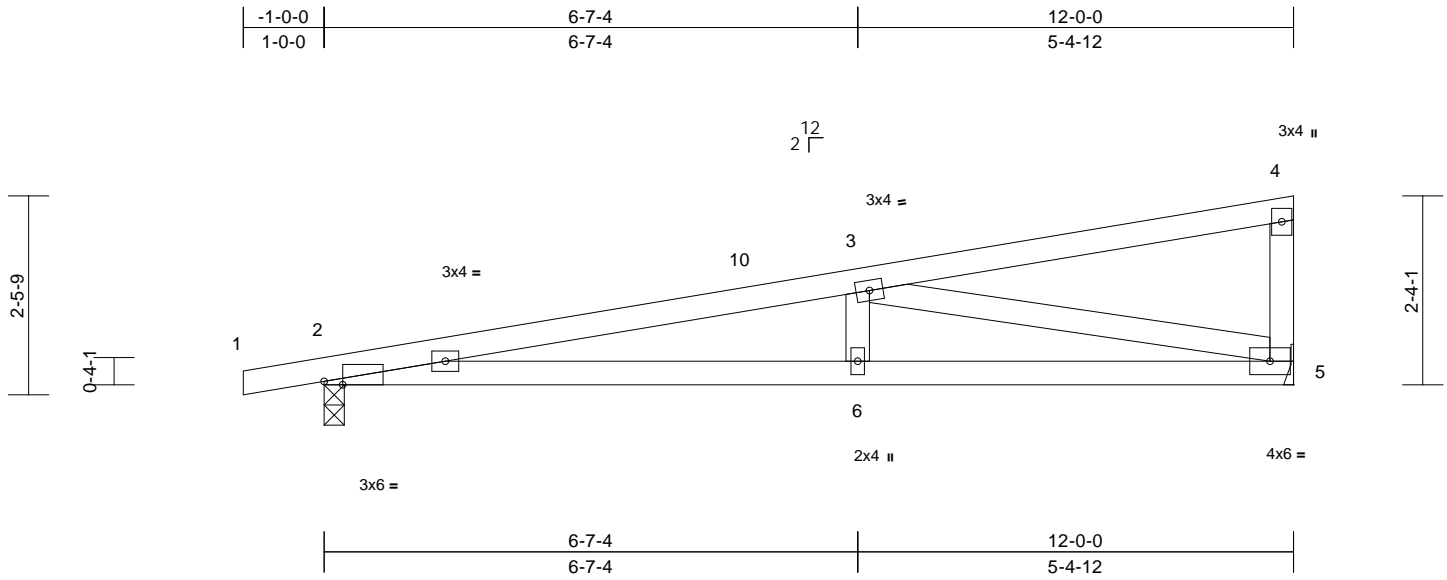
818 Soundside Road
Edenton, NC 27932

Job Spradley House -	Truss P01	Truss Type Monopitch	Qty 15	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847763
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:28.5

Plate Offsets (X, Y): [2:0-2-12,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.44	Vert(LL)	-0.10	6-9	>999	240	MT20	244/190
Snow (Ps/Pf)	20.0/20.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.20	6-9	>721	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.03	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 49 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-0, 5= Mechanical
Max Horiz 2=64 (LC 15)
Max Uplift 2=-64 (LC 12), 5=-39 (LC 16)
Max Grav 2=564 (LC 23), 5=542 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-1588/229, 3-4=-90/27, 4-5=-166/61
BOT CHORD 2-6=-266/1554, 5-6=-266/1554
WEBS 3-6=0/254, 3-5=-1536/247

NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=20.0 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.

- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 5 and 64 lb uplift at joint 2.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 7, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



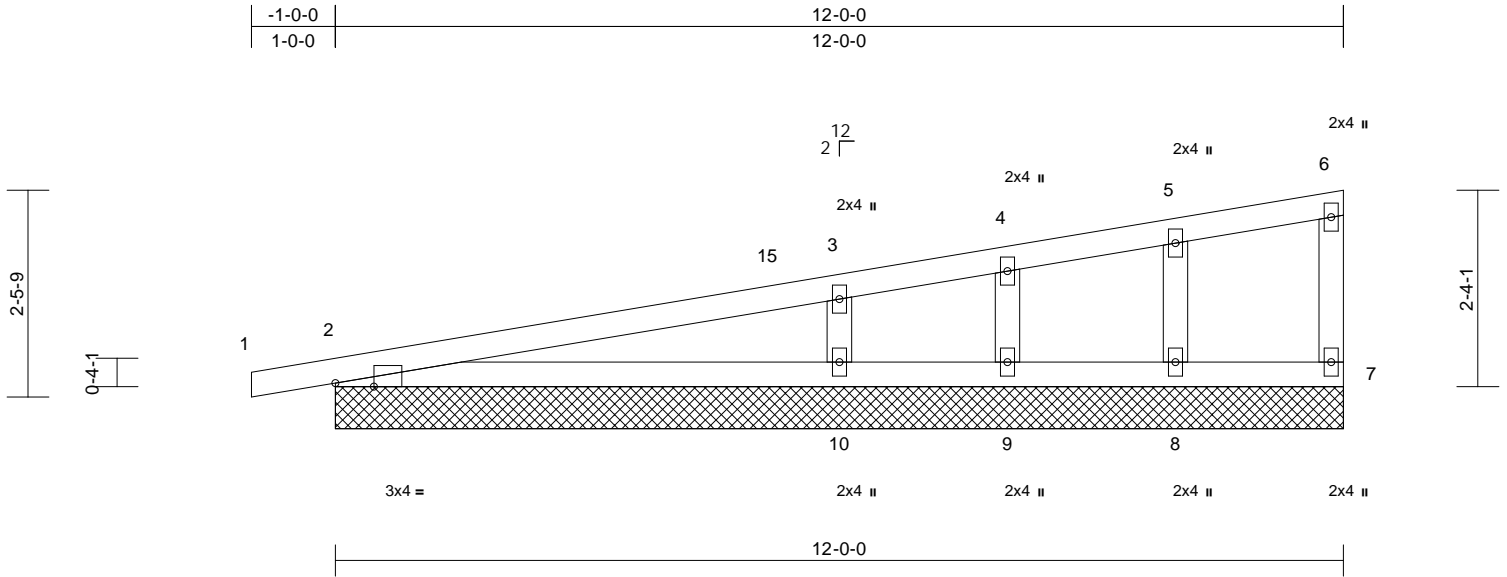
818 Soundside Road
Edenton, NC 27932

Job Spradley House -	Truss P01G	Truss Type Monopitch Supported Gable	Qty 2	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847764
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Feb 06 06:53:33
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Page: 1



Loading (psf)		Spacing		CSI		DEFL		PLATES		GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	n/a	l/defl	n/a	999	MT20	244/190
Snow (Ps/Pf)	20.0/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	n/a	l/d	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00		2	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 45 lb	FT = 20%

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

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

REACTIONS (size)
2=12-0-0, 7=12-0-0, 8=12-0-0, 9=12-0-0, 10=12-0-0, 11=12-0-0
Max Horiz 2=64 (LC 15), 11=64 (LC 15)
Max Uplift 2=-41 (LC 12), 7=3 (LC 16), 8=-17 (LC 16), 9=-31 (LC 1), 10=-44 (LC 16), 11=-41 (LC 12)
Max Grav 2=261 (LC 23), 7=65 (LC 23), 8=245 (LC 23), 9=1 (LC 16), 10=536 (LC 23), 11=261 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-167/48, 3-4=-45/23, 4-5=-37/30, 5-6=-30/26, 6-7=-53/20
BOT CHORD 2-10=-42/155, 9-10=-24/27, 8-9=-24/27, 7-8=-24/27
WEBS 5-8=-182/64, 4-9=-41/24, 3-10=-353/116

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=20.0 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 2, 3 lb uplift at joint 7, 17 lb uplift at joint 8, 31 lb uplift at joint 9, 44 lb uplift at joint 10 and 41 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 7, 2024

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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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



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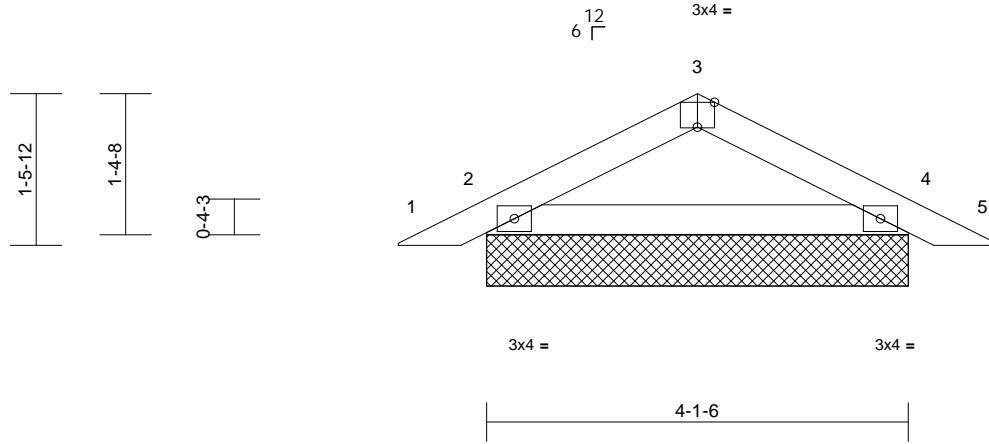
Job Spradley House -	Truss PB01	Truss Type Piggyback	Qty 17	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847765
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Feb 06 06:53:33
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Page: 1

-0-10-5	2-0-11	4-1-6	4-11-11
0-10-5	2-0-11	2-0-11	0-10-5



Scale = 1:22.5

Plate Offsets (X, Y): [3:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 16 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING

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

REACTIONS

(size) 2=4-1-6, 4=4-1-6, 6=4-1-6, 10=4-1-6
Max Horiz 2=17 (LC 16), 6=17 (LC 16)
Max Uplift 2=-12 (LC 16), 4=-7 (LC 17), 6=-12 (LC 16), 10=-7 (LC 17)
Max Grav 2=199 (LC 2), 4=208 (LC 2), 6=199 (LC 2), 10=208 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/25, 2-3=-151/57, 3-4=-152/55, 4-5=0/25
BOT CHORD 2-4=-5/129

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=14.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 2, 7 lb uplift at joint 4, 12 lb uplift at joint 2 and 7 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 7, 2024

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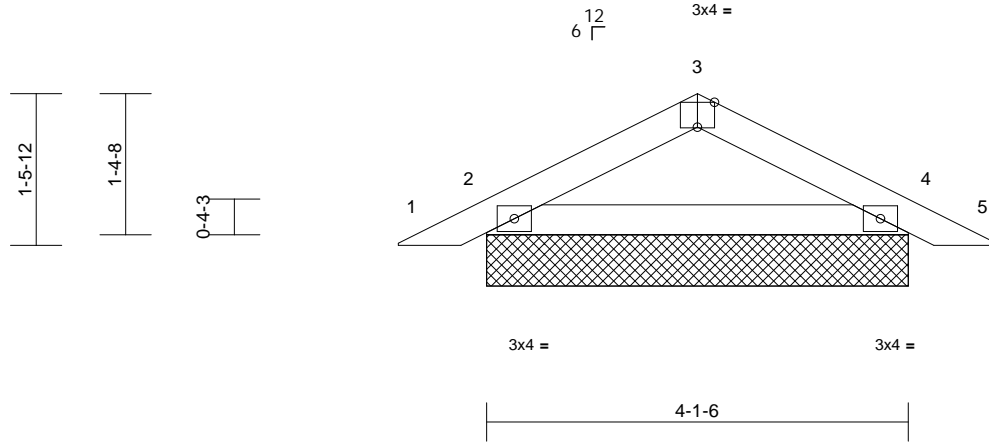
Job Spradley House -	Truss PB01G	Truss Type Piggyback	Qty 1	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847766
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1

-0-10-5	2-0-11	4-1-6	4-11-11
0-10-5	2-0-11	2-0-11	0-10-5



Scale = 1:22.5

Plate Offsets (X, Y): [3:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 16 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING

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

REACTIONS

(size) 2=4-1-6, 4=4-1-6, 6=4-1-6, 10=4-1-6
Max Horiz 2=17 (LC 16), 6=17 (LC 16)
Max Uplift 2=-12 (LC 16), 4=-7 (LC 17), 6=-12 (LC 16), 10=-7 (LC 17)
Max Grav 2=199 (LC 2), 4=208 (LC 2), 6=199 (LC 2), 10=208 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/25, 2-3=-151/57, 3-4=-152/55, 4-5=0/25
BOT CHORD 2-4=-5/129

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=14.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 2, 7 lb uplift at joint 4, 12 lb uplift at joint 2 and 7 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 7, 2024

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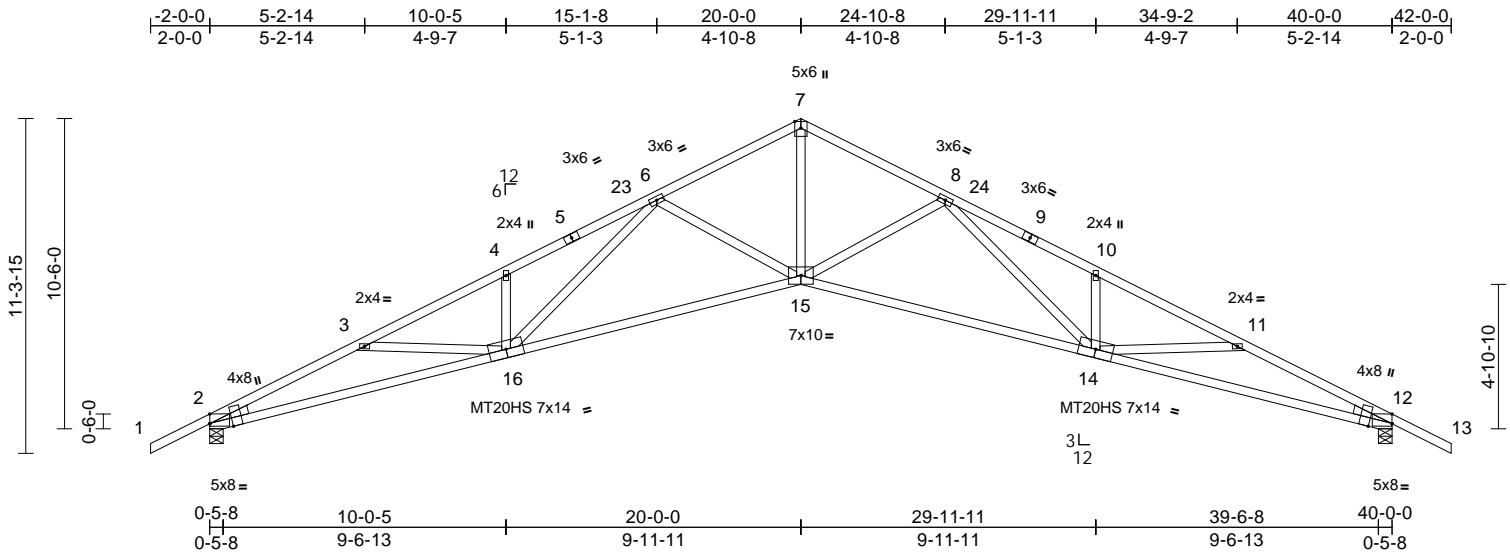
Job Spradley House -	Truss S01	Truss Type Scissor	Qty 12	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847767
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Feb 06 06:53:34

Page: 1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.83	Vert(LL)	-0.55	15-16	>867	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-1.27	15-16	>377	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.73	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 206 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-5,9-13:2x4 SP SS
BOT CHORD 2x4 SP No.1 *Except* 2-16,14-12:2x4 SP SS
WEBS 2x4 SP No.3 *Except* 15-7:2x4 SP No.2
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

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

REACTIONS (size) 2=0-5-8, 12=0-5-8
Max Horiz 2=-144 (LC 21)
Max Uplift 2=-71 (LC 16), 12=-71 (LC 17)
Max Grav 2=1720 (LC 2), 12=1720 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/89, 2-3=-4956/555, 3-4=-4855/461, 4-6=-4897/562, 6-7=-3456/339, 7-8=-3456/339, 8-10=-4897/573, 10-11=-4855/473, 11-12=-4956/574, 12-13=0/89
BOT CHORD 2-15=-405/4456, 12-15=-435/4455
WEBS 7-15=-198/2753, 8-15=-751/223, 8-14=-147/1010, 10-14=-379/169, 11-14=-80/176, 3-16=-80/157, 4-16=-379/169, 6-16=-148/1010, 6-15=-751/224

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=14.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 2 = 0%, joint 12 = 0%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SP SS crushing capacity of 565 psi.
- Bearing at joint(s) 2, 12 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 71 lb uplift at joint 2 and 71 lb uplift at joint 12.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 7, 2024

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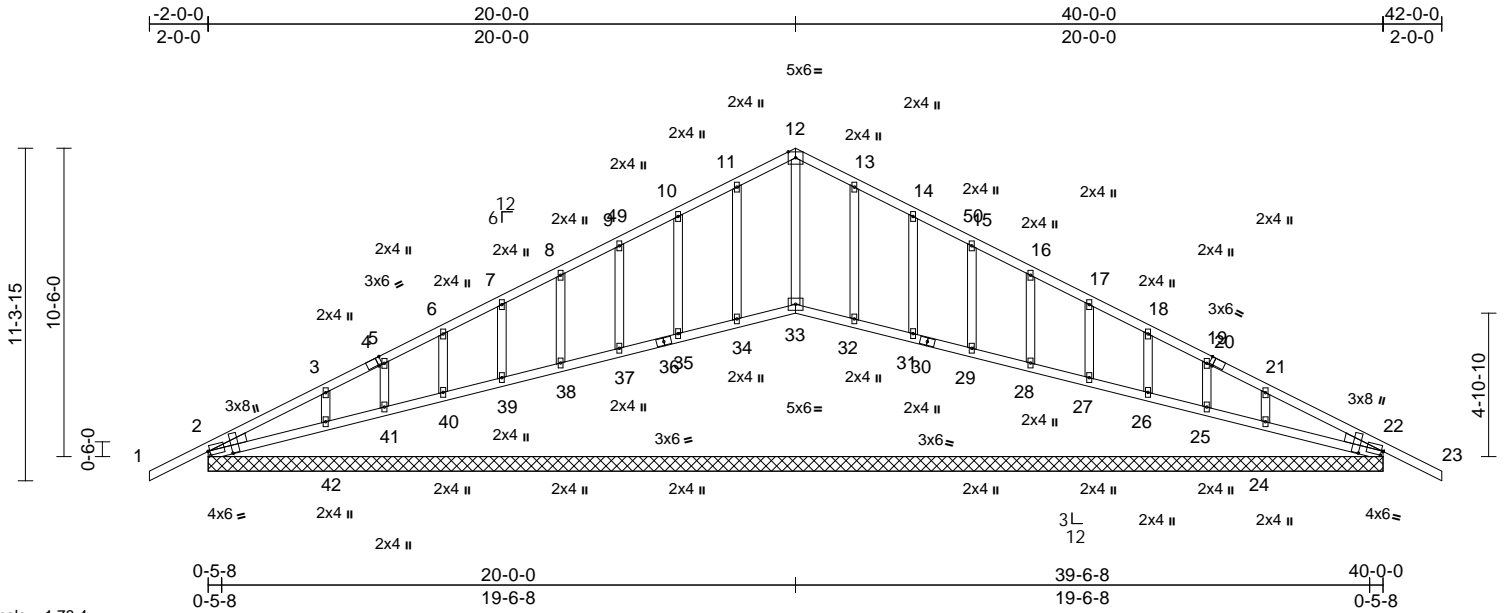
818 Soundside Road
Edenton, NC 27932

Job Spradley House -	Truss S01G	Truss Type Scissor	Qty 1	Ply 1	Barefoot - Spradley House Job Reference (optional)	T32847768
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Feb 06 06:53:35
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Page: 1



Scale = 1:78.4

Plate Offsets (X, Y): [2:0-0-11,0-1-12], [2:0-3-2,0-9-10], [4:0-1-9,Edge], [20:0-1-9,Edge], [22:0-0-11,0-1-12], [22:0-3-2,0-9-10]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	22	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 214 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

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

REACTIONS (size)
2=40-0-0, 22=40-0-0, 24=40-0-0,
25=40-0-0, 26=40-0-0, 27=40-0-0,
28=40-0-0, 29=40-0-0, 31=40-0-0,
32=40-0-0, 33=40-0-0, 34=40-0-0,
35=40-0-0, 37=40-0-0, 38=40-0-0,
39=40-0-0, 40=40-0-0, 41=40-0-0,
42=40-0-0, 43=40-0-0, 46=40-0-0
Max Horiz 2=-144 (LC 17), 43=-144 (LC 17)
Max Uplift 2=-48 (LC 17), 22=-32 (LC 17),
24=-54 (LC 17), 25=-17 (LC 17),
26=-30 (LC 17), 27=-27 (LC 17),
28=-28 (LC 17), 29=-27 (LC 17),
31=-30 (LC 17), 32=-23 (LC 17),
34=-25 (LC 16), 35=-29 (LC 16),
37=-27 (LC 16), 38=-28 (LC 16),
39=-27 (LC 16), 40=-31 (LC 16),
41=-13 (LC 16), 42=-63 (LC 16),
43=-48 (LC 17), 46=-32 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD
1-2=0/89, 2-3=-143/196, 3-5=-113/85,
5-6=-90/104, 6-7=-76/123, 7-8=-68/142,
8-9=-79/162, 9-10=-92/192, 10-11=-105/231,
11-12=-118/266, 12-13=-118/266,
13-14=-105/231, 14-15=-92/192,
15-16=-79/155, 16-17=-66/118,
17-18=-54/81, 18-19=-51/43, 19-21=-66/21,
21-22=-124/196, 22-23=0/89
BOT CHORD
2-42=-229/148, 41-42=-30/144,
40-41=-24/143, 39-40=-26/143,
38-39=-26/143, 37-38=-26/143,
35-37=-26/143, 34-35=-26/143,
33-34=-26/143, 32-33=-26/143,
31-32=-26/143, 29-31=-26/143,
28-29=-26/143, 27-28=-26/143,
26-27=-26/143, 25-26=-24/143,
24-25=-29/143, 22-24=-229/162
WEBS
12-33=-187/36, 11-34=-186/55,
10-35=-175/62, 9-37=-125/59, 8-38=-120/60,
7-39=-119/59, 6-40=-125/61, 5-41=-99/57,
3-42=-177/82, 13-32=-186/55,
14-31=-175/62, 15-29=-125/59,
16-28=-120/60, 17-27=-119/59,
18-26=-125/62, 19-25=-99/57, 21-24=-177/83

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=14.5 psf (roof snow; Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 5) Roof design snow load has been reduced to account for slope.
- 6) Unbalanced snow loads have been considered for this design.

NOTES



February 7, 2024

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Barefoot - Spradley House	T32847768
Spradley House -	S01G	Scissor	1	1	Job Reference (optional)	

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Feb 06 06:53:35
ID:XLROEKhFSiQ3ANFCXoisAvzegmb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * 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.
- 12) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 2, 32 lb uplift at joint 22, 25 lb uplift at joint 34, 29 lb uplift at joint 35, 27 lb uplift at joint 37, 28 lb uplift at joint 38, 27 lb uplift at joint 39, 31 lb uplift at joint 40, 13 lb uplift at joint 41, 63 lb uplift at joint 42, 23 lb uplift at joint 32, 30 lb uplift at joint 31, 27 lb uplift at joint 29, 28 lb uplift at joint 28, 27 lb uplift at joint 27, 30 lb uplift at joint 26, 17 lb uplift at joint 25, 54 lb uplift at joint 24, 48 lb uplift at joint 2 and 32 lb uplift at joint 22.
- 14) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 33, 34, 35, 37, 38, 39, 40, 41, 42, 32, 31, 29, 28, 27, 26, 25, 24.
- 15) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

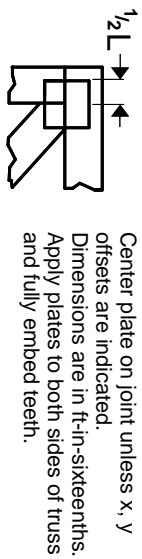
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



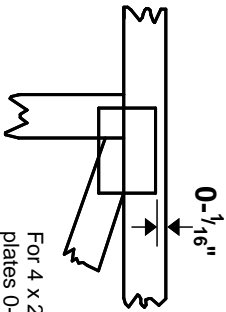
818 Soundside Road
Edenton, NC 27932

Symbols

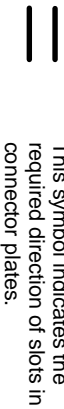
PLATE LOCATION AND ORIENTATION



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 software or upon request.

PLATE SIZE

4 X 4

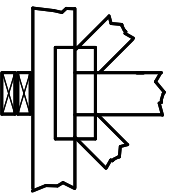
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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/letter where bearings occur. Min size shown is for crushing only.

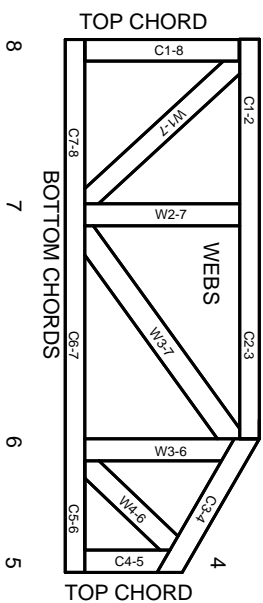
Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



1 TOP CHORDS
2 Joint ID
3 typ.



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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on Lumber values established by others.

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MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.