

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 2400622-09192  
Colston 3 car Bonus Full Frnt Prch RCP

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: I63985408 thru I63985444

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

North Carolina COA: C-0844



March 4, 2024

Gilbert, Eric

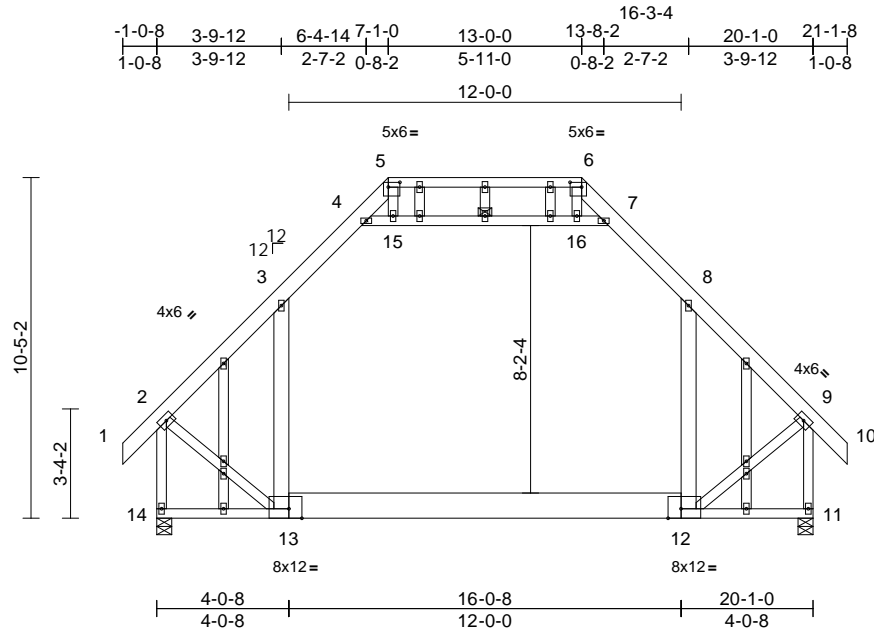
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

Job 2400622-09192	Truss A1E	Truss Type GABLE	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985408
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:15  
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Page: 1



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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.22	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.32	12-13	>752	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.18	12-13	>809	360	Weight: 206 lb	FT = 20%

**LUMBER**

- TOP CHORD 2x6 SP No.2 \*Except\* 5-6:2x4 SP No.2
- BOT CHORD 2x4 SP No.2 \*Except\* 12-13:2x10 SP DSS
- WEBS 2x4 SP No.3 \*Except\* 3-13,8-12:2x6 SP No.2, 14-2,11-9,4-7:2x4 SP No.2
- 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 6-0-0 oc bracing.
- WEBS 1 Row at midpt 4-7

**REACTIONS**

- (size) 11=0-5-8, 14=0-5-8
- Max Horiz 14=315 (LC 9)
- Max Grav 11=1368 (LC 2), 14=1368 (LC 2)

**FORCES**

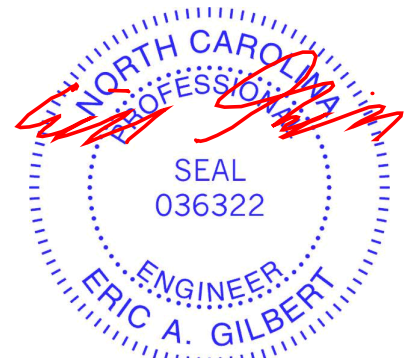
- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/50, 2-3=-1034/44, 3-4=-715/170, 4-5=-353/268, 5-6=-169/288, 6-7=-353/268, 7-8=-715/170, 8-9=-1034/44, 9-10=0/50, 2-14=-1371/0, 9-11=-1371/0
- BOT CHORD 11-14=-315/706
- WEBS 3-13=-131/451, 8-12=-131/451, 2-13=-16/874, 9-12=-17/875, 4-15=-865/121, 15-16=-855/125, 7-16=-865/121, 5-15=-96/204, 6-16=-96/204

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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=1.60

- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 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 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.
- Ceiling dead load (5.0 psf) on member(s). 3-4, 7-8, 4-15, 15-16, 7-16; Wall dead load (10.0psf) on member (s).3-13, 8-12
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 12-13
- All bearings are assumed to be User Defined.
- 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.
- Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard



March 4, 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/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)



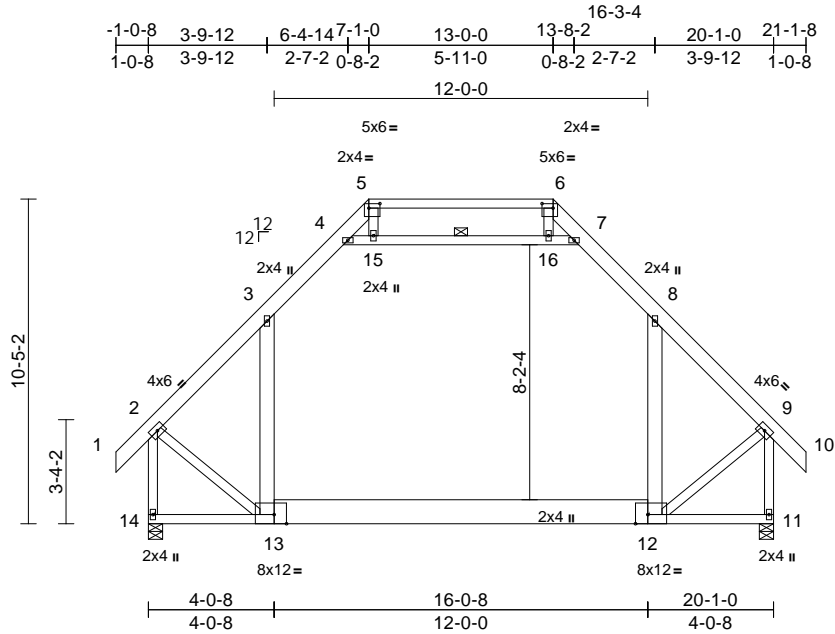
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Colston 3 car Bonus Full Frnt Prch RCP	I63985409
2400622-09192	A2	ROOF TRUSS	3	1	Job Reference (optional)	

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

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:17  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:74

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.22	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.32	12-13	>752	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.18	12-13	>809	360	Weight: 188 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2 \*Except\* 5-6:2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 12-13:2x10 SP DSS  
WEBS 2x4 SP No.2 \*Except\* 3-13,8-12:2x6 SP No.2, 5-15,6-16:2x4 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 6-0-0 oc bracing.  
WEBS 1 Row at midpt 4-7

**REACTIONS**  
(size) 11=0-5-8, 14=0-5-8  
Max Horiz 14=315 (LC 9)  
Max Grav 11=1368 (LC 2), 14=1368 (LC 2)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/50, 2-3=-1034/44, 3-4=-715/170, 4-5=-353/268, 5-6=-169/288, 6-7=-353/268, 7-8=-715/170, 8-9=-1034/44, 9-10=0/50, 2-14=-1371/0, 9-11=-1371/0  
BOT CHORD 11-14=-315/706  
WEBS 3-13=-131/451, 8-12=-131/451, 2-13=-16/875, 9-12=-17/876, 4-15=-865/121, 15-16=-855/125, 7-16=-865/121, 5-15=-96/204, 6-16=-96/204

- 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). 3-4, 7-8, 4-15, 15-16, 7-16; Wall dead load (10.0psf) on member (s).3-13, 8-12
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 12-13
- All bearings are assumed to be User Defined .
- 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.
- Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=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=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.



March 4, 2024

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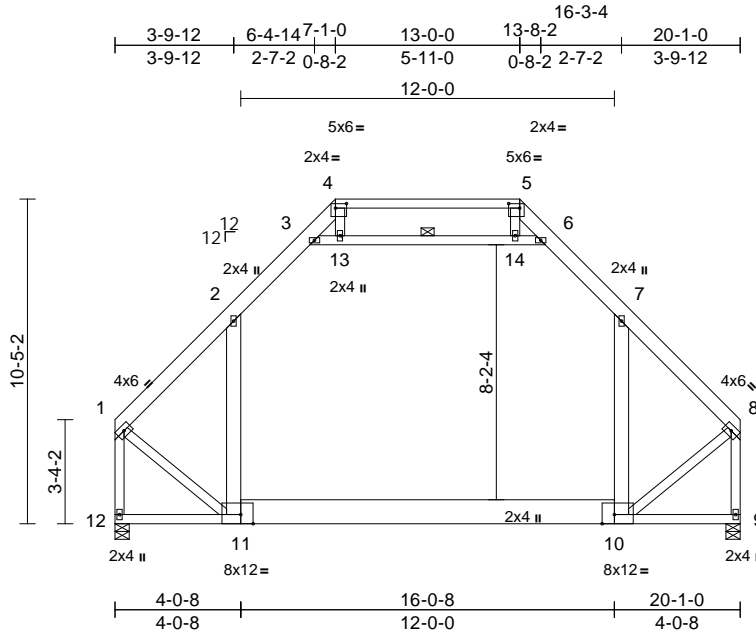
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss A3	Truss Type ROOF TRUSS	Qty 6	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985410
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:17  
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Page: 1



Scale = 1:74

Plate Offsets (X, Y): [4:0-4-4,0-1-12], [5:0-4-4,0-1-12], [10:0-4-12,Edge], [11:0-4-12,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.22	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.32	10-11	>750	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.18	10-11	>809	360	Weight: 182 lb	FT = 20%

**LUMBER**

TOP CHORD 2x6 SP No.2 \*Except\* 4-5:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 10-11:2x10 SP DSS  
 WEBS 2x4 SP No.3 \*Except\* 2-11,7-10:2x6 SP No.2, 12-1,9-8,3-6:2x4 SP No.2

**BRACING**

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

**REACTIONS**

(size) 9=0-5-8, 12=0-5-8  
 Max Horiz 12=285 (LC 7)  
 Max Grav 9=1309 (LC 2), 12=1309 (LC 2)

**FORCES**

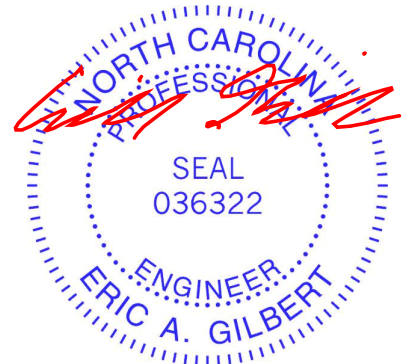
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-1035/7, 2-3=-718/158, 3-4=-350/269, 4-5=-162/292, 5-6=-350/269, 6-7=-718/158, 7-8=-1035/7, 1-12=-1322/0, 8-9=-1322/0  
 BOT CHORD 9-12=-285/697  
 WEBS 2-11=-136/448, 7-10=-136/448, 1-11=-21/862, 8-10=-22/863, 3-13=-871/96, 13-14=-861/100, 6-14=-871/96, 4-13=-95/201, 5-14=-95/201

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 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). 2-3, 6-7, 3-13, 13-14, 6-14; Wall dead load (10.0psf) on member (s).2-11, 7-10
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 10-11
- All bearings are assumed to be User Defined .
- 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.
- Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard



March 4, 2024

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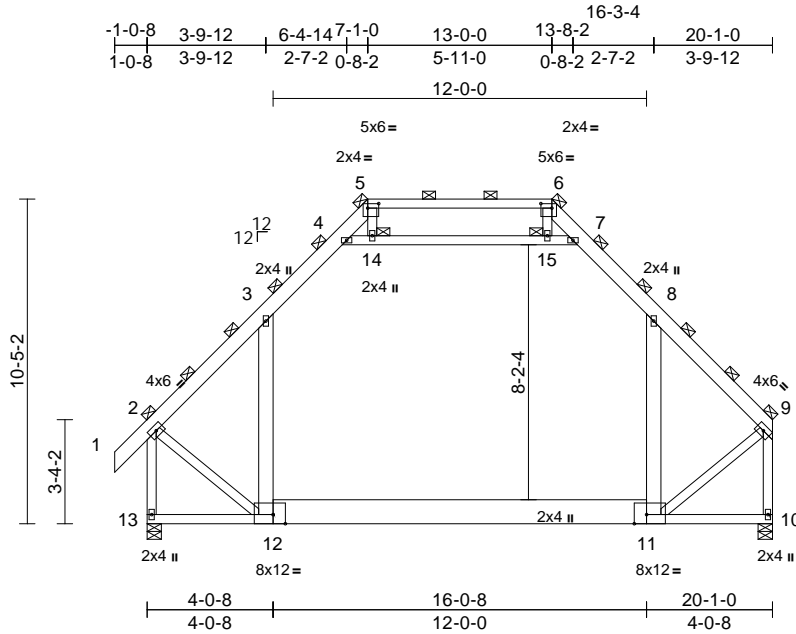
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss A3G	Truss Type ROOF TRUSS	Qty 1	Ply 2	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985411
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84 Components (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:74

Plate Offsets (X, Y): [5:0-4-4,0-1-12], [6:0-4-4,0-1-12], [11:0-4-12,Edge], [12:0-4-12,Edge]

Loading	(psf)	Spacing	4-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.22	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.32	11-12	>751	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.18	11-12	>809	360	Weight: 370 lb	FT = 20%

**LUMBER**

TOP CHORD 2x6 SP No.2 \*Except\* 5-6:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 11-12:2x10 SP DSS  
 WEBS 2x4 SP No.3 \*Except\* 3-12,8-11:2x6 SP No.2, 13-2,10-9,4-7:2x4 SP No.2

**BRACING**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals  
 (Switched from sheeted: Spacing > 2-8-0).  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 5, 6, 2, 9, 14, 15

REACTIONS (size) 10=0-5-8, 13=0-5-8  
 Max Horiz 13=609 (LC 7)  
 Max Grav 10=2614 (LC 2), 13=2740 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/101, 2-3=-2074/64, 3-4=-1434/323, 4-5=-703/533, 5-6=-335/579, 6-7=-703/541, 7-8=-1432/333, 8-9=-2064/31, 2-13=-2746/0, 9-10=-2639/0  
 BOT CHORD 10-13=-610/1391  
 WEBS 3-12=-261/902, 8-11=-272/895, 2-12=-24/1754, 9-11=-52/1721, 4-14=-1736/214, 14-15=-1716/225, 7-15=-1735/219, 5-14=-186/407, 6-15=-196/402

**NOTES**

- 2-ply truss to be connected together with 10d (0.148"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
 Web connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 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). 3-4, 7-8, 4-14, 14-15, 7-15; Wall dead load (10.0psf) on member (s). 3-12, 8-11
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 11-12
- All bearings are assumed to be User Defined.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



March 4, 2024

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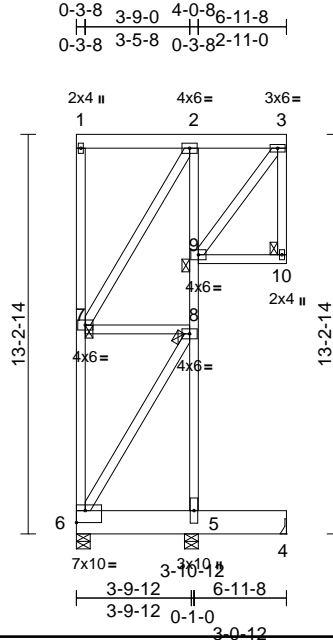
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss A4	Truss Type ROOF TRUSS	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985412
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:18  
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Page: 1



Scale = 1:76.4

Plate Offsets (X, Y): [6:Edge,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP								

Weight: 121 lb FT = 20%

LUMBER	BRACING	REACTIONS	FORCES	NOTES	
<p><b>TOP CHORD</b> 2x6 SP No.2</p> <p><b>BOT CHORD</b> 2x10 SP DSS</p> <p><b>WEBS</b> 2x4 SP No.2 *Except* 7-8,9-10,10-3,9-3:2x4 SP No.3</p>	<p><b>TOP CHORD</b> Structural wood sheathing directly applied or 4-0-8 oc purlins, except end verticals. Except: 6-0-0 oc bracing: 5-8, 8-9</p> <p><b>BOT CHORD</b> Rigid ceiling directly applied or 10-0-0 oc bracing.</p> <p><b>WEBS</b> 1 Row at midpt 1-6</p> <p><b>JOINTS</b> 1 Brace at Jt(s): 8, 9, 10</p>	<p>(size) 4= Mechanical, 5=0-5-8, 6=0-5-8</p> <p>Max Horiz 6=-420 (LC 8)</p> <p>Max Uplift 5=-628 (LC 7), 6=-655 (LC 8)</p> <p>Max Grav 4=136 (LC 2), 5=938 (LC 18), 6=578 (LC 7)</p>	<p>(lb) - Maximum Compression/Maximum Tension</p> <p><b>TOP CHORD</b> 6-7=-116/138, 1-7=-75/75, 1-2=-84/92, 2-3=-26/40, 5-8=-714/711, 8-9=-402/415, 2-9=-340/395</p> <p><b>BOT CHORD</b> 5-6=-94/103, 4-5=0/0</p> <p><b>WEBS</b> 7-8=-401/427, 6-8=-599/653, 2-7=-222/219, 9-10=0/0, 3-10=0/15, 3-9=-67/43</p>	<p>3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</p> <p>4) * 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.</p> <p>5) All bearings are assumed to be User Defined .</p> <p>6) Refer to girder(s) for truss to truss connections.</p> <p>7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 655 lb uplift at joint 6 and 628 lb uplift at joint 5.</p> <p>8) 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.</p> <p>9) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.</p> <p>10) Attic room checked for L/360 deflection.</p> <p>11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).</p> <p><b>LOAD CASE(S)</b> Standard</p> <p>1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (lb/ft) Vert: 1-2=-60, 2-3=-60, 5-6=-20, 4-5=-50, 9-10=-10 (F)</p> <p>2) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (lb/ft) Vert: 1-2=-50, 2-3=-50, 5-6=-20, 4-5=-109, 9-10=-10 (F)</p> <p>3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25 Uniform Loads (lb/ft) Vert: 1-2=-20, 2-3=-20, 5-6=-40, 4-5=-70, 9-10=-10 (F)</p> <p>4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60</p> <p>Uniform Loads (lb/ft) Vert: 1-2=49, 2-3=49, 5-6=-12, 4-5=-30, 9-10=-10 (F) Horz: 1-6=-40, 5-9=40</p> <p>5) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (lb/ft) Vert: 1-2=-35, 2-3=-35, 5-6=-20, 4-5=-38, 9-10=-10 (F) Horz: 1-6=36, 5-9=-36</p> <p>6) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (lb/ft) Vert: 1-2=27, 2-3=27, 5-6=-12, 4-5=-30, 9-10=-10 (F) Horz: 1-6=16, 5-9=20</p> <p>7) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (lb/ft) Vert: 1-2=27, 2-3=27, 5-6=-12, 4-5=-30, 9-10=-10 (F) Horz: 1-6=-20, 5-9=-16</p> <p>8) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (lb/ft)</p>	<p>1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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 &amp; MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60</p> <p>2) Provide adequate drainage to prevent water ponding.</p>



March 4, 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.**

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Colston 3 car Bonus Full Frnt Prch RCP	I63985412
2400622-09192	A4	ROOF TRUSS	1	1	Job Reference (optional)	

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

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:18  
 ID:4C\_?jOk718eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3lTxBGKWrCDoi7J4zJC?f

Page: 2

- Vert: 1-2=8, 2-3=8, 5-6=-20, 4-5=-38, 9-10=-10 (F)  
 Horz: 1-6=27, 5-9=9
- 9) Dead + 0.6 MWFRS Wind (Neg. Internal) Right:  
 Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=8, 2-3=8, 5-6=-20, 4-5=-38, 9-10=-10 (F)  
 Horz: 1-6=-9, 5-9=-27
- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel:  
 Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=27, 2-3=27, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
 Horz: 1-6=13, 5-9=19
- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel:  
 Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=27, 2-3=27, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
 Horz: 1-6=-19, 5-9=-13
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel:  
 Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=27, 2-3=27, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
 Horz: 1-6=13, 5-9=19
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel:  
 Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=27, 2-3=27, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
 Horz: 1-6=-19, 5-9=-13
- 14) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel:  
 Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=8, 2-3=8, 5-6=-20, 4-5=-38, 9-10=-10 (F)  
 Horz: 1-6=24, 5-9=8
- 15) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel:  
 Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=8, 2-3=8, 5-6=-20, 4-5=-38, 9-10=-10 (F)  
 Horz: 1-6=-8, 5-9=-24
- 16) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt.  
 metal=0.90  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-20, 2-3=-20, 4-6=-20, 9-10=-10 (F)
- 17) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt.  
 metal=0.90  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-20, 2-3=-20, 5-6=-20, 4-5=-50, 9-10=-10 (F)
- 18) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75  
 (0.6 MWFRS Wind (Neg. Int) Left): Lumber  
 Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-29, 2-3=-29, 5-6=-20, 4-5=-99, 9-10=-10 (F)  
 Horz: 1-6=20, 5-9=7
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75  
 (0.6 MWFRS Wind (Neg. Int) Right): Lumber  
 Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-29, 2-3=-29, 5-6=-20, 4-5=-99, 9-10=-10 (F)  
 Horz: 1-6=-7, 5-9=-20
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75  
 (0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber  
 Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-29, 2-3=-29, 5-6=-20, 4-5=-99, 9-10=-10 (F)  
 Horz: 1-6=18, 5-9=6
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75  
 (0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber  
 Increase=1.60, Plate Increase=1.60  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-29, 2-3=-29, 5-6=-20, 4-5=-99, 9-10=-10 (F)  
 Horz: 1-6=-6, 5-9=-18

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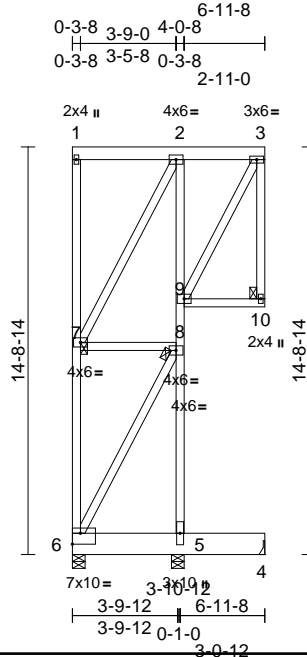
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss A5	Truss Type ROOF TRUSS	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985413
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:18  
ID:4C\_?jOK7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:83.3

Plate Offsets (X, Y): [6:Edge,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP								Weight: 131 lb FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x10 SP DSS  
WEBS 2x4 SP No.2 \*Except\* 7-8,9-10,10-3,9-3:2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins, except end verticals. Except: 6-0-0 oc bracing: 5-8, 8-9  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 1-6  
JOINTS 1 Brace at Jt(s): 8, 10

**REACTIONS** (size) 4= Mechanical, 5=0-5-8, 6=0-5-8  
Max Horiz 6=-393 (LC 8)  
Max Uplift 5=-599 (LC 7), 6=-676 (LC 8)  
Max Grav 4=136 (LC 2), 5=974 (LC 18), 6=587 (LC 7)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 6-7=-147/162, 1-7=-83/73, 1-2=-81/88, 2-3=-22/35, 5-8=-750/753, 8-9=-409/386, 2-9=-336/360  
BOT CHORD 5-6=-93/101, 4-5=0/0  
WEBS 7-8=-393/416, 6-8=-591/659, 2-7=-249/250, 9-10=0/0, 3-10=0/15, 3-9=-73/46

**NOTES**  
1) Wind: ASCE 7-10: Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BC DL=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=1.60  
2) Provide adequate drainage to prevent water ponding.

- 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 User Defined .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 676 lb uplift at joint 6 and 599 lb uplift at joint 5.
- 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) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Attic room checked for L/360 deflection.
- 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-60, 2-3=-60, 5-6=-20, 4-5=-50, 9-10=-10 (F)
  - Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-50, 2-3=-50, 5-6=-20, 4-5=-109, 9-10=-10 (F)
  - Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-2=-20, 2-3=-20, 5-6=-40, 4-5=-70, 9-10=-10 (F)
  - Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60

- Uniform Loads (lb/ft)  
Vert: 1-2=40, 2-3=40, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
Horz: 1-6=-34, 5-9=34
- Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-33, 2-3=-33, 5-6=-20, 4-5=-38, 9-10=-10 (F)  
Horz: 1-6=31, 5-9=-31
  - Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=21, 2-3=21, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
Horz: 1-6=13, 5-9=17
  - Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=21, 2-3=21, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
Horz: 1-6=-17, 5-9=-13
  - Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)



March 4, 2024

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932



Job 2400622-09192	Truss A5	Truss Type ROOF TRUSS	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985413
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:18  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

- Vert: 1-2=3, 2-3=3, 5-6=-20, 4-5=-38, 9-10=-10 (F)  
Horz: 1-6=23, 5-9=8
- 9) Dead + 0.6 MWFRS Wind (Neg. Internal) Right:  
Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=3, 2-3=3, 5-6=-20, 4-5=-38, 9-10=-10 (F)  
Horz: 1-6=8, 5-9=-23
- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel:  
Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=21, 2-3=21, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
Horz: 1-6=11, 5-9=16
- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel:  
Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=21, 2-3=21, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
Horz: 1-6=-16, 5-9=-11
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel:  
Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=21, 2-3=21, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
Horz: 1-6=11, 5-9=16
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel:  
Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=21, 2-3=21, 5-6=-12, 4-5=-30, 9-10=-10 (F)  
Horz: 1-6=-16, 5-9=-11
- 14) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel:  
Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=3, 2-3=3, 5-6=-20, 4-5=-38, 9-10=-10 (F)  
Horz: 1-6=21, 5-9=7
- 15) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel:  
Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=3, 2-3=3, 5-6=-20, 4-5=-38, 9-10=-10 (F)  
Horz: 1-6=-7, 5-9=-21
- 16) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt.  
metal=0.90  
Uniform Loads (lb/ft)  
Vert: 1-2=-20, 2-3=-20, 5-6=-20, 4-5=-50, 9-10=-10 (F)
- 17) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt.  
metal=0.90  
Uniform Loads (lb/ft)  
Vert: 1-2=-20, 2-3=-20, 5-6=-20, 4-5=-50, 9-10=-10 (F)
- 18) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75 (0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-32, 2-3=-32, 5-6=-20, 4-5=-99, 9-10=-10 (F)  
Horz: 1-6=17, 5-9=6
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75 (0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-32, 2-3=-32, 5-6=-20, 4-5=-99, 9-10=-10 (F)  
Horz: 1-6=-6, 5-9=-17
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75 (0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-32, 2-3=-32, 5-6=-20, 4-5=-99, 9-10=-10 (F)  
Horz: 1-6=16, 5-9=5
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75 (0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-32, 2-3=-32, 5-6=-20, 4-5=-99, 9-10=-10 (F)  
Horz: 1-6=-5, 5-9=-16

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

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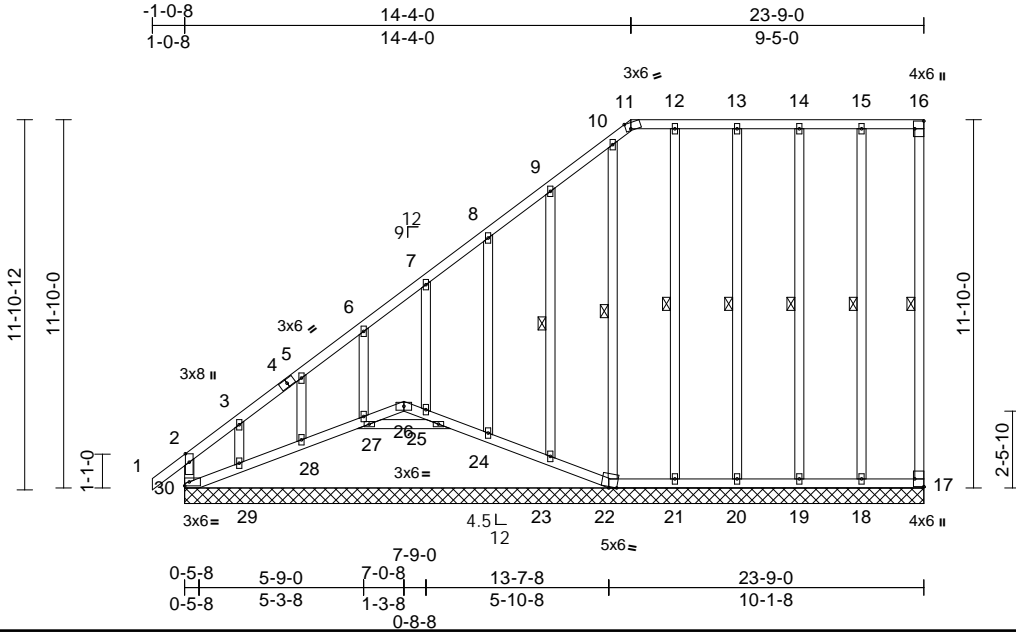
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss B1E	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985414
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:19  
ID:4C\_?jOk7l8eo4Te8?OXgVBybTPY-RfC?PsB7Hq3NSgPqnL8w3uITxBGKWrCdoi7J4zJC7f

Page: 1



Scale = 1:74

Plate Offsets (X, Y): [11:0-1-14,Edge], [16:Edge,0-3-8], [17:Edge,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	-0.01	17	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-R								
											Weight: 224 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
OTHERS 2x4 SP No.2 \*Except\*  
25-7,27-6,28-5,29-3;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 6-0-0 oc bracing.  
WEBS 1 Row at midpt 16-17, 15-18, 14-19, 13-20, 12-21, 10-22, 9-23

**REACTIONS** (size)  
17=23-9-0, 18=23-9-0, 19=23-9-0, 20=23-9-0, 21=23-9-0, 22=23-9-0, 23=23-9-0, 24=23-9-0, 25=23-9-0, 26=23-9-0, 27=23-9-0, 28=23-9-0, 29=23-9-0, 30=23-9-0

Max Horiz 30=451 (LC 7)  
Max Uplift 17=22 (LC 7), 18=50 (LC 6), 19=43 (LC 7), 20=45 (LC 6), 21=56 (LC 7), 22=44 (LC 7), 23=87 (LC 10), 24=70 (LC 10), 25=76 (LC 10), 26=102 (LC 9), 27=89 (LC 10), 28=20 (LC 10), 29=336 (LC 10), 30=249 (LC 8)  
Max Grav 17=61 (LC 22), 18=167 (LC 1), 19=160 (LC 1), 20=159 (LC 22), 21=165 (LC 1), 22=159 (LC 17), 23=174 (LC 17), 24=173 (LC 17), 25=166 (LC 17), 26=90 (LC 6), 27=175 (LC 17), 28=168 (LC 1), 29=299 (LC 8), 30=520 (LC 7)

**FORCES** (lb) - Maximum Compression/Maximum Tension

**TOP CHORD**  
2-30=-361/169, 1-2=0/43, 2-3=-480/303, 3-5=-346/223, 5-6=-322/207, 6-7=-281/179, 7-8=-264/170, 8-9=-243/164, 9-10=-230/196, 10-11=-171/179, 11-12=-171/188, 12-13=-171/188, 13-14=-171/188, 14-15=-171/188, 15-16=-171/188, 16-17=-148/158  
**BOT CHORD**  
29-30=-204/175, 28-29=-193/211, 27-28=-188/203, 26-27=-188/202, 25-26=-187/200, 24-25=-189/204, 23-24=-189/205, 22-23=-188/205, 21-22=-170/188, 20-21=-170/188, 19-20=-170/188, 18-19=-170/188, 17-18=-170/188  
**WEBS**  
15-18=-125/141, 14-19=-121/76, 13-20=-121/64, 12-21=-120/81, 10-22=-137/100, 9-23=-154/112, 8-24=-132/95, 7-25=-134/96, 6-27=-138/103, 5-28=-126/74, 3-29=-211/231

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=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=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bracing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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 User Defined .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 249 lb uplift at joint 30, 22 lb uplift at joint 17, 102 lb uplift at joint 26, 50 lb uplift at joint 18, 43 lb uplift at joint 19, 45 lb uplift at joint 20, 56 lb uplift at joint 21, 44 lb uplift at joint 22, 87 lb uplift at joint 23, 70 lb uplift at joint 24, 76 lb uplift at joint 25, 89 lb uplift at joint 27, 20 lb uplift at joint 28 and 336 lb uplift at joint 29.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 26, 23, 24, 25, 27, 28, 29.
- 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



March 4, 2024

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

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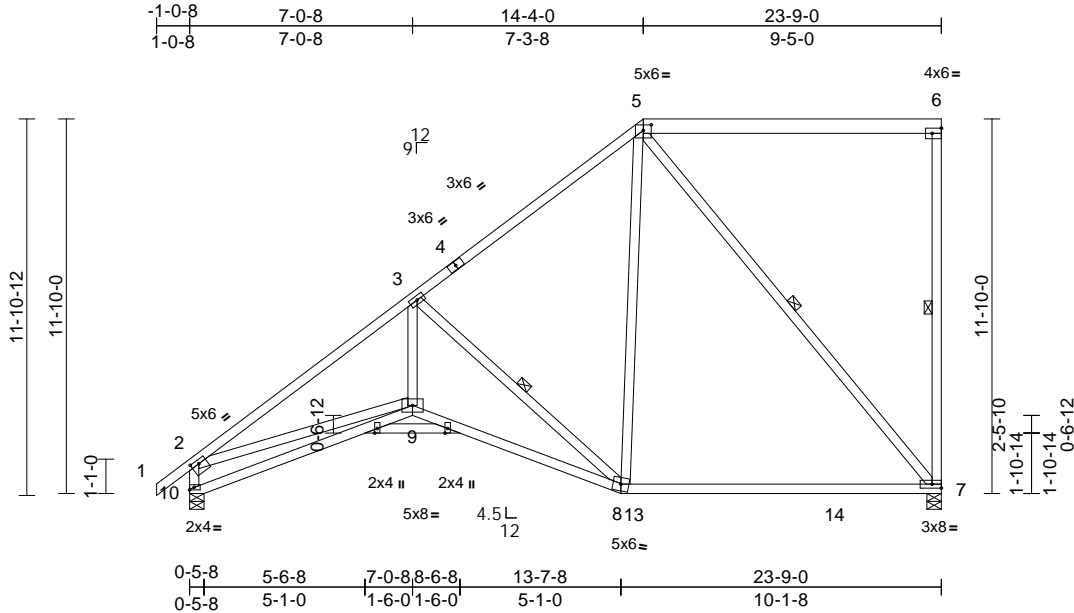
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss B2	Truss Type PIGGYBACK BASE	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985415
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:19  
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Page: 1



Scale = 1:72.8

Plate Offsets (X, Y): [2:0-3-0,0-1-8], [5:0-3-0,0-2-2], [6:Edge,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.48	7-8	>589	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.78	7-8	>360	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 176 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* 5-6:2x6 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 8-7:2x4 SP DSS  
 WEBS 2x4 SP No.2 \*Except\* 6-7:2x4 SP DSS, 9-3,10-2:2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 8-1-3 oc bracing.  
 WEBS 1 Row at midpt 6-7, 3-8, 5-7

**REACTIONS**

(size) 7=0-5-8, 10=0-5-8  
 Max Horiz 10=447 (LC 7)  
 Max Uplift 7=-207 (LC 7), 10=-110 (LC 10)  
 Max Grav 7=958 (LC 2), 10=1011 (LC 1)

**FORCES**

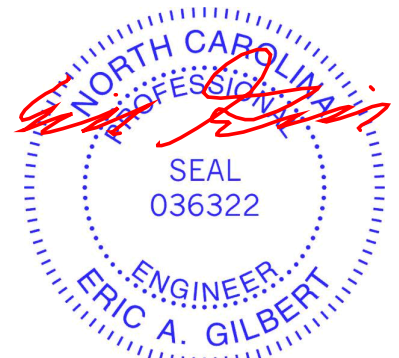
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/43, 2-3=-1840/292, 3-5=-768/271, 5-6=-186/194, 6-7=-275/142, 2-10=-1051/284  
 BOT CHORD 9-10=-501/503, 8-9=-521/1682, 7-8=-209/548  
 WEBS 3-9=-278/1122, 3-8=-1321/434, 5-8=-81/618, 5-7=-787/194, 2-9=-18/1149

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be User Defined.
- 7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 207 lb uplift at joint 7 and 110 lb uplift at joint 10.
- 9) 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



March 4, 2024

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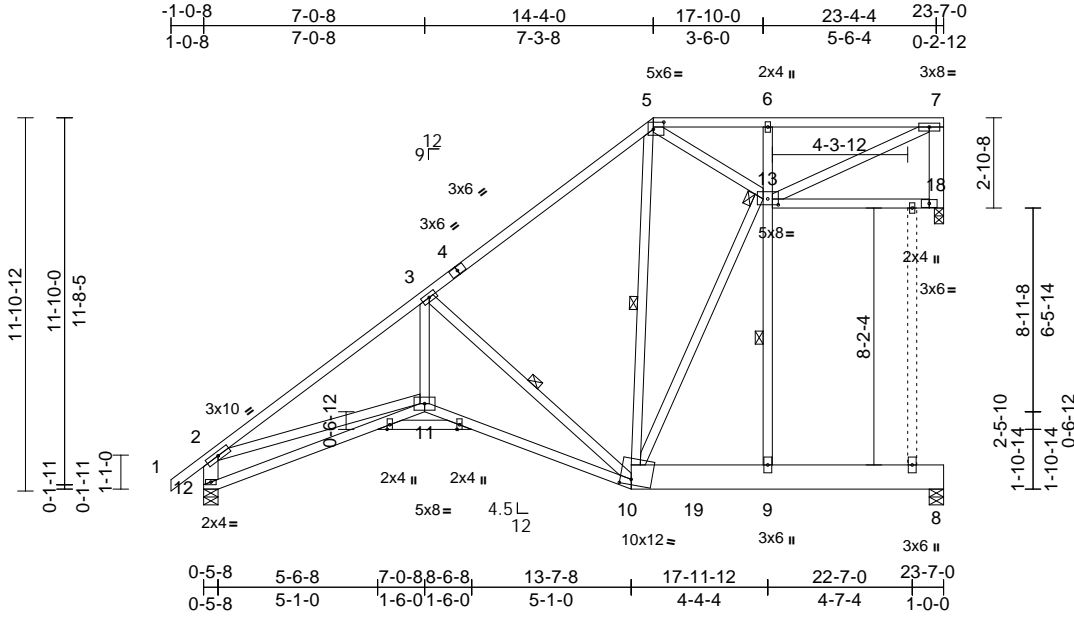
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss B4	Truss Type ROOF TRUSS	Qty 6	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985416
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:20  
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Page: 1



Scale = 1:73.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.10	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.24	10-11	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.13	18	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 224 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 10-8:2x10 SP DSS  
WEBS 2x4 SP No.2 \*Except\* 11-3,13-5,13-7:2x4 SP No.3, 12-2,7-18:2x6 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-8-0 oc purlins, except end verticals. Except: 6-0-0 oc bracing: 9-13  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 9-13, 3-10, 5-10  
JOINTS 1 Brace at Jt(s): 13

**REACTIONS**  
(size) 8=0-5-8, 12=0-5-8, 18=0-3-8  
Max Horiz 12=450 (LC 7)  
Max Uplift 12=94 (LC 10), 18=118 (LC 7)  
Max Grav 8=425 (LC 2), 12=1028 (LC 1), 18=902 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/46, 2-3=-1847/246, 3-5=-780/250, 5-6=-1651/204, 6-7=-1683/227, 9-13=-125/168, 6-13=-258/156, 2-12=-1066/267, 7-18=-876/146  
BOT CHORD 11-12=-498/500, 10-11=-474/1691, 9-10=-133/143, 8-9=0/0  
WEBS 3-11=-242/1122, 3-10=-1327/412, 5-10=-623/243, 5-13=-226/1315, 2-11=0/1163, 13-18=-38/36, 7-13=-189/1810, 10-13=-299/1368

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 1-0-8 to 23-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) All bearings are assumed to be User Defined.
- 6) Bearing at joint(s) 12, 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 12 and 118 lb uplift at joint 18.
- 8) 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.
- 9) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 10) Attic room checked for L/360 deflection.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-60, 2-5=-60, 5-6=-60, 6-7=-60, 11-12=-20, 10-11=-20, 9-10=-20, 8-9=-50, 13-18=-10 (F)

- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-50, 2-5=-50, 5-6=-50, 6-7=-50, 11-12=-20, 10-11=-20, 10-19=-20, 9-19=-50, 8-9=-109, 13-18=-10 (F)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-2=-20, 2-5=-20, 5-6=-20, 6-7=-20, 11-12=-41, 10-11=-41, 9-10=-40, 8-9=-70, 13-18=-10 (F)
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=44, 2-5=24, 5-6=28, 6-7=28, 11-12=-12, 10-11=-12, 9-10=-12, 8-9=-30, 13-18=-10 (F)  
Horz: 1-2=-56, 2-5=-36, 9-13=34, 2-12=-34, 7-18=34
- 5) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=5, 2-5=-50, 5-6=-32, 6-7=-32, 11-12=-20, 10-11=-20, 9-10=-20, 8-9=-38, 13-18=-10 (F)



March 4, 2024

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	Colston 3 car Bonus Full Frnt Prch RCP	163985416
2400622-09192	B4	ROOF TRUSS	6	1	Job Reference (optional)	

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

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:20  
ID:4C\_?jOK718eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITxBGKwRCDoi7J4zJCf

Page: 2

- 6) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-2, 2-5=-15, 5-6=27, 6-7=27, 11-12=-12, 10-11=-12, 9-10=-12, 8-9=-30, 13-18=-10 (F)  
Horz: 1-2=-10, 2-5=3, 9-13=20, 2-12=16, 7-18=20
- 7) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=4, 2-5=10, 5-6=27, 6-7=27, 11-12=-12, 10-11=-12, 9-10=-12, 8-9=-30, 13-18=-10 (F)  
Horz: 1-2=-16, 2-5=-22, 9-13=-16, 2-12=-20, 7-18=-16
- 8) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-28, 2-5=-34, 5-6=8, 6-7=8, 11-12=-20, 10-11=-20, 9-10=-20, 8-9=-38, 13-18=-10 (F)  
Horz: 1-2=8, 2-5=14, 9-13=9, 2-12=27, 7-18=9
- 9) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-4, 2-5=-9, 5-6=8, 6-7=8, 11-12=-20, 10-11=-20, 9-10=-20, 8-9=-38, 13-18=-10 (F)  
Horz: 1-2=-16, 2-5=-11, 9-13=-27, 2-12=-9, 7-18=-27
- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=21, 2-5=27, 5-6=10, 6-7=10, 11-12=-12, 10-11=-12, 9-10=-12, 8-9=-30, 13-18=-10 (F)  
Horz: 1-2=-33, 2-5=-39, 9-13=19, 2-12=13, 7-18=19
- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=4, 2-5=10, 5-6=10, 6-7=10, 11-12=-12, 10-11=-12, 9-10=-12, 8-9=-30, 13-18=-10 (F)  
Horz: 1-2=-16, 2-5=-22, 9-13=-13, 2-12=-19, 7-18=-13
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=21, 2-5=27, 5-6=10, 6-7=10, 11-12=-12, 10-11=-12, 9-10=-12, 8-9=-30, 13-18=-10 (F)  
Horz: 1-2=-33, 2-5=-39, 9-13=19, 2-12=13, 7-18=19
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=4, 2-5=10, 5-6=10, 6-7=10, 11-12=-12, 10-11=-12, 9-10=-12, 8-9=-30, 13-18=-10 (F)  
Horz: 1-2=-16, 2-5=-22, 9-13=-13, 2-12=-19, 7-18=-13
- 14) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=13, 2-5=8, 5-6=-9, 6-7=-9, 11-12=-20, 10-11=-20, 9-10=-20, 8-9=-38, 13-18=-10 (F)  
Horz: 1-2=-33, 2-5=-28, 9-13=8, 2-12=24, 7-18=8
- 15) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-4, 2-5=-9, 5-6=-9, 6-7=-9, 11-12=-20, 10-11=-20, 9-10=-20, 8-9=-38, 13-18=-10 (F)  
Horz: 1-2=-16, 2-5=-11, 9-13=-24, 2-12=-8, 7-18=-24
- 16) Dead + Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-2=-20, 2-5=-20, 5-6=-20, 6-7=-20, 11-12=-20, 10-11=-20, 10-19=-20, 9-19=-60, 8-9=-50, 13-18=-10 (F)
- 17) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-2=-20, 2-5=-20, 5-6=-20, 6-7=-20, 11-12=-20, 10-11=-20, 10-19=-20, 9-19=-60, 8-9=-50, 13-18=-10 (F)
- 18) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-56, 2-5=-60, 5-6=-29, 6-7=-29, 11-12=-20, 10-11=-20, 10-19=-20, 9-19=-50, 8-9=-99, 13-18=-10 (F)  
Horz: 1-2=6, 2-5=10, 9-13=7, 2-12=20, 7-18=7
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-38, 2-5=-42, 5-6=-29, 6-7=-29, 11-12=-20, 10-11=-20, 10-19=-20, 9-19=-50, 8-9=-99, 13-18=-10 (F)  
Horz: 1-2=-12, 2-5=-8, 9-13=-20, 2-12=-7, 7-18=-20
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-25, 2-5=-29, 5-6=-42, 6-7=-42, 11-12=-20, 10-11=-20, 10-19=-20, 9-19=-50, 8-9=-99, 13-18=-10 (F)  
Horz: 1-2=-25, 2-5=-21, 9-13=6, 2-12=18, 7-18=6
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (lb/ft)  
Vert: 1-2=-38, 2-5=-42, 5-6=-42, 6-7=-42, 11-12=-20, 10-11=-20, 10-19=-20, 9-19=-50, 8-9=-99, 13-18=-10 (F)  
Horz: 1-2=-12, 2-5=-8, 9-13=-18, 2-12=-6, 7-18=-18

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

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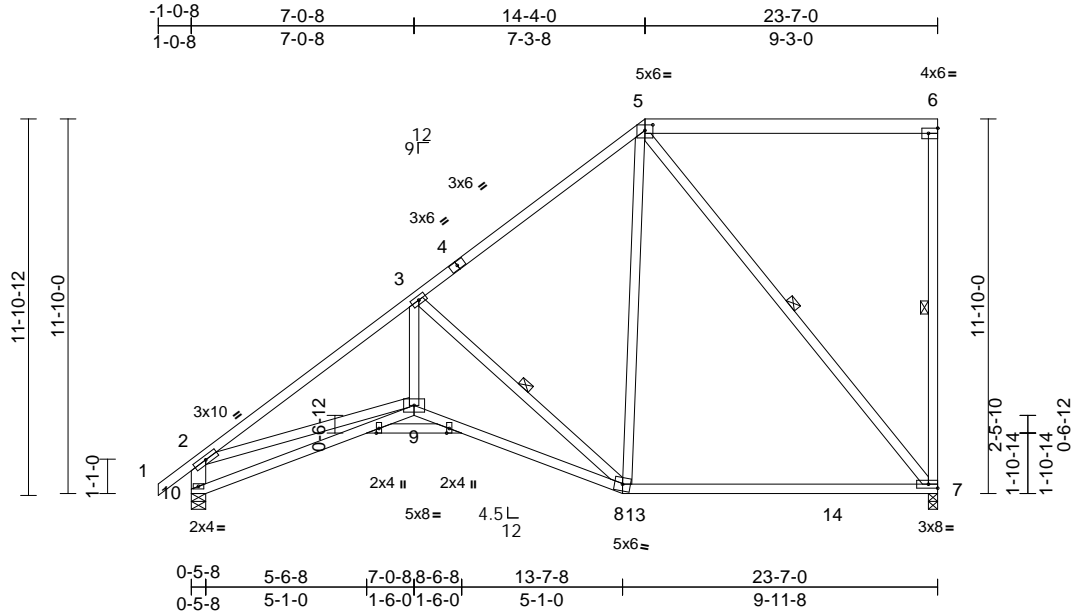
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss B5	Truss Type PIGGYBACK BASE	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985417
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:20  
ID:4C\_?jOk718eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:72.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.45	7-8	>621	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.73	7-8	>380	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.09	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 176 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 5-6:2x6 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 8-7:2x4 SP DSS  
WEBS 2x4 SP No.2 \*Except\* 6-7:2x4 SP DSS, 9-3:2x4 SP No.3, 10-2:2x6 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-10-6 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 8-1-12 oc bracing.  
WEBS 1 Row at midpt 6-7, 3-8, 5-7

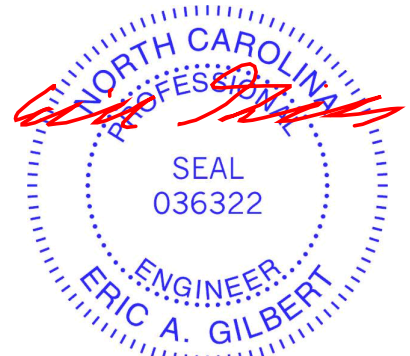
**REACTIONS**  
(size) 7=0-3-8, 10=0-5-8  
Max Horiz 10=447 (LC 7)  
Max Uplift 7=-206 (LC 7), 10=-111 (LC 10)  
Max Grav 7=947 (LC 2), 10=1007 (LC 1)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/46, 2-3=-1801/287, 3-5=-754/268, 5-6=-185/194, 6-7=-270/140, 2-10=-1048/286  
BOT CHORD 9-10=-502/507, 8-9=-516/1648, 7-8=-207/537  
WEBS 3-9=-276/1096, 3-8=-1294/428, 5-8=-80/606, 5-7=-779/193, 2-9=-12/1112

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be User Defined .
- 7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 206 lb uplift at joint 7 and 111 lb uplift at joint 10.
- 9) 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



March 4, 2024

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

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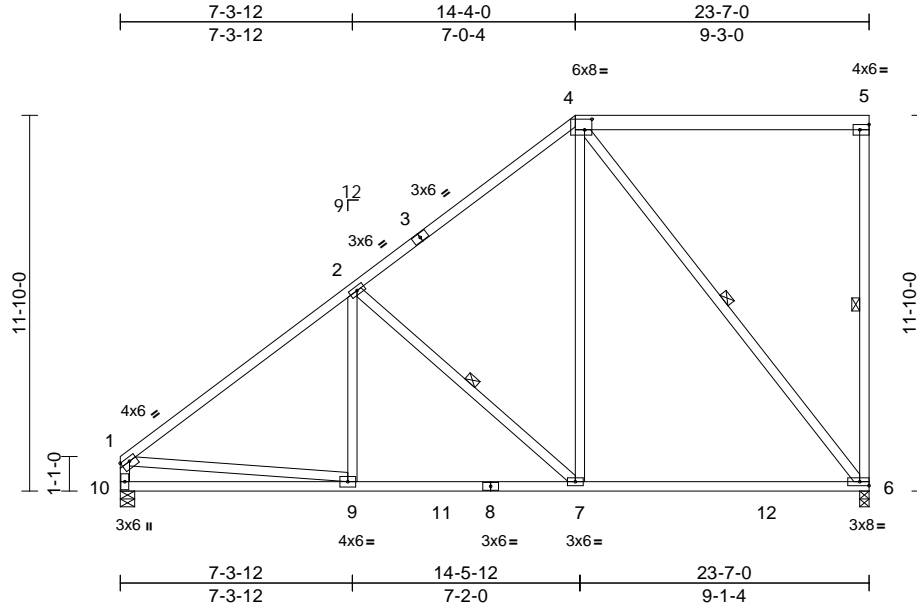
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss B6	Truss Type Piggyback Base	Qty 2	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985418
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:20  
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Page: 1



Scale = 1:72.6

Plate Offsets (X, Y): [1:Edge,0-1-8], [4:0-2-12,0-4-0], [5:Edge,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.30	6-7	>939	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.49	6-7	>574	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 171 lb FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* 4-5:2x6 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 5-6:2x4 SP DSS

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-3-12 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 8-10-12 oc bracing.  
 WEBS 1 Row at midpt 5-6, 2-7, 4-6

**REACTIONS**

(size) 6=0-3-8, 10=0-5-8  
 Max Horiz 10=430 (LC 7)  
 Max Uplift 6=-204 (LC 7), 10=-86 (LC 10)  
 Max Grav 6=977 (LC 2), 10=932 (LC 1)

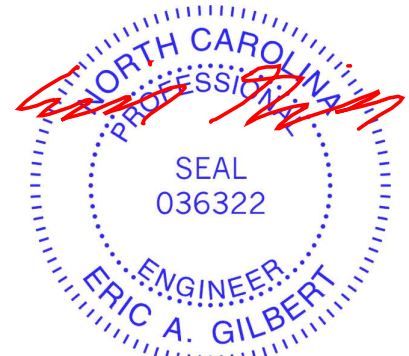
**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-1115/205, 2-4=-769/263, 4-5=-185/197, 5-6=-271/142, 1-10=-863/178  
 BOT CHORD 9-10=-426/416, 7-9=-267/974, 6-7=-196/582  
 WEBS 2-9=0/227, 2-7=-531/257, 4-7=-75/689, 1-9=0/669, 4-6=-857/176

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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=1.60
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.

- All bearings are assumed to be User Defined .
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 204 lb uplift at joint 6 and 86 lb uplift at joint 10.
  - 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



March 4, 2024

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

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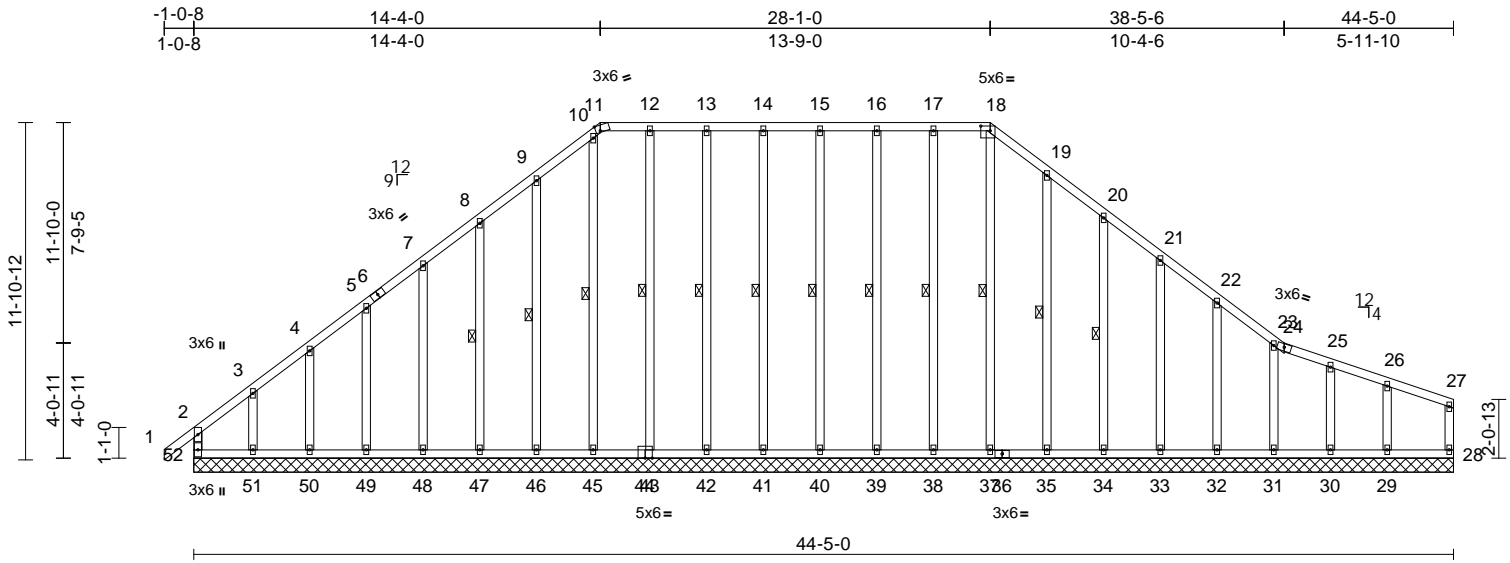
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss C1E	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985419
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:21  
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Page: 1



Scale = 1:81.2

Plate Offsets (X, Y): [11:0-1-14,Edge], [18:0-4-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	28	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR								
											Weight: 392 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.2 \*Except\*  
49-5,50-4,51-3,32-22,31-23,30-25,29-26:2x4 SP No.3

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

**WEBS** 1 Row at midpt 18-37, 17-38, 16-39, 15-40, 14-41, 13-42, 12-43, 10-45, 9-46, 8-47, 19-35, 20-34

**REACTIONS (size)**  
28=44-5-0, 29=44-5-0, 30=44-5-0, 31=44-5-0, 32=44-5-0, 33=44-5-0, 34=44-5-0, 35=44-5-0, 37=44-5-0, 38=44-5-0, 39=44-5-0, 40=44-5-0, 41=44-5-0, 42=44-5-0, 43=44-5-0, 45=44-5-0, 46=44-5-0, 47=44-5-0, 48=44-5-0, 49=44-5-0, 50=44-5-0, 51=44-5-0, 52=44-5-0  
Max Horiz 52=310 (LC 8)  
Max Uplift 28=43 (LC 7), 29=102 (LC 11), 30=54 (LC 7), 31=72 (LC 11), 32=73 (LC 11), 33=72 (LC 11), 34=77 (LC 11), 35=69 (LC 11), 38=31 (LC 7), 39=32 (LC 6), 40=29 (LC 7), 41=29 (LC 7), 42=36 (LC 6), 43=22 (LC 7), 46=86 (LC 10), 47=73 (LC 10), 48=71 (LC 10), 49=80 (LC 10), 50=43 (LC 10), 51=197 (LC 10), 52=263 (LC 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-52=-223/216, 1-2=0/43, 2-3=-241/323, 3-4=-182/264, 4-5=-171/270, 5-7=-152/262, 7-8=-209/300, 8-9=-265/354, 9-10=-331/431, 10-11=-246/314, 11-12=-278/368, 12-13=-278/368, 13-14=-278/368, 14-15=-278/368, 15-16=-278/368, 16-17=-278/368, 17-18=-278/368, 18-19=-332/431, 19-20=-275/366, 20-21=-216/294, 21-22=-160/226, 22-23=-102/159, 23-24=-29/80, 24-25=-47/83, 25-26=-41/55, 26-27=-65/38, 27-28=-62/42  
BOT CHORD 51-52=-53/70, 50-51=-53/70, 49-50=-53/70, 48-49=-53/70, 47-48=-53/70, 46-47=-53/70, 45-46=-53/70, 43-45=-53/70, 42-43=-53/70, 41-42=-53/70, 40-41=-53/70, 39-40=-53/70, 38-39=-53/70, 37-38=-53/70, 35-37=-53/70, 34-35=-53/70, 33-34=-53/70, 32-33=-53/70, 31-32=-53/70, 30-31=-53/70, 29-30=-53/70, 28-29=-53/70

**WEBS** 18-37=-188/102, 17-38=-128/55, 16-39=-119/61, 15-40=-120/54, 14-41=-120/54, 13-42=-120/68, 12-43=-122/46, 10-45=-184/84, 9-46=-150/110, 8-47=-134/96, 7-48=-135/96, 5-49=-136/100, 4-50=-127/89, 3-51=-186/162, 19-35=-140/93, 20-34=-138/101, 21-33=-134/96, 22-32=-138/98, 23-31=-131/117, 25-30=-116/72, 26-29=-138/101

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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=1.60



March 4, 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.**

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818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Colston 3 car Bonus Full Frnt Prch RCP	I63985419
2400622-09192	C1E	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:21  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) All bearings are assumed to be SP No.2 .
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 263 lb uplift at joint 52, 43 lb uplift at joint 28, 31 lb uplift at joint 38, 32 lb uplift at joint 39, 29 lb uplift at joint 40, 29 lb uplift at joint 41, 36 lb uplift at joint 42, 22 lb uplift at joint 43, 86 lb uplift at joint 46, 73 lb uplift at joint 47, 71 lb uplift at joint 48, 80 lb uplift at joint 49, 43 lb uplift at joint 50, 197 lb uplift at joint 51, 69 lb uplift at joint 35, 77 lb uplift at joint 34, 72 lb uplift at joint 33, 73 lb uplift at joint 32, 72 lb uplift at joint 31, 54 lb uplift at joint 30 and 102 lb uplift at joint 29.
- 13) 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

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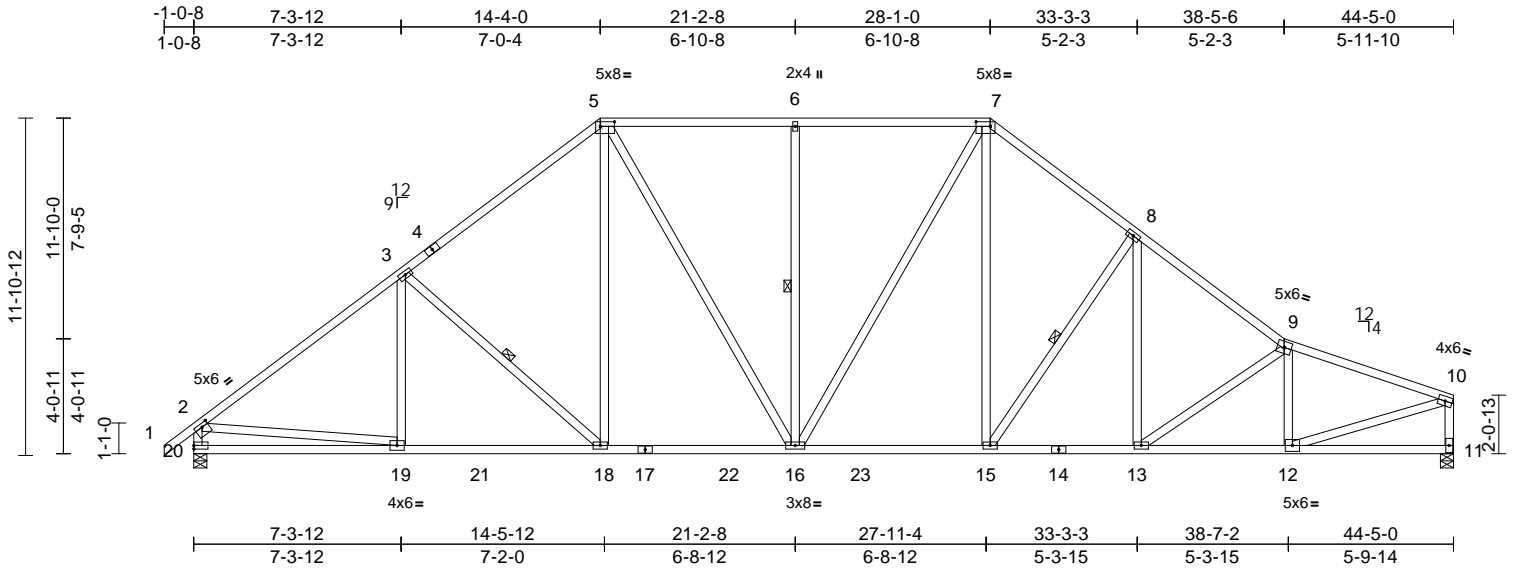
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss C2	Truss Type Piggyback Base	Qty 5	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985420
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:21  
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Page: 1



Scale = 1:81.2

Plate Offsets (X, Y): [2:0-2-12,0-1-8], [5:0-6-0,0-2-0], [7:0-6-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.17	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.33	15-16	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.10	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 316 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 20-2,11-10:2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 9-8-5 oc bracing.  
 WEBS 1 Row at midpt 3-18, 6-16, 8-15

**REACTIONS**

(size) 11=0-5-8, 20=0-5-8  
 Max Horiz 20=-310 (LC 8)  
 Max Uplift 11=-152 (LC 11), 20=-154 (LC 10)  
 Max Grav 11=1764 (LC 1), 20=1837 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/43, 2-3=-2352/437, 3-5=-2052/508, 5-6=-1782/519, 6-7=-1782/519, 7-8=-2137/550, 8-9=-2550/536, 9-10=-2562/492, 2-20=-1768/390, 10-11=-1704/356  
 BOT CHORD 19-20=-305/522, 18-19=-203/1866, 16-18=-101/1551, 15-16=-69/1647, 13-15=-213/1988, 12-13=-367/2410, 11-12=-37/86  
 WEBS 3-19=-30/169, 3-18=-465/249, 5-18=-82/553, 5-16=-198/555, 6-16=-475/219, 7-16=-179/401, 7-15=-134/792, 8-15=-671/253, 8-13=-53/463, 9-13=-570/190, 9-12=-638/191, 2-19=-78/1547, 10-12=-378/2423

**NOTES**

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

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 3x6 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SP No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 154 lb uplift at joint 20 and 152 lb uplift at joint 11.
- 9) 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



March 4, 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/TP1 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.sbccomponents.com)



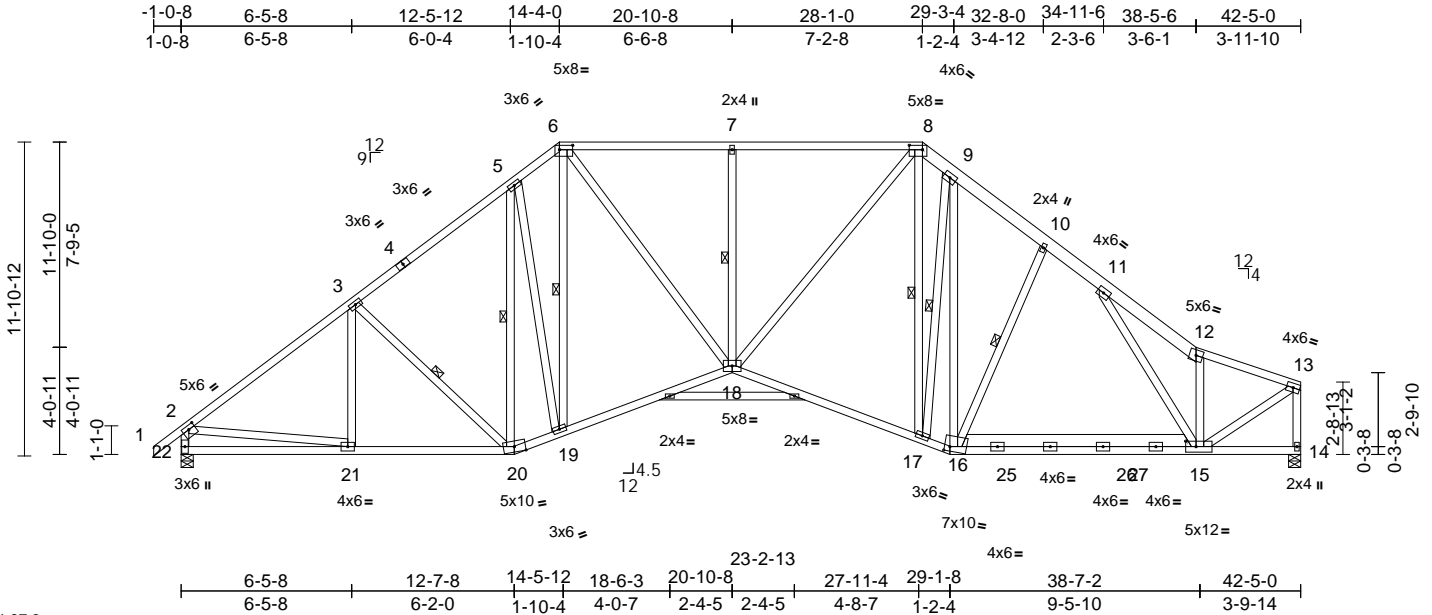
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss C3	Truss Type Piggyback Base	Qty 4	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985421
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:22  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITxBGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:87.3

Plate Offsets (X, Y): [2:0-3-0,0-1-12], [6:0-6-0,0-2-0], [8:0-6-0,0-2-0], [15:0-4-12,0-2-8], [16:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.12	18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.29	17-18	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.12	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 381 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 8-12:2x6 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 16-15:2x6 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
3-21,15-12,22-2,14-13,15-13:2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-9-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 3-20, 5-20, 6-19, 7-18, 8-17, 9-17, 10-16

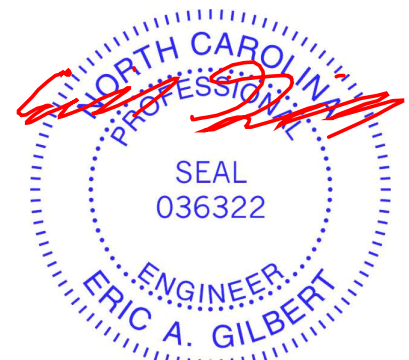
**REACTIONS** (size) 14=0-5-8, 22=0-5-8  
Max Horiz 22=306 (LC 8)  
Max Uplift 22=112 (LC 10)  
Max Grav 14=1844 (LC 1), 22=1798 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/43, 2-3=-2239/351, 3-5=-2004/420, 5-6=-1968/500, 6-7=-2230/424, 7-8=-2230/424, 8-9=-1944/407, 9-10=-2108/386, 10-11=-2102/310, 11-12=-2219/295, 12-13=-1824/148, 2-22=-1736/329, 13-14=-1810/139, 21-22=-293/458, 20-21=-157/1701, 19-20=-108/1626, 18-19=-111/1640, 17-18=0/1670, 16-17=0/1608, 15-16=-44/1741, 14-15=-32/26  
BOT CHORD 21-22=-293/458, 20-21=-157/1701, 19-20=-108/1626, 18-19=-111/1640, 17-18=0/1670, 16-17=0/1608, 15-16=-44/1741, 14-15=-32/26  
WEBS 3-21=-68/125, 3-20=-353/204, 5-20=-360/20, 5-19=-193/300, 6-19=-253/325, 6-18=-38/1170, 7-18=-467/216, 8-18=-219/1068, 8-17=-104/376, 9-17=-512/103, 9-16=-72/551, 10-16=-450/248, 11-15=-89/130, 12-15=-942/247, 2-21=-47/1476, 13-15=-68/2015

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=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=1.60
- 3) 200.0lb AC unit load placed on the bottom chord, 33-9-8 from left end, supported at two points, 5-0-0 apart.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 4x6 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BC DL = 10.0psf.
- 8) All bearings are assumed to be SP No.2.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 22.
- 10) 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



March 4, 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/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)



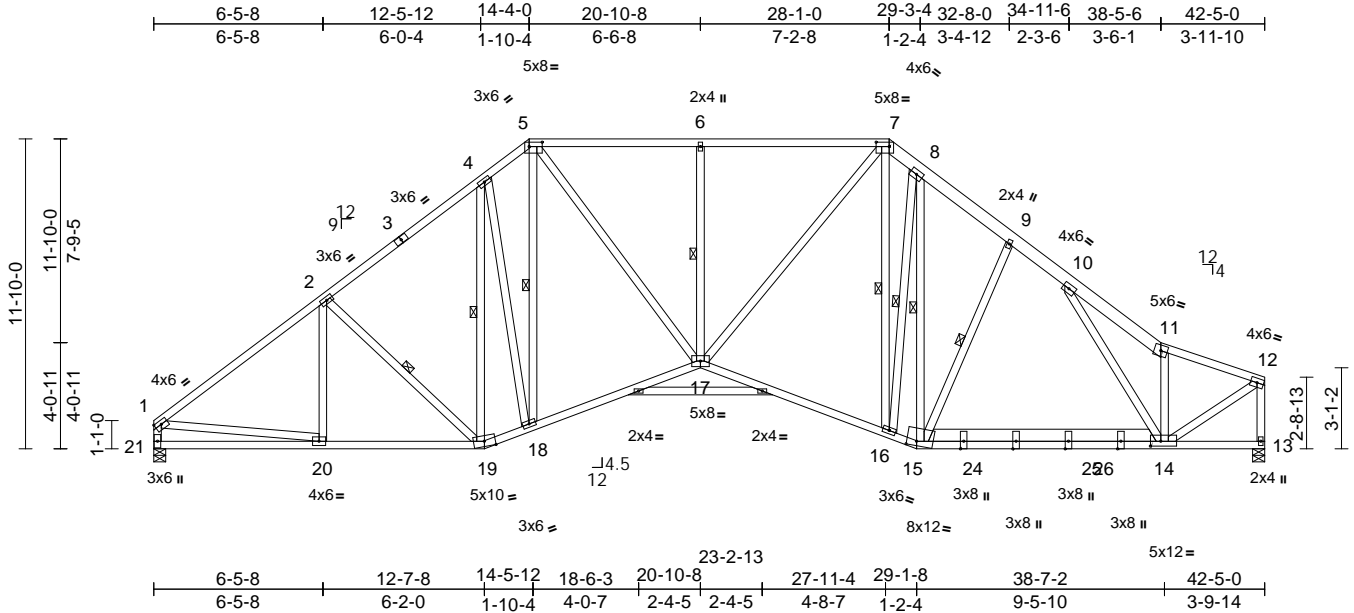
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss C4	Truss Type Piggyback Base	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985422
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:22  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3ulTxBGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:88

Plate Offsets (X, Y): [1:0-3-0,0-1-12], [5:0-6-0,0-2-0], [7:0-6-0,0-2-0], [14:0-4-12,0-2-4], [15:0-4-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.12	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.30	16-17	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.12	13	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 379 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 7-11:2x6 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
2-20,14-11,21-1,13-12,14-12:2x4 SP No.3,  
15-14:2x6 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or  
2-9-1 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.  
WEBS 1 Row at midpt 2-19, 4-19, 5-18, 6-17,  
7-16, 8-16, 8-15, 9-15

**REACTIONS** (size) 13=0-5-8, 21=0-5-8  
Max Horiz 21=298 (LC 8)  
Max Uplift 21=87 (LC 10)  
Max Grav 13=1845 (LC 1), 21=1725 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-2=-2242/349, 2-4=-2010/422,  
4-5=-1968/499, 5-6=-2233/425,  
6-7=-2233/425, 7-8=-1954/408,  
8-9=-2055/383, 9-10=-2053/314,  
10-11=-2225/293, 11-12=-1825/146,  
1-21=-1663/277, 12-13=-1811/137  
BOT CHORD 20-21=-265/407, 19-20=-160/1711,  
18-19=-107/1628, 17-18=-111/1643,  
16-17=0/1670, 15-16=0/1655,  
14-15=-42/1707, 13-14=-32/26  
WEBS 2-20=-76/121, 2-19=-360/209, 4-19=-357/19,  
4-18=-189/297, 5-18=-250/320,  
5-17=-38/1171, 6-17=-468/216,  
7-17=-220/1072, 7-16=-104/382,  
8-16=-272/119, 8-15=-139/276,  
9-15=-465/243, 10-14=-42/175,  
11-14=-950/246, 1-20=-105/1535,  
12-14=-67/2017

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCCL=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=1.60
- 200.0lb AC unit load placed on the bottom chord, 33-9-8 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- 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, with BCCL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 21.
- 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



March 4, 2024

**NOTES**

**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)



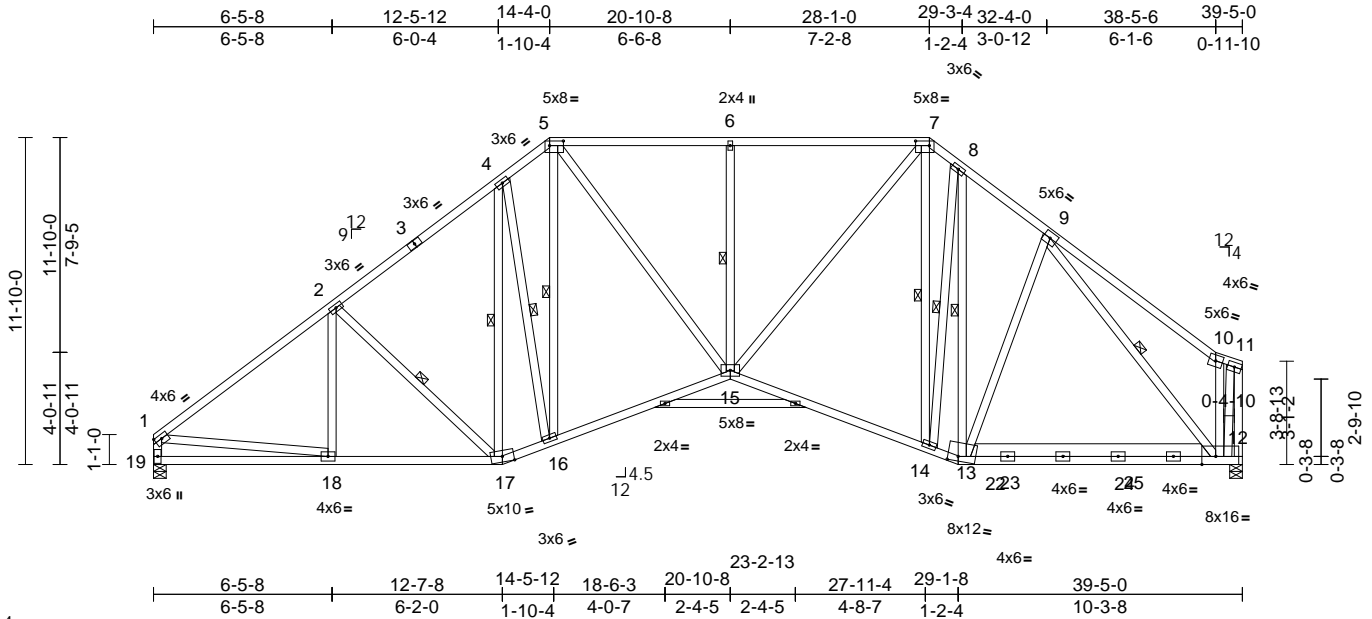
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss C5	Truss Type Piggyback Base	Qty 3	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985423
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:23  
ID:4C\_?jOK7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCdoi7J4zJC7f

Page: 1



Scale = 1:83.4  
Plate Offsets (X, Y): [1:0-3-0,0-1-12], [5:0-6-0,0-2-0], [7:0-6-0,0-2-0], [12:0-6-0,Edge], [13:0-4-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.11	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.26	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.10	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 364 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 13-12:2x6 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
2-18,19-1,12-11,12-10:2x4 SP No.3

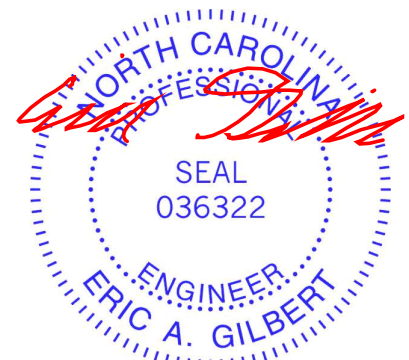
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-0-5 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 2-17, 4-17, 4-16, 5-16, 6-15, 7-14, 8-14, 8-13, 9-12

**REACTIONS** (size) 12=0-5-8, 19=0-5-8  
Max Horiz 19=314 (LC 7)  
Max Uplift 19=93 (LC 10)  
Max Grav 12=1733 (LC 1), 19=1597 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-2062/329, 2-4=-1814/400, 4-5=-1757/477, 5-6=-1926/398, 6-7=-1926/398, 7-8=-1505/357, 8-9=-1614/338, 9-10=-323/248, 10-11=-88/18, 1-19=-1536/263, 11-12=-103/69  
BOT CHORD 18-19=-315/397, 17-18=-214/1567, 16-17=-172/1462, 15-16=-180/1467, 14-15=-20/1327, 13-14=0/1235, 12-13=-3/1185  
WEBS 2-18=-56/137, 2-17=-373/208, 4-17=-292/43, 4-16=-237/292, 5-16=-245/367, 5-15=-31/953, 6-15=-473/218, 7-15=-246/1092, 7-14=-301/330, 8-14=-276/137, 8-13=-115/254, 1-18=-90/1394, 9-12=-1645/11, 10-12=-408/290, 9-13=-77/269

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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=1.60
- 200.0lb AC unit load placed on the bottom chord, 33-0-0 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 19.
- 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



March 4, 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/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)

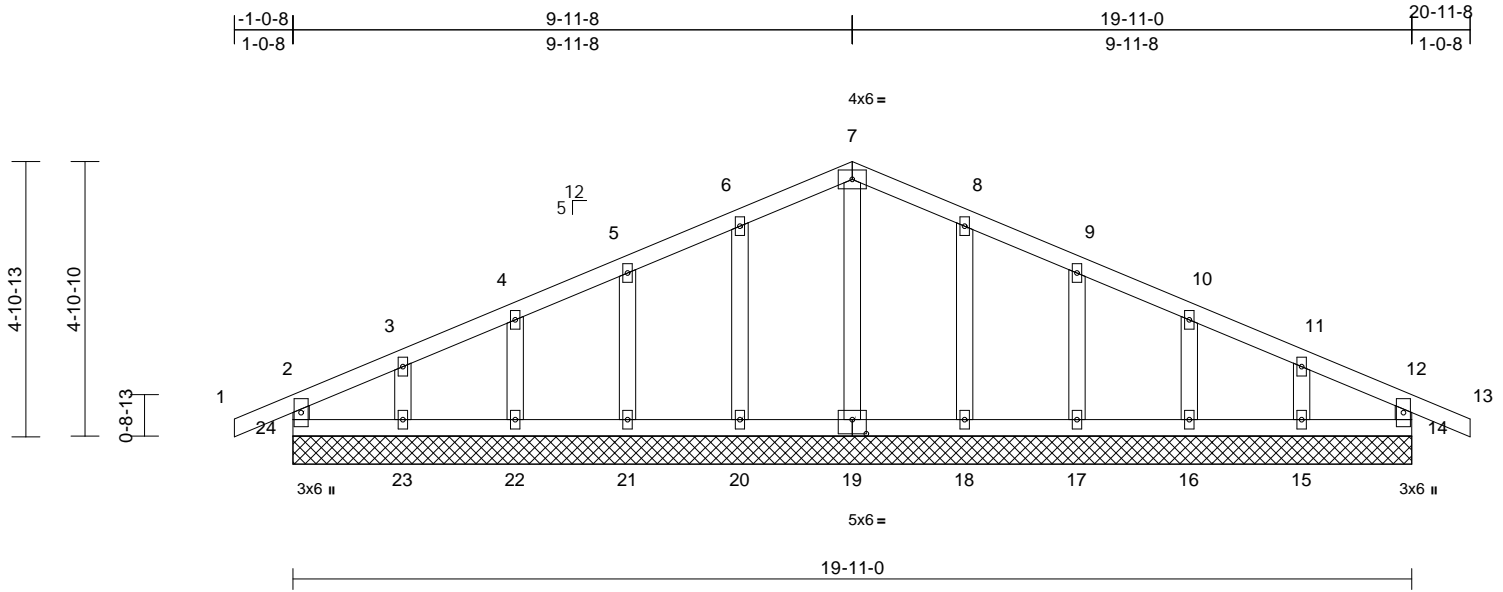
**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss G1E	Truss Type Common Supported Gable	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985424
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:23  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:41

Plate Offsets (X, Y): [19:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 99 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 14-12:2x4 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 6-0-0 oc bracing.

**REACTIONS** (size)  
14=19-11-0, 15=19-11-0,  
16=19-11-0, 17=19-11-0,  
18=19-11-0, 19=19-11-0,  
20=19-11-0, 21=19-11-0,  
22=19-11-0, 23=19-11-0,  
24=19-11-0  
Max Horiz 24=61 (LC 11)  
Max Uplift 14=36 (LC 7), 15=54 (LC 11),  
16=40 (LC 11), 17=44 (LC 11),  
18=45 (LC 11), 20=45 (LC 10),  
21=44 (LC 10), 22=39 (LC 10),  
23=60 (LC 10), 24=35 (LC 6)  
Max Grav 14=152 (LC 22), 15=139 (LC 1),  
16=166 (LC 22), 17=157 (LC 1),  
18=170 (LC 22), 19=156 (LC 1),  
20=170 (LC 21), 21=157 (LC 1),  
22=166 (LC 21), 23=139 (LC 1),  
24=153 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-24=-134/96, 1-2=0/27, 2-3=-58/49,  
3-4=-33/59, 4-5=-39/78, 5-6=-52/109,  
6-7=-67/148, 7-8=-67/148, 8-9=-52/109,  
9-10=-39/70, 10-11=-26/47, 11-12=-40/36,  
12-13=0/27, 12-14=-134/97  
BOT CHORD 23-24=-11/75, 22-23=-11/75, 21-22=-11/75,  
20-21=-11/75, 18-20=-11/75, 17-18=-11/75,  
16-17=-11/75, 15-16=-11/75, 14-15=-11/75

**WEBS** 7-19=-116/0, 6-20=-130/77, 5-21=-117/76,  
4-22=-125/79, 3-23=-101/74, 8-18=-130/77,  
9-17=-117/76, 10-16=-125/79, 11-15=-101/71

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 24, 36 lb uplift at joint 14, 45 lb uplift at joint 20, 44 lb uplift at joint 21, 39 lb uplift at joint 22, 60 lb uplift at joint 23, 45 lb uplift at joint 18, 44 lb uplift at joint 17, 40 lb uplift at joint 16 and 54 lb uplift at joint 15.
- 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



March 4, 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/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)



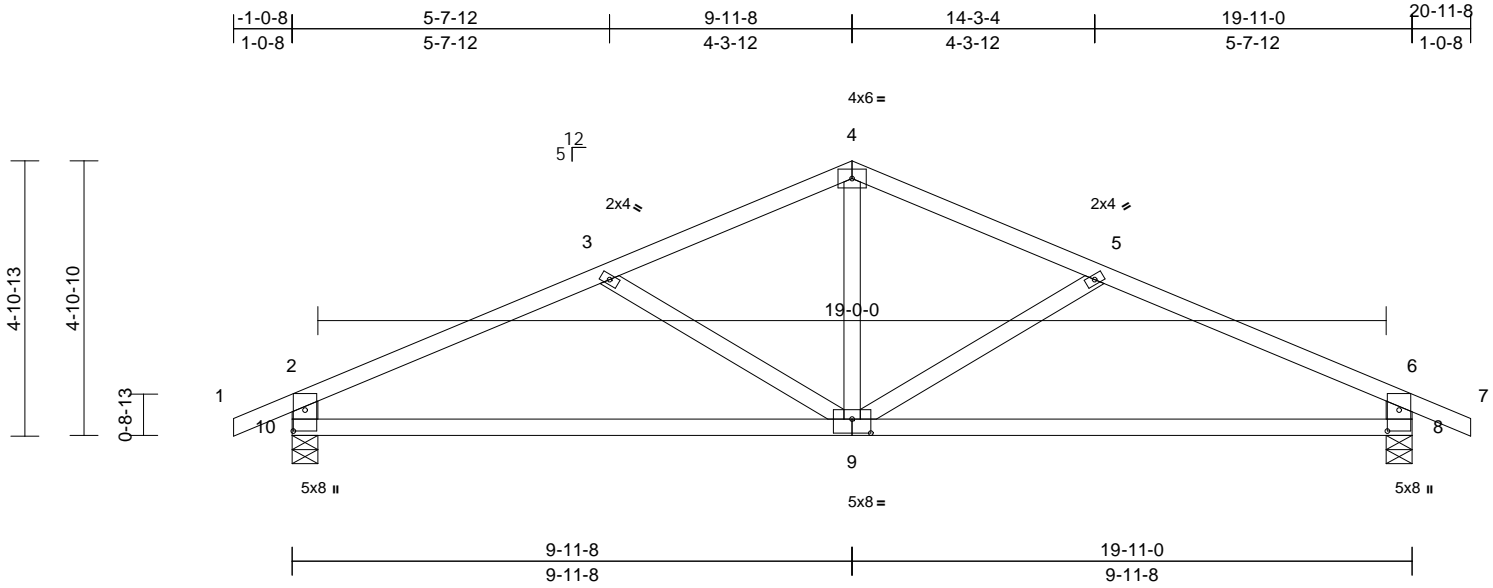
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss G2	Truss Type Common	Qty 5	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985425
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:24  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:41

Plate Offsets (X, Y): [3:0-0-0,0-0-0], [8:0-4-8,0-2-8], [9:0-4-0,0-3-0], [10:0-4-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.18	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.37	8-9	>632	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 88 lb	FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.3 \*Except\* 10-2,8-6:2x6 SP No.2

**BRACING**

- TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

- (size) 8=0-5-8, 10=0-5-8
- Max Horiz 10=60 (LC 11)
- Max Uplift 8=-121 (LC 11), 10=-121 (LC 10)
- Max Grav 8=855 (LC 1), 10=855 (LC 1)

**FORCES**

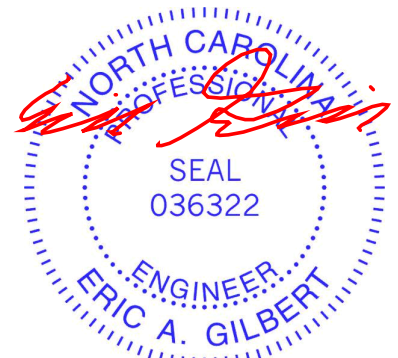
- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/29, 2-3=-1229/338, 3-4=-968/250, 4-5=-968/250, 5-6=-1229/338, 6-7=0/29, 2-10=-753/299, 6-8=-753/299
- BOT CHORD 8-10=-191/1049
- WEBS 4-9=-49/468, 5-9=-257/184, 3-9=-257/184

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60
- 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 10 and 121 lb uplift at joint 8.
- 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



March 4, 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/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)



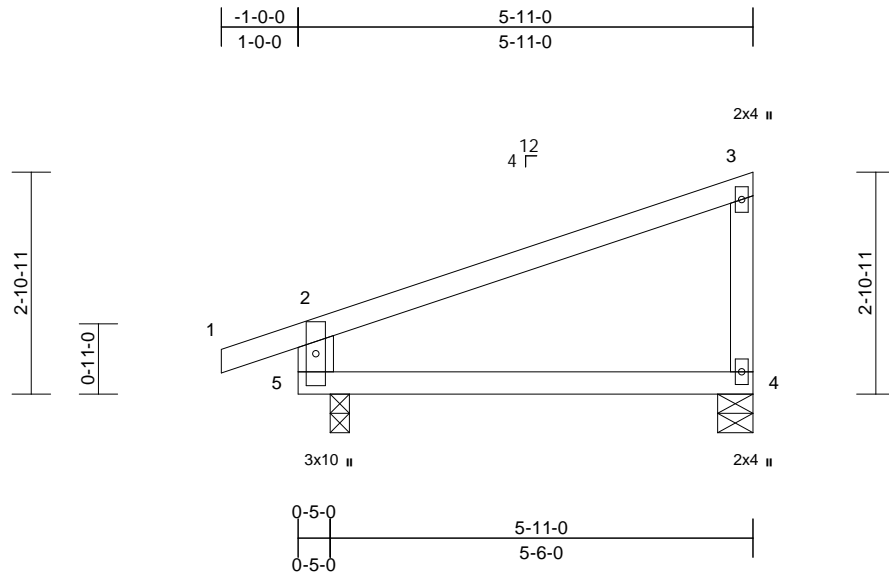
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss M1	Truss Type Monopitch	Qty 5	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985426
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:24  
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Page: 1



Scale = 1:30

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.03	4-5	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.07	4-5	>961	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							
										Weight: 24 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 5-2:2x6 SP No.2

**LOAD CASE(S)** Standard

**BRACING**

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

**REACTIONS** (size) 4=0-5-8, 5=0-3-0  
Max Horiz 5=111 (LC 9)  
Max Uplift 4=-48 (LC 10), 5=-84 (LC 6)  
Max Grav 4=213 (LC 1), 5=304 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-3=-119/42, 3-4=-145/115,  
2-5=-261/203  
BOT CHORD 4-5=-31/53

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; 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=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SP No.2 .
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 4 and 84 lb uplift at joint 5.
- 6) 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.



March 4, 2024

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

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818 Soundside Road  
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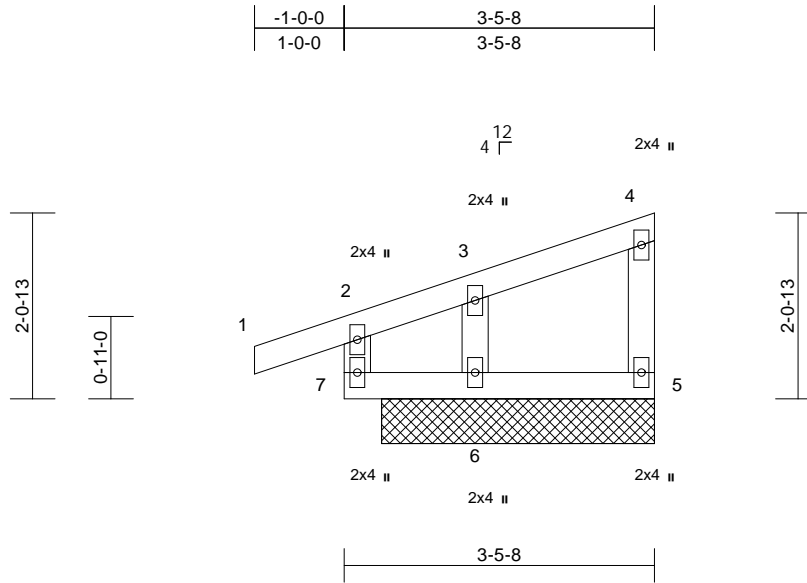


Job 2400622-09192	Truss M1E	Truss Type Jack-Partial Supported Gable	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985427
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:24  
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 16 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 3-5-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 5=3-0-8, 6=3-0-8  
Max Horiz 6=77 (LC 7)  
Max Uplift 5=-39 (LC 18), 6=-118 (LC 6)  
Max Grav 5=26 (LC 6), 6=355 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

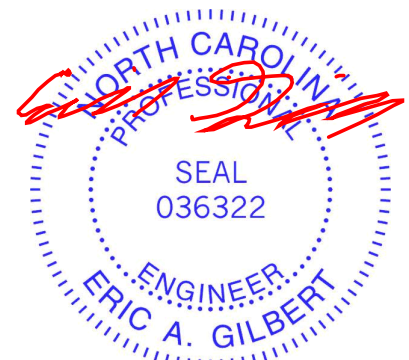
TOP CHORD 2-7=-50/51, 1-2=0/22, 2-3=-45/65,  
3-4=-29/37, 4-5=-14/24  
BOT CHORD 6-7=-36/96, 5-6=-49/50  
WEBS 3-6=-200/147

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TC DL=6.0psf; BC DL=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=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SP No.2.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 5 and 118 lb uplift at joint 6.
- 9) N/A
- 10) 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



March 4, 2024

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

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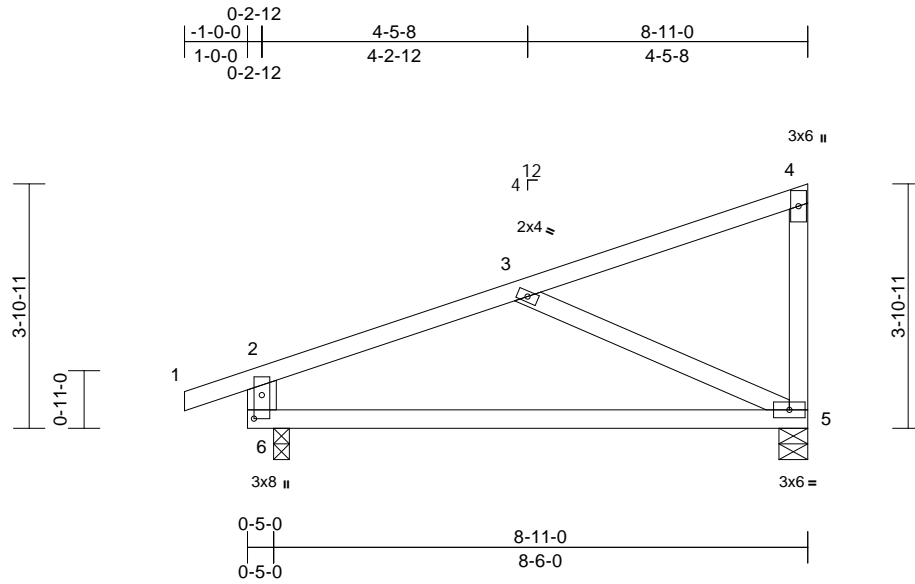
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss M2	Truss Type Monopitch	Qty 2	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985428
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:24  
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Page: 1



Scale = 1:36.7

Plate Offsets (X, Y): [6:0-4-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.25	5-6	>416	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.52	5-6	>195	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 42 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 2-6:2x6 SP No.2

6) 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

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 8-1-8 oc bracing.

**REACTIONS**

(size) 5=0-5-8, 6=0-3-0  
 Max Horiz 6=147 (LC 9)  
 Max Uplift 5=-75 (LC 10), 6=-101 (LC 6)  
 Max Grav 5=336 (LC 1), 6=421 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-3=-74/88, 3-4=-83/57,  
 4-5=-266/133  
 BOT CHORD 5-6=-147/0  
 WEBS 3-5=0/136, 2-6=-333/222

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
 Vasd=103mph; 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=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SP No.2.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 6 and 75 lb uplift at joint 5.



March 4, 2024

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

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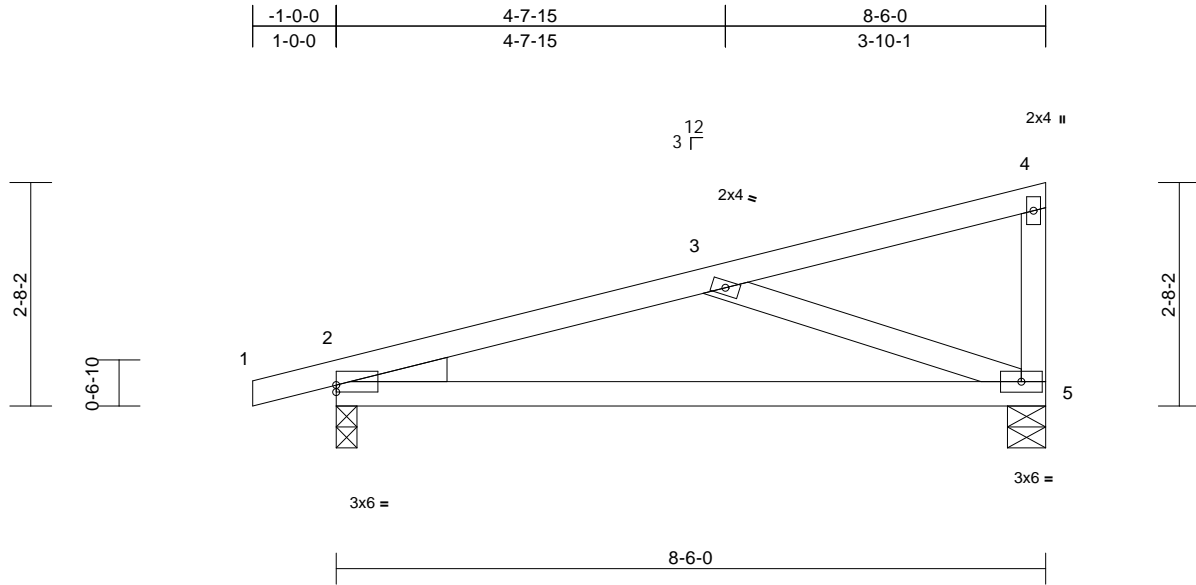
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss M3	Truss Type Monopitch	Qty 5	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985429
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:24  
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Page: 1



Scale = 1:27.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.16	5-8	>630	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.32	5-8	>316	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 38 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3

6) 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

**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=0-3-0, 5=0-5-8  
 Max Horiz 2=97 (LC 9)  
 Max Uplift 2=-97 (LC 6), 5=-66 (LC 10)  
 Max Grav 2=398 (LC 1), 5=331 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-3=-543/261, 3-4=-59/26, 4-5=-89/65  
 BOT CHORD 2-5=-235/509  
 WEBS 3-5=-539/293

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SP No.2.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 2 and 66 lb uplift at joint 5.



March 4, 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/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)



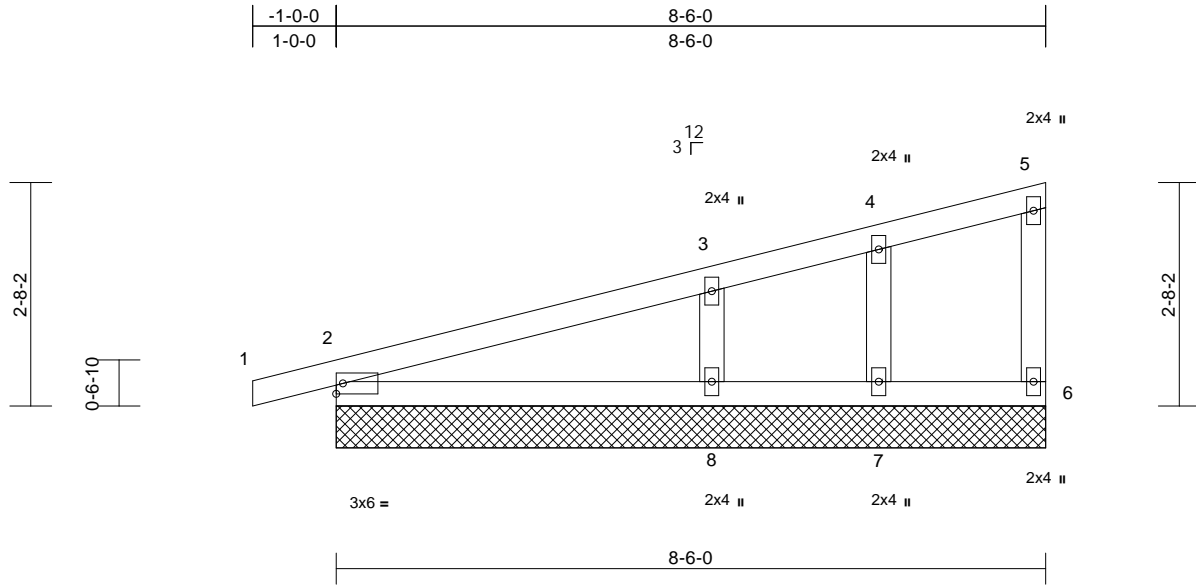
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss M3E	Truss Type Monopitch Supported Gable	Qty 2	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985430
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:25  
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Page: 1



Scale = 1:27.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 34 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" oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS**

- (size) 2=8-6-0, 6=8-6-0, 7=8-6-0, 8=8-6-0, 9=8-6-0
- Max Horiz 2=97 (LC 9), 9=97 (LC 9)
- Max Uplift 2=-58 (LC 6), 6=-11 (LC 10), 7=-17 (LC 6), 8=-82 (LC 10), 9=-58 (LC 6)
- Max Grav 2=215 (LC 1), 6=74 (LC 1), 7=85 (LC 1), 8=355 (LC 1), 9=215 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

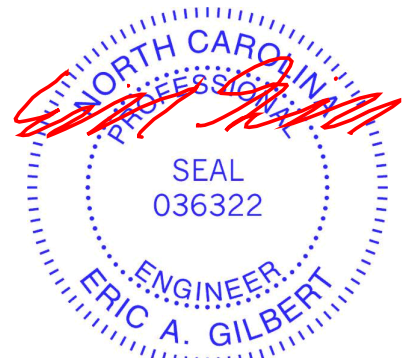
- TOP CHORD 1-2=0/15, 2-3=-123/90, 3-4=-51/16, 4-5=-41/36, 5-6=-53/27
- BOT CHORD 2-8=-94/44, 7-8=-40/44, 6-7=-40/44
- WEBS 4-7=-74/59, 3-8=-247/168

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2'-0" oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SP No.2.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 2, 11 lb uplift at joint 6, 17 lb uplift at joint 7, 82 lb uplift at joint 8 and 58 lb uplift at joint 2.
- 9) 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



March 4, 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/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)



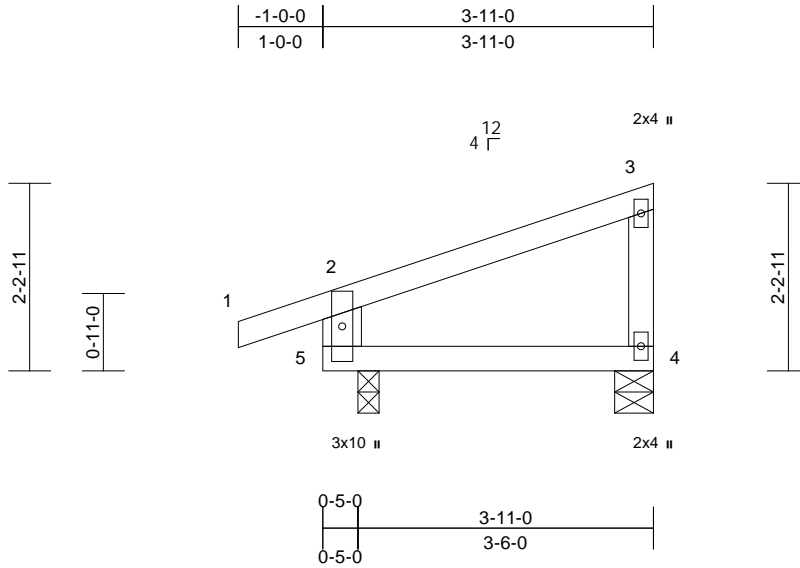
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss M4	Truss Type Monopitch	Qty 6	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985431
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:25  
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Page: 1



Scale = 1:27.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 17 lb	FT = 20%

**LUMBER** **LOAD CASE(S)** Standard

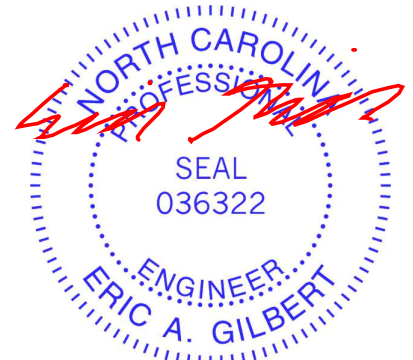
TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 5-2:2x6 SP No.2

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 3-11-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 4=0-5-8, 5=0-3-0  
 Max Horiz 5=83 (LC 7)  
 Max Uplift 4=-30 (LC 10), 5=-75 (LC 6)  
 Max Grav 4=129 (LC 1), 5=228 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/23, 2-3=-72/29, 3-4=-89/73,  
 2-5=-197/159  
 BOT CHORD 4-5=-24/24

- NOTES**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=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=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 4) All bearings are assumed to be SP No.2 .
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 4 and 75 lb uplift at joint 5.
  - 6) 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.



March 4, 2024

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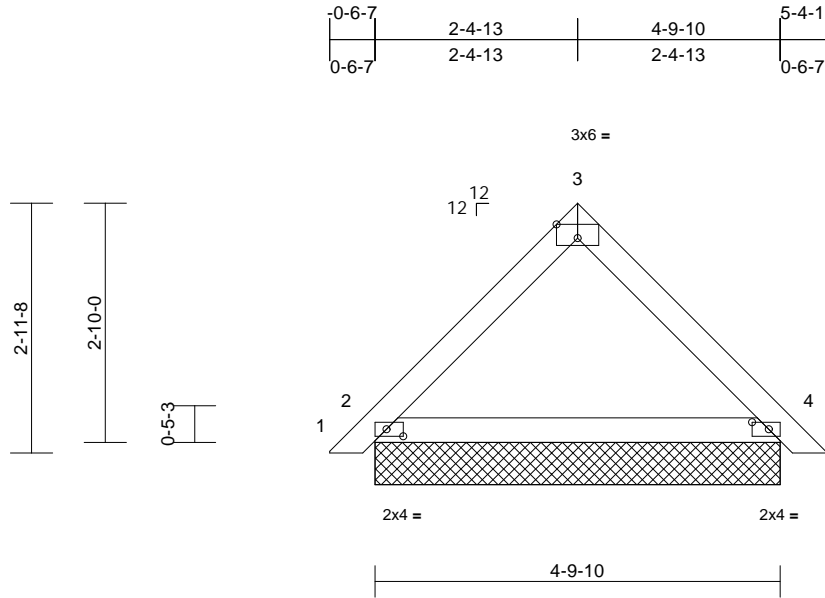
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss PB1	Truss Type Piggyback	Qty 10	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985432
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:25  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:27.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 20 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 5-11-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 2=4-9-10, 4=4-9-10  
Max Horiz 2=-68 (LC 8)  
Max Uplift 2=-22 (LC 10), 4=-22 (LC 11)  
Max Grav 2=213 (LC 1), 4=213 (LC 1)

**FORCES**

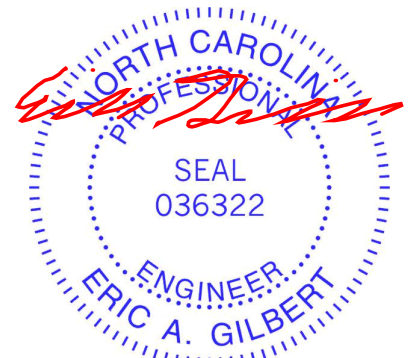
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/12, 2-3=-141/58, 3-4=-141/58, 4-5=0/12  
BOT CHORD 2-4=-13/83

- 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) All bearings are assumed to be User Defined .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 4 and 22 lb uplift at joint 2.
- 10) 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.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



March 4, 2024

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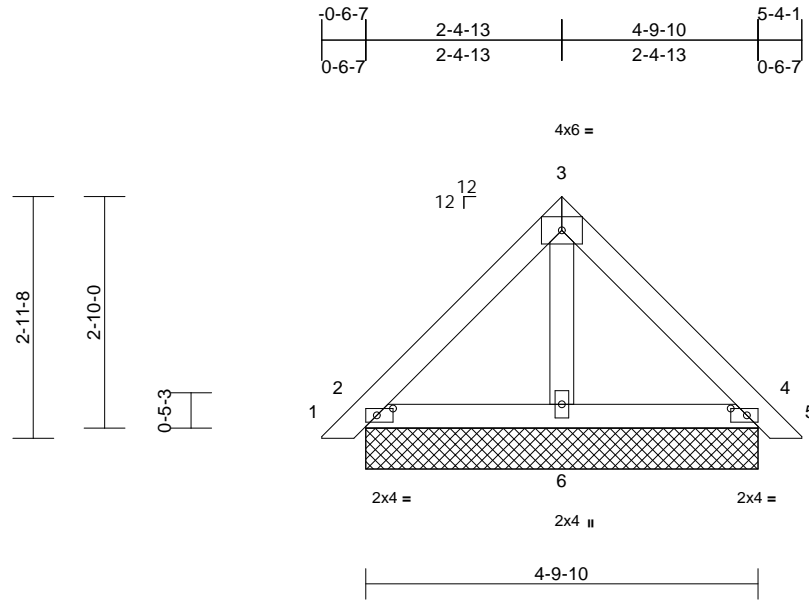
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss PB1E	Truss Type Piggyback	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985433
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:25  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:28.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-11-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 2=4-9-10, 4=4-9-10, 6=4-9-10  
Max Horiz 2=-68 (LC 8)  
Max Uplift 2=-32 (LC 11), 4=-37 (LC 11)  
Max Grav 2=138 (LC 1), 4=138 (LC 1), 6=150 (LC 3)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-3=-89/49, 3-4=-79/43, 4-5=0/12  
BOT CHORD 2-6=-20/49, 4-6=-20/49  
WEBS 3-6=-89/22

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=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=1.60
- 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.
- 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 User Defined .
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 2 and 37 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



March 4, 2024

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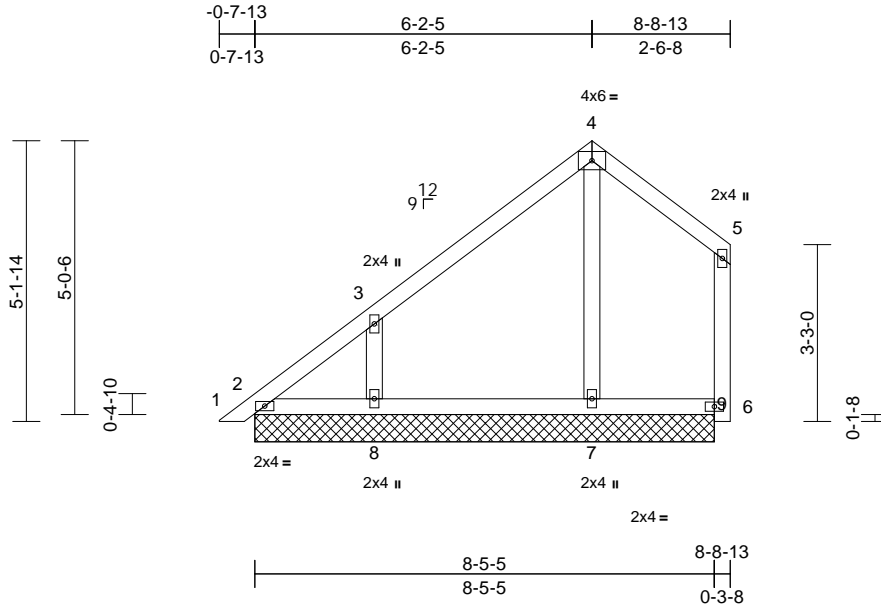
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss PB2	Truss Type Piggyback	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985434
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:25  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 44 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

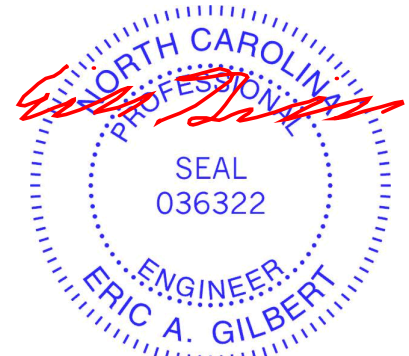
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)	
	2=8-5-5, 6=8-5-5, 7=8-5-5, 8=8-5-5, 9=8-5-5
Max Horiz	2=166 (LC 9)
Max Uplift	2=-49 (LC 6), 6=-40 (LC 6), 7=-14 (LC 7), 8=-159 (LC 10)
Max Grav	2=111 (LC 18), 6=115 (LC 18), 7=264 (LC 17), 8=346 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/13, 2-3=-159/142, 3-4=-143/105, 4-5=-109/119, 6-9=0/0, 5-6=-121/101
BOT CHORD	2-8=-60/65, 7-8=-60/65, 6-7=-60/65
WEBS	4-7=-190/58, 3-8=-293/208

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 4-0-0 oc.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 8) All bearings are assumed to be User Defined .
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 2, 40 lb uplift at joint 6, 14 lb uplift at joint 7 and 159 lb uplift at joint 8.
  - 10) 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.
  - 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- LOAD CASE(S)** Standard



March 4, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
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818 Soundside Road  
Edenton, NC 27932

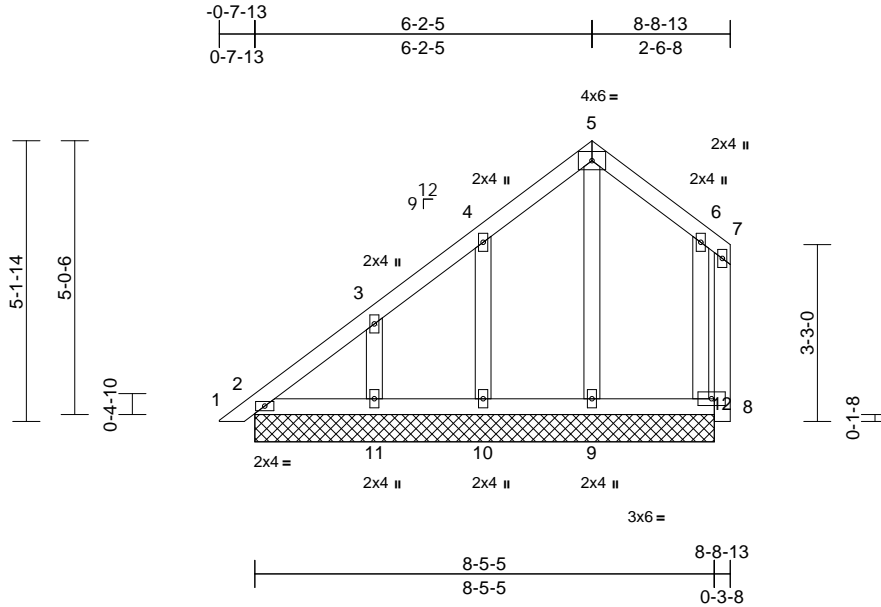


Job 2400622-09192	Truss PB2E	Truss Type Piggyback	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985435
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:26  
ID:4C\_?jOk7l8eo4Te8?OXgvBybTPY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCd0i7J4zJC?f

Page: 1



Scale = 1:42.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 53 lb	FT = 20%

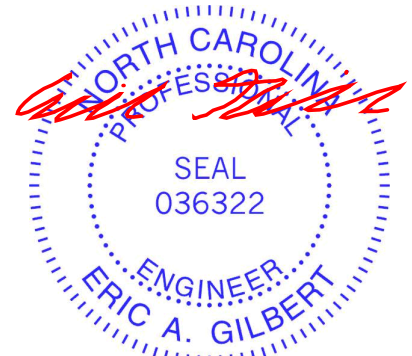
LUMBER	
TOP CHORD	2x4 SP No.2 *Except* 5-7:2x4 SP No.3
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (size)	
	2=8-5-5, 8=8-5-5, 9=8-5-5, 10=8-5-5, 11=8-5-5, 12=8-5-5
Max Horiz	2=166 (LC 9)
Max Uplift	2=-41 (LC 6), 8=-55 (LC 11), 9=-18 (LC 7), 10=-82 (LC 10), 11=-86 (LC 10)
Max Grav	2=147 (LC 18), 8=153 (LC 18), 9=157 (LC 17), 10=177 (LC 17), 11=203 (LC 17)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/13, 2-3=-156/125, 3-4=-134/106, 4-5=-145/146, 5-6=-142/143, 6-7=-47/63, 8-12=0/0, 7-8=-30/30
BOT CHORD	2-11=-48/53, 10-11=-48/53, 9-10=-48/53, 8-9=-48/53
WEBS	5-9=-118/69, 4-10=-148/107, 3-11=-168/118, 6-8=-142/98

- 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 2x4 MT20 unless otherwise indicated.
- 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 User Defined .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 2, 55 lb uplift at joint 8, 18 lb uplift at joint 9, 82 lb uplift at joint 10 and 86 lb uplift at joint 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60



March 4, 2024

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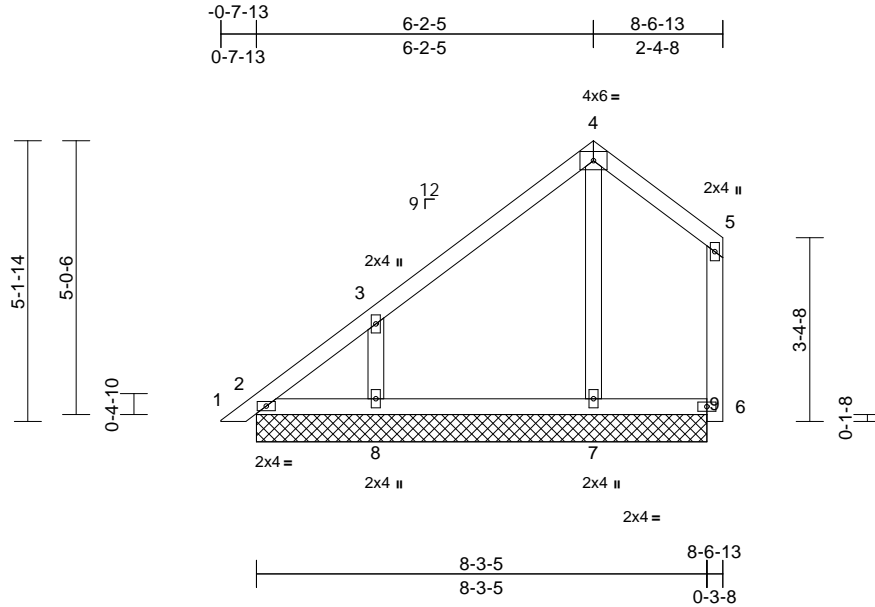
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss PB3	Truss Type Piggyback	Qty 9	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985436
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:26  
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Page: 1



Scale = 1:42.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 43 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=8-3-5, 6=8-3-5, 7=8-3-5, 8=8-3-5, 9=8-3-5
Max Horiz	2=167 (LC 9)
Max Uplift	2=-48 (LC 6), 6=-41 (LC 6), 7=-17 (LC 7), 8=-159 (LC 10)
Max Grav	2=111 (LC 18), 6=109 (LC 18), 7=258 (LC 17), 8=346 (LC 17)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/13, 2-3=-160/141, 3-4=-143/102, 4-5=-109/119, 6-9=0/0, 5-6=-117/99
BOT CHORD	2-8=-62/67, 7-8=-62/67, 6-7=-62/67
WEBS	4-7=-186/61, 3-8=-294/209

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be User Defined .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 2, 41 lb uplift at joint 6, 17 lb uplift at joint 7 and 159 lb uplift at joint 8.
- 10) 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.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



March 4, 2024

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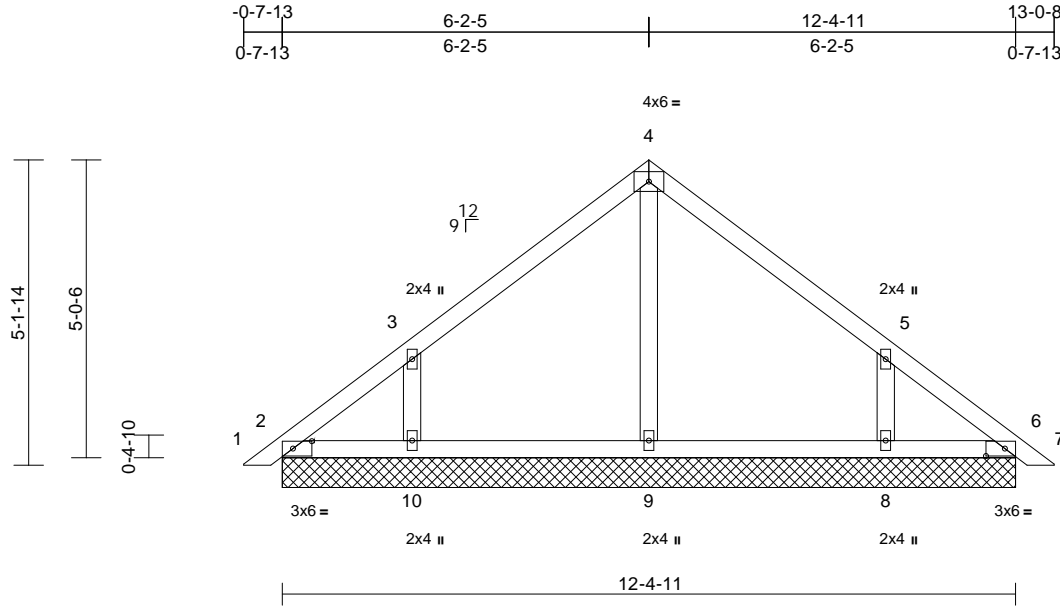
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss PB6	Truss Type Piggyback	Qty 13	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985437
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:26  
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Page: 1



Scale = 1:38.9

Plate Offsets (X, Y): [2:0-3-13,0-1-8], [6:0-3-13,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 55 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=12-4-11, 6=12-4-11, 8=12-4-11, 9=12-4-11, 10=12-4-11  
Max Horiz 2=-123 (LC 8)  
Max Uplift 2=-27 (LC 6), 6=-3 (LC 7), 8=-146 (LC 11), 10=-147 (LC 10)  
Max Grav 2=118 (LC 18), 6=102 (LC 1), 8=322 (LC 18), 9=255 (LC 1), 10=322 (LC 17)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

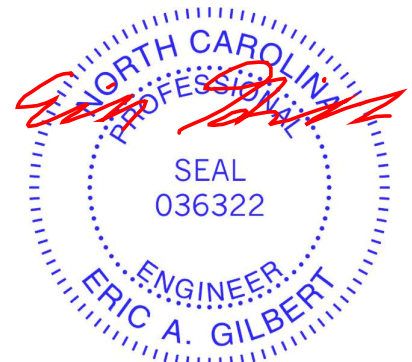
TOP CHORD 1-2=0/13, 2-3=-115/95, 3-4=-134/107, 4-5=-123/103, 5-6=-89/55, 6-7=0/13  
BOT CHORD 2-10=-34/83, 9-10=-34/83, 8-9=-34/83, 6-8=-34/83  
WEBS 4-9=-170/5, 3-10=-261/188, 5-8=-261/188

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60
- 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.

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 User Defined .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 2, 3 lb uplift at joint 6, 147 lb uplift at joint 10 and 146 lb uplift at joint 8.
- 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



March 4, 2024

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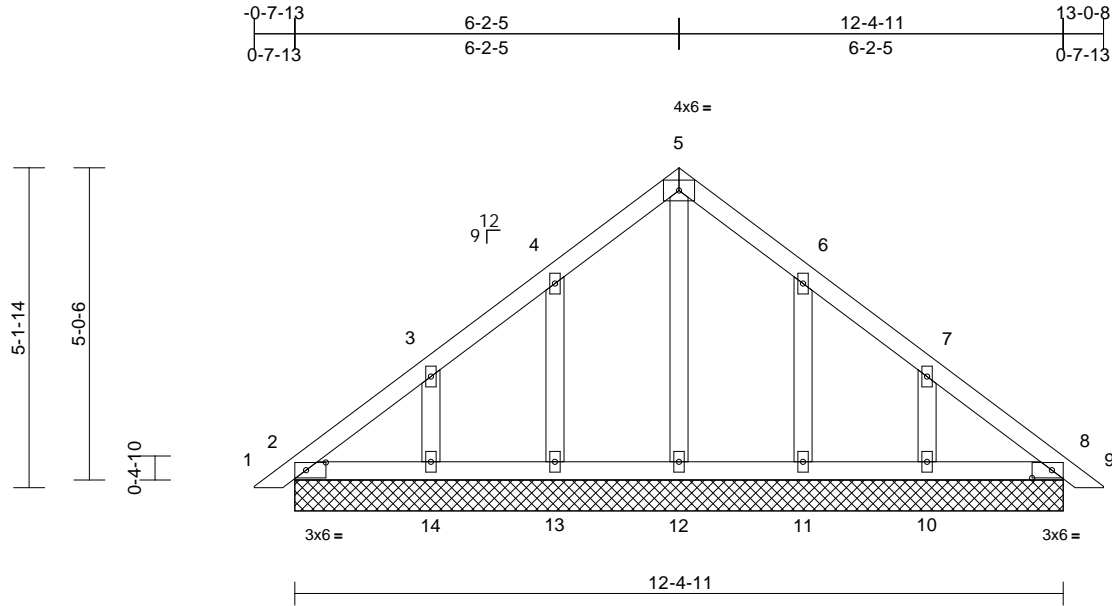
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss PB6E	Truss Type Piggyback	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985438
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:26  
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Page: 1



Scale = 1:37.2

Plate Offsets (X, Y): [2:0-3-13,0-1-8], [8:0-3-13,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 64 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=12-4-11, 8=12-4-11, 10=12-4-11, 11=12-4-11, 12=12-4-11, 13=12-4-11, 14=12-4-11  
Max Horiz 2=-123 (LC 8)  
Max Uplift 2=-15 (LC 6), 10=-88 (LC 11), 11=-72 (LC 11), 13=-73 (LC 10), 14=-88 (LC 10)  
Max Grav 2=121 (LC 18), 8=113 (LC 1), 10=203 (LC 18), 11=172 (LC 18), 12=144 (LC 20), 13=173 (LC 17), 14=203 (LC 17)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

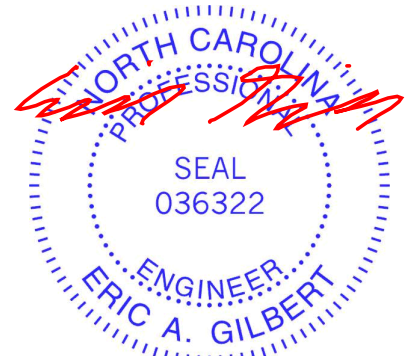
TOP CHORD 1-2=0/13, 2-3=-108/92, 3-4=-92/67, 4-5=-103/110, 5-6=-103/110, 6-7=-61/40, 7-8=-80/52, 8-9=0/13  
BOT CHORD 2-14=-46/94, 13-14=-46/94, 12-13=-46/94, 11-12=-46/94, 10-11=-46/94, 8-10=-46/94  
WEBS 5-12=-103/10, 4-13=-137/98, 3-14=-160/110, 6-11=-136/97, 7-10=-160/110

**NOTES**

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

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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=1.60
- 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 2x4 MT20 unless otherwise indicated.
- 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 User Defined.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 2, 73 lb uplift at joint 13, 88 lb uplift at joint 14, 72 lb uplift at joint 11 and 88 lb uplift at joint 10.
- 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



March 4, 2024

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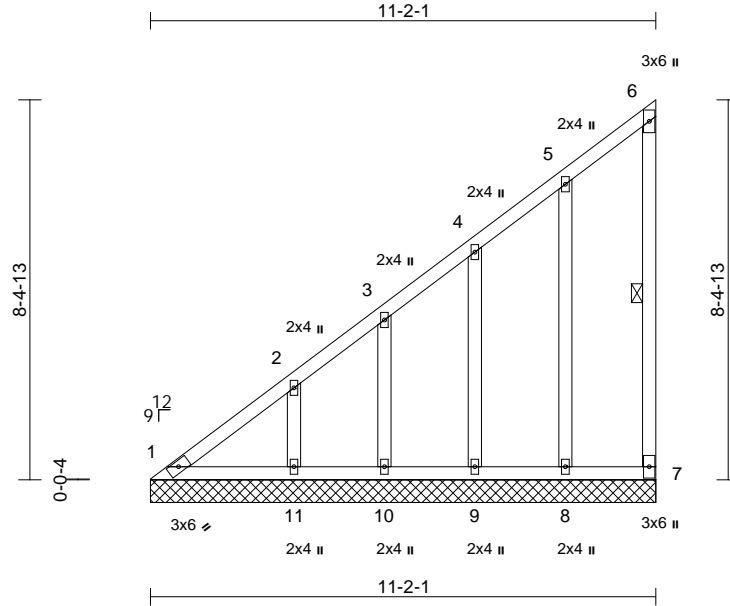
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss V8	Truss Type Valley	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985439
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:27  
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Page: 1



Scale = 1:50.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 73 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
OTHERS 2x4 SP No.3 \*Except\* 8-5:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 6-7

**REACTIONS** (size)  
1=11-2-1, 7=11-2-1, 8=11-2-1,  
9=11-2-1, 10=11-2-1, 11=11-2-1  
Max Horiz 1=300 (LC 7)  
Max Uplift 1=45 (LC 6), 7=67 (LC 9), 8=79 (LC 10), 9=72 (LC 10), 10=64 (LC 10), 11=104 (LC 10)  
Max Grav 1=173 (LC 18), 7=88 (LC 17), 8=178 (LC 17), 9=179 (LC 17), 10=147 (LC 17), 11=248 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-279/187, 2-3=-224/142, 3-4=-191/121, 4-5=-180/120, 5-6=-123/116, 6-7=-58/34  
BOT CHORD 1-11=-132/145, 10-11=-132/145,  
9-10=-132/145, 8-9=-132/145, 7-8=-132/145  
WEBS 5-8=-154/83, 4-9=-157/117, 3-10=-119/84, 2-11=-191/132

**NOTES**  
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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=1.60  
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- All plates are 2x4 MT20 unless otherwise indicated.
  - 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 User Defined .
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 1, 67 lb uplift at joint 7, 79 lb uplift at joint 8, 72 lb uplift at joint 9, 64 lb uplift at joint 10 and 104 lb uplift at joint 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



March 4, 2024

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

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**TRENCO**  
A MiTek Affiliate

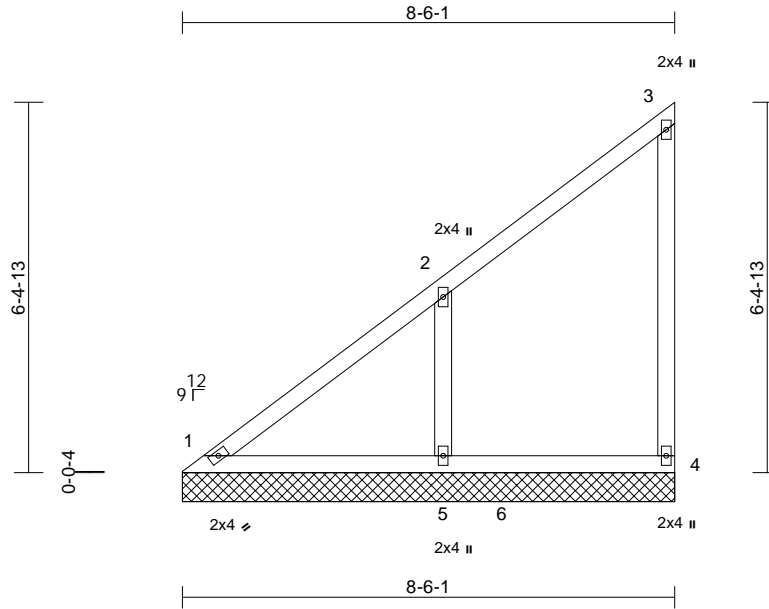
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss V9	Truss Type Valley	Qty 2	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	163985440
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:27  
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 41 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) 1=8-6-1, 4=8-6-1, 5=8-6-1  
Max Horiz 1=225 (LC 7)  
Max Uplift 1=-14 (LC 6), 4=-50 (LC 7), 5=-180 (LC 10)  
Max Grav 1=166 (LC 18), 4=186 (LC 17), 5=471 (LC 17)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

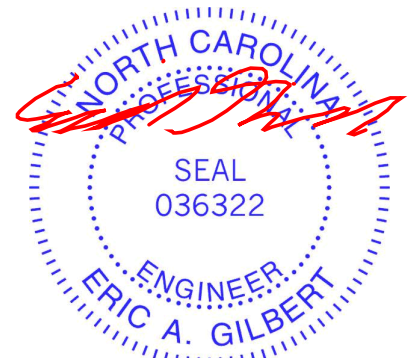
TOP CHORD 1-2=-198/164, 2-3=-159/93, 3-4=-109/67  
BOT CHORD 1-5=-103/112, 4-5=-103/112  
WEBS 2-5=-349/253

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TC DL=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=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be User Defined.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1, 50 lb uplift at joint 4 and 180 lb uplift at joint 5.
- 9) 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



March 4, 2024

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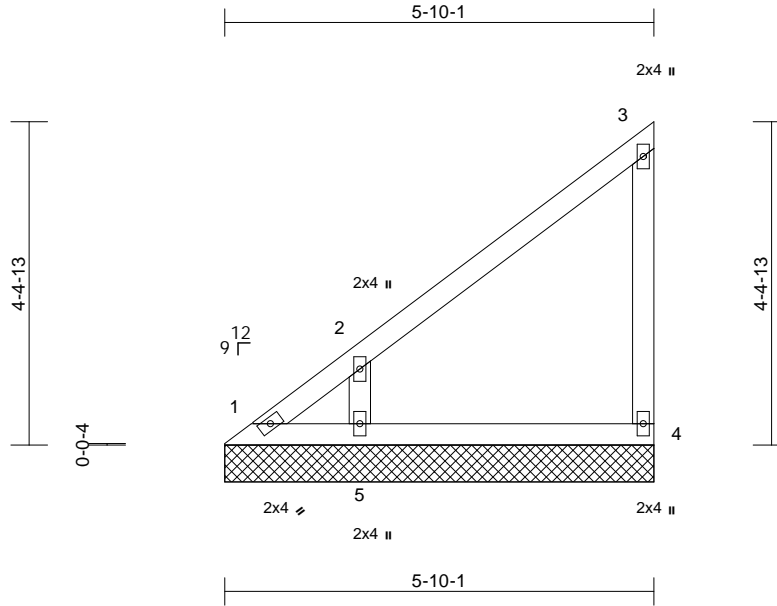
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss V10	Truss Type Valley	Qty 2	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985441
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:27  
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 26 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 5-10-6 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size)	1=5-10-1, 4=5-10-1, 5=5-10-1
Max Horiz	1=149 (LC 7)
Max Uplift	1=-72 (LC 8), 4=-40 (LC 7), 5=-145 (LC 10)
Max Grav	1=97 (LC 10), 4=145 (LC 17), 5=345 (LC 17)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-152/123, 2-3=-131/68, 3-4=-114/58
BOT CHORD	1-5=-72/78, 4-5=-72/78
WEBS	2-5=-287/215

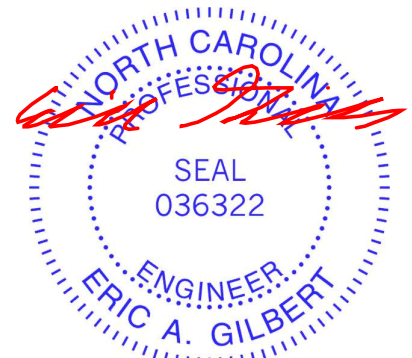
#### NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TC DL=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=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be User Defined.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 1, 40 lb uplift at joint 4 and 145 lb uplift at joint 5.
- 9) 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



March 4, 2024

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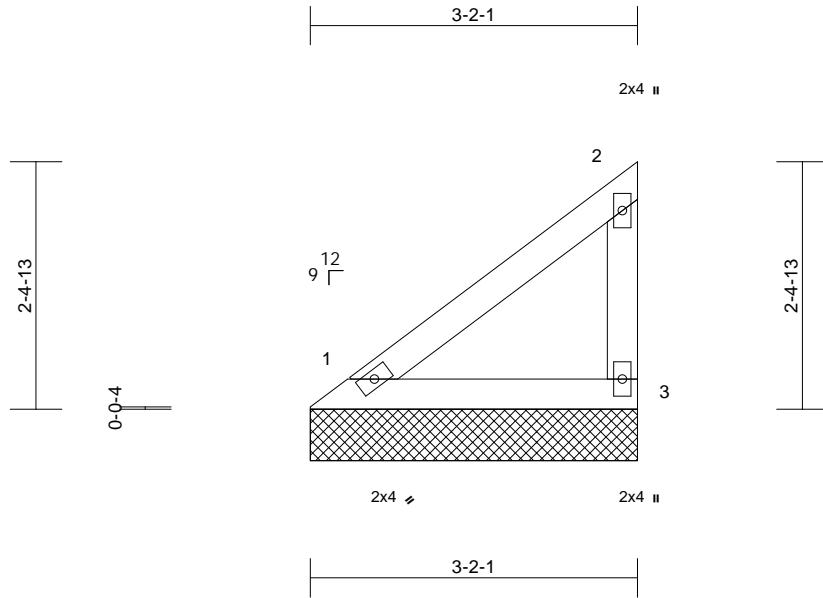
818 Soundside Road  
Edenton, NC 27932

Job 2400622-09192	Truss V11	Truss Type Valley	Qty 2	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985442
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:27  
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2

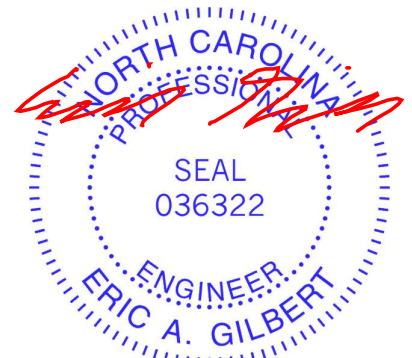
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-2-6 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=3-2-1, 3=3-2-1  
Max Horiz 1=74 (LC 7)  
Max Uplift 1=-5 (LC 10), 3=-34 (LC 10)  
Max Grav 1=105 (LC 1), 3=118 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-66/53, 2-3=-92/49  
BOT CHORD 1-3=-36/39

- NOTES**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TC DL=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=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 7) All bearings are assumed to be User Defined.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1 and 34 lb uplift at joint 3.
  - 9) 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



March 4, 2024

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ENGINEERING BY  
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818 Soundside Road  
Edenton, NC 27932

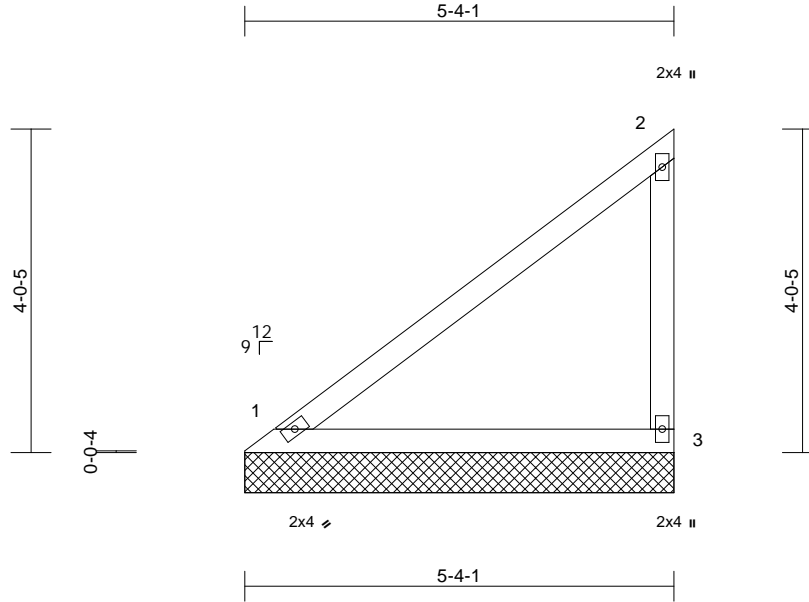


Job	Truss	Truss Type	Qty	Ply	Colston 3 car Bonus Full Frnt Prch RCP	163985443
2400622-09192	V12	Valley	1	1	Job Reference (optional)	

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

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:27  
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Page: 1



Scale = 1:28.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 22 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=5-4-1, 3=5-4-1  
 Max Horiz 1=135 (LC 7)  
 Max Uplift 1=-8 (LC 10), 3=-62 (LC 10)  
 Max Grav 1=191 (LC 1), 3=216 (LC 17)

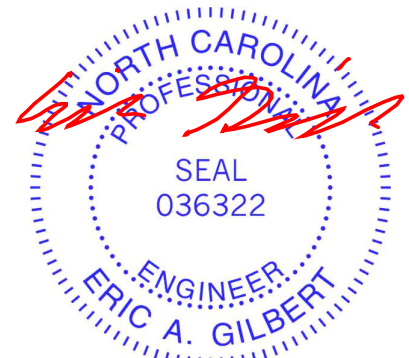
**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-121/96, 2-3=-168/90  
 BOT CHORD 1-3=-65/71

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
 Vasd=103mph; TC DL=6.0psf; BC DL=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=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be User Defined.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 62 lb uplift at joint 3.
  - 9) 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



March 4, 2024

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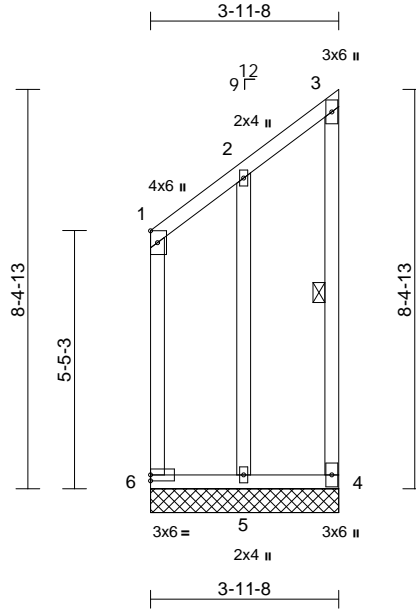
818 Soundside Road  
 Edenton, NC 27932

Job 2400622-09192	Truss V13	Truss Type Valley	Qty 1	Ply 1	Colston 3 car Bonus Full Frnt Prch RCP Job Reference (optional)	I63985444
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.73 S Feb 22 2024 Print: 8.730 S Feb 22 2024 MiTek Industries, Inc. Fri Mar 01 12:52:28  
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Page: 1



Scale = 1:48.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 42 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD	Structural wood sheathing directly applied or 3-11-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 3-4

**REACTIONS**

(size)	4=3-11-8, 5=3-11-8, 6=3-11-8
Max Horiz	6=106 (LC 10)
Max Uplift	4=-92 (LC 10), 5=-255 (LC 10), 6=-70 (LC 8)
Max Grav	4=82 (LC 17), 5=236 (LC 17), 6=293 (LC 10)

**FORCES**

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-6=-164/107, 1-2=-170/141, 2-3=-40/28, 3-4=-75/67
BOT CHORD	5-6=-28/22, 4-5=-28/22
WEBS	2-5=-228/210

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 2-0-0 oc.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 8) All bearings are assumed to be SP No.2 .
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 6, 92 lb uplift at joint 4 and 255 lb uplift at joint 5.
  - 10) 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



March 4, 2024

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

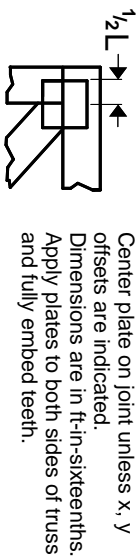
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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)



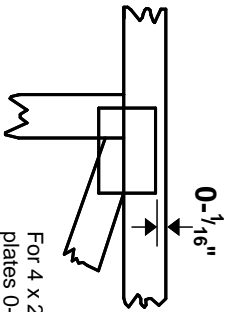
818 Soundside Road  
Edenton, NC 27932

# 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

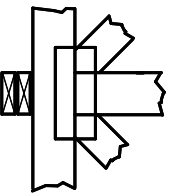
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

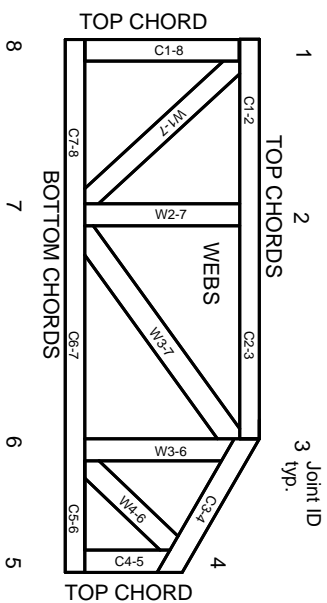


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## 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



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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# 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.

**MITek**

ENGINEERING BY  
**TRENGO**  
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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023