ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Q015302-R
Cua, Eric DU-Roof

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Load Star - Lavonia, GA.

Pages or sheets covered by this seal: I58787726 thru I58787771

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844

June 7,2023

Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	C1	Piggyback	7	1	Job Reference (optional)	I58787726

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:49 Page: 1
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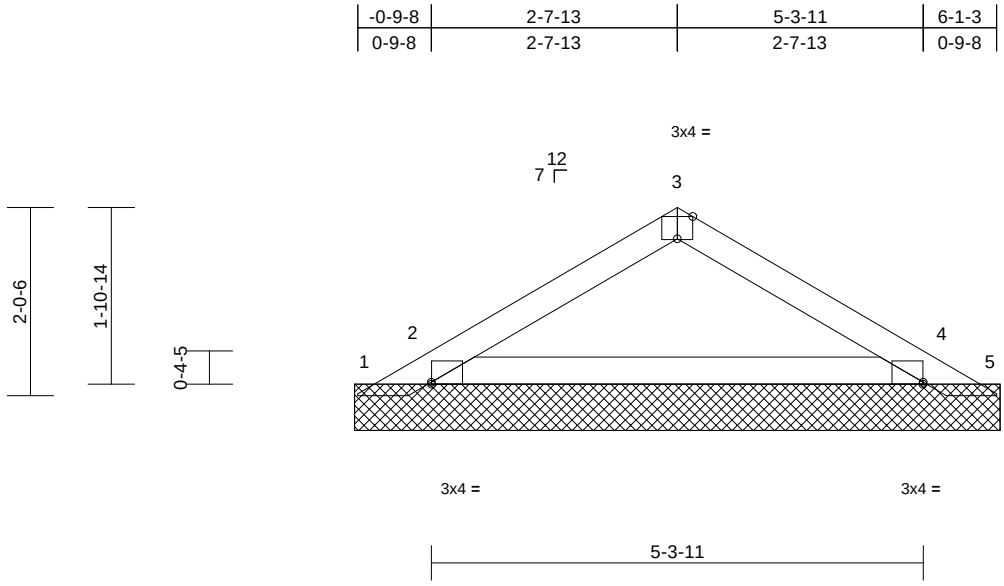

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Plate Offsets (X, Y): [2:Edge,0-0-4], [3:0-2-0,Edge], [4:Edge,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=6-11-9, 2=6-11-9, 4=6-11-9, 5=6-11-9, 6=6-11-9, 9=6-11-9
Max Horiz 1=-53 (LC 12)
Max Uplift 1=-169 (LC 30), 2=-102 (LC 16), 4=-91 (LC 17), 5=-153 (LC 7), 6=-102 (LC 16), 9=-91 (LC 17)
Max Grav 1=47 (LC 16), 2=436 (LC 23), 4=423 (LC 24), 5=30 (LC 17), 6=436 (LC 23), 9=423 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-55/138, 2-3=-152/116, 3-4=-153/116, 4-5=-39/101
BOT CHORD 2-4=-65/111

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 169 lb uplift at joint 1 and 153 lb uplift at joint 5.
12) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	C1G	Piggyback	1	1	Job Reference (optional)	I58787727

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:51 Page: 1
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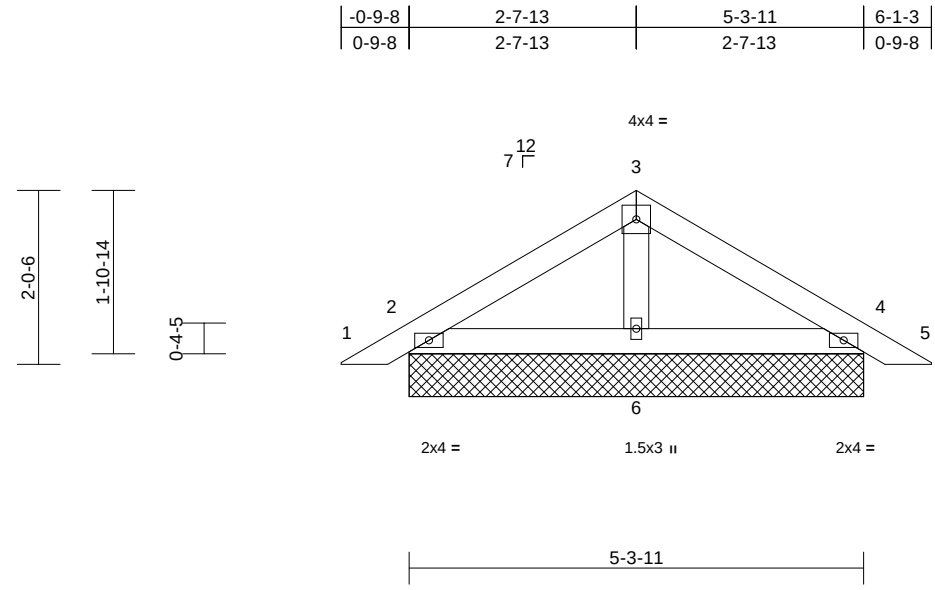

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 22 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=5-3-11, 4=5-3-11, 6=5-3-11, 7=5-3-11, 11=5-3-11
Max Horiz 2=53 (LC 15), 7=53 (LC 15)
Max Uplift 2=-51 (LC 16), 4=-58 (LC 17), 6=-23 (LC 16), 7=-51 (LC 16), 11=-58 (LC 17)
Max Grav 2=168 (LC 23), 4=168 (LC 24), 6=196 (LC 2), 7=168 (LC 23), 11=168 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-3=-75/77, 3-4=-72/78, 4-5=0/20
BOT CHORD 2-6=-14/41, 4-6=-8/42
WEBS 3-6=-89/48

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
7) Plates checked for a plus or minus 20 degree rotation about its center.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 4, and 6. This connection is for uplift only and does not consider lateral forces.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	GD7	Half Hip Girder	1	1	Job Reference (optional)	I58787728

Load Star, Lavonia, GA - 30553,

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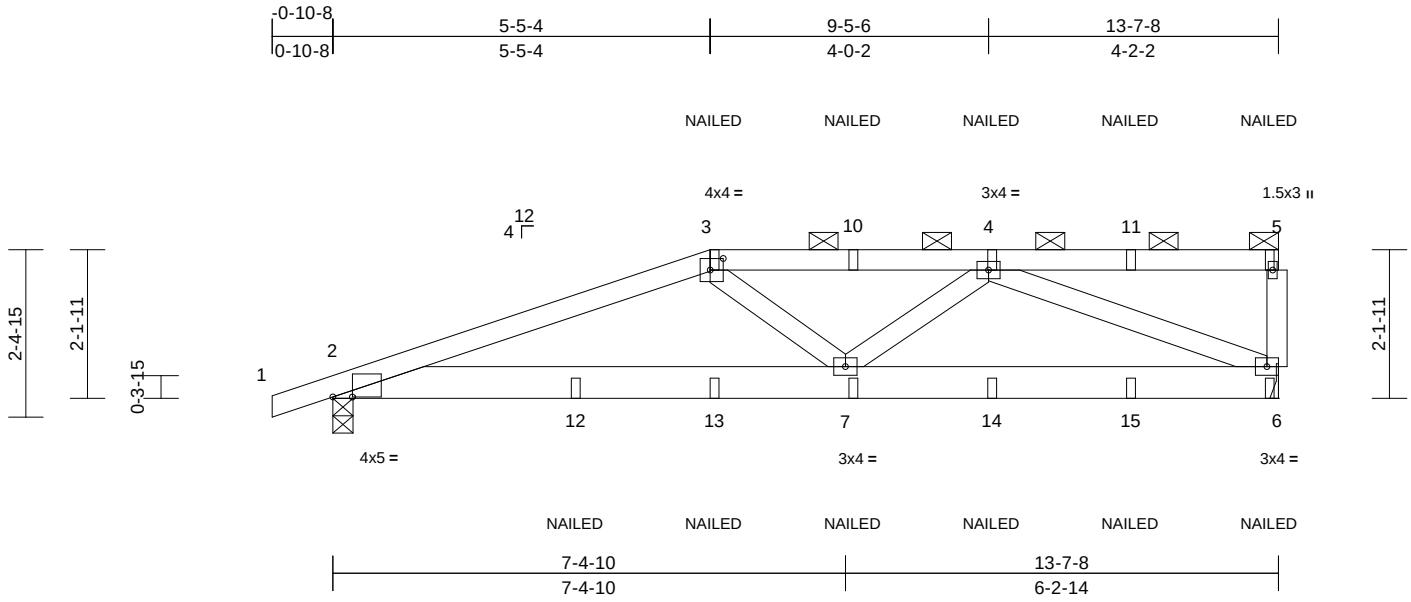

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Plate Offsets (X, Y): [2:0-3-6,0-0-0], [3:0-2-4,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.48	Vert(LL)	-0.07	7-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.25	BC	0.67	Vert(CT)	-0.13	7-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 70 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-14 oc purlins, except 2-0-0 oc purlins (4-7-11 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6= Mechanical
Max Horiz 2=99 (LC 51)
Max Uplift 2=-276 (LC 8), 6=-255 (LC 8)
Max Grav 2=827 (LC 34), 6=841 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-1393/449, 3-4=-1453/413, 4-5=0/0
BOT CHORD 2-7=-451/1288, 6-7=-455/1301
WEBS 5-6=-196/110, 3-7=0/266, 4-7=0/358, 4-6=-1414/494

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) Plates checked for a plus or minus 20 degree rotation about its center.
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) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 255 lb uplift at joint 6.
12) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
15) "NAILED" indicates Girder: 3-16d (0.162" x 3.5") toe-nails per NDS guidelines.
16) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-48, 3-5=-58, 2-6=-20
Concentrated Loads (lb)
Vert: 3=-48 (F), 5=-69 (F), 6=-31 (F), 7=-22 (F), 4=-43 (F), 10=-43 (F), 11=-43 (F), 12=-107 (F), 13=-22 (F), 14=-22 (F), 15=-22 (F)

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	J7	Jack-Open	5	1	Job Reference (optional)	I58787729

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:52 Page: 1
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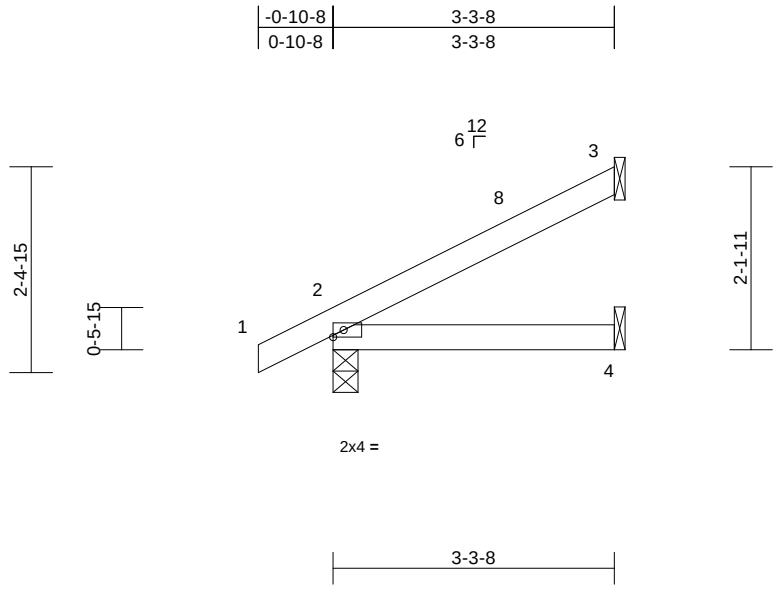

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.17	Vert(LL)	0.01	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.12	Vert(CT)	-0.01	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 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 3-3-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=88 (LC 16)
Max Uplift 2=-46 (LC 16), 3=-62 (LC 16)
Max Grav 2=225 (LC 23), 3=101 (LC 23), 4=59 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-126/59
BOT CHORD 2-4=-107/68

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 3.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	J7A	Half Hip	1	1	Job Reference (optional)	I58787730

Load Star, Lavonia, GA - 30553,

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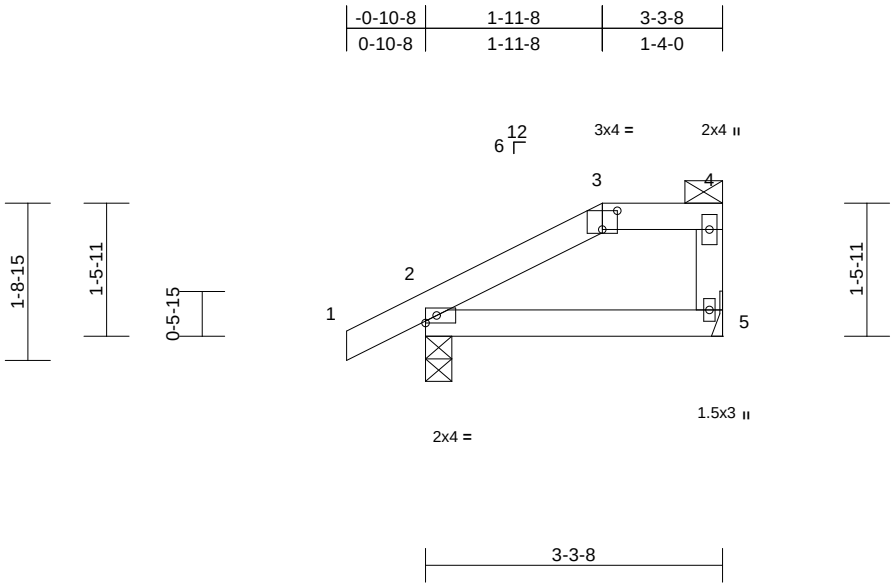

Scale = 1:25.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.16	Vert(LL)	0.00	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	0.00	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 13 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 3-3-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=60 (LC 15)
Max Uplift 2=-58 (LC 16), 5=-36 (LC 13)
Max Grav 2=236 (LC 38), 5=127 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-3=-104/59, 3-4=-74/72, 4-5=-88/102
BOT CHORD 2-5=-94/87

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) Plates checked for a plus or minus 20 degree rotation about its center.
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) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 5.
12) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R1	Common	6	1	Job Reference (optional)	I58787731

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:52 Page: 1
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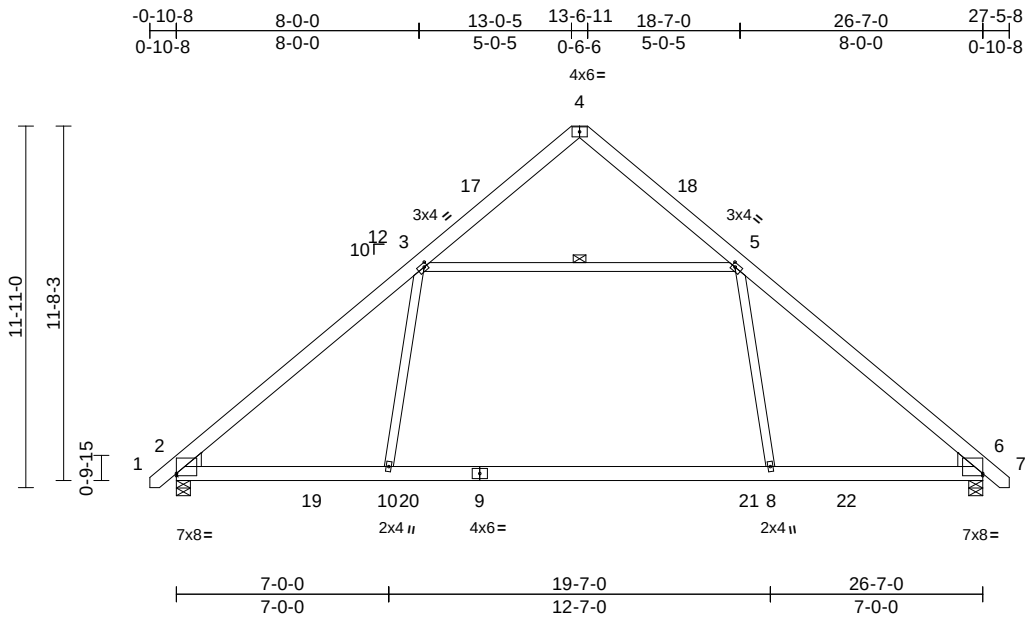

Scale = 1:76

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.41	Vert(LL)	0.34	10-13	>929	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.82	Vert(CT)	-0.48	8-10	>662	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 186 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 3-5:2x4 SP No.2
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-5

REACTIONS (size) 2=0-5-8, 6=0-5-8
Max Horiz 2=329 (LC 13)
Max Uplift 2=-231 (LC 14), 6=-231 (LC 15)
Max Grav 2=1330 (LC 26), 6=1330 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-1774/327, 3-4=-323/129, 4-5=-324/129, 5-6=-1774/327, 6-7=0/35
BOT CHORD 2-10=-361/1297, 8-10=-165/1223, 6-8=-163/1315
WEBS 5-8=0/634, 3-10=0/634, 3-5=-975/350

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-10 to 2-3-6, Interior (1) 2-3-6 to 13-3-8, Exterior(2R) 13-3-8 to 16-3-8, Interior (1) 16-3-8 to 27-3-10 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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 BCDL = 10.0psf.
8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R1A	Common	11	1	Job Reference (optional)	I58787732

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:53 Page: 1
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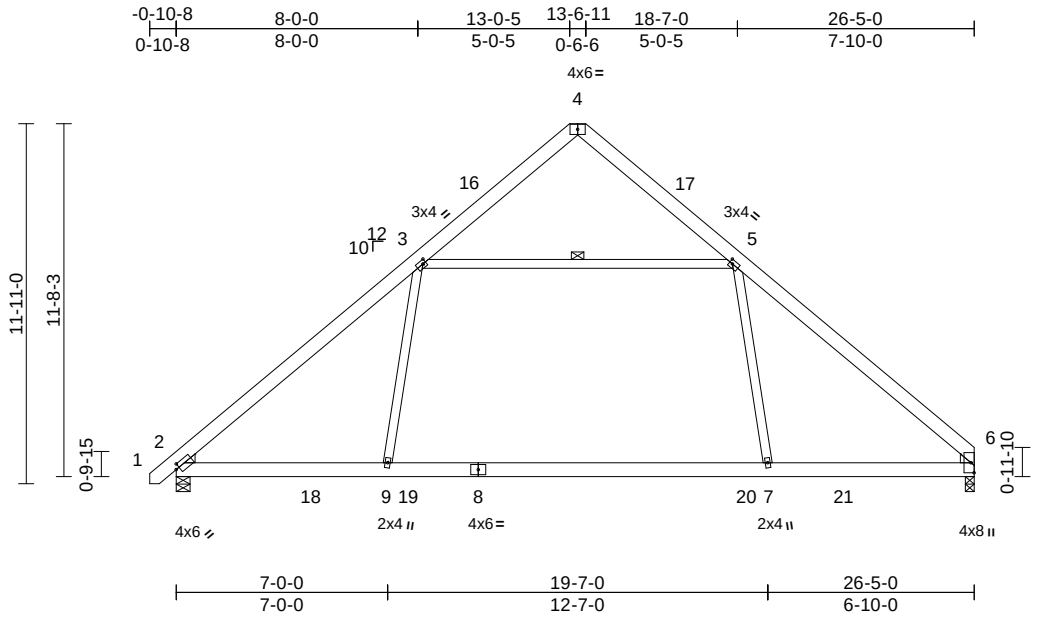

Scale = 1:76.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.42	Vert(LL)	0.35	9-12	>908	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.83	Vert(CT)	-0.49	7-9	>647	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.06	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 182 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 3-5:2x4 SP No.2
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-5

REACTIONS (size) 2=0-5-8, 6=0-3-8
Max Horiz 2=323 (LC 11)
Max Uplift 2=-230 (LC 14), 6=-207 (LC 15)
Max Grav 2=1323 (LC 26), 6=1280 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-1753/323, 3-4=-326/131, 4-5=-329/131, 5-6=-1745/326
BOT CHORD 2-9=-374/1269, 7-9=-177/1196, 6-7=-169/1287
WEBS 3-9=0/629, 5-7=0/627, 3-5=-953/346

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-10 to 2-3-6, Interior (1) 2-3-6 to 13-3-8, Exterior(2R) 13-3-8 to 16-3-8, Interior (1) 16-3-8 to 26-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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 BCDL = 10.0psf.
8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R1G	Common Supported Gable	2	1	I58787733 Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.7 E 0 Mar 9 2023 Print: 8.700 E Mar 9 2023 MiTek Industries, Inc. Wed Jun 07 10:31:47 Page: 1
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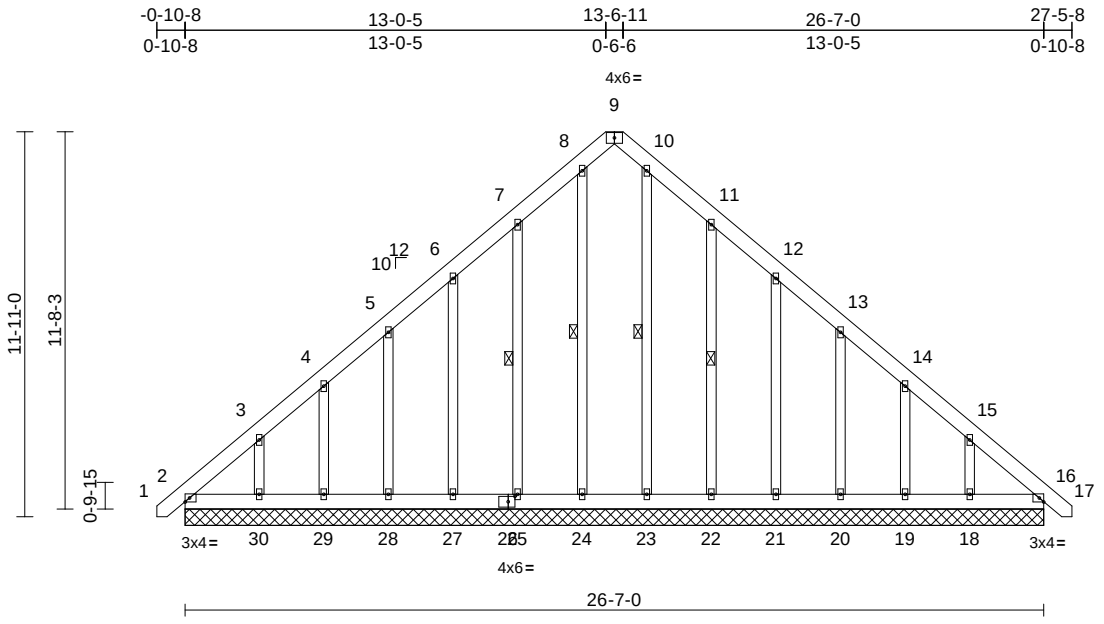

Scale = 1:71.3

Plate Offsets (X, Y): [26:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	16	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 255 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 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.
WEBS 1 Row at midpt 8-24, 10-23, 7-25, 11-22

REACTIONS All bearings 26-7-0.
(lb) - Max Horiz 2=-329 (LC 12)
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 16, 24 except 18=-168 (LC 15), 19=-104 (LC 15), 20=-110 (LC 15), 21=-117 (LC 15), 22=-124 (LC 15), 25=-122 (LC 14), 27=-115 (LC 14), 28=-110 (LC 14), 29=-105 (LC 14), 30=-174 (LC 14)
Max Grav All reactions 250 (lb) or less at joint (s) 2, 16, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-403/258, 3-4=-267/199, 15-16=-344/172
BOT CHORD 2-30=-136/306, 29-30=-136/306, 28-29=-136/306, 27-28=-136/306, 26-27=-136/306, 25-26=-136/306, 24-25=-136/306, 23-24=-136/306, 22-23=-136/306, 21-22=-136/306, 20-21=-136/306, 19-20=-136/306, 18-19=-136/306, 16-18=-136/306

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-10 to 2-3-8, Interior (1) 2-3-8 to 13-3-8, Exterior(2R) 13-3-8 to 16-3-8, Interior (1) 16-3-8 to 27-3-10 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Plates checked for a plus or minus 20 degree rotation about its center.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 24 except (jt=lb) 25=122, 27=115, 28=110, 29=104, 30=173, 22=124, 21=116, 20=110, 19=104, 18=168.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	I58787734
Q015302-R	R2	Common	1	1	Job Reference (optional)	

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:53 Page: 1
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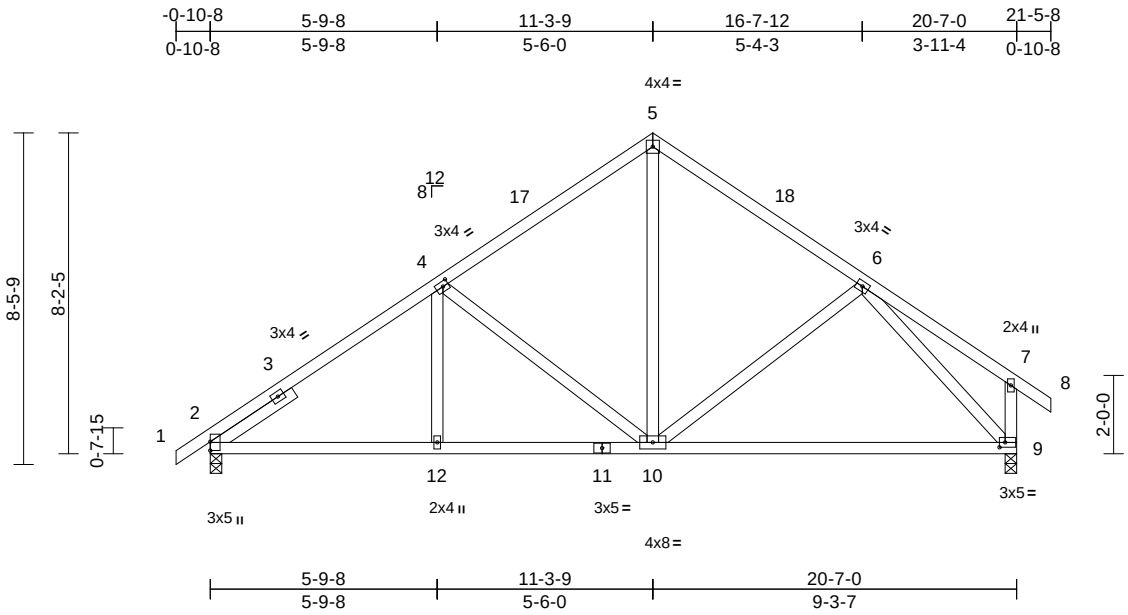

Scale = 1:58.8

Plate Offsets (X, Y): [2:Edge,0-0-0], [4:0-1-12,0-1-8], [9:0-1-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.49	Vert(LL)	-0.18	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	-0.37	9-10	>657	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 122 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=264 (LC 13)
Max Uplift 2=-204 (LC 14), 9=-190 (LC 15)
Max Grav 2=870 (LC 2), 9=879 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-4=-944/249, 4-5=-758/241, 5-6=-752/236, 6-7=-153/95, 7-8=0/43, 7-9=-215/103
BOT CHORD 2-12=-267/919, 10-12=-238/919, 9-10=-142/584
WEBS 6-9=-799/217, 5-10=-100/469, 6-10=-123/210, 4-10=-428/267, 4-12=0/172

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-3-9, Exterior(2R) 11-3-9 to 14-3-9, Interior (1) 14-3-9 to 21-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	I58787735
Q015302-R	R2A	Common	1	1	Job Reference (optional)	

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:54 Page: 1
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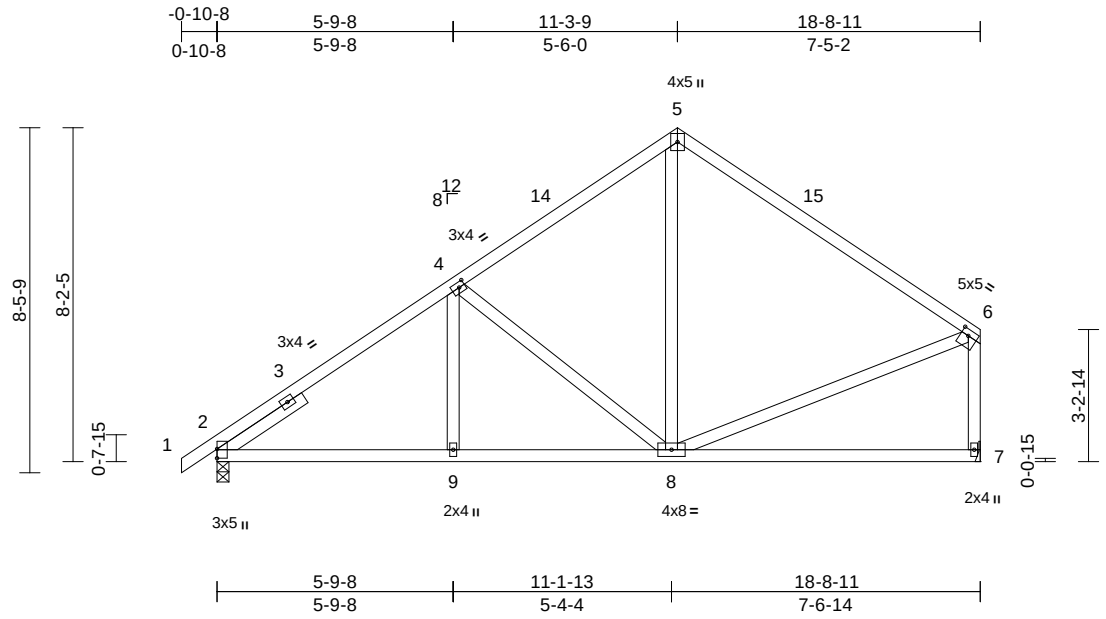

Scale = 1:56.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.77	Vert(LL)	-0.08	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.47	Vert(CT)	-0.17	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 109 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 2-6-0

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) 2=0-3-8, 7= Mechanical
Max Horiz 2=276 (LC 13)
Max Uplift 2=-190 (LC 14), 7=-143 (LC 14)
Max Grav 2=797 (LC 2), 7=742 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-4=-825/224, 4-5=-634/224, 5-6=-658/203, 6-7=-672/203
BOT CHORD 2-9=-283/821, 8-9=-271/821, 7-8=-71/109
WEBS 5-8=-47/332, 6-8=-65/453, 4-9=0/194, 4-8=-434/258

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-3-9, Exterior(2R) 11-3-9 to 14-3-9, Interior (1) 14-3-9 to 18-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 143 lb uplift at joint 7.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R2B	Common	1	1	Job Reference (optional)	I58787736

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:54 Page: 1
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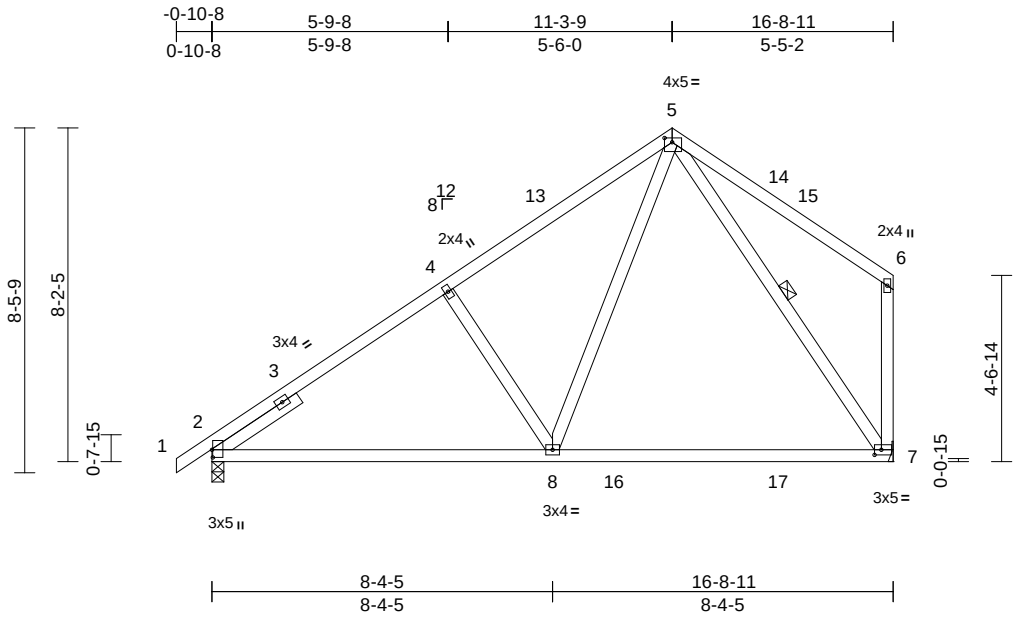

Scale = 1:56.6

Plate Offsets (X, Y): [2:0-2-4,0-0-4], [5:0-2-4,0-1-4], [7:0-2-0,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.49	Vert(LL)	-0.21	7-8	>928	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.77	Vert(CT)	-0.32	7-8	>617	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 99 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 8-5,7-5:2x4 SP No.2
SLIDER	Left 2x4 SP No.3 -- 2-6-0

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 5-7

REACTIONS (size) 2=0-3-8, 7= Mechanical
Max Horiz 2=295 (LC 13)
Max Uplift 2=-172 (LC 14), 7=-151 (LC 14)
Max Grav 2=815 (LC 26), 7=790 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/37, 2-4=-831/224, 4-5=-776/254, 5-6=-218/218, 6-7=-240/191
BOT CHORD	2-8=-338/847, 7-8=-173/414
WEBS	4-8=-347/282, 5-8=-148/705, 5-7=-656/190

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-3-9, Exterior(2R) 11-3-9 to 14-3-9, Interior (1) 14-3-9 to 16-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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 BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 151 lb uplift at joint 7.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	I58787737
Q015302-R	R2C	Common	1	1	Job Reference (optional)	

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:54 Page: 1
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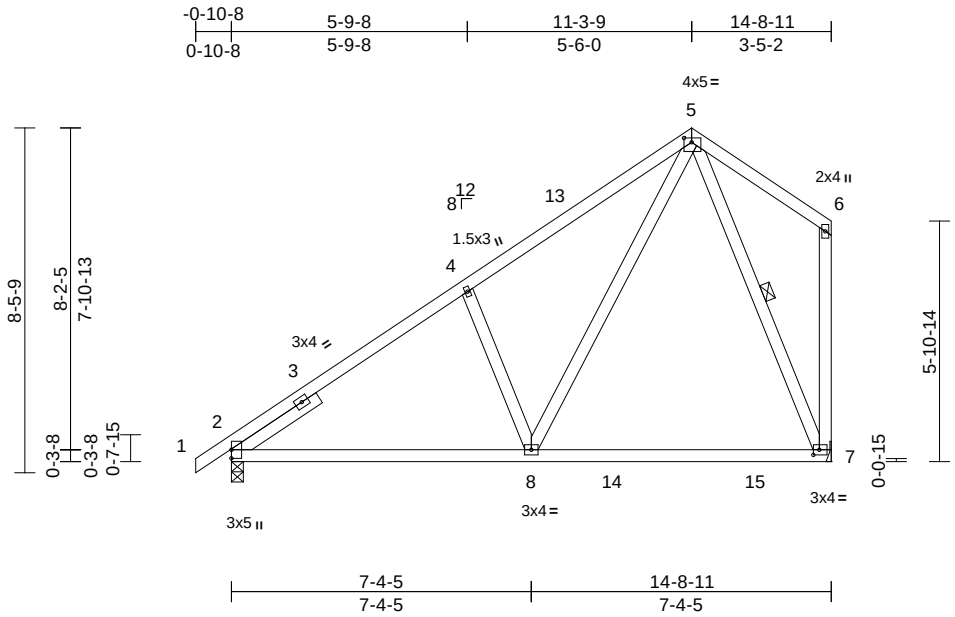

Scale = 1:56.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	-0.14	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.20	7-8	>857	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 93 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 8-5,7-5:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-6-15 oc bracing.
WEBS 1 Row at midpt 5-7

REACTIONS (size) 2=0-3-8, 7= Mechanical
Max Horiz 2=315 (LC 13)
Max Uplift 2=-150 (LC 14), 7=-163 (LC 14)
Max Grav 2=719 (LC 26), 7=727 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-4=-654/213, 4-5=-703/292, 5-6=-207/217, 6-7=-183/170
BOT CHORD 2-8=-397/726, 7-8=-191/294
WEBS 4-8=-357/294, 5-8=-217/732, 5-7=-606/292

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-3-9, Exterior(2E) 11-3-9 to 14-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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 BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 163 lb uplift at joint 7.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R2D	Common	1	1	I58787738 Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:55 Page: 1
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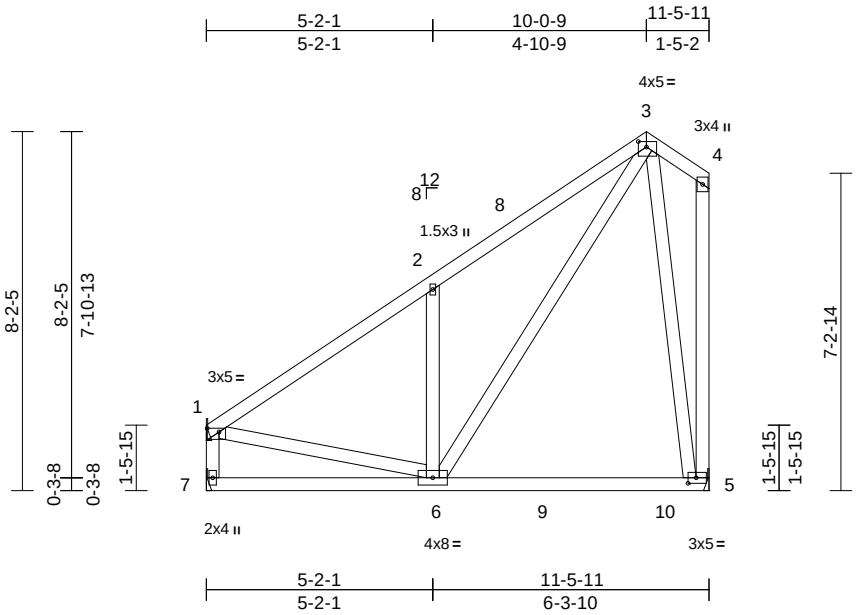

Scale = 1:52.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.74	Vert(LL)	-0.07	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.11	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 88 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 6-3:2x4 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.

REACTIONS (size) 1= Mechanical, 5= Mechanical, 7= Mechanical
Max Horiz 1=-279 (LC 25), 7=170 (LC 26)
Max Uplift 1=-123 (LC 14), 5=-146 (LC 14)
Max Grav 1=454 (LC 25), 5=575 (LC 25), 7=81 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-558/145, 2-3=-527/349, 3-4=-228/244, 4-5=-185/192, 1-7=0/0
BOT CHORD 6-7=-135/108, 5-6=-160/196
WEBS 2-6=-373/340, 3-6=-288/586, 3-5=-539/415, 1-6=-229/486

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-4-12 to 4-4-12, Interior (1) 4-4-12 to 11-3-9, Exterior(2E) 11-3-9 to 12-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Plates checked for a plus or minus 20 degree rotation about its center.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 1 and 146 lb uplift at joint 5.
9) Non Standard bearing condition. Review required.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R2E	Monopitch	1	1	I58787739 Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:55 Page: 1
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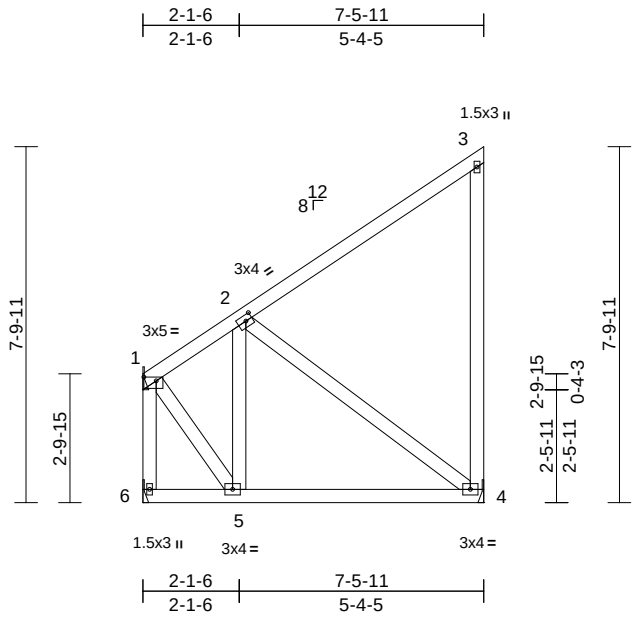

Scale = 1:50.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.71	Vert(LL)	-0.03	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.24	Vert(CT)	-0.05	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 58 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 3-4:2x4 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.

REACTIONS (size) 1= Mechanical, 4= Mechanical, 6= Mechanical
Max Horiz 1=202 (LC 11), 6=137 (LC 13)
Max Uplift 1=-41 (LC 14), 4=-127 (LC 14), 6=-12 (LC 5)
Max Grav 1=304 (LC 2), 4=322 (LC 25), 6=-4 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-310/182, 2-3=-239/214, 3-4=-224/235, 1-6=0/0
BOT CHORD 5-6=-129/75, 4-5=-247/272
WEBS 2-5=-154/222, 2-4=-237/223, 1-5=-195/326

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 3-4-12 to 6-4-12, Interior (1) 6-4-12 to 10-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Plates checked for a plus or minus 20 degree rotation about its center.
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.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 6, 127 lb uplift at joint 4 and 41 lb uplift at joint 1.
8) Non Standard bearing condition. Review required.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R3	Common	4	1	Job Reference (optional)	I58787740

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:55 Page: 1
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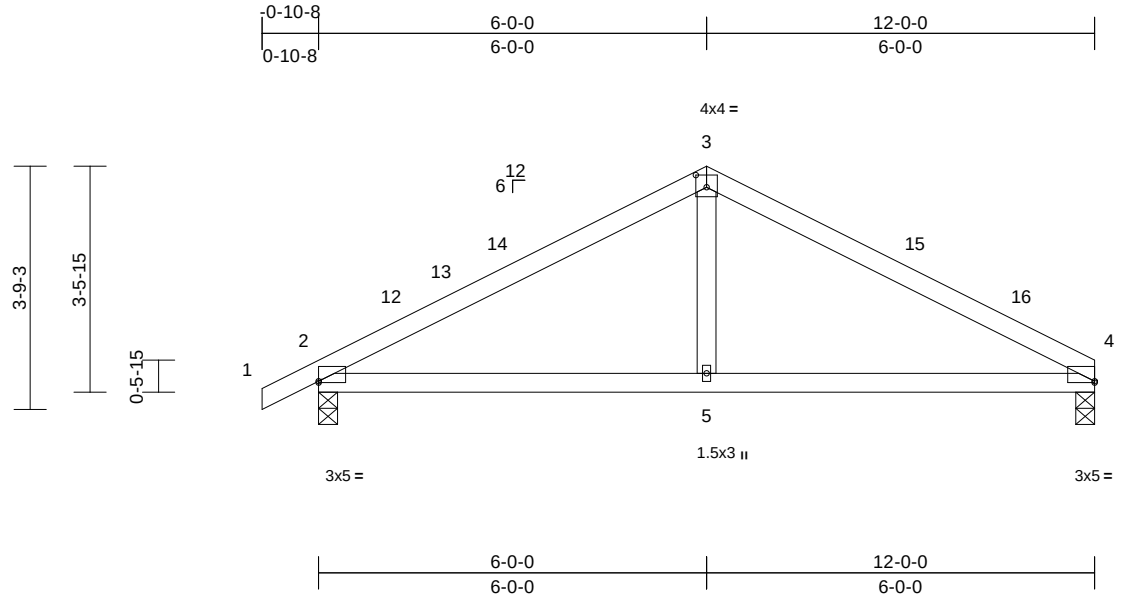

Scale = 1:35.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.57	Vert(LL)	-0.05	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.42	Vert(CT)	-0.08	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 44 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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4=0-3-8
Max Horiz 2=74 (LC 20)
Max Uplift 2=-134 (LC 16), 4=-107 (LC 17)
Max Grav 2=534 (LC 2), 4=478 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-657/312, 3-4=-656/317
BOT CHORD 2-5=-184/518, 4-5=-184/518
WEBS 3-5=0/270

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 12-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4 and 2. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R3A	Common	1	1	I58787741
					Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:56 Page: 1
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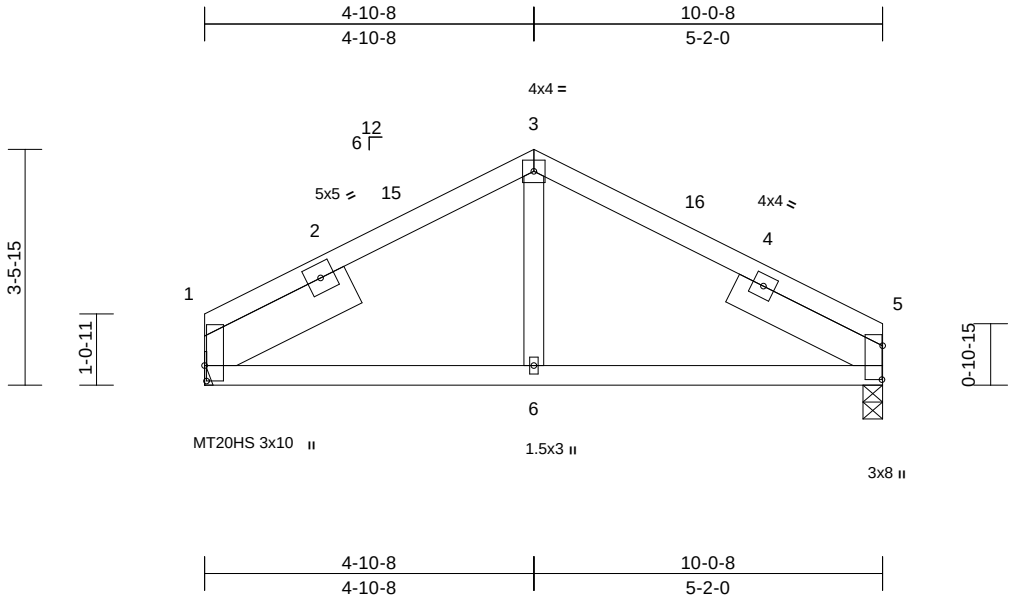

Scale = 1:34.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.03	6-13	>999	240	MT20HS	187/143
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.04	6-13	>999	180	MT20	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	1	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 50 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x8 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

BRACING

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

REACTIONS (size) 1= Mechanical, 5=0-3-8
Max Horiz 1=-53 (LC 17)
Max Uplift 1=-86 (LC 16), 5=-88 (LC 17)
Max Grav 1=421 (LC 22), 5=414 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-3=-396/288, 3-5=-396/280
BOT CHORD	1-6=-196/352, 5-6=-213/352
WEBS	3-6=0/194

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-1-8 to 4-1-8, Interior (1) 4-1-8 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 11-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are MT20 plates unless otherwise indicated.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 1.
11) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R3G	Common Supported Gable	1	1	I58787742
					Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.7 E 0 Mar 9 2023 Print: 8.700 E Mar 9 2023 MiTek Industries, Inc. Wed Jun 07 10:34:36 Page: 1
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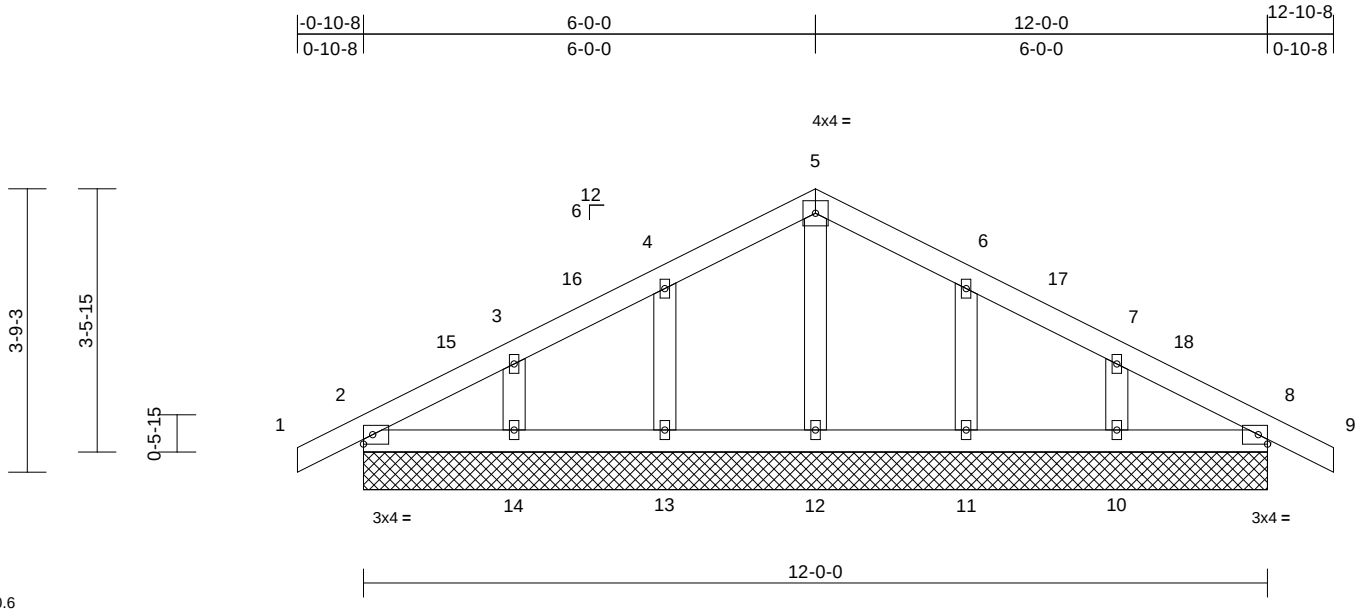

Scale = 1:30.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 54 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 All bearings 12-0-0.
(lb) - Max Horiz 2=-66 (LC 17)
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 8, 10, 11, 13, 14
Max Grav All reactions 250 (lb) or less at joint (s) 2, 8, 10, 11, 12, 13, 14

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

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-0-0, Interior (1) 2-0-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x3 MT20 unless otherwise indicated.
8) Plates checked for a plus or minus 20 degree rotation about its center.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.
14) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8.
15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R4	Piggyback Base	7	1	I58787743
					Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:56
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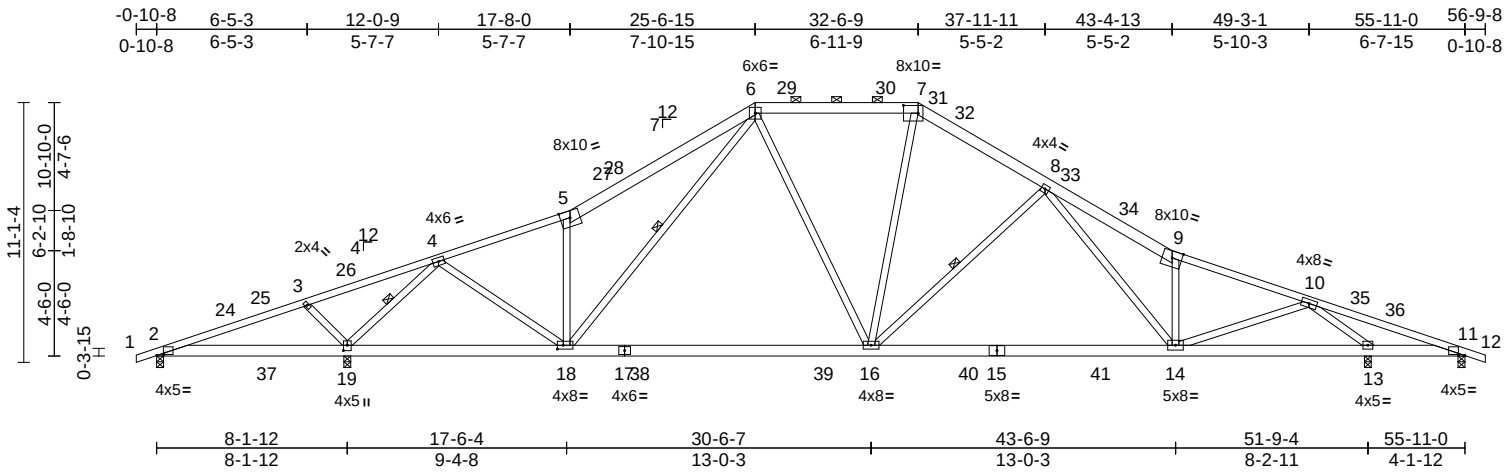

Scale = 1:98.5

Plate Offsets (X, Y): [2:0-3-6,0-0-8], [7:0-7-8,0-4-0], [11:0-3-6,0-0-8], [18:0-3-0,0-2-0], [19:0-2-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.79	Vert(LL)	-0.31	14-16	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.25	BC	0.83	Vert(CT)	-0.55	14-16	>953	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.07	13	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 375 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 1-5,9-12:2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 17-15:2x6 SP No.1
WEBS 2x4 SP No.3 *Except* 18-6,14-8,16-7,16-6,16-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-15 oc purlins, except 2-0-0 oc purlins (4-11-7 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-19, 6-18, 8-16

REACTIONS (size) 2=0-3-8, 11=0-3-8, 13=0-3-8, 19=0-3-8
Max Horiz 2=206 (LC 20)
Max Uplift 2=-261 (LC 57), 11=-409 (LC 59), 13=-498 (LC 17), 19=-575 (LC 16)
Max Grav 2=70 (LC 49), 11=26 (LC 16), 13=2575 (LC 3), 19=2762 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-3=-290/1064, 3-4=-388/1265, 4-5=-2248/600, 5-6=-2536/841, 6-7=-1956/724, 7-8=-2193/737, 8-9=-3467/1011, 9-10=-3126/812, 10-11=-395/1403, 11-12=0/24
BOT CHORD 2-19=-980/323, 18-19=-233/981, 16-18=-270/1776, 14-16=-502/2394, 13-14=-417/1550, 11-13=-1289/440
WEBS 3-19=-422/287, 4-19=-3045/901, 5-18=-866/463, 4-18=-266/1454, 9-14=-933/401, 10-14=-210/1622, 10-13=-3604/1075, 6-18=-257/619, 8-14=-246/1030, 7-16=-151/839, 6-16=-47/520, 8-16=-886/395

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-8-10, Interior (1) 4-8-10 to 25-6-15, Exterior(2R) 25-6-15 to 31-2-1, Interior (1) 31-2-1 to 32-6-9, Exterior(2R) 32-6-9 to 37-11-11, Interior (1) 37-11-11 to 56-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) Plates checked for a plus or minus 20 degree rotation about its center.
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, with BCDL = 10.0psf.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 19, 11, and 13. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R4G	Piggyback Base Supported Gable	1	1	I58787744 Job Reference (optional)

Load Star, Lavonia, GA - 30553,

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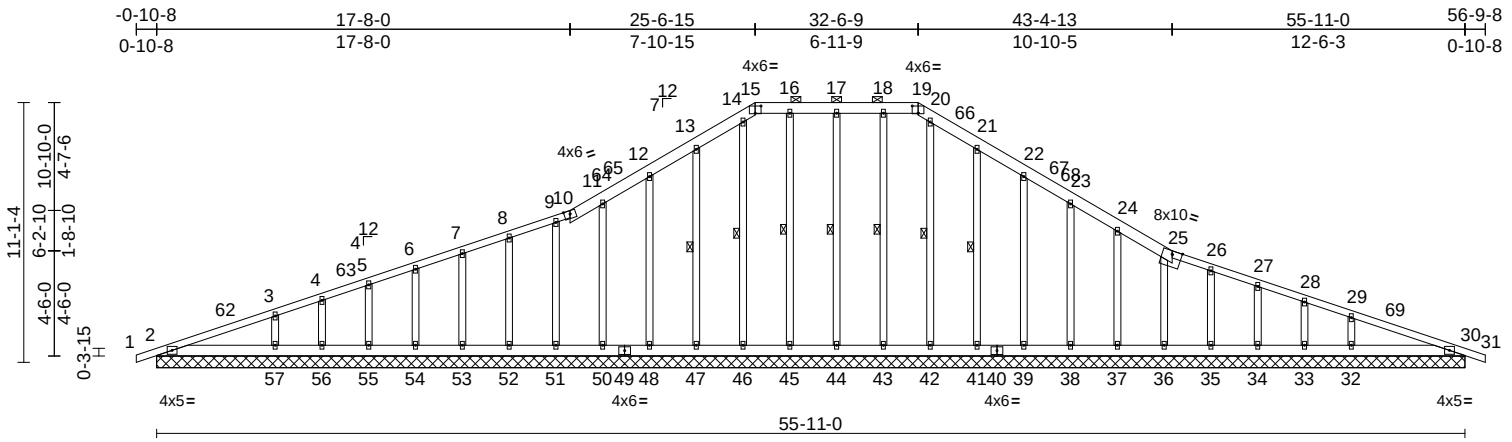

Scale = 1:98.5

Plate Offsets (X, Y): [15:0-3-0,0-3-12], [19:0-3-0,0-3-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.25	BC	0.18	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	30	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 448 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 1-10,25-31:2x4 SP No.2
BOT CHORD 2x6 SP No.2
OTHERS 2x4 SP No.3 *Except* 44-17,43-18,42-20,41-21,45-16,46-14,47-13: 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 15-19.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 17-44, 18-43, 20-42, 21-41, 16-45, 14-46, 13-47

REACTIONS (size) 2=55-11-0, 30=55-11-0, 32=55-11-0, 33=55-11-0, 34=55-11-0, 35=55-11-0, 36=55-11-0, 37=55-11-0, 38=55-11-0, 39=55-11-0, 41=55-11-0, 42=55-11-0, 43=55-11-0, 44=55-11-0, 45=55-11-0, 46=55-11-0, 47=55-11-0, 48=55-11-0, 50=55-11-0, 51=55-11-0, 52=55-11-0, 53=55-11-0, 54=55-11-0, 55=55-11-0, 56=55-11-0, 57=55-11-0
Max Horiz 2=206 (LC 20)
Max Uplift 2=-85 (LC 12), 30=-95 (LC 13), 32=-134 (LC 13), 33=-22 (LC 17), 34=-69 (LC 17), 35=-51 (LC 13), 36=-59 (LC 17), 37=-93 (LC 17), 38=-77 (LC 17), 39=-82 (LC 17), 41=-84 (LC 17), 43=-19 (LC 13), 44=-60 (LC 12), 45=-24 (LC 13), 47=-83 (LC 16), 48=-81 (LC 16), 50=-78 (LC 16), 51=-60 (LC 16), 52=-60 (LC 12), 53=-59 (LC 16), 54=-56 (LC 12), 55=-69 (LC 16), 56=-19 (LC 12), 57=-145 (LC 16)
Max Grav 2=223 (LC 64), 30=252 (LC 53), 32=453 (LC 53), 33=63 (LC 51), 34=219 (LC 53), 35=170 (LC 53), 36=152 (LC 45), 37=246 (LC 45), 38=210 (LC 45), 39=214 (LC 45), 41=221 (LC 59), 42=176 (LC 45), 43=207 (LC 44), 44=222 (LC 44), 45=207 (LC 44), 46=190 (LC 63), 47=221 (LC 57), 48=215 (LC 45), 50=215 (LC 45), 51=159 (LC 49), 52=184 (LC 49), 53=182 (LC 49), 54=173 (LC 49), 55=211 (LC 49), 56=62 (LC 49), 57=421 (LC 49)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/21, 2-3=-225/92, 3-4=-171/95, 4-5=-147/106, 5-6=-114/114, 6-7=-92/124, 7-8=-70/142, 8-9=-48/169, 9-10=-50/196, 10-11=-47/201, 11-12=-80/254, 12-13=-103/313, 13-14=-127/369, 14-15=-122/345, 15-16=-115/352, 16-17=-115/352, 17-18=-115/352, 18-19=-115/352, 19-20=-122/334, 20-21=-127/342, 21-22=-103/279, 22-23=-79/221, 23-24=-57/165, 24-25=-44/163, 25-26=-30/141, 26-27=-48/116, 27-28=-70/93, 28-29=-95/72, 29-30=-146/58, 30-31=0/21

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

June 7,2023

Continued on page 3

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

BOT CHORD 2-57=-66/199, 56-57=-66/197, 55-56=-66/197, 54-55=-66/197, 53-54=-66/197, 52-53=-66/197, 51-52=-66/197, 50-51=-66/197, 48-50=-66/197, 47-48=-66/197, 46-47=-66/197, 45-46=-66/197, 44-45=-66/197, 43-44=-66/197, 42-43=-66/197, 41-42=-66/197, 39-41=-66/197, 38-39=-66/197, 37-38=-66/197, 36-37=-66/197, 35-36=-59/190, 34-35=-59/190, 33-34=-59/190, 32-33=-59/190, 30-32=-59/190

WEBS 17-44=-182/141, 18-43=-167/59, 20-42=-136/0, 21-41=-181/181, 22-39=-174/167, 23-38=-170/107, 24-37=-206/117, 25-36=-112/91, 26-35=-136/76, 27-34=-156/89, 28-33=-99/62, 29-32=-250/133, 16-45=-167/53, 14-46=-150/7, 13-47=-181/181, 12-48=-175/167, 11-50=-175/117, 9-51=-118/100, 8-52=-145/84, 7-53=-140/82, 6-54=-138/81, 5-55=-150/88, 4-56=-99/59, 3-57=-239/140

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-8-10, Exterior(2N) 4-8-10 to 25-6-15, Corner(3R) 25-6-15 to 31-0-12, Exterior(2N) 31-0-12 to 32-6-9, Corner(3R) 32-6-9 to 38-1-10, Exterior(2N) 38-1-10 to 56-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Plates checked for a plus or minus 20 degree rotation about its center.
10) Gable requires continuous bottom chord bearing.
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 2, 95 lb uplift at joint 30, 60 lb uplift at joint 44, 19 lb uplift at joint 43, 84 lb uplift at joint 41, 82 lb uplift at joint 39, 77 lb uplift at joint 38, 93 lb uplift at joint 37, 59 lb uplift at joint 36, 51 lb uplift at joint 35, 69 lb uplift at joint 34, 22 lb uplift at joint 33, 134 lb uplift at joint 32, 24 lb uplift at joint 45, 83 lb uplift at joint 47, 81 lb uplift at joint 48, 78 lb uplift at joint 50, 60 lb uplift at joint 51, 60 lb uplift at joint 52, 59 lb uplift at joint 53, 56 lb uplift at joint 54, 69 lb uplift at joint 55, 19 lb uplift at joint 56 and 145 lb uplift at joint 57.
15) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
16) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R5	Monopitch	5	1	Job Reference (optional)	I58787745

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:58 Page: 1
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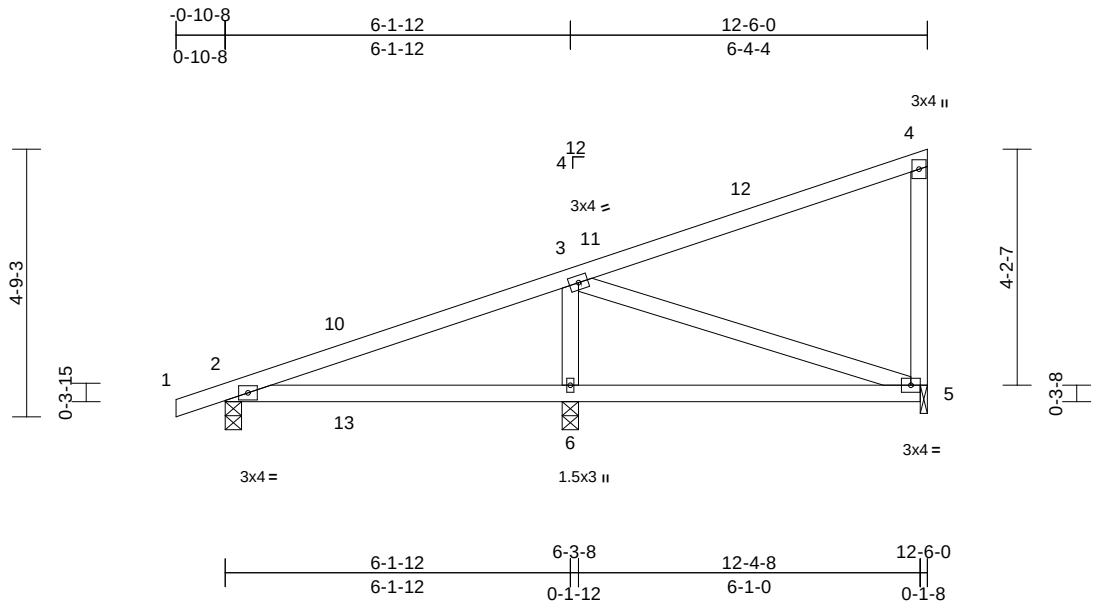


Scale = 1:41

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.55	Vert(LL)	0.12	6-9	>609	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.37	Vert(CT)	0.10	6-9	>720	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 57 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5=0-1-8, 6=0-3-8
Max Horiz 2=207 (LC 15)
Max Uplift 2=-154 (LC 12), 5=-77 (LC 16), 6=-246 (LC 12)
Max Grav 2=263 (LC 2), 5=243 (LC 23), 6=569 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-160/159, 3-4=-134/85, 4-5=-184/155
BOT CHORD 2-6=-209/117, 5-6=-149/106
WEBS 3-6=-403/315, 3-5=-52/123

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 6, and 5. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

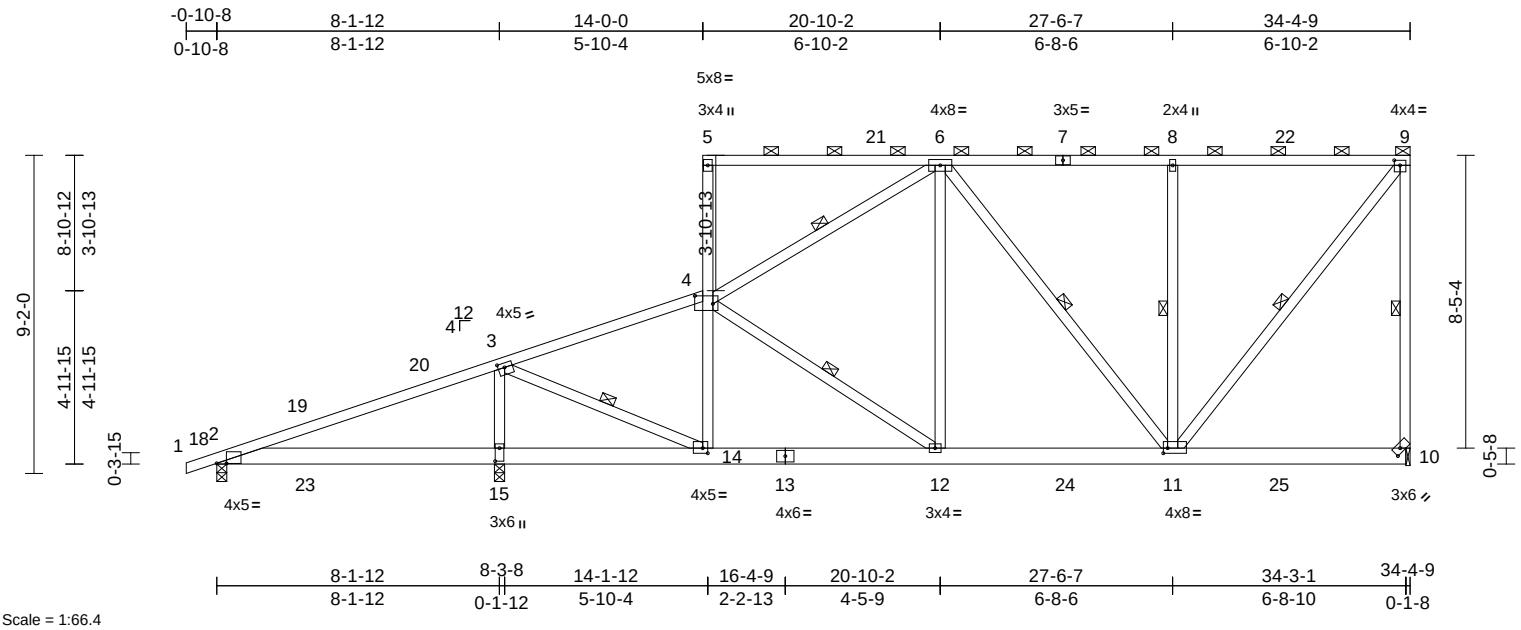
June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R6	Half Hip	3	1	I58787746
					Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:59 Page: 1
ID:GBPTvbdG4tGHmL8FZFLSf8zD1Yh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:66.4

Plate Offsets (X, Y): [2:0-3-6,0-0-0], [3:0-2-4,0-1-8], [4:0-6-4,0-2-12], [9:0-2-0,0-1-12], [10:0-2-7,0-1-7], [11:0-1-8,0-1-12], [14:0-1-12,0-1-12], [15:0-4-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.98	Vert(LL)	0.13	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.25	BC	0.55	Vert(CT)	-0.14	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.72	Horz(CT)	-0.02	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 248 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except* 3-15,4-6,12-4:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-10 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-6 max.): 4-14, 5-9.
BOT CHORD Rigid ceiling directly applied or 5-6-5 oc bracing.
WEBS 1 Row at midpt 9-10, 3-14, 4-6, 4-12, 6-11, 8-11, 9-11

REACTIONS (size) 2=0-3-8, 10=0-1-8, 15=0-3-8
Max Horiz 2=392 (LC 16)
Max Uplift 2=-142 (LC 14), 10=-437 (LC 13), 15=-1079 (LC 12)
Max Grav 2=263 (LC 38), 10=1457 (LC 39), 15=2458 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-3=-598/660, 3-4=-1990/1519, 4-14=-969/1029, 4-5=-227/114, 5-6=-141/138, 6-8=-906/452, 8-9=-906/452, 9-10=-1324/678
BOT CHORD 2-15=-505/271, 14-15=-505/271, 12-14=-1715/2051, 11-12=-782/1221, 10-11=-5/13
WEBS 3-15=-2149/1705, 3-14=-2036/2543, 4-6=-1390/755, 4-12=-1160/1123, 6-12=-578/835, 6-11=-614/534, 8-11=-558/260, 9-11=-723/1447

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-6-12, Interior (1) 2-6-12 to 14-1-12, Exterior(2E) 14-1-12 to 19-0-1, Interior (1) 19-0-1 to 34-2-13 zone; cantilever left and right exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) Plates checked for a plus or minus 20 degree rotation about its center.
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, with BCDL = 10.0psf.
10) 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.
11) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
12) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
13) Two RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15. This connection is for uplift only and does not consider lateral forces.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
16) Double installations of RT7A require the two hurricane ties to be installed on opposite sides of top plate to avoid nail interference in single ply truss.
17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1372 lb down and 1510 lb up at 14-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
18) 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

June 7,2023

Continued on page 3

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-4=-48, 5-9=-58, 2-10=-20
   Concentrated Loads (lb)
   Vert: 4=-1000 (F)

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	I58787747
Q015302-R	R7	Monopitch	12	1	Job Reference (optional)	

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:55:59 Page: 1
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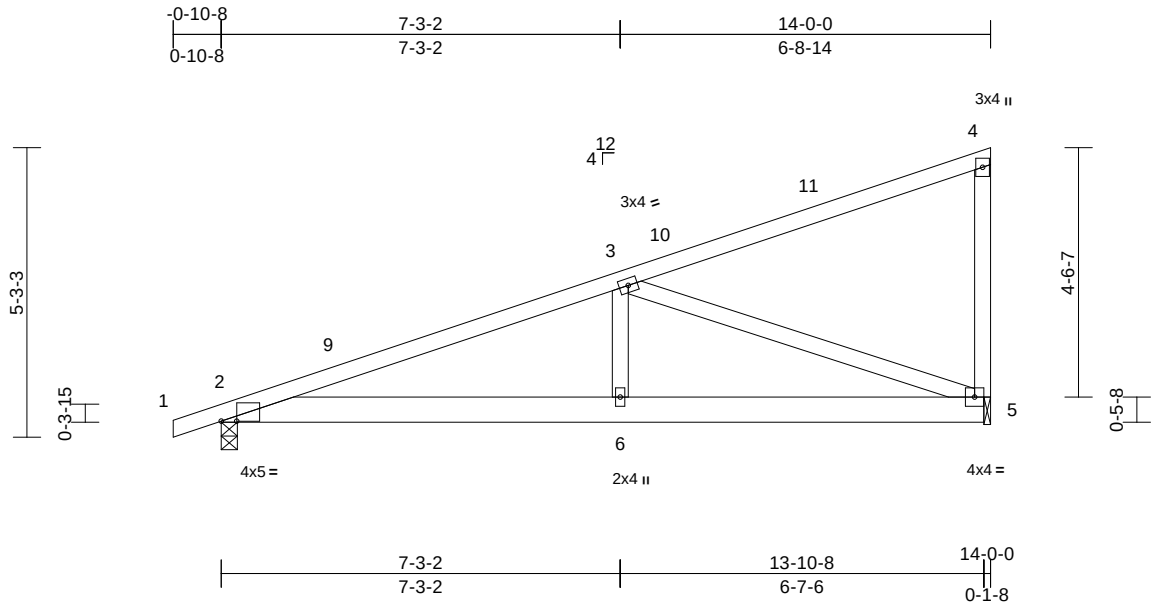

Scale = 1:41.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.60	Vert(LL)	0.05	6-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.09	6-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 75 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-5-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5=0-1-8
Max Horiz 2=229 (LC 13)
Max Uplift 2=-203 (LC 12), 5=-181 (LC 16)
Max Grav 2=612 (LC 2), 5=569 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-3=-1040/336, 3-4=-139/91, 4-5=-199/164
BOT CHORD 2-6=-438/943, 5-6=-438/943
WEBS 3-6=0/334, 3-5=-979/376

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 13-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	I58787748
Q015302-R	R7A	Half Hip	1	1	Job Reference (optional)	

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:00 Page: 1
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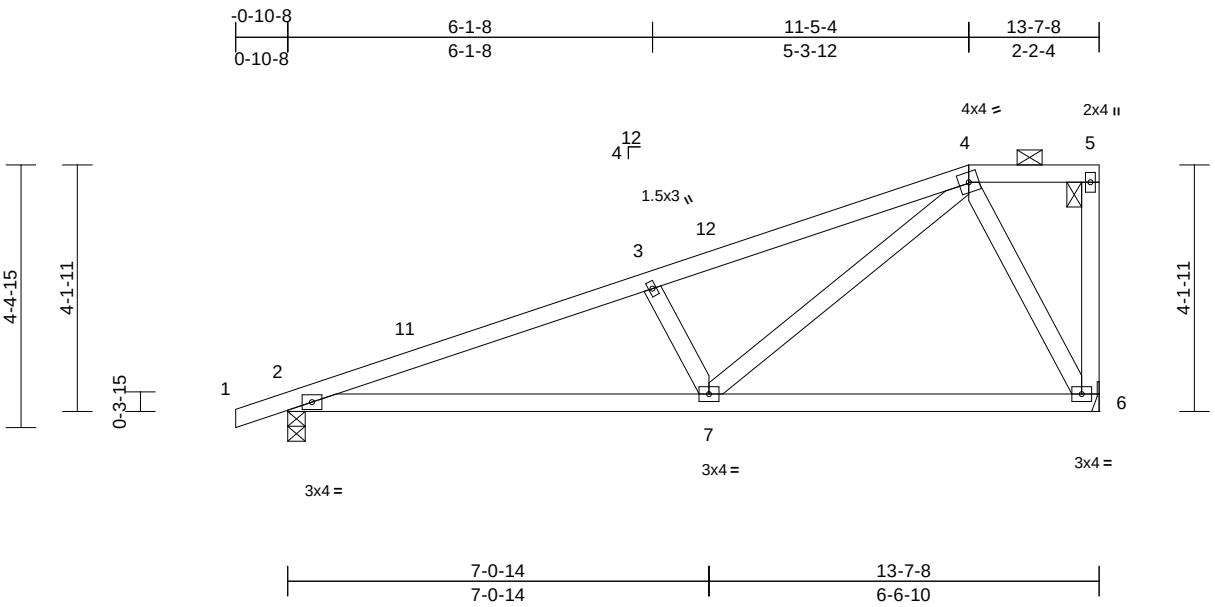

Scale = 1:38.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.53	Vert(LL)	-0.07	7-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-0.15	7-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 66 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 7-9-2 oc bracing.

REACTIONS (size) 2=0-3-8, 6= Mechanical
Max Horiz 2=193 (LC 15)
Max Uplift 2=-196 (LC 12), 6=-172 (LC 12)
Max Grav 2=721 (LC 38), 6=563 (LC 38)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-1273/372, 3-4=-1091/351, 4-5=-91/87, 5-6=-71/46
BOT CHORD 2-7=-566/1174, 6-7=-226/279
WEBS 3-7=-479/296, 4-7=-277/910, 4-6=-583/377

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-5-4, Exterior(2E) 11-5-4 to 13-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 172 lb uplift at joint 6.
11) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R7B	Half Hip	1	1	Job Reference (optional)	I58787749

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:00 Page: 1
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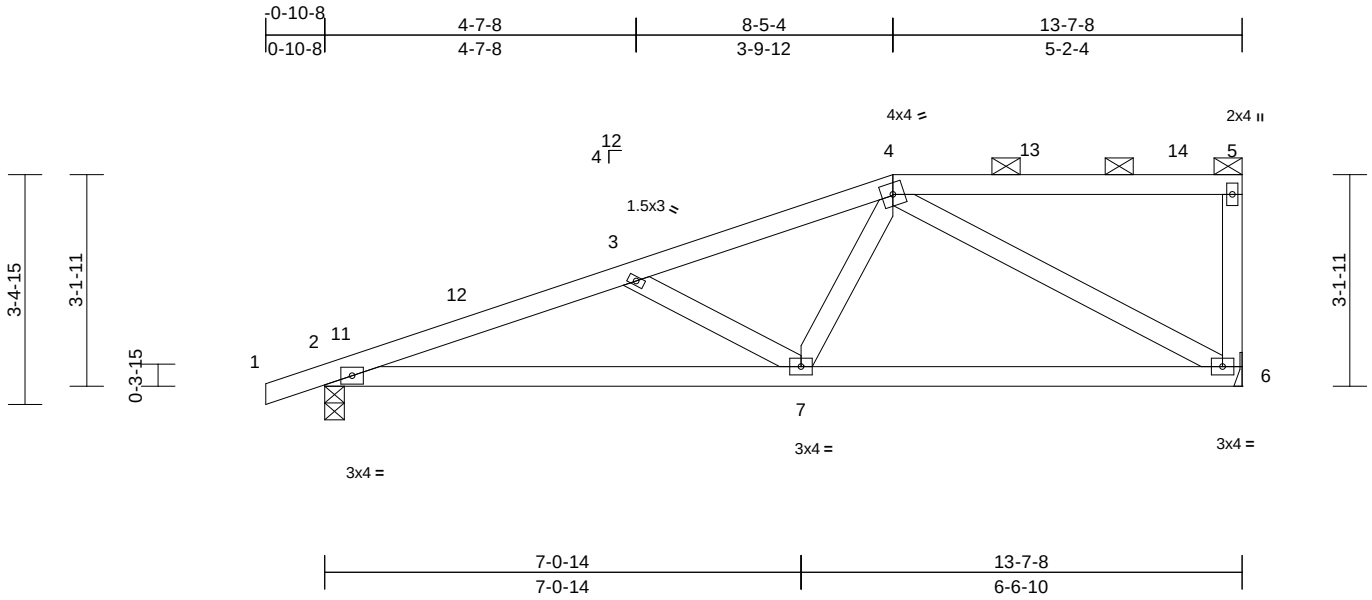

Scale = 1:34.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.04	7-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.10	7-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 63 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-10-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 7-2-11 oc bracing.

REACTIONS (size) 2=0-3-8, 6= Mechanical
Max Horiz 2=145 (LC 15)
Max Uplift 2=-202 (LC 12), 6=-167 (LC 12)
Max Grav 2=682 (LC 38), 6=537 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-1281/485, 3-4=-890/341, 4-5=-85/81, 5-6=-198/134
BOT CHORD 2-7=-660/1196, 6-7=-386/619
WEBS 3-7=-468/286, 4-7=-61/430, 4-6=-674/383

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-5-4, Exterior(2R) 8-5-4 to 12-8-3, Interior (1) 12-8-3 to 13-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 167 lb uplift at joint 6.
11) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R7C	Roof Special	3	1	Job Reference (optional)	I58787750

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:00 Page: 1
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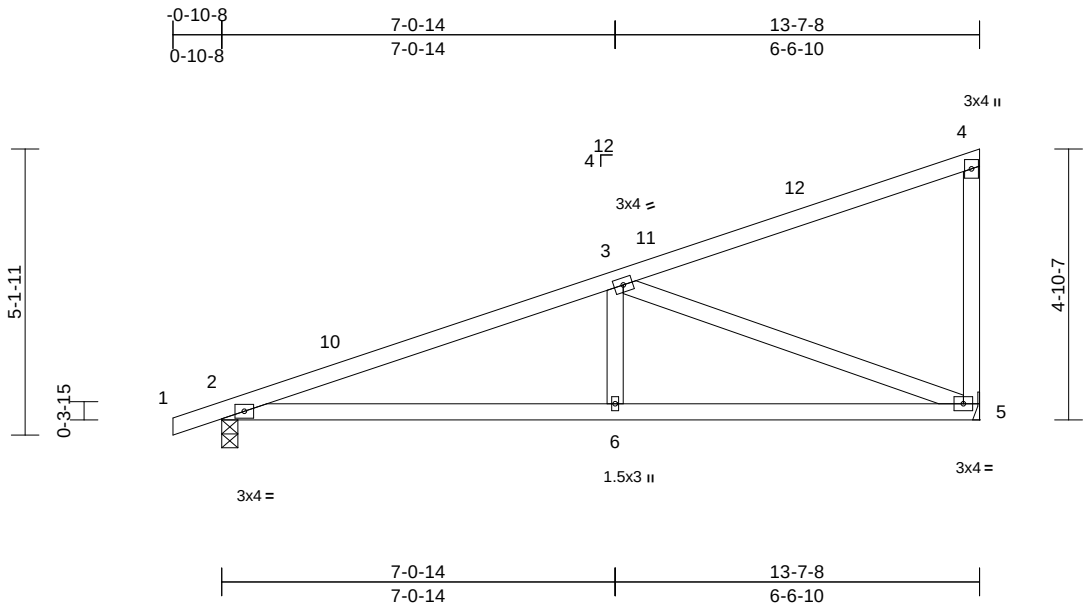

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	0.09	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.53	Vert(CT)	-0.16	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 62 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 5-3-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-8-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=226 (LC 15)
Max Uplift 2=-192 (LC 12), 5=-178 (LC 16)
Max Grav 2=593 (LC 2), 5=561 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-1003/334, 3-4=-140/92, 4-5=-189/161
BOT CHORD 2-6=-439/919, 5-6=-439/919
WEBS 3-6=0/310, 3-5=-961/388

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 13-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 5.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

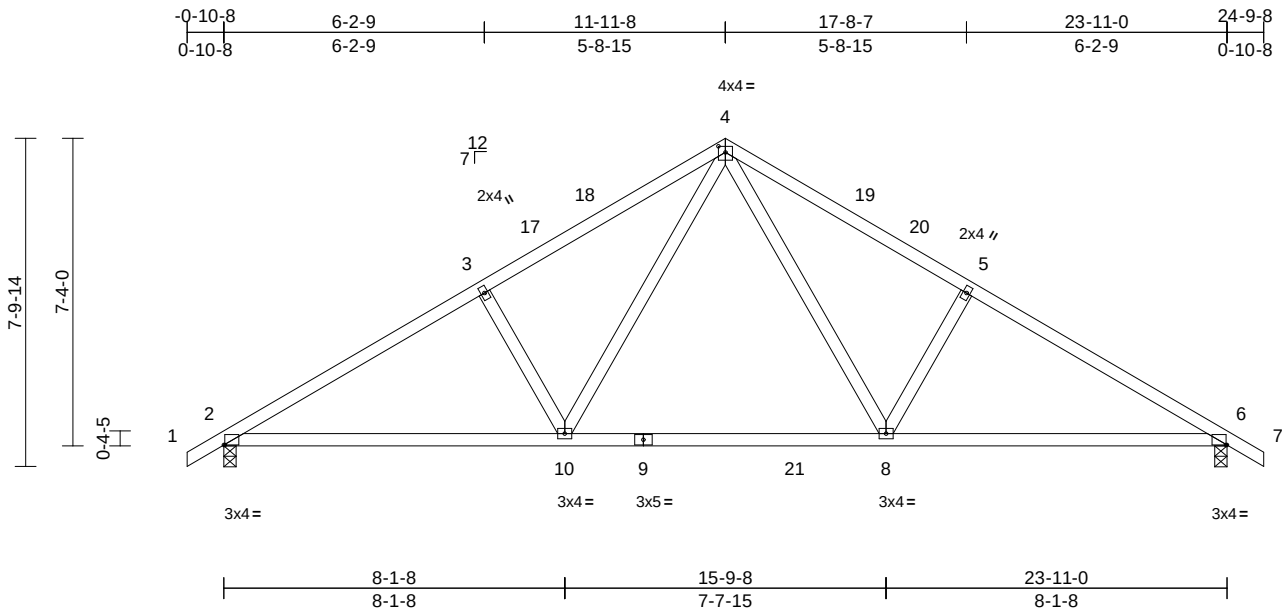
June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R8	Common	7	1	I58787751
					Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:01 Page: 1
ID:44FJbrVMgVurxfp8QRftipzD1Ys-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:54.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	-0.13	8-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.77	Vert(CT)	-0.23	8-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 115 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=-213 (LC 14)
Max Uplift 2=-237 (LC 16), 6=-237 (LC 17)
Max Grav 2=1152 (LC 30), 6=1151 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-3=-1676/332, 3-4=-1558/365, 4-5=-1557/365, 5-6=-1675/333, 6-7=0/33
BOT CHORD 2-10=-323/1553, 8-10=-95/991, 6-8=-190/1392
WEBS 4-8=-189/771, 5-8=-399/286, 4-10=-189/773, 3-10=-399/286

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-11-8, Exterior(2R) 11-11-8 to 14-11-8, Interior (1) 14-11-8 to 24-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

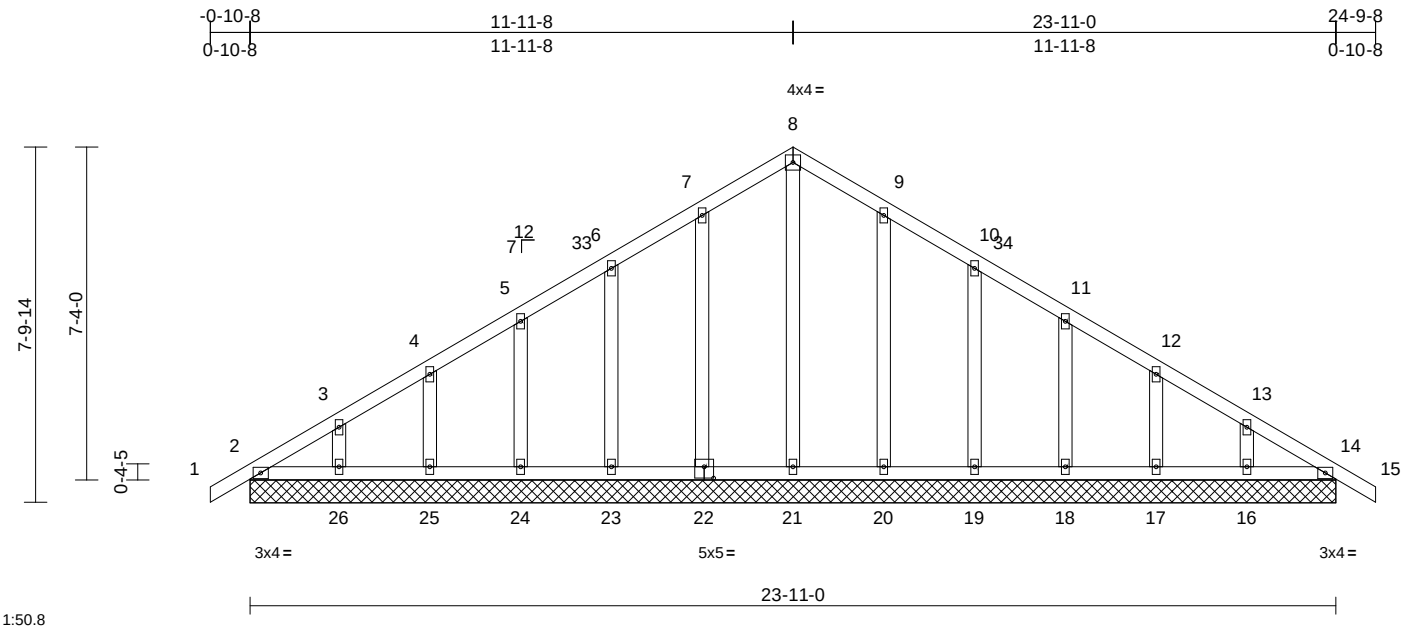
June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	I58787752
Q015302-R	R8G	Common Supported Gable	1	1	Job Reference (optional)	

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:01 Page: 1
ID:ZGohoAV_Rp0iZpNK_8A6F1zD1Yr-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:50.8

Plate Offsets (X, Y): [22:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 139 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=23-11-0, 14=23-11-0, 16=23-11-0, 17=23-11-0, 18=23-11-0, 19=23-11-0, 20=23-11-0, 21=23-11-0, 22=23-11-0, 23=23-11-0, 24=23-11-0, 25=23-11-0, 26=23-11-0, 27=23-11-0, 30=23-11-0
Max Horiz 2=-213 (LC 14), 27=-213 (LC 14)
Max Uplift 2=-50 (LC 12), 14=-8 (LC 13), 16=-79 (LC 17), 17=-78 (LC 17), 18=-78 (LC 17), 19=-81 (LC 17), 20=-77 (LC 17), 22=-79 (LC 16), 23=-79 (LC 16), 24=-78 (LC 16), 25=-78 (LC 16), 26=-81 (LC 16), 27=-50 (LC 12), 30=-8 (LC 13)
Max Grav 2=151 (LC 31), 14=137 (LC 2), 16=176 (LC 31), 17=171 (LC 31), 18=173 (LC 31), 19=174 (LC 24), 20=212 (LC 24), 21=182 (LC 33), 22=211 (LC 23), 23=175 (LC 23), 24=173 (LC 30), 25=171 (LC 30), 26=177 (LC 30), 27=151 (LC 31), 30=137 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=-175/156, 3-4=-141/134, 4-5=-124/116, 5-6=-108/130, 6-7=-96/165, 7-8=-128/208, 8-9=-128/208, 9-10=-95/153, 10-11=-62/94, 11-12=-58/39, 12-13=-73/52, 13-14=-119/73, 14-15=0/33
BOT CHORD 2-26=-69/147, 25-26=-69/147, 24-25=-69/147, 23-24=-69/147, 21-23=-69/148, 20-21=-69/148, 19-20=-69/148, 18-19=-69/148, 17-18=-69/148, 16-17=-69/148, 14-16=-69/148
WEBS 8-21=-143/33, 7-22=-171/103, 6-23=-134/104, 5-24=-132/102, 4-25=-133/104, 3-26=-129/97, 9-20=-172/101, 10-19=-134/105, 11-18=-132/101, 12-17=-133/104, 13-16=-128/96

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 1-11-8, Exterior(2N) 1-11-8 to 11-11-8, Corner(3R) 11-11-8 to 14-11-8, Exterior(2N) 14-11-8 to 24-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Plates checked for a plus or minus 20 degree rotation about its center.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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.

June 7,2023

Continued on page 3

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

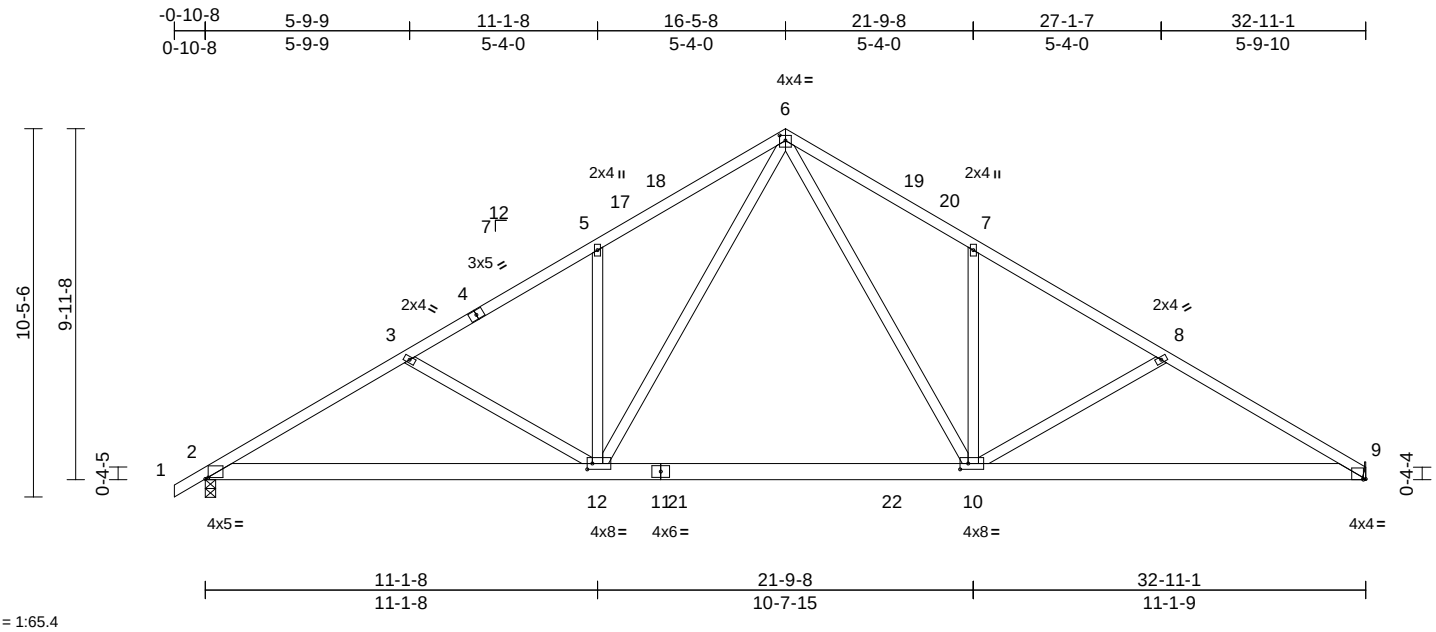
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 2, 8 lb uplift at joint 14, 79 lb uplift at joint 22, 79 lb uplift at joint 23, 78 lb uplift at joint 24, 78 lb uplift at joint 25, 81 lb uplift at joint 26, 77 lb uplift at joint 20, 81 lb uplift at joint 19, 78 lb uplift at joint 18, 78 lb uplift at joint 17, 79 lb uplift at joint 16, 50 lb uplift at joint 2 and 8 lb uplift at joint 14.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R9	Common	8	1	Job Reference (optional)	I58787753

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:01 Page: 1
ID:VfwSDsXFyQGQo6Xi5ZCaKSzD1Yp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:65.4

Plate Offsets (X, Y): [2:0-1-0,0-0-7], [6:0-2-0,0-1-12], [9:0-0-13,Edge], [10:0-2-12,0-2-0], [12:0-1-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.54	Vert(LL)	-0.18	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.76	Vert(CT)	-0.33	12-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 203 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 12-6,10-6:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-11-1 oc bracing.

REACTIONS (size) 2=0-3-8, 9= Mechanical
Max Horiz 2=282 (LC 13)
Max Uplift 2=-316 (LC 16), 9=-289 (LC 17)
Max Grav 2=1573 (LC 30), 9=1521 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-3=-2485/514, 3-5=-2167/410, 5-6=-2213/581, 6-7=-2206/580, 7-8=-2159/412, 8-9=-2462/512
BOT CHORD 2-12=-540/2299, 10-12=-139/1370, 9-10=-355/2084
WEBS 5-12=-365/298, 6-12=-355/1201, 3-12=-400/265, 6-10=-355/1189, 7-10=-366/298, 8-10=-395/264

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-5-0, Interior (1) 2-5-0 to 16-5-8, Exterior(2R) 16-5-8 to 19-9-0, Interior (1) 19-9-0 to 32-10-5 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 289 lb uplift at joint 9.
11) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

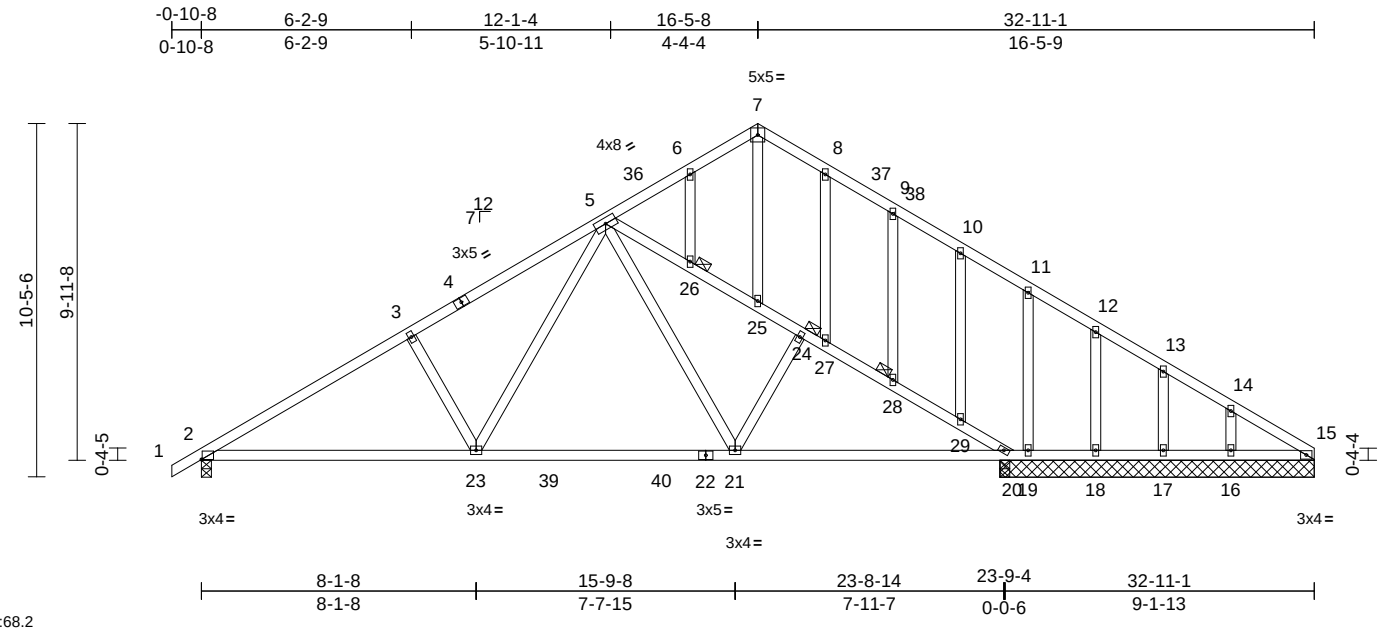
June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R9G	Common Structural Gable	1	1	I58787754 Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:02
ID:1TM30WWdB68ZBzyWXshLnEzD1Yq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:68.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.42	Vert(LL)	-0.13	21-23	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.80	Vert(CT)	-0.23	23-35	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.05	30	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 215 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 20-5:2x4 SP No.2
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-11-10 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 9-3-2 oc bracing.
JOINTS	1 Brace at Jt(s): 24, 26, 28

REACTIONS (size) 2=0-3-8, 15=9-3-9, 16=9-3-9, 17=9-3-9, 18=9-3-9, 19=9-3-9, 20=0-3-8, 30=9-3-9
Max Horiz 2=283 (LC 15)
Max Uplift 2=-241 (LC 16), 15=-20 (LC 13), 16=-108 (LC 17), 17=-87 (LC 17), 19=-394 (LC 7), 20=-30 (LC 16), 30=-20 (LC 13)
Max Grav 2=1208 (LC 30), 15=241 (LC 33), 16=261 (LC 31), 17=205 (LC 31), 18=107 (LC 31), 19=20 (LC 37), 20=1346 (LC 30), 30=241 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=-1782/338, 3-5=-1664/369, 5-6=-282/54, 6-7=-219/86, 7-8=-210/107, 8-9=-204/68, 9-10=-233/62, 10-11=-277/59, 11-12=-246/109, 12-13=-302/93, 13-14=-330/122, 14-15=-388/151

BOT CHORD 2-23=-386/1692, 21-23=-172/1150, 20-21=-193/1403, 19-20=-130/366, 18-19=-130/366, 17-18=-130/366, 16-17=-130/366, 15-16=-130/366

WEBS 21-24=-272/195, 5-23=-176/757, 3-23=-382/271, 5-21=-85/560, 5-26=-1274/326, 25-26=-1312/348, 24-25=-1299/340, 24-27=-1297/338, 27-28=-1341/384, 28-29=-1353/396, 20-29=-1365/411, 7-25=-57/57, 6-26=-94/45, 8-27=-221/154, 9-28=-40/30, 10-29=-48/42, 11-19=-342/241, 12-18=-21/28, 13-17=-151/115, 14-16=-154/113

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-5-0, Interior (1) 2-5-0 to 16-5-8, Exterior(2R) 16-5-8 to 19-9-0, Interior (1) 19-9-0 to 32-11-1 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Plates checked for a plus or minus 20 degree rotation about its center.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 20.
13) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15, 2, 19, 17, and 16. This connection is for uplift only and does not consider lateral forces.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R10	Common	5	1	I58787755
					Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:02
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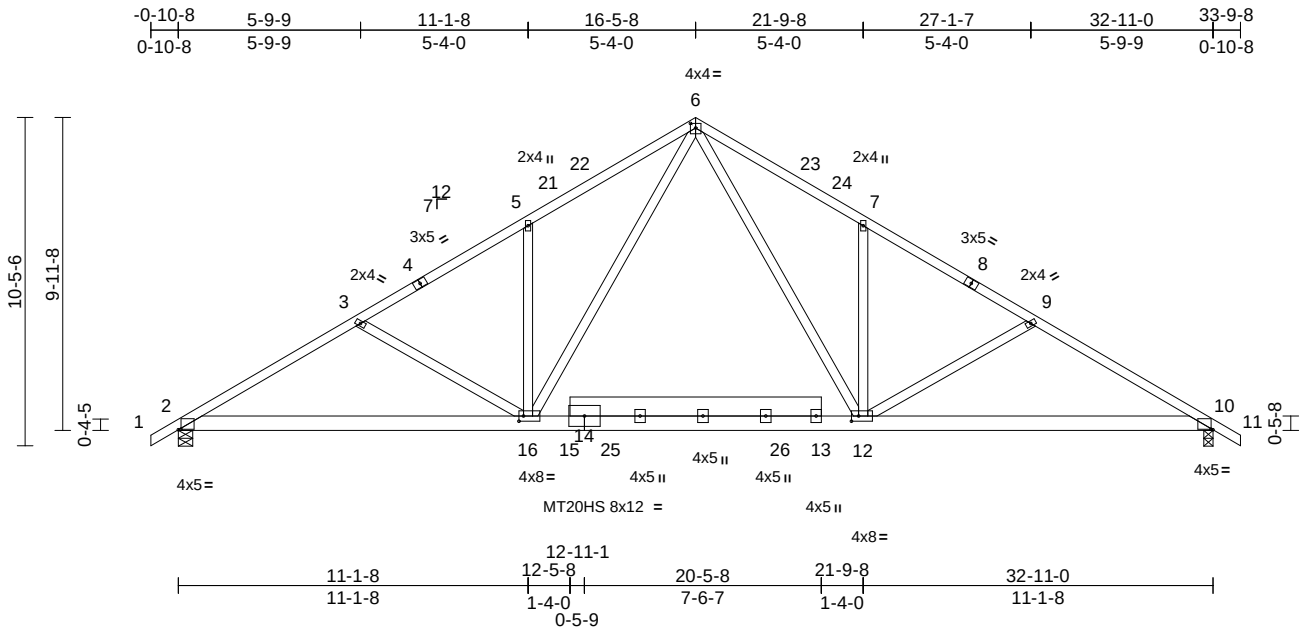

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Plate Offsets (X, Y): [2:0-1-0,0-0-3], [6:0-2-0,0-1-12], [10:0-0-12,0-0-3], [12:0-2-12,0-2-0], [16:0-1-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.54	Vert(LL)	-0.17	12-20	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.74	Vert(CT)	-0.34	12-20	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 229 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 15-13:2x8 SP No.2
WEBS 2x4 SP No.3 *Except* 16-6,12-6:2x4 SP No.2

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

REACTIONS (size) 2=0-5-8, 10=0-3-8
Max Horiz 2=288 (LC 15)
Max Uplift 2=-316 (LC 16), 10=-316 (LC 17)
Max Grav 2=1570 (LC 30), 10=1570 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-3=-2481/516, 3-5=-2154/412, 5-6=-2200/584, 6-7=-2196/582, 7-9=-2151/412, 9-10=-2479/514, 10-11=0/33
BOT CHORD 2-16=-532/2298, 12-16=-135/1375, 10-12=-336/2079
WEBS 5-16=-364/298, 6-16=-357/1190, 3-16=-403/264, 7-12=-364/298, 6-12=-356/1187, 9-12=-403/264

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-5-0, Interior (1) 2-5-0 to 16-5-8, Exterior(2R) 16-5-8 to 19-9-0, Interior (1) 19-9-0 to 33-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are MT20 plates unless otherwise indicated.
7) Plates checked for a plus or minus 20 degree rotation about its center.
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, with BCDL = 10.0psf.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R10G	Common	1	1	I58787756
					Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:03 Page: 1
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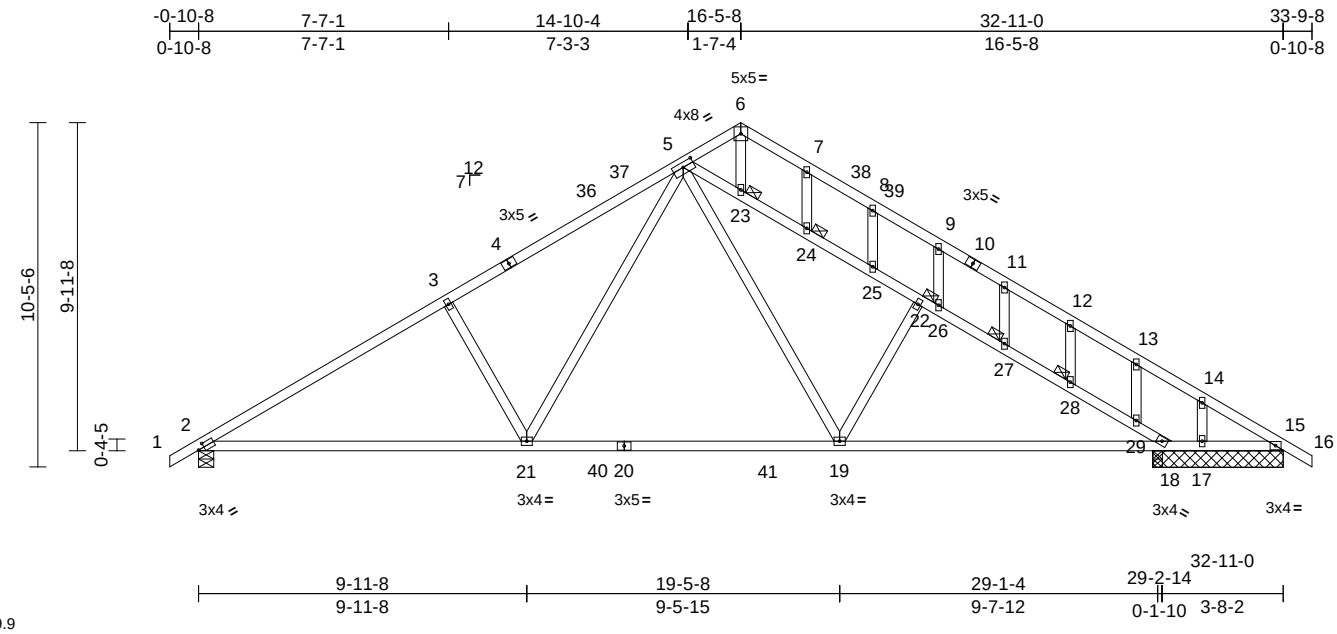

Scale = 1:69.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.67	Vert(LL)	-0.26	19-21	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.42	21-32	>846	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.06	15	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 198 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP 1650F 1.7E
WEBS	2x4 SP No.2 *Except* 19-22,21-3:2x4 SP No.3
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-0-9 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 22, 23, 24, 27, 28

REACTIONS (size) 2=0-5-8, 15=3-11-8, 17=3-11-8, 18=0-3-8, 33=3-11-8
Max Horiz 2=288 (LC 15)
Max Uplift 2=-284 (LC 16), 17=-295 (LC 17), 18=-237 (LC 17)
Max Grav 2=1422 (LC 30), 15=225 (LC 33), 17=55 (LC 37), 18=1601 (LC 31), 33=225 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/33, 2-3=-2110/408, 3-5=-1961/445, 5-6=-237/118, 6-7=-235/85, 7-8=-277/49, 8-9=-267/0, 9-11=-206/48, 11-12=-232/48, 12-13=-280/33, 13-14=-281/68, 14-15=-374/191, 15-16=0/33
BOT CHORD	2-21=-417/1968, 19-21=-147/1281, 18-19=-237/1703, 17-18=-139/343, 15-17=-139/343
WEBS	19-22=-411/337, 5-21=-222/958, 3-21=-476/339, 5-19=-200/843, 5-23=-1654/445, 23-24=-1644/431, 24-25=-1671/448, 22-25=-1706/477, 22-26=-1701/471, 26-27=-1781/552, 27-28=-1809/567, 28-29=-1813/570, 18-29=-1885/613, 6-23=-51/80, 7-24=-91/55, 8-25=-134/108, 9-26=-265/214, 11-27=-54/39, 12-28=-10/12, 13-29=-144/109, 14-17=-350/241

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-5-0, Interior (1) 2-5-0 to 16-5-8, Exterior(2R) 16-5-8 to 19-9-0, Interior (1) 19-9-0 to 33-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Plates checked for a plus or minus 20 degree rotation about its center.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 17. This connection is for uplift only and does not consider lateral forces.
13) One HTS20 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R11	Common	2	1	Job Reference (optional)	I58787757

Load Star, Lavonia, GA - 30553,

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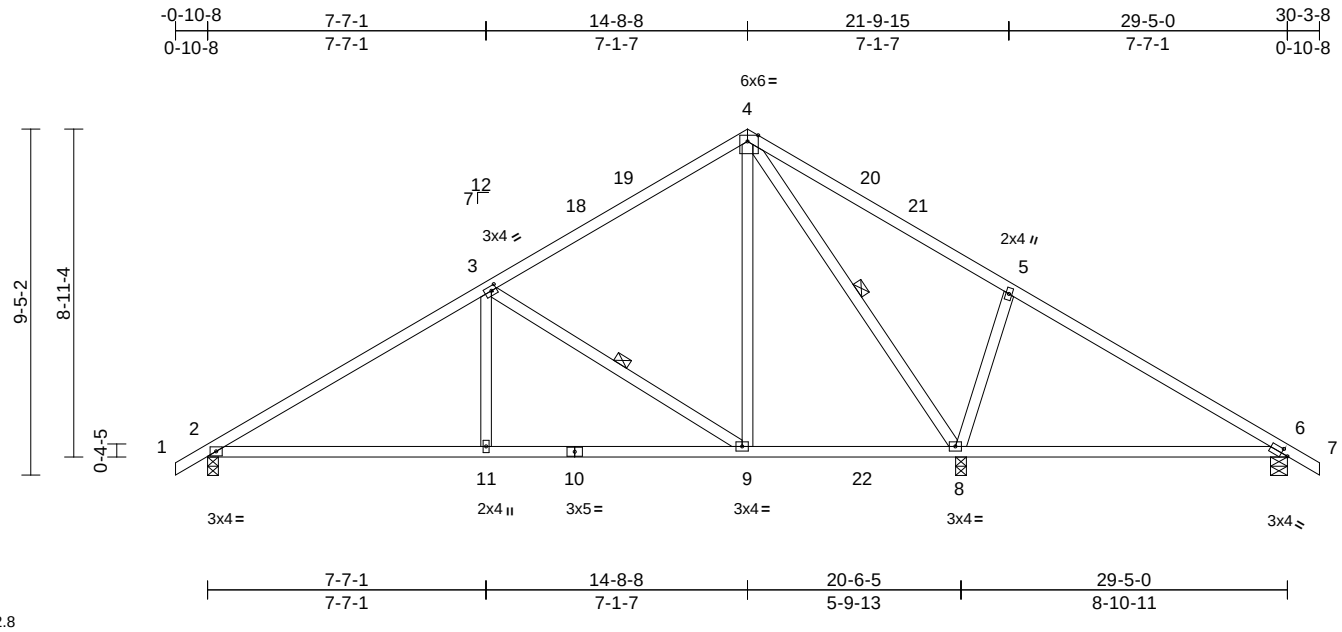

Scale = 1:62.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.76	Vert(LL)	-0.16	8-17	>679	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.68	Vert(CT)	-0.34	8-17	>315	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 150 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 3-11,8-5:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 6-8.
WEBS 1 Row at midpt 3-9, 4-8

REACTIONS (size) 2=0-3-8, 6=0-5-8, 8=0-3-8
Max Horiz 2=258 (LC 15)
Max Uplift 2=-209 (LC 16), 6=-98 (LC 17), 8=-269 (LC 17)
Max Grav 2=960 (LC 30), 6=391 (LC 31), 8=1446 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-3=-1265/252, 3-4=-577/187, 4-5=-77/248, 5-6=-168/107, 6-7=0/33
BOT CHORD 2-11=-266/1214, 9-11=-266/1214, 8-9=-32/493, 6-8=-42/95
WEBS 3-11=0/334, 3-9=-851/339, 4-9=-100/662, 4-8=-985/200, 5-8=-514/366

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 14-8-8, Exterior(2R) 14-8-8 to 17-8-8, Interior (1) 17-8-8 to 30-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 8.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R11G	Common Supported Gable	1	1	I58787758 Job Reference (optional)

Load Star, Lavonia, GA - 30553,

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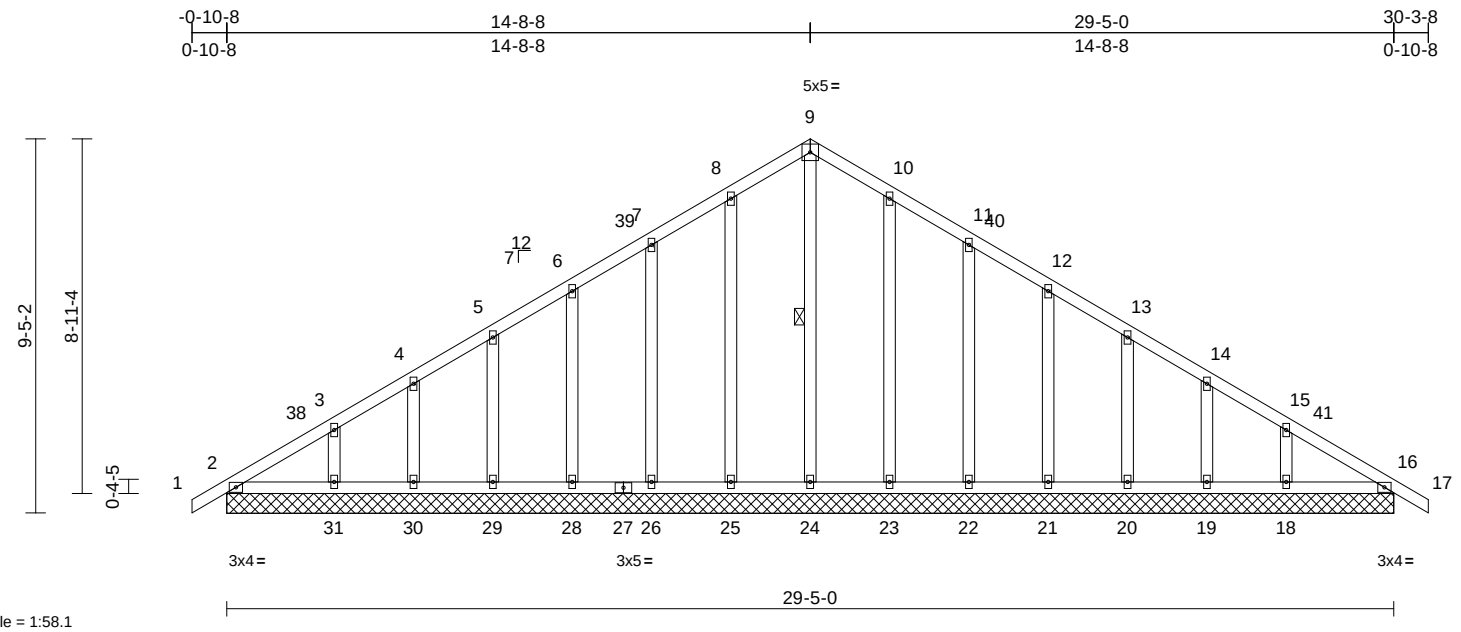

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	16	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 187 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 24-9:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 9-24

REACTIONS (size) 2=29-5-0, 16=29-5-0, 18=29-5-0, 19=29-5-0, 20=29-5-0, 21=29-5-0, 22=29-5-0, 23=29-5-0, 24=29-5-0, 25=29-5-0, 26=29-5-0, 28=29-5-0, 29=29-5-0, 30=29-5-0, 31=29-5-0, 32=29-5-0, 35=29-5-0
Max Horiz 2=258 (LC 15), 32=258 (LC 15)
Max Uplift 2=-55 (LC 12), 16=-4 (LC 13), 18=-105 (LC 17), 19=-70 (LC 17), 20=-81 (LC 17), 21=-77 (LC 17), 22=-82 (LC 17), 23=-73 (LC 17), 25=-76 (LC 16), 26=-81 (LC 16), 28=-77 (LC 16), 29=-81 (LC 16), 30=-69 (LC 16), 31=-106 (LC 16), 32=-55 (LC 12), 35=-4 (LC 13)
Max Grav 2=181 (LC 31), 16=161 (LC 2), 18=229 (LC 31), 19=153 (LC 31), 20=177 (LC 31), 21=171 (LC 31), 22=175 (LC 24), 23=211 (LC 24), 24=205 (LC 33), 25=211 (LC 23), 26=175 (LC 23), 28=171 (LC 30), 29=177 (LC 30), 30=153 (LC 30), 31=231 (LC 30), 32=181 (LC 31), 35=161 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=-213/193, 3-4=-171/160, 4-5=-153/143, 5-6=-137/143, 6-7=-120/177, 7-8=-125/213, 8-9=-157/250, 9-10=-157/250, 10-11=-125/197, 11-12=-91/138, 12-13=-59/82, 13-14=-66/45, 14-15=-83/59, 15-16=-144/91, 16-17=0/33
BOT CHORD 2-31=-84/178, 30-31=-84/178, 29-30=-84/178, 28-29=-84/178, 26-28=-84/178, 25-26=-84/178, 24-25=-84/178, 23-24=-84/178, 22-23=-84/178, 21-22=-84/178, 20-21=-84/178, 19-20=-84/178, 18-19=-84/178, 16-18=-84/178
WEBS 9-24=-175/59, 8-25=-171/100, 7-26=-134/105, 6-28=-132/101, 5-29=-134/104, 4-30=-123/97, 3-31=-162/119, 10-23=-171/97, 11-22=-134/106, 12-21=-132/101, 13-20=-134/104, 14-19=-123/97, 15-18=-162/119

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 14-8-8, Corner(3R) 14-8-8 to 17-8-8, Exterior(2N) 17-8-8 to 30-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Plates checked for a plus or minus 20 degree rotation about its center.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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.

June 7,2023

Continued on page 3

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 2, 4 lb uplift at joint 16, 76 lb uplift at joint 25, 81 lb uplift at joint 26, 77 lb uplift at joint 28, 81 lb uplift at joint 29, 69 lb uplift at joint 30, 106 lb uplift at joint 31, 73 lb uplift at joint 23, 82 lb uplift at joint 22, 77 lb uplift at joint 21, 81 lb uplift at joint 20, 70 lb uplift at joint 19, 105 lb uplift at joint 18, 55 lb uplift at joint 2 and 4 lb uplift at joint 16.
14) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 16, 35.
15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R12	Common	2	1	Job Reference (optional)	I58787759

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:04 Page: 1
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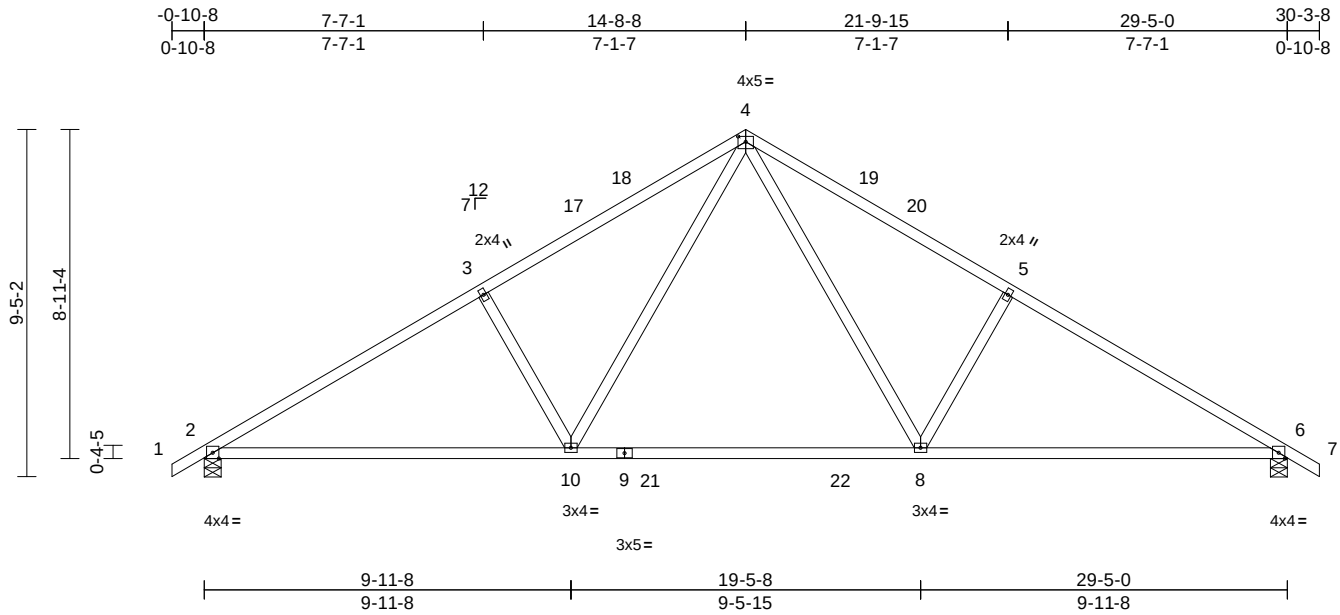


Scale = 1:62.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.83	Vert(LL)	-0.25	8-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.77	Vert(CT)	-0.43	8-16	>825	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.05	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 141 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 1650F 1.7E
WEBS 2x4 SP No.2 *Except* 8-5,10-3:2x4 SP No.3

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

REACTIONS (size) 2=0-5-8, 6=0-5-8
Max Horiz 2=258 (LC 15)
Max Uplift 2=-285 (LC 16), 6=-285 (LC 17)
Max Grav 2=1410 (LC 30), 6=1410 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-3=-2087/413, 3-4=-1939/451, 4-5=-1939/452, 5-6=-2088/413, 6-7=0/33
BOT CHORD 2-10=-404/1929, 8-10=-120/1227, 6-8=-237/1735
WEBS 4-8=-235/965, 5-8=-490/354, 4-10=-235/964, 3-10=-490/354

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 14-8-8, Exterior(2R) 14-8-8 to 17-8-8, Interior (1) 17-8-8 to 30-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

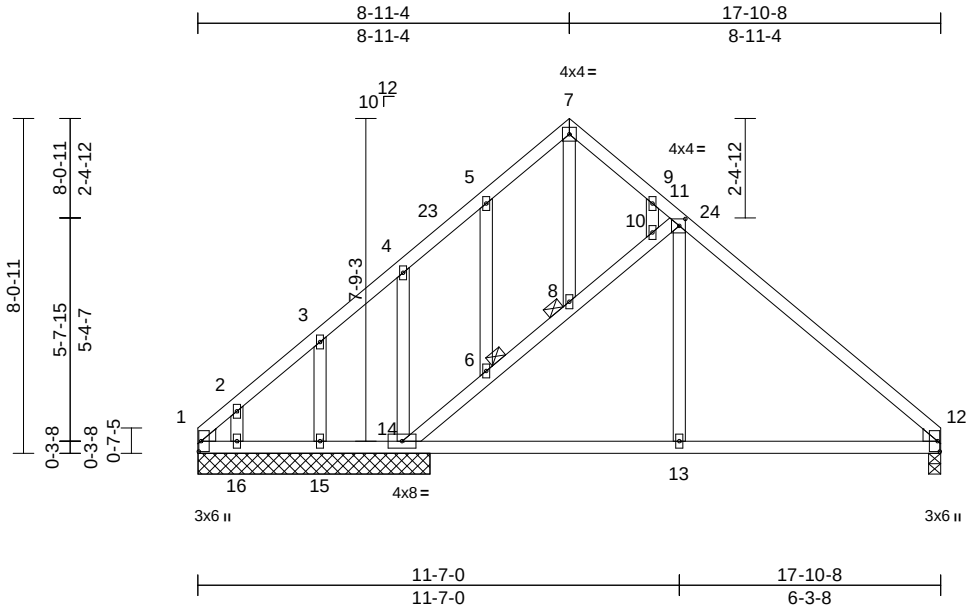
June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	I58787760
Q015302-R	R13G	Common	1	1	Job Reference (optional)	

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:05 Page: 1
ID:8h7ZA9T68ud7iLfll0dPdOzD1Yu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:55.4

Plate Offsets (X, Y): [1:0-3-0,0-0-11], [11:0-1-12,0-2-0], [12:0-3-0,0-0-10]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.38	Vert(LL)	0.07	13-22	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	-0.07	13-22	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.02	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 108 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
WEDGE	Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 8, 6

REACTIONS (size) 1=5-7-0, 12=0-3-8, 14=5-7-0, 15=5-7-0, 16=5-7-0, 17=5-7-0
Max Horiz 1=212 (LC 11), 17=212 (LC 11)
Max Uplift 1=-62 (LC 12), 12=-68 (LC 15), 14=-228 (LC 14), 15=-92 (LC 14), 16=-179 (LC 14), 17=-62 (LC 12)
Max Grav 1=271 (LC 14), 12=533 (LC 2), 14=574 (LC 2), 15=100 (LC 25), 16=182 (LC 25), 17=271 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-325/138, 2-3=-228/90, 3-4=-171/49, 4-5=-161/4, 5-7=-116/58, 7-9=-163/95, 9-11=-174/75, 11-12=-587/77, 6-14=-460/285, 6-8=-441/256, 8-10=-431/251, 10-11=-418/238
BOT CHORD	1-16=-134/285, 15-16=-119/285, 14-15=-119/285, 13-14=0/373, 12-13=-68/373
WEBS	7-8=-33/33, 5-6=-75/87, 4-14=-204/175, 3-15=-117/120, 2-16=-122/147, 9-10=-21/30, 11-13=0/280

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 2-11-4, Interior (1) 2-11-4 to 8-11-4, Exterior(2R) 8-11-4 to 11-11-4, Interior (1) 11-11-4 to 17-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Plates checked for a plus or minus 20 degree rotation about its center.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 228 lb uplift at joint 14.
11) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 12, , 15, and 16. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

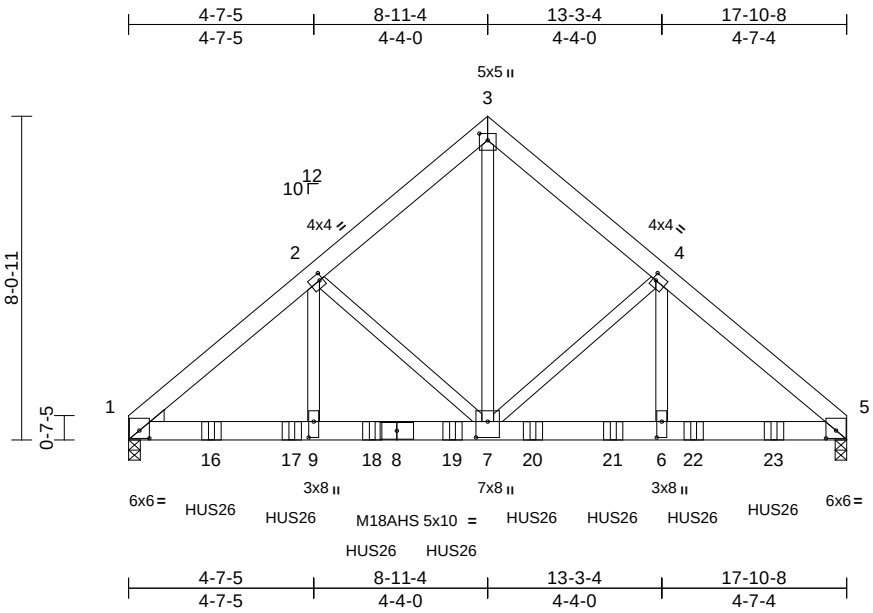
June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R13X	Common Girder	1	2	Job Reference (optional)	I58787761

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:05
ID:c9CMyJhPuQvas61CMoxeMBzD1Yc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57.3

Plate Offsets (X, Y): [1:0-3-0,0-2-5], [2:0-1-0,0-2-0], [3:0-2-0,0-2-8], [4:0-1-0,0-2-0], [5:0-3-0,0-2-5], [6:0-4-12,0-1-8], [7:0-4-12,0-3-8], [9:0-4-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.08	7-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.81	Vert(CT)	-0.15	7-9	>999	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.05	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 270 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except* 7-3:2x4 SP No.2
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, (req. 0-3-14), 5=0-3-8, (req. 0-4-0)
Max Horiz 1=212 (LC 7)
Max Uplift 1=-1327 (LC 10), 5=-1361 (LC 11)
Max Grav 1=6571 (LC 21), 5=6741 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-8585/1748, 2-3=-5926/1295, 3-4=-5925/1295, 4-5=-8624/1752
BOT CHORD 1-9=-1391/6717, 7-9=-1391/6717, 6-7=-1294/6630, 5-6=-1294/6630
WEBS 2-9=-624/3376, 2-7=-2868/732, 3-7=-1504/7197, 4-7=-2908/741, 4-6=-631/3408

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) All plates are MT20 plates unless otherwise indicated.
7) Plates checked for a plus or minus 20 degree rotation about its center.
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) WARNING: Required bearing size at joint(s) 1, 5 greater than input bearing size.
11) One HTS20 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 5. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 16-0-12 to connect truss(es) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-48, 3-5=-48, 10-13=-20
Concentrated Loads (lb)
Vert: 16=-1092 (B), 17=-1092 (B), 18=-1092 (B), 19=-1092 (B), 20=-1092 (B), 21=-1092 (B), 22=-1092 (B), 23=-1092 (B)

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R14	Common	1	1	Job Reference (optional)	I58787762

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:05 Page: 1
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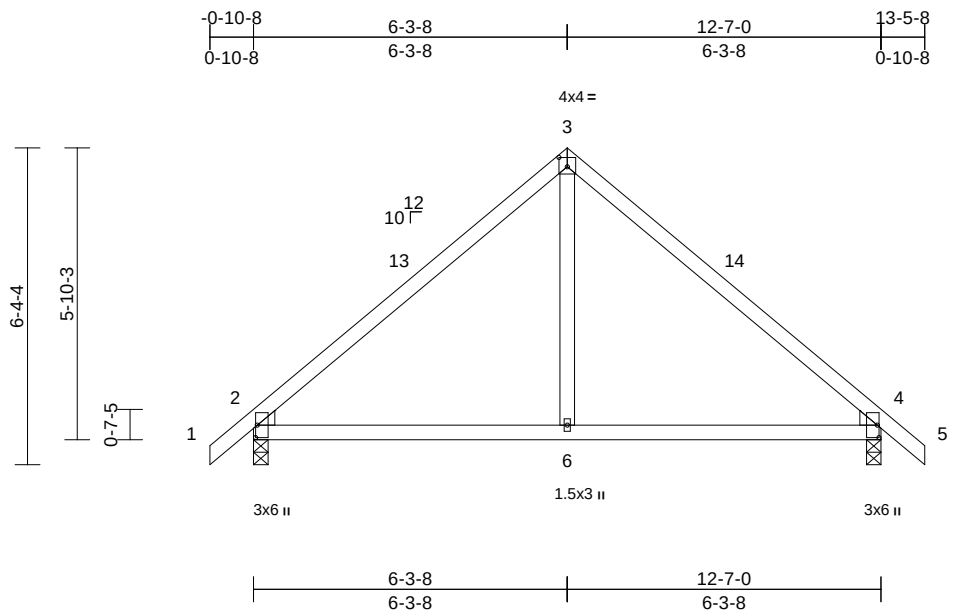

Scale = 1:46.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.45	Vert(LL)	0.08	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.09	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	-0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 56 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
Right: 2x4 SP No.3

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

REACTIONS (size) 2=0-3-8, 4=0-3-8
Max Horiz 2=170 (LC 13)
Max Uplift 2=-124 (LC 14), 4=-124 (LC 15)
Max Grav 2=556 (LC 2), 4=556 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/42, 2-3=-541/207, 3-4=-541/207, 4-5=0/42
BOT CHORD 2-6=-142/358, 4-6=-76/358
WEBS 3-6=-7/289

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-3-8, Exterior(2R) 6-3-8 to 9-3-8, Interior (1) 9-3-8 to 13-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 20 degree rotation about its center.
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) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	R14G	Common Supported Gable	1	1	Job Reference (optional)	I58787763

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:06 Page: 1
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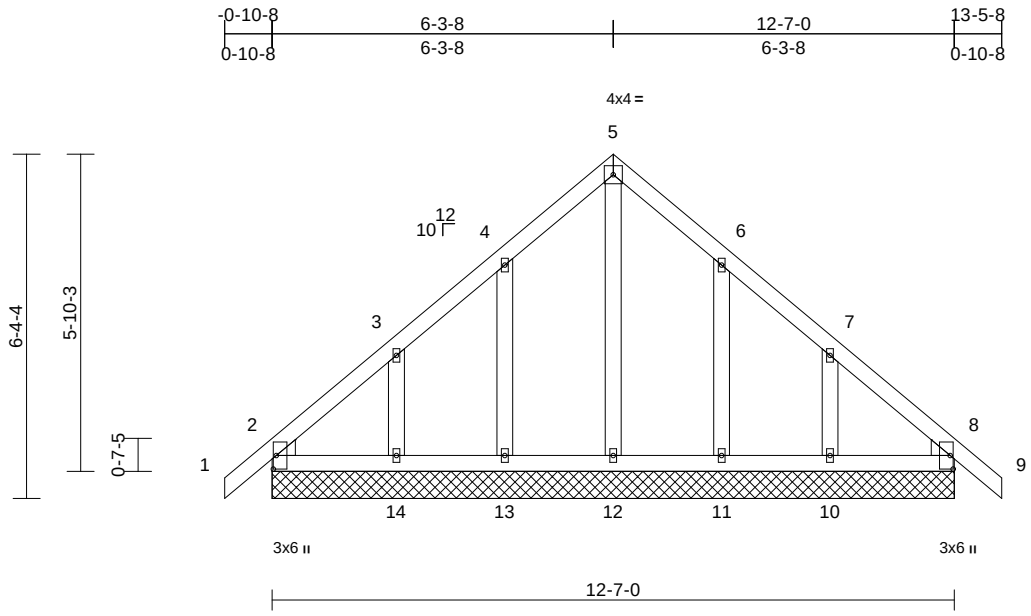

Scale = 1:42.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 73 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=12-7-0, 8=12-7-0, 10=12-7-0, 11=12-7-0, 12=12-7-0, 13=12-7-0, 14=12-7-0, 15=12-7-0, 19=12-7-0
Max Horiz 2=170 (LC 13), 15=170 (LC 13)
Max Uplift 2=-44 (LC 10), 8=-13 (LC 11), 10=-147 (LC 15), 11=-103 (LC 15), 13=-102 (LC 14), 14=-151 (LC 14), 15=-44 (LC 10), 19=-13 (LC 11)
Max Grav 2=176 (LC 27), 8=166 (LC 2), 10=211 (LC 27), 11=180 (LC 27), 12=150 (LC 29), 13=180 (LC 26), 14=216 (LC 26), 15=176 (LC 27), 19=166 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/42, 2-3=-131/106, 3-4=-115/90, 4-5=-130/213, 5-6=-130/213, 6-7=-82/91, 7-8=-101/61, 8-9=0/42
BOT CHORD	2-14=-91/184, 13-14=-56/184, 12-13=-56/184, 11-12=-56/184, 10-11=-56/184, 8-10=-56/184
WEBS	5-12=-168/56, 4-13=-147/175, 3-14=-155/215, 6-11=-146/175, 7-10=-156/214

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-3-8, Exterior(2N) 2-3-8 to 6-3-8, Corner(3R) 6-3-8 to 9-3-8, Exterior(2N) 9-3-8 to 13-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are 1.5x3 MT20 unless otherwise indicated.
7) Plates checked for a plus or minus 20 degree rotation about its center.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2, 13 lb uplift at joint 8, 102 lb uplift at joint 13, 151 lb uplift at joint 14, 103 lb uplift at joint 11, 147 lb uplift at joint 10, 44 lb uplift at joint 2 and 13 lb uplift at joint 8.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof
Q015302-R	R15X	Half Hip Girder	1	3	I58787764
					Job Reference (optional)

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:06 Page: 1
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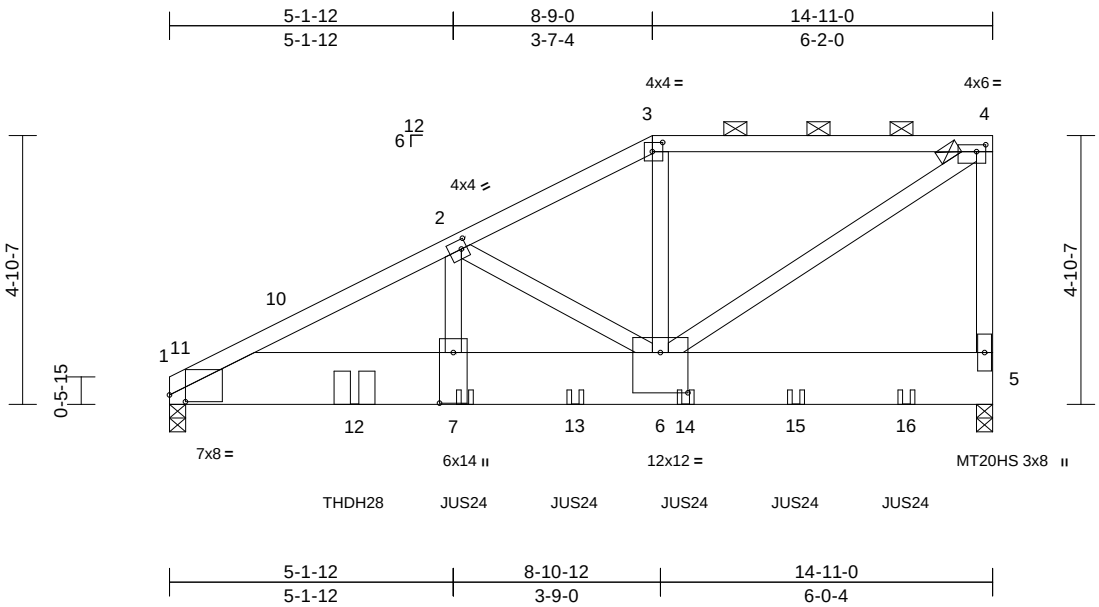

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Plate Offsets (X, Y): [1:0-3-8,0-1-8], [2:0-1-4,0-2-0], [3:0-2-4,0-2-0], [4:0-2-0,0-1-8], [6:0-6-0,0-8-12], [7:0-11-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.61	Vert(LL)	-0.08	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.25	BC	0.81	Vert(CT)	-0.16	6-7	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 374 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x12 SP No.1
WEBS 2x4 SP No.3 *Except* 6-4:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, (req. 0-4-0), 5=0-3-8, (req. 0-4-1)
Max Horiz 1=216 (LC 9)
Max Uplift 1=-792 (LC 12), 5=-859 (LC 9)
Max Grav 1=10226 (LC 38), 5=10359 (LC 43)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-14777/1221, 2-3=-9958/834, 3-4=-8994/785, 4-5=-6592/633
BOT CHORD 1-7=-1127/13201, 6-7=-1127/13201, 5-6=-60/93
WEBS 2-6=-5192/516, 3-6=-262/4349, 4-6=-905/11014, 2-7=-317/4724

NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x12 - 2 rows staggered at 0-6-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 2-7 2x4 - 1 row at 0-5-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
6) Unbalanced snow loads have been considered for this design.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) Plates checked for a plus or minus 20 degree rotation about its center.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) WARNING: Required bearing size at joint(s) 1, 5 greater than input bearing size.
13) Two RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 5. This connection is for uplift only and does not consider lateral forces.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
15) Load case(s) 1, 3 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
16) Girder carries tie-in span(s): 33-0-0 from 0-0-0 to 14-11-0
17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
18) Use MiTek THDH28 (With 36-16d nails into Girder & 12-16d nails into Truss) or equivalent at 3-4-4 from the left end to connect truss(es) to back face of bottom chord.
19) Use MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 5-4-4 from the left end to 13-4-4 to connect truss(es) to back face of bottom chord.
20) Fill all nail holes where hanger is in contact with lumber.
21) Double installations of RT7A require the two hurricane ties to be installed on opposite sides of top plate to avoid nail interference in single ply truss.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)

June 7,2023

Continued on page 3

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

Vert: 1-3=-48, 3-4=-58, 1-11=-634 (F=-614), 5-11=-784 (F=-614)
Concentrated Loads (lb)
Vert: 7=-507 (B), 12=-821 (B), 13=-543 (B), 14=-541 (B), 15=-541 (B), 16=-541 (B)

3) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor:
Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-50, 3-4=-50, 1-11=-557 (F=-537), 5-11=-1007 (F=-537)
Concentrated Loads (lb)
Vert: 7=-450 (B), 12=-630 (B), 13=-450 (B), 14=-450 (B), 15=-450 (B), 16=-450 (B)

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	V1	Valley	1	1	Job Reference (optional)	I58787765

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:07 Page: 1
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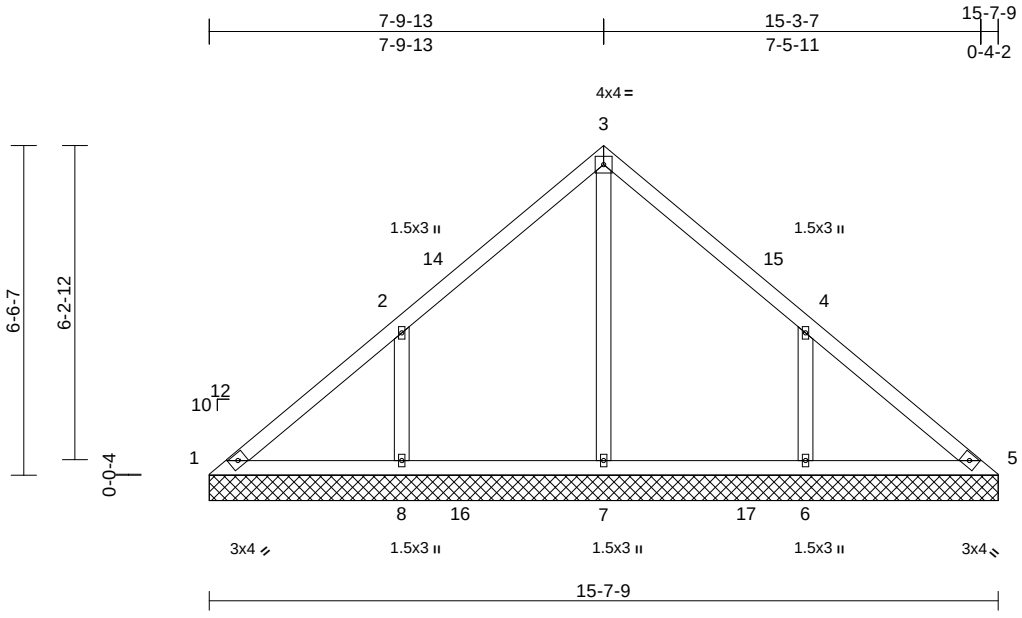

Scale = 1:45.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 69 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 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=15-7-9, 5=15-7-9, 6=15-7-9, 7=15-7-9, 8=15-7-9, 13=15-7-9
Max Horiz 1=-180 (LC 10)
Max Uplift 1=-74 (LC 10), 6=-243 (LC 15), 8=-247 (LC 14)
Max Grav 1=77 (LC 13), 5=0 (LC 13), 6=481 (LC 26), 7=672 (LC 25), 8=474 (LC 25), 13=0 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-137/376, 2-3=-20/326, 3-4=0/300, 4-5=-121/290
BOT CHORD 1-8=-187/103, 7-8=-187/103, 6-7=-187/103, 5-6=-199/115
WEBS 3-7=-479/0, 2-8=-304/277, 4-6=-307/276

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 7-10-2, Exterior(2R) 7-10-2 to 10-10-2, Interior (1) 10-10-2 to 15-7-14 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Plates checked for a plus or minus 20 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 1, 247 lb uplift at joint 8 and 243 lb uplift at joint 6.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	V2	Valley	1	1	Job Reference (optional)	I58787766

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:07 Page: 1
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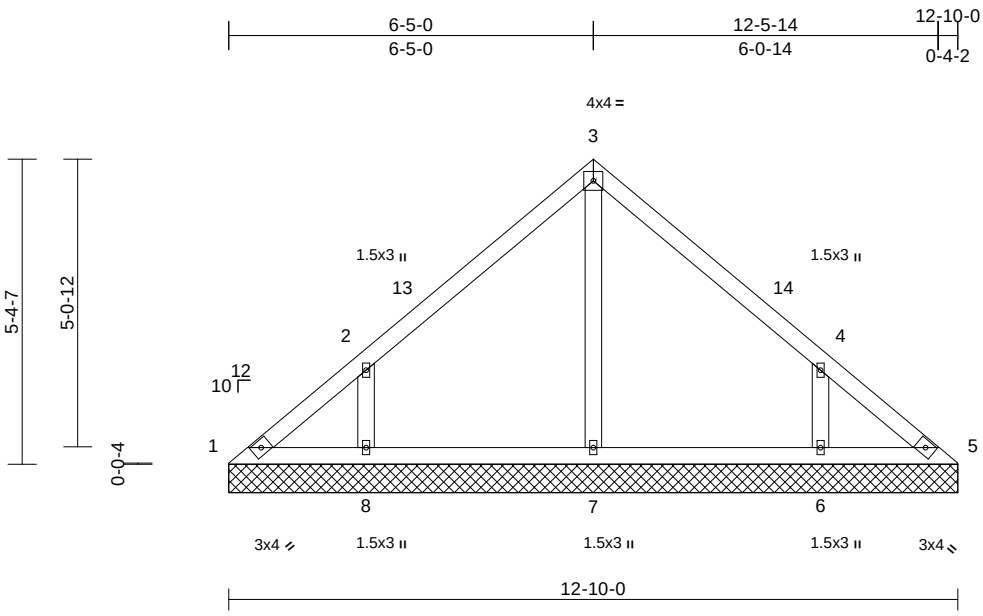

Scale = 1:40.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 54 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) 1=12-10-0, 5=12-10-0, 6=12-10-0, 7=12-10-0, 8=12-10-0
Max Horiz 1=147 (LC 11)
Max Uplift 1=-43 (LC 10), 5=-8 (LC 11), 6=-203 (LC 15), 8=-207 (LC 14)
Max Grav 1=113 (LC 26), 5=86 (LC 25), 6=345 (LC 26), 7=256 (LC 2), 8=350 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-143/128, 2-3=-142/139, 3-4=-123/133, 4-5=-109/78
BOT CHORD 1-8=-50/105, 7-8=-49/94, 6-7=-49/94, 5-6=-49/94
WEBS 3-7=-172/9, 2-8=-280/270, 4-6=-278/270

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 6-5-5, Exterior(2R) 6-5-5 to 9-5-5, Interior (1) 9-5-5 to 12-10-5 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Plates checked for a plus or minus 20 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1, 8 lb uplift at joint 5, 207 lb uplift at joint 8 and 203 lb uplift at joint 6.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	V3	Valley	1	1	Job Reference (optional)	I58787767

Load Star, Lavonia, GA - 30553,

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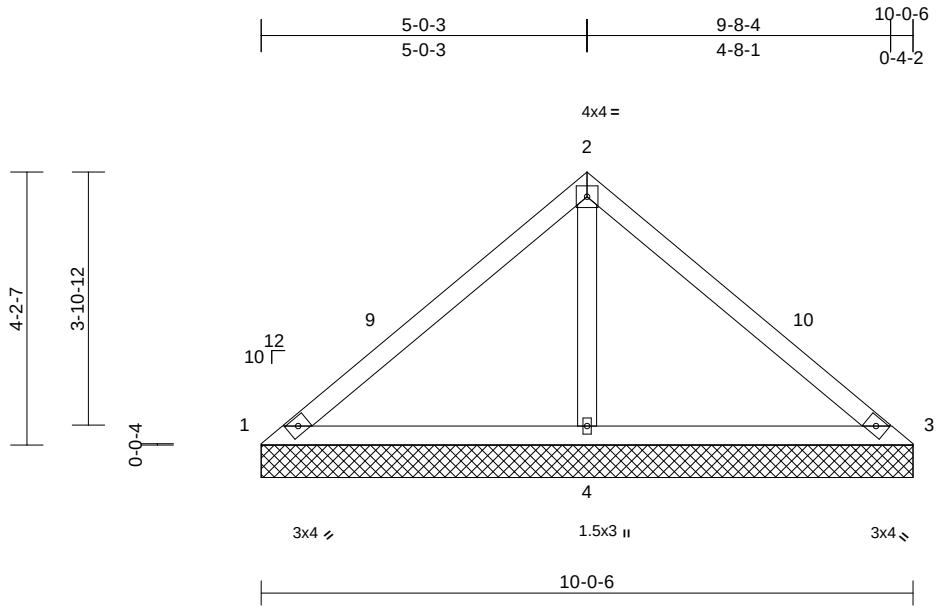

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.27	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 38 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 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=10-0-6, 3=10-0-6, 4=10-0-6
Max Horiz 1=114 (LC 13)
Max Uplift 1=-32 (LC 32), 3=-32 (LC 31), 4=-224 (LC 14)
Max Grav 1=68 (LC 31), 3=68 (LC 32), 4=752 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-180/326, 2-3=-173/325
BOT CHORD 1-4=-259/247, 3-4=-259/247
WEBS 2-4=-577/405

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-0-8, Exterior(2R) 5-0-8 to 8-0-8, Interior (1) 8-0-8 to 10-0-11 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Plates checked for a plus or minus 20 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 1, 32 lb uplift at joint 3 and 224 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	V4	Valley	1	1	Job Reference (optional)	I58787768

Load Star, Lavonia, GA - 30553,

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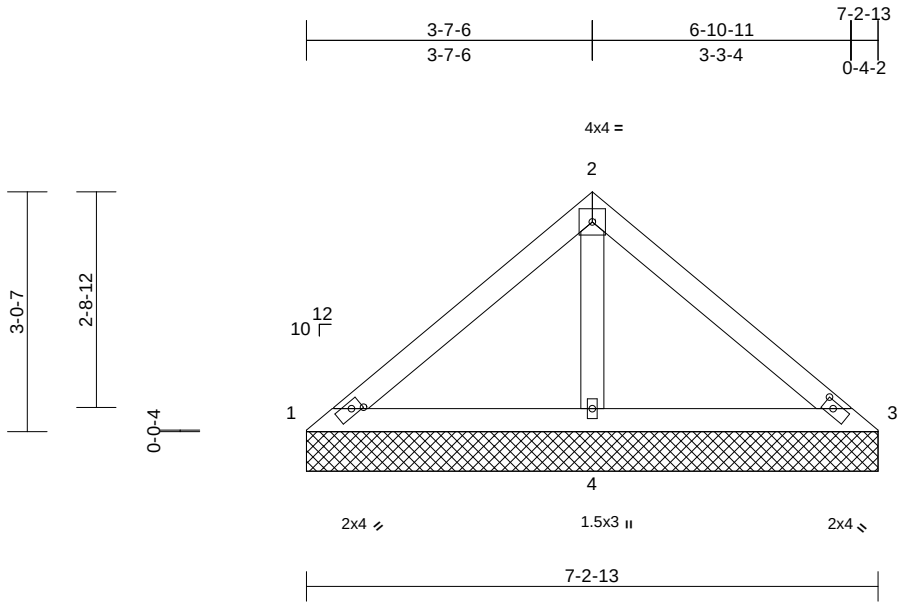

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Plate Offsets (X, Y): [1:0-1-9,0-1-0], [3:0-1-9,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 27 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 7-2-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=7-2-13, 3=7-2-13, 4=7-2-13
Max Horiz 1=81 (LC 13)
Max Uplift 1=-6 (LC 32), 3=-10 (LC 10), 4=-143 (LC 14)
Max Grav 1=67 (LC 31), 3=67 (LC 32), 4=497 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-132/195, 2-3=-126/190
BOT CHORD 1-4=-183/210, 3-4=-183/210
WEBS 2-4=-351/292

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 3-7-11, Exterior(2R) 3-7-11 to 6-5-12, Interior (1) 6-5-12 to 7-3-1 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Plates checked for a plus or minus 20 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 10 lb uplift at joint 3 and 143 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

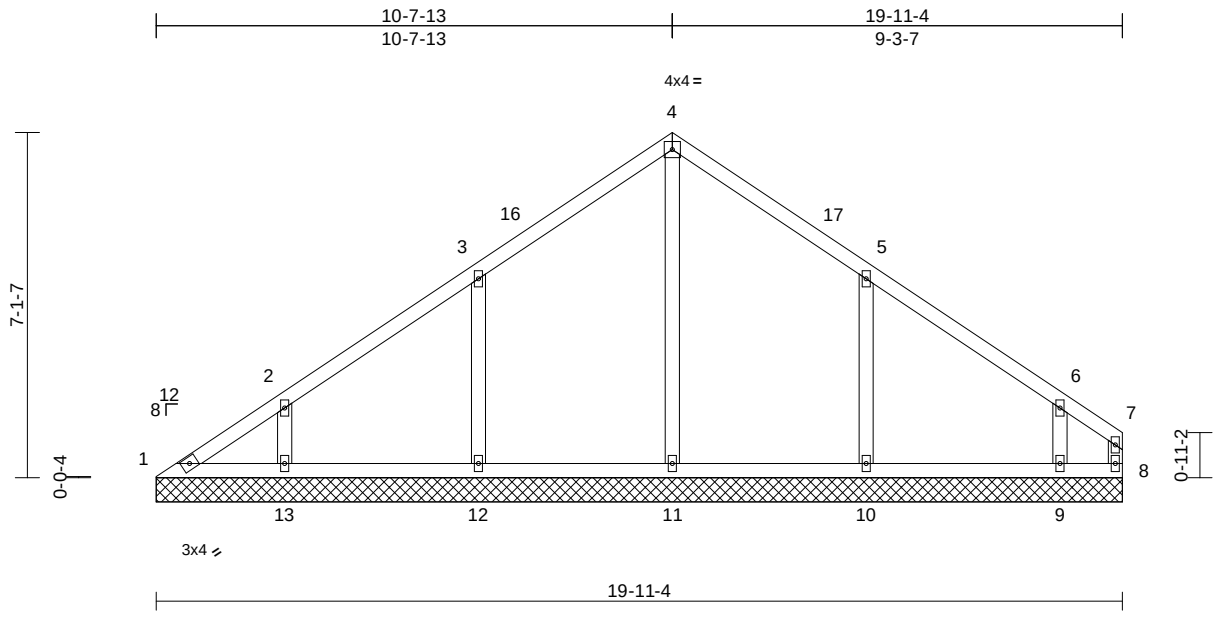
June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	V5	Valley	1	1	Job Reference (optional)	I58787769

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:08 Page: 1
ID:rZbjEVKxk3wzh8VtU84tQQzD0b5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:47.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 90 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=19-11-4, 8=19-11-4, 9=19-11-4, 10=19-11-4, 11=19-11-4, 12=19-11-4, 13=19-11-4
Max Horiz 1=208 (LC 11)
Max Uplift 1=-56 (LC 10), 8=-71 (LC 13), 9=-193 (LC 15), 10=-194 (LC 15), 12=-198 (LC 14), 13=-141 (LC 14)
Max Grav 1=129 (LC 26), 8=113 (LC 15), 9=350 (LC 26), 10=471 (LC 26), 11=418 (LC 25), 12=470 (LC 25), 13=358 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-187/183, 2-3=-164/151, 3-4=-145/202, 4-5=-145/178, 5-6=-76/74, 6-7=-117/71, 7-8=-93/50
BOT CHORD 1-13=-66/124, 12-13=-55/68, 11-12=-55/68, 10-11=-55/68, 9-10=-55/68, 8-9=-55/68
WEBS 4-11=-212/23, 3-12=-298/247, 2-13=-231/183, 5-10=-298/245, 6-9=-229/209

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 10-8-3, Exterior(2R) 10-8-3 to 13-8-3, Interior (1) 13-8-3 to 19-9-14 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Plates checked for a plus or minus 20 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 8, 56 lb uplift at joint 1, 198 lb uplift at joint 12, 141 lb uplift at joint 13, 194 lb uplift at joint 10 and 193 lb uplift at joint 9.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	V6	Valley	1	1	Job Reference (optional)	I58787770

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:08 Page: 1
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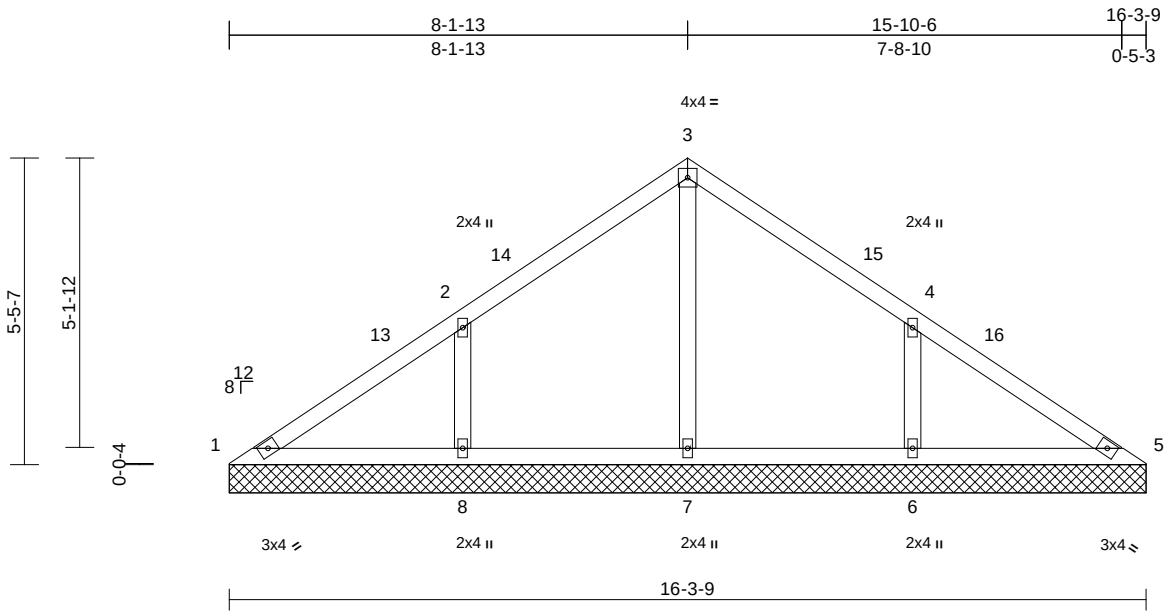

Scale = 1:41

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 66 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 6-0-0 oc bracing.

REACTIONS (size) 1=16-3-9, 5=16-3-9, 6=16-3-9, 7=16-3-9, 8=16-3-9
Max Horiz 1=-150 (LC 10)
Max Uplift 1=-19 (LC 15), 6=-205 (LC 15), 8=-207 (LC 14)
Max Grav 1=106 (LC 26), 5=100 (LC 32), 6=414 (LC 26), 7=359 (LC 2), 8=416 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-140/208, 2-3=-32/163, 3-4=-17/145, 4-5=-119/163
BOT CHORD 1-8=-110/140, 7-8=-110/116, 6-7=-110/116, 5-6=-110/116
WEBS 3-7=-294/40, 2-8=-304/237, 4-6=-303/236

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 8-2-3, Exterior(2R) 8-2-3 to 11-2-3, Interior (1) 11-2-3 to 16-3-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Plates checked for a plus or minus 20 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1, 207 lb uplift at joint 8 and 205 lb uplift at joint 6.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Cua, Eric DU-Roof	
Q015302-R	V7	Valley	1	1	Job Reference (optional)	I58787771

Load Star, Lavonia, GA - 30553,

Run: 8.71 S May 19 2023 Print: 8.710 S May 19 2023 MiTek Industries, Inc. Wed Jun 07 07:56:08 Page: 1
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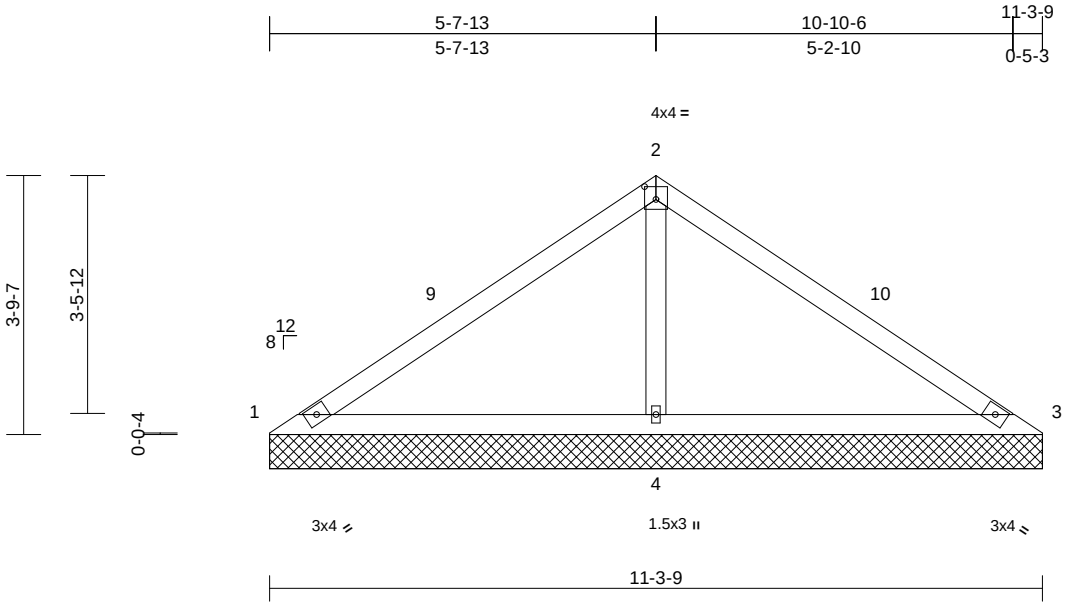


Scale = 1:33.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.25	BC	0.31	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 40 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 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=11-3-9, 3=11-3-9, 4=11-3-9
Max Horiz 1=103 (LC 13)
Max Uplift 1=-49 (LC 32), 3=-49 (LC 31), 4=-225 (LC 14)
Max Grav 1=64 (LC 31), 3=64 (LC 32), 4=883 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-181/432, 2-3=-179/432
BOT CHORD 1-4=-332/239, 3-4=-332/239
WEBS 2-4=-692/379

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 5-8-3, Exterior(2R) 5-8-3 to 8-8-3, Interior (1) 8-8-3 to 11-3-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Plates checked for a plus or minus 20 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 1, 49 lb uplift at joint 3 and 225 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

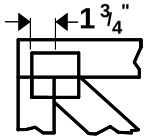
LOAD CASE(S) Standard

June 7,2023

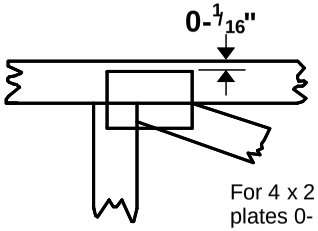
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

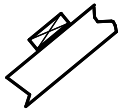
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

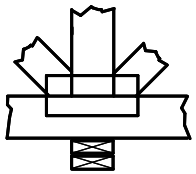
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

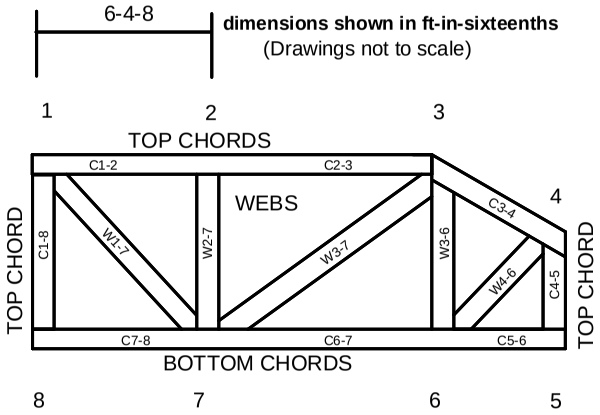


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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