EAGLE METAL

The truss designs referenced below have been prepared by me or under my direct supervision based on the truss design criteria and requirements ("design criteria") provided by **Quality Line Truss**.

These truss designs are intended for the fabrication of individual building components that will perform to the design criteria provided. Any variance from the design criteria will render the affected truss designs inapplicable.

Listed below are the truss designs included in this package and covered by this seal.

Job: **QU02705_RESERVE BLDG J_REFRESHED_11272024** - 1224990
GE01, GE02, GE03, SGE01, SGE02, T01, T02, T03, T04, T05, F01, F02, F03, F04, F05, F06, F07, F08, FG01, FG02, FG03, FG04

Any location identification is for file reference only. No determination of the appropriateness of design criteria for any specific project has been made in preparing the truss designs.

Please refer to individual truss designs for specific design criteria.

Arturo A. Hernandez (MO, 2006000095)
My license expiration date for the state of MO is 12/31/2024.

IMPORTANT NOTE: The responsibility of the engineer sealing this package, as a Truss Engineer, is solely for design of individual trusses as individual building components based upon design criteria provided by others and set forth in the referenced truss drawings. The truss design criteria for the components have not been verified as appropriate for any particular building, project or use. Adequacy and suitability of design criteria and requirements for the truss designs for any specific project are the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

DESIGN NOTES

1. The Truss Design Drawing(s) provided with these Design Notes have been prepared under and are subject to ANSI / TPI 1 published by the Truss Plate Institute, www.tpinst.org. Capitalized terms have the meanings provided in ANSI / TPI 1.
2. Copies of each Truss Design Drawing shall be furnished to the installation contractor, Building Designer, Owner and all persons fabricating, handling, installing, bracing, or erecting the trusses.

DESIGN LIMITATIONS

3. The Truss Design Drawing is based upon specifications provided by the Building Designer in accordance with ANS1 / TPI 1. Neither the Truss Designer, Eagle, nor an engineer who seals this design (if any) assumes any responsibility for the adequacy or accuracy of specifications provided by the Building Designer.
4. The Building Designer is solely responsible for the suitability based upon the Truss Design Drawing and shall be responsible for reviewing and verifying that the information shown is in general conformance with the design of the Building.
5. Each Truss Design Drawing is for the individual building component (a truss). A seal on the Truss Design Drawing indicates acceptance of professional engineering responsibility solely for the individual truss.
6. Each Truss Design Drawing assumes trusses will be suitably protected from the environment.

HANDLING, INSTALLING, & BRACING

7. Refer to Building Component Safety Information (BCSI) for handling, installing, restraining and bracing trusses. Copies can be obtained from the Structural Building Components Association, www.sbcindustry.com.
8. Bracing shown on each Truss Design Drawing is for lateral support of individual truss components only to reduce buckling lengths. All temporary and permanent bracing, including lateral load and diagonal or cross bracing, are the responsibility, respectively, of the erector and Building Designer.
9. Eagle is not responsible for improper truss fabrication, handling, erection or bracing.
10. Compression chords shall be laterally braced by the roof or floor sheathing, directly attached, or have purlins provided at spacing shown, unless noted otherwise.
11. Bottom chord required bracing shall be at 1Oft spacing or less, if no structural rated ceiling is installed, unless noted otherwise.
12. Strongbacking shall be installed on all parallel chord trusses, including flooring systems, to limit deflection and reduce vibration. Refer to BCSI-B7.
13. Never exceed the design loading shown. Never stack building or other materials on inadequately braced truss; refer to BCSI.
14. Concentration of construction loads greater than the design loads shall not be applied to the trusses at any time; refer to BCSI.
15. Trusses shall be handled with care prior to erection to avoid damage. Refer to BCSI for recommended truss handling and erection.

MATERIALS & FABRICATION

16. Lumber moisture content shall be 19% or less at the time of fabrication unless noted otherwise.
17. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
18. Unless expressly noted, the truss designs are not applicable for use with fire retardant or preservative treated lumber.
19. Plates shall be applied on both faces of truss at each joint and embedded fully. Knots and wane at joint locations shall be regulated in accordance with ANSI / TPI 1.
20. For a specified plate gauge and grade, the specified size is a minimum.
21. Connections not shown are the responsibility of others.
22. Adequate support shall be provided to resist gravity, lateral and uplift loads.
23. For 4X2 truss orientation, locate plates 0 - 1/16" from outside the edge of the truss.
24. Fabrication of truss shall be in accordance with ANSI / TPI 1.

OTHER NOTES

25. Camber is a non-structural consideration and is the responsibility of truss fabricator.
26. Do not cut or alter any truss member or plate without prior approval from a professional engineer.
27. Lumber design values are in accordance with ANSI / TPI 1; lumber design values are by others.
28. Install specified hangers per manufacturer recommendations.

SYMBOLS

PLATE SIZE

3X4 - The first dimension is the width perpendicular to slots. Second dimension is the length parallel to slots.

-, /, I, Indicates required direction of slots; Reference "Joint Details" for more information.

20 Ga Gr40 connectors required
3X10-20HS - 20 Ga Gr60 connectors required
8X10-18HS - 18 Ga Gr60 connectors required

LATERAL BRACING

When this symbol shown, continuous lateral bracing is required on the member of the truss.

BEARING

Indicates location where bearings (supports) occur.

PLATE LOCATION & ORIENTATION

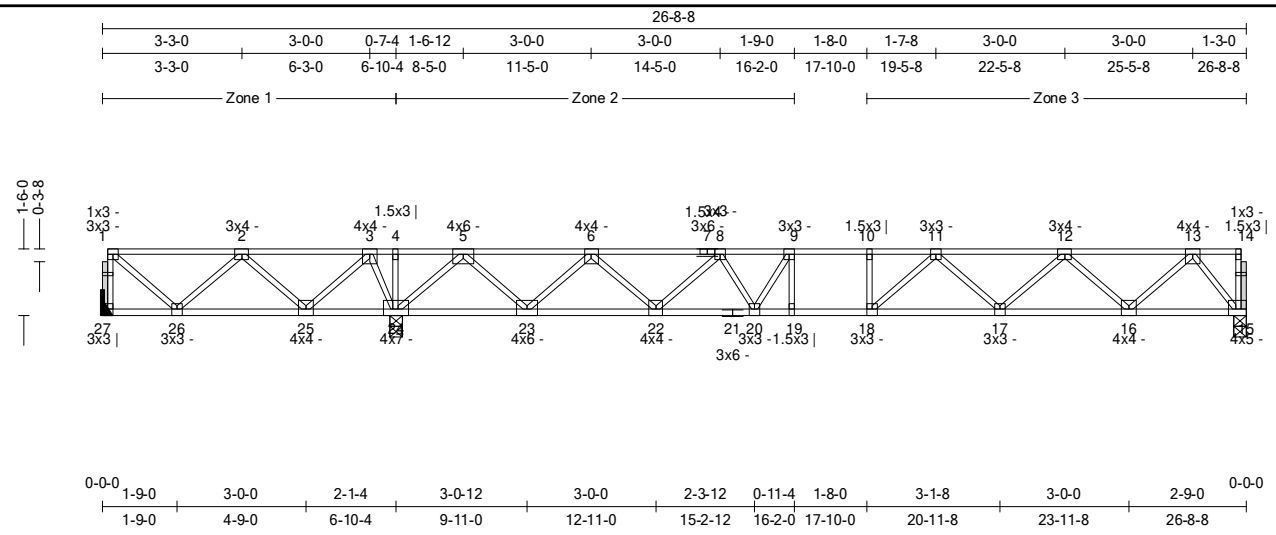
The plate shall be centered on joint and/or placed in accordance with the design drawing/QC full scale details.

REFERENCES

- **ANSI / TPI 1:** National Design Standard for Metal Plate Connected Wood Trusses
- **BCSI:** Building Component & Safety Information - Guide to Good Practice for Handling, Installing, Restraining, & Bracing of Metal Plate Connected Wood Trusses.
- **NDS:** National Design Specification for Wood Construction
- **ESR:** 1082 published by the International Code Council. www.icc-es.org

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:F01 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:24 Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
26-8-8	0/12	3	0-0-0	0-0-0	1	19.19 in	138 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL:	40	Bldg Code:	IBC 2018/	TC:	0.35 (2-3)	Vert TL:	0.27 in	L / 859	(17-18)	L / 240
TCDL:	10		TPI 1-2014	BC:	0.48 (19-20)	Vert LL:	0.15 in	L / 999	(17-18)	L / 360
BCLL:	0	Rep Mbr:	Yes	Web:	0.24 (5-23)	Horz TL:	0.03 in		15	
BCDL:	10	Lumber D.O.L.:	100 %							

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
24	1	3.5 in	1.50 in	2,187 lbs	·	·	·	·	·
27	1	3.5 in	---	171 lbs	-328 lbs	·	·	-328 lbs	·
15	1	3.5 in	1.50 in	941 lbs	·	·	·	·	·

11/27/2024

STATE OF MISSOURI
ARTURO A. HERNANDEZ
NUMBER PE-2006000095
PROFESSIONAL ENGINEER

Material

TC: SYP 2400/1.8 4 x 2
BC: SYP 2400/1.8 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.272	405 lbs	(-67 lbs)	4-5	0.326	2,514 lbs	9-10	0.268	-2,712 lbs	12-13	0.191	-1,448 lbs
	2-3	0.355	1,356 lbs		6-8	0.203	-1,600 lbs	10-11	0.233	-2,712 lbs			
	3-4	0.327	2,514 lbs		8-9	0.268	-2,425 lbs	11-12	0.221	-2,493 lbs			
BC	15-16	0.101	691 lbs		18-19	0.475	2,712 lbs	22-23	0.135	908 lbs	25-26	0.084	-842 lbs
	16-17	0.255	2,108 lbs		19-20	0.475	2,712 lbs	23-24	0.104	-1,163 lbs			
	17-18	0.375	2,740 lbs		20-22	0.221	2,190 lbs	24-25	0.174	-2,126 lbs			
Web	1-27	0.064	337 lbs	(-162 lbs)	5-24	0.218	-1,800 lbs	9-20	0.074	-596 lbs			
	1-26	0.073	-540 lbs		5-23	0.245	1,476 lbs	11-17	0.043	-335 lbs			
	2-26	0.113	593 lbs	(-24 lbs)	6-23	0.162	-1,332 lbs	12-17	0.087	522 lbs			
	2-25	0.113	-931 lbs		6-22	0.155	939 lbs	12-16	0.109	-895 lbs			
	3-25	0.173	1,045 lbs		8-22	0.097	-800 lbs	13-16	0.170	1,028 lbs			
	3-24	0.104	-963 lbs		8-20	0.086	463 lbs	13-15	0.127	-1,130 lbs			

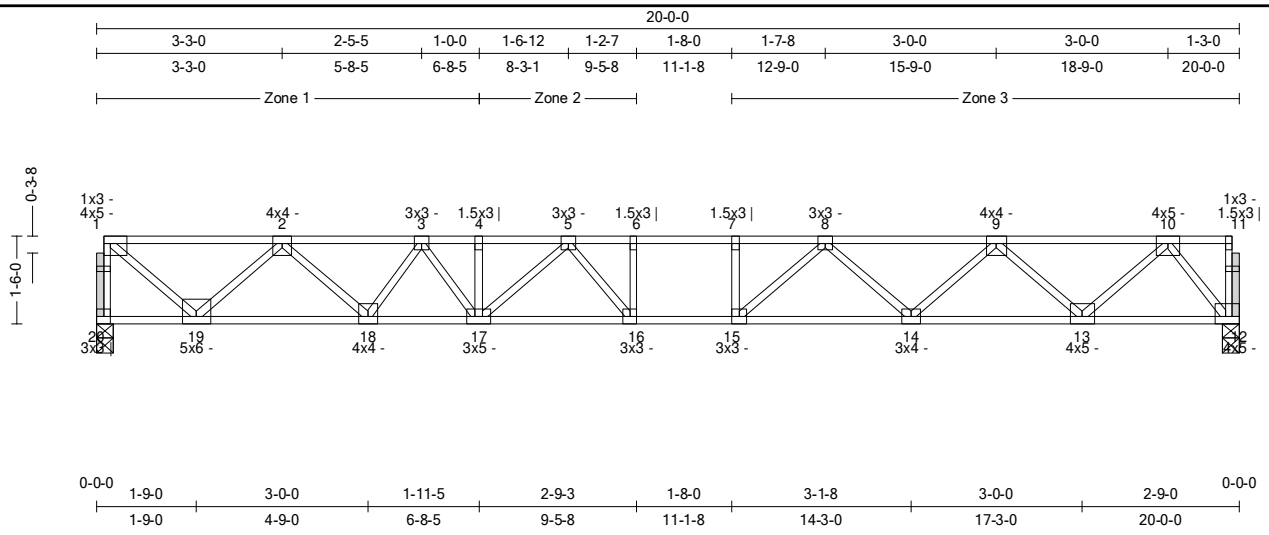
Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Unless otherwise specified by the Building Designer, one strongback every 10'-0".
3) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
4) Hanger is for graphical interpretation only. Install hanger per manufacturer's recommendation.
5) A creep factor of 1.00 has been applied for this truss analysis.
6) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
7) ▭ Indicates non-structural members.
8) Due to negative reactions in gravity load cases, special connections to the bearing surface at joint 27 may need to be considered.

Quality Line Truss Co., LLC
34593 S 4350 RD
Address 2
Adair, OK 74330

Truss:F02
Job: QU02705_RESERVE BLDG J_REFRES
Date: 11/27/24 10:54:26
Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
20-0-0	0/12	2	0-0-0	0-0-0	1	19.19 in	104 lbs



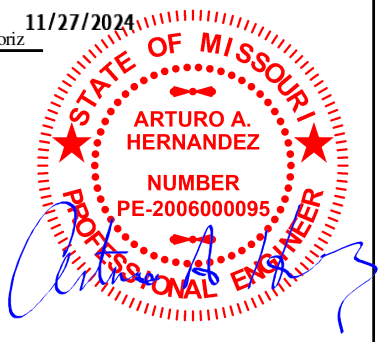
All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI	Deflection		L/	(loc)	Allowed
TCLL: 40	Bldg Code:	IBC 2018/ TPI 1-2014	TC: 0.52 (7-8)	Vert TL:	0.39 in	L / 602	(16-17)	L / 240
TCDL: 10			BC: 0.84 (16-17)	Vert LL:	0.21 in	L / 999	(16-17)	L / 360
BCLL: 0	Rep Mbr:	No	Web: 0.26 (1-19)	Horz TL:	0.07 in		12	
BCDL: 10	Lumber D.O.L.:	100 %						

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
20	1	3.5 in	1.50 in	1,148 lbs	·	·	·	·	·
12	1	3.5 in	1.50 in	1,134 lbs	·	·	·	·	·

11/27/2024



Material

TC: SYP#1 4 x 2
BC: SYP#1 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Load Case D1: Std Dead Load

Point Loads

Member	Location	Direction	Load	Trib Width
Top	6-8-5	Down	43 lbs	

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.411	-1,161 lbs	4-5	0.383	-3,653 lbs		7-8	0.521	-4,027 lbs				
	2-3	0.424	-2,909 lbs	5-6	0.458	-4,027 lbs		8-9	0.456	-3,250 lbs				
	3-4	0.373	-3,653 lbs	6-7	0.516	-4,027 lbs		9-10	0.343	-1,810 lbs				
BC	12-13	0.242	839 lbs	14-15	0.742	3,727 lbs		16-17	0.837	3,936 lbs	18-19	0.466	2,182 lbs	
	13-14	0.545	2,672 lbs	15-16	0.824	4,027 lbs		17-18	0.611	3,313 lbs				
Web	1-20	0.120	-1,128 lbs	3-17	0.096	577 lbs		9-14	0.130	783 lbs				
	1-19	0.256	1,547 lbs	5-17	0.050	-377 lbs		9-13	0.142	-1,170 lbs				
	2-19	0.168	-1,385 lbs	5-16	0.075	393 lbs	(-176 lbs)	10-13	0.218	1,317 lbs				
	2-18	0.163	986 lbs	8-15	0.109	573 lbs		10-12	0.154	-1,373 lbs				
	3-18	0.080	-715 lbs	8-14	0.079	-648 lbs								

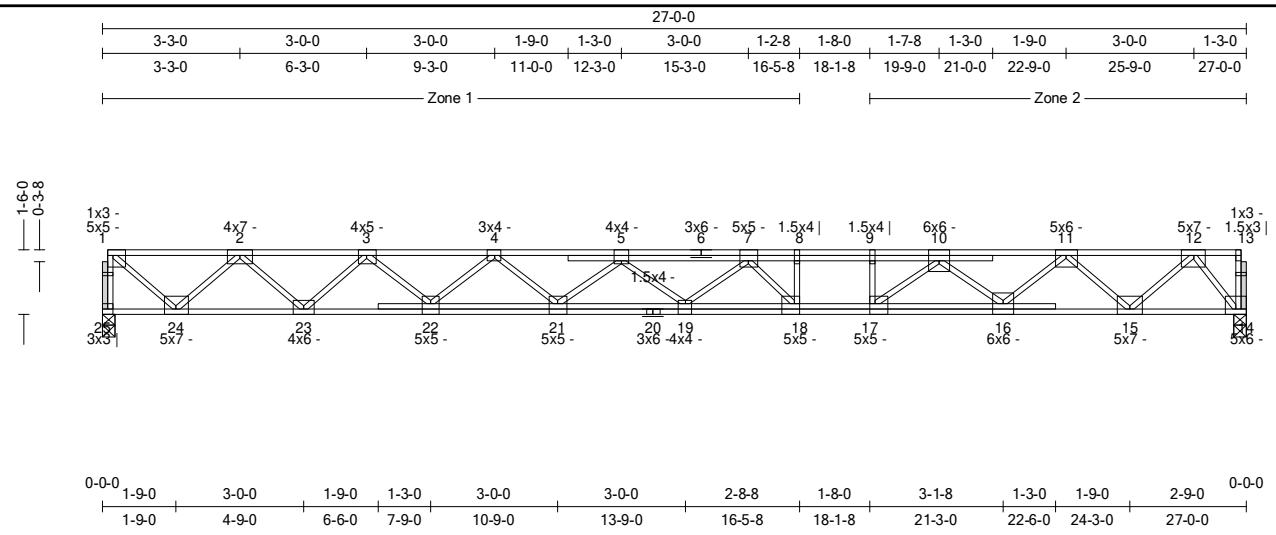
Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Unless otherwise specified by the Building Designer, one strongback every 10'-0".
3) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) ▭ Indicates non-structural members.

TrueBuild® Truss Software v5.7.13
Eagle Metal Products

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:F03 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:28 Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
27-0-0	0/12	13	0-0-0	0-0-0	1	19.19 in	174 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL:	40	Bldg Code:	IBC 2018/ TPI 1-2014	TC:	1.00 (4-5)	Vert TL:	0.93 in	L / 340	19	L / 240
TCDL:	10			BC:	0.89 (22-23)	Vert LL:	0.53 in	L / 594	19	L / 360
BCLL:	0	Rep Mbr:	Yes	Web:	0.35 (1-24)	Horz TL:	0.14 in		14	
BCDL:	10	Lumber D.O.L.:	100 %							

11/27/2024

STATE OF MISSOURI
ARTURO A. HERNANDEZ
NUMBER PE-2006000095
PROFESSIONAL ENGINEER

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
25	1	3.5 in	1.50 in	1,511 lbs	·	·	·	·	·
14	1	3.5 in	1.50 in	1,511 lbs	·	·	·	·	·

Material

TC: SYP#1 4 x 2
BC: SYP#1 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

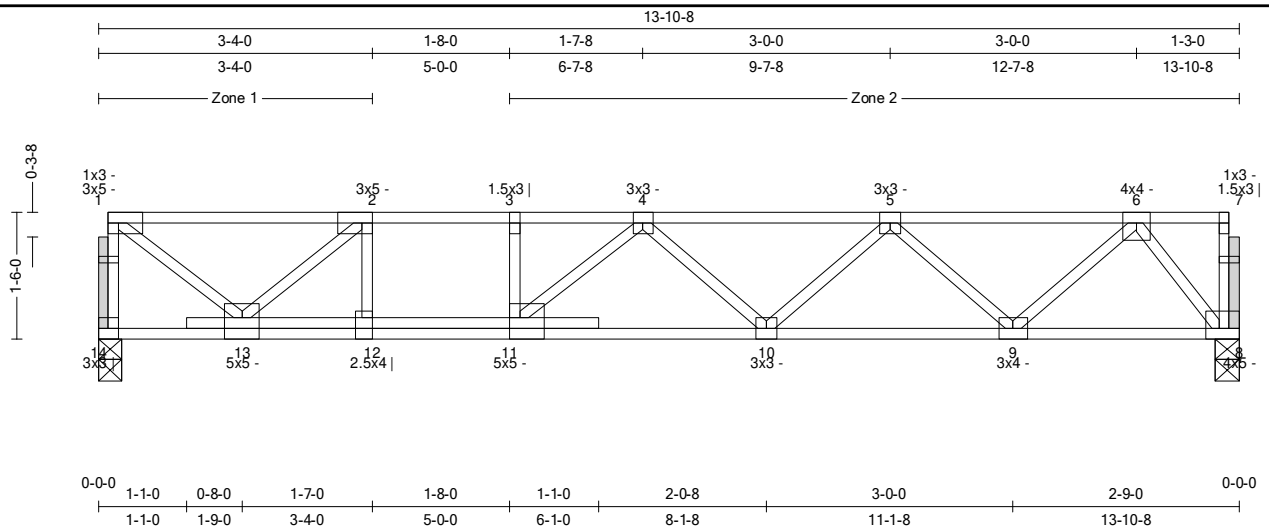
TC	1-2	0.374	-1,572 lbs	4-5	0.997	-7,387 lbs		8-9	0.425	-7,245 lbs		11-12	0.317	-2,516 lbs
	2-3	0.487	-4,114 lbs	5-7	0.377	-7,954 lbs		9-10	0.355	-7,245 lbs				
	3-4	0.732	-6,160 lbs	7-8	0.422	-7,245 lbs		10-11	0.582	-5,114 lbs				
BC	14-15	0.277	1,133 lbs	17-18	0.834	7,245 lbs		21-22	0.614	6,826 lbs				
	15-16	0.703	3,869 lbs	18-19	0.873	7,761 lbs		22-23	0.890	5,243 lbs				
	16-17	0.658	6,268 lbs	19-21	0.688	7,908 lbs		23-24	0.535	2,994 lbs				
Web	1-25	0.159	-1,488 lbs	4-22	0.105	-886 lbs		9-17	0.059	-494 lbs		12-14	0.208	-1,852 lbs
	1-24	0.347	2,094 lbs	4-21	0.122	739 lbs		10-17	0.235	1,252 lbs				
	2-24	0.234	-1,930 lbs	5-21	0.080	-683 lbs		10-16	0.176	-1,507 lbs				
	2-23	0.252	1,518 lbs	7-19	0.067	350 lbs	(-132 lbs)	11-16	0.274	1,652 lbs				
	3-23	0.185	-1,528 lbs	7-18	0.109	-876 lbs		11-15	0.222	-1,833 lbs				
	3-22	0.202	1,221 lbs	8-18	0.078	409 lbs	(-36 lbs)	12-15	0.311	1,876 lbs				

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Unless otherwise specified by the Building Designer, two strongbacks recommended at one third points of the truss span. Strongback spacing or strongback to support should not exceed 10'-0".
3) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) ▭ Indicates non-structural members.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:F04 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:29 Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
13-10-8	0/12	2	0-0-0	0-0-0	1	19.19 in	79 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL:	40	Bldg Code:	IBC 2018/ TPI 1-2014	TC:	0.54 (2-3)	Vert TL:	0.21 in	L / 751	(10-11)	L / 240
TCDL:	10			BC:	0.72 (10-11)	Vert LL:	0.13 in	L / 999	(10-11)	L / 360
BCLL:	0	Rep Mbr:	No	Web:	0.17 (1-13)	Horz TL:	0.02 in		8	
BCDL:	10	Lumber D.O.L.:	100 %							

11/27/2024

STATE OF MISSOURI
ARTURO A. HERNANDEZ
NUMBER PE-2006000095
PROFESSIONAL ENGINEER

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
14	1	3.5 in	1.50 in	776 lbs	·	·	·	·	·
8	1	3.5 in	1.50 in	776 lbs	·	·	·	·	·

Material

TC: SYP#1 4 x 2
BC: SYP#1 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

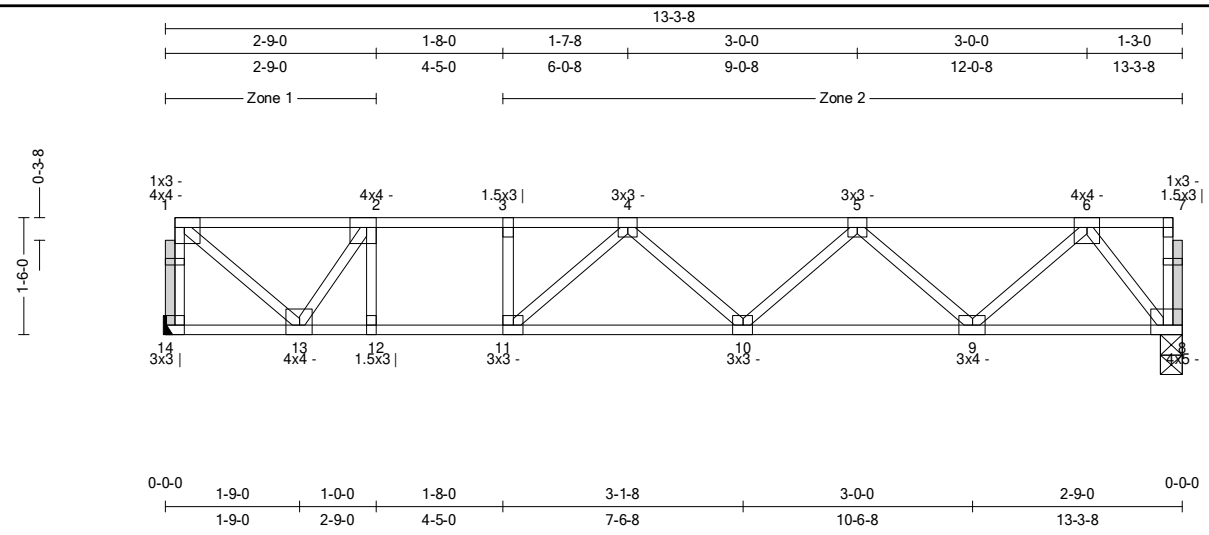
TC	1-2	0.536	-768 lbs	3-4	0.360	-1,704 lbs	5-6	0.301	-1,139 lbs		
	2-3	0.540	-1,704 lbs	4-5	0.332	-1,827 lbs					
BC	8-9	0.183	563 lbs	10-11	0.725	1,923 lbs	12-13	0.716	1,704 lbs		
	9-10	0.477	1,620 lbs	11-12	0.716	1,704 lbs					
Web	1-14	0.078	-735 lbs	2-12	0.085	454 lbs	6-9	0.129	780 lbs		
	1-13	0.166	1,003 lbs	4-11	0.041	-310 lbs	6-8	0.103	-922 lbs		
	2-13	0.146	-1,236 lbs	5-9	0.079	-653 lbs					

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Unless otherwise specified by the Building Designer, one strongback every 10'-0".
3) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) ▭ Indicates non-structural members.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:F05 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:44 Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
13-3-8	0/12	2	0-0-0	0-0-0	1	19.19 in	70 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL:	40	Bldg Code:	IBC 2018/ TPI 1-2014	TC:	0.42 (2-3)	Vert TL:	0.27 in	L / 571	(10-11)	L / 240
TCDL:	10			BC:	0.71 (12-13)	Vert LL:	0.16 in	L / 959	(10-11)	L / 360
BCLL:	0	Rep Mbr:	No	Web:	0.17 (1-13)	Horz TL:	0.02 in		8	
BCDL:	10	Lumber D.O.L.:	100 %							

11/27/2024

STATE OF MISSOURI
ARTURO A. HERNANDEZ
NUMBER PE-2006000095
PROFESSIONAL ENGINEER

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
14	1	1.5 in	---	744 lbs	·	·	·	·	·
8	1	3.5 in	1.50 in	744 lbs	·	·	·	·	·

Material

TC: SYP 2400/1.8 4 x 2
BC: SYP 2400/1.8 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.420	-749 lbs	3-4	0.399	-1,334 lbs	5-6	0.191	-1,075 lbs		
	2-3	0.424	-1,334 lbs	4-5	0.204	-1,707 lbs					
BC	8-9	0.106	538 lbs	10-11	0.528	1,709 lbs	12-13	0.711	1,334 lbs		
	9-10	0.297	1,524 lbs	11-12	0.711	1,334 lbs					
Web	1-14	0.074	-697 lbs	2-12	0.076	433 lbs	6-9	0.121	728 lbs		
	1-13	0.165	997 lbs	4-11	0.065	-499 lbs	6-8	0.099	-880 lbs		
	2-13	0.115	-1,039 lbs	5-9	0.074	-610 lbs					

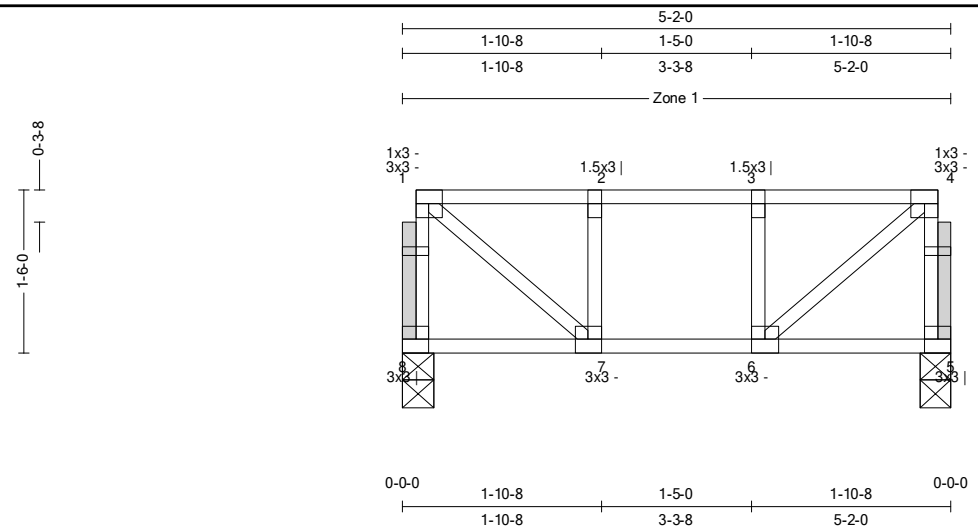
Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Unless otherwise specified by the Building Designer, one strongback every 10'-0".
3) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
4) Hanger is for graphical interpretation only. Install hanger per manufacturer's recommendation.
5) A creep factor of 1.00 has been applied for this truss analysis.
6) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
7) ▭ Indicates non-structural members.

Quality Line Truss Co., LLC
34593 S 4350 RD
Address 2
Adair, OK 74330

Truss:F06
Job: QU02705_RESERVE BLDG J_REFRES
Date: 11/27/24 10:54:30
Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
5-2-0	0/12	1	0-0-0	0-0-0	1	19.19 in	30 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL:	40	Bldg Code:	IBC 2018/ TPI 1-2014	TC:	0.13 (1-2)	Vert TL:	0.01 in	L / 999	(5-6)	L / 240
TCDL:	10	Rep Mbr:	No	BC:	0.11 (6-7)	Vert LL:	0.01 in	L / 999	(5-6)	L / 360
BCLL:	0	Lumber D.O.L.:	100 %	Web:	0.05 (1-7)	Horz TL:	0 in		5	
BCDL:	10									

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
8	1	3.5 in	1.50 in	289 lbs	·	·	·	·	·
5	1	3.5 in	1.50 in	289 lbs	·	·	·	·	·

11/27/2024

STATE OF MISSOURI
ARTURO A. HERNANDEZ
NUMBER PE-2006000095
PROFESSIONAL ENGINEER

Material

TC: SYP#1 4 x 2
BC: SYP#1 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

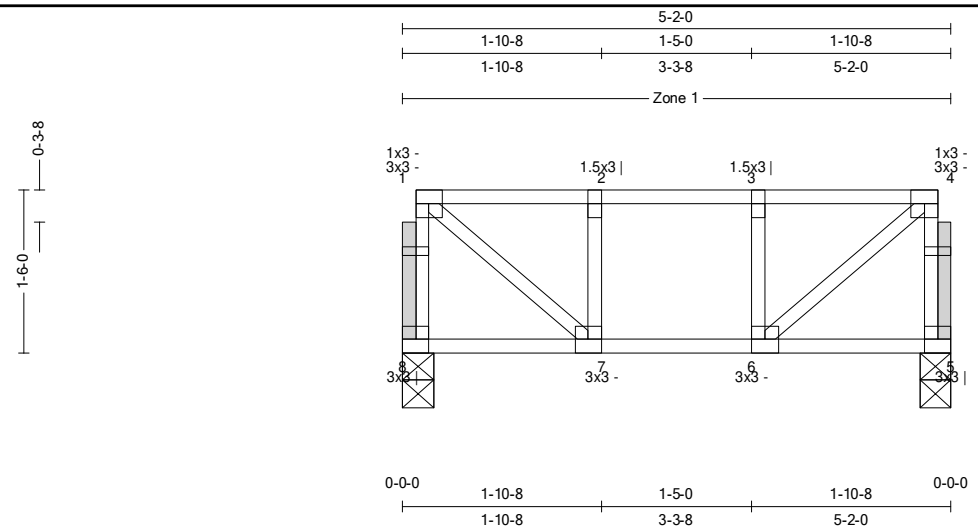
TC			
BC			
Web	1-7	0.051	309 lbs
	4-6	0.051	309 lbs

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
3) A creep factor of 1.00 has been applied for this truss analysis.
4) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
5) ▭ Indicates non-structural members.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:F07 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:31 Page: 1 of 1

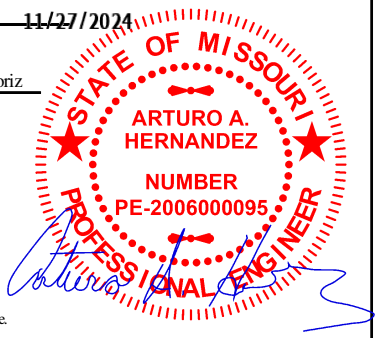
SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
5-2-0	0/12	3	0-0-0	0-0-0	1	24 in	30 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL:	40	Bldg Code:	IBC 2018/ TPI 1-2014	TC:	0.16 (1-2)	Vert TL:	0.01 in	L / 999	(5-6)	L / 240
TCDL:	10	Rep Mbr:	Yes	BC:	0.12 (6-7)	Vert LL:	0.01 in	L / 999	(5-6)	L / 360
BCLL:	0	Lumber D.O.L.:	100 %	Web:	0.06 (1-7)	Horz TL:	0 in		5	
BCDL:	10									

11/27/2024



Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
8	1	3.5 in	1.50 in	362 lbs	·	·	·	·	·
5	1	3.5 in	1.50 in	362 lbs	·	·	·	·	·

Material

TC: SYP#1 4 x 2
BC: SYP#1 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC						
BC						
Web	1-8	0.035	-326 lbs	4-6	0.064	386 lbs
	1-7	0.064	386 lbs	4-5	0.035	-326 lbs

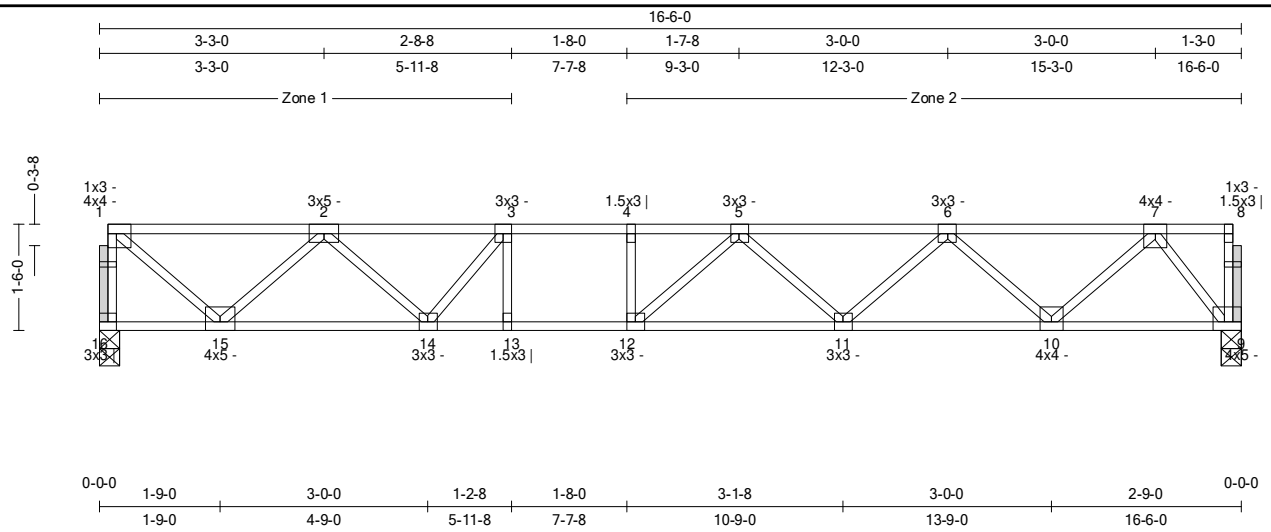
Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
3) A creep factor of 1.00 has been applied for this truss analysis.
4) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
5) ▭ Indicates non-structural members.

Quality Line Truss Co., LLC
34593 S 4350 RD
Address 2
Adair, OK 74330

Truss:F08
Job: QU02705_RESERVE BLDG J_REFRES
Date: 11/27/24 10:54:32
Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
16-6-0	0/12	5	0-0-0	0-0-0	1	19.19 in	84 lbs



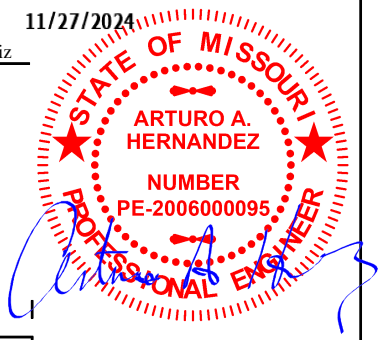
All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL:	40	Bldg Code:	IBC 2018/ TPI 1-2014	TC:	0.43 (2-3)	Vert TL:	0.27 in	L / 704	(11-12)	L / 240
TCDL:	10	Rep Mbr:	Yes	BC:	0.83 (13-14)	Vert LL:	0.16 in	L / 999	(11-12)	L / 360
BCLL:	0	Lumber D.O.L.:	100 %	Web:	0.20 (1-15)	Horz TL:	0.04 in		9	
BCDL:	10									

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
16	1	3.5 in	1.50 in	923 lbs	·	·	·	·	·
9	1	3.5 in	1.50 in	923 lbs	·	·	·	·	·

11/27/2024



Material

TC: SYP#1 4 x 2
BC: SYP#1 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.369	-903 lbs	3-4	0.402	-2,573 lbs	5-6	0.311	-2,419 lbs		
	2-3	0.433	-2,178 lbs	4-5	0.404	-2,573 lbs	6-7	0.267	-1,414 lbs		
BC	9-10	0.178	677 lbs	11-12	0.693	2,640 lbs	13-14	0.832	2,573 lbs		
	10-11	0.464	2,053 lbs	12-13	0.832	2,573 lbs	14-15	0.353	1,670 lbs		
Web	1-16	0.097	-905 lbs	3-14	0.077	-617 lbs	7-10	0.165	999 lbs		
	1-15	0.199	1,203 lbs	5-11	0.038	-301 lbs	7-9	0.124	-1,107 lbs		
	2-15	0.126	-1,040 lbs	6-11	0.082	495 lbs					
	2-14	0.114	688 lbs	6-10	0.105	-868 lbs					

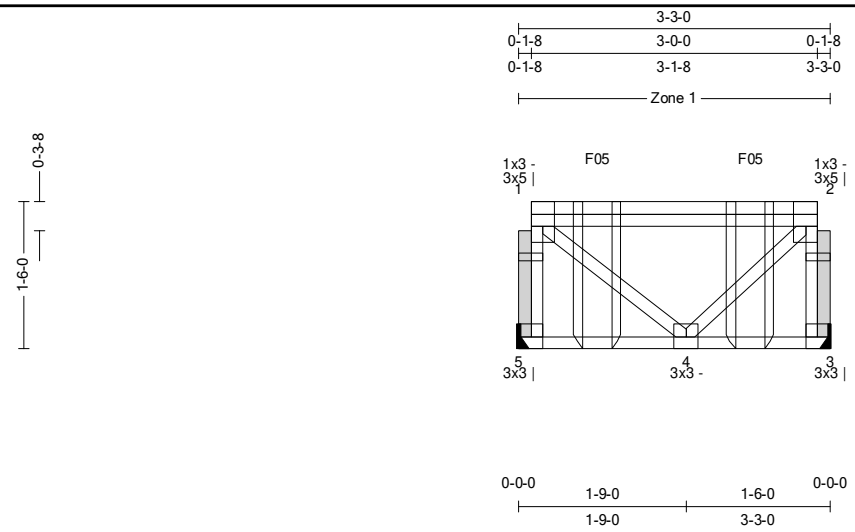
Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Unless otherwise specified by the Building Designer, one strongback every 10'-0".
3) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) ▭ Indicates non-structural members.

TrueBuild® Truss Software v5.7.13
Eagle Metal Products

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:FG01 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:45 Page: 1 of 1

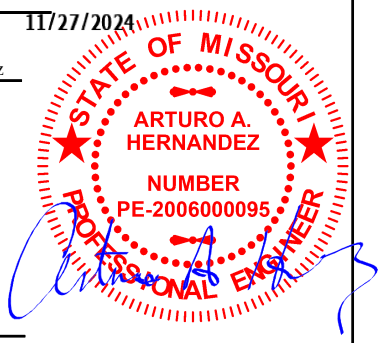
SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
3-3-0	0/12	1	0-0-0	0-0-0	1	12 in	25 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
Carried Loads (psf)		Bldg Code :	IBC 2018/	TC :	0.83 (1-2)	Vert TL:	0 in	L / 999	(4-5)	L / 240
TCLL :	40		TPI 1-2014	BC :	0.03 (4-5)	Vert LL:	0 in	L / 999	(4-5)	L / 360
TCDL :	10	Rep Mbr :	No	Web :	0.09 (1-5)	Horz TL:	0 in		3	
BCLL :	0	Lumber D.O.L. :	100 %							
BCDL :	10									

11/27/2024



Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
5	1	1.5 in	---	755 lbs	·	·	·	·	·
3	1	1.5 in	---	748 lbs	·	·	·	·	·

Material

TC: SYP#1 4 x 2
BC: SYP#1 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC						
BC						
Web	1-5	0.088	-737 lbs	2-3	0.087	-733 lbs

Truss to Truss Connection Summary

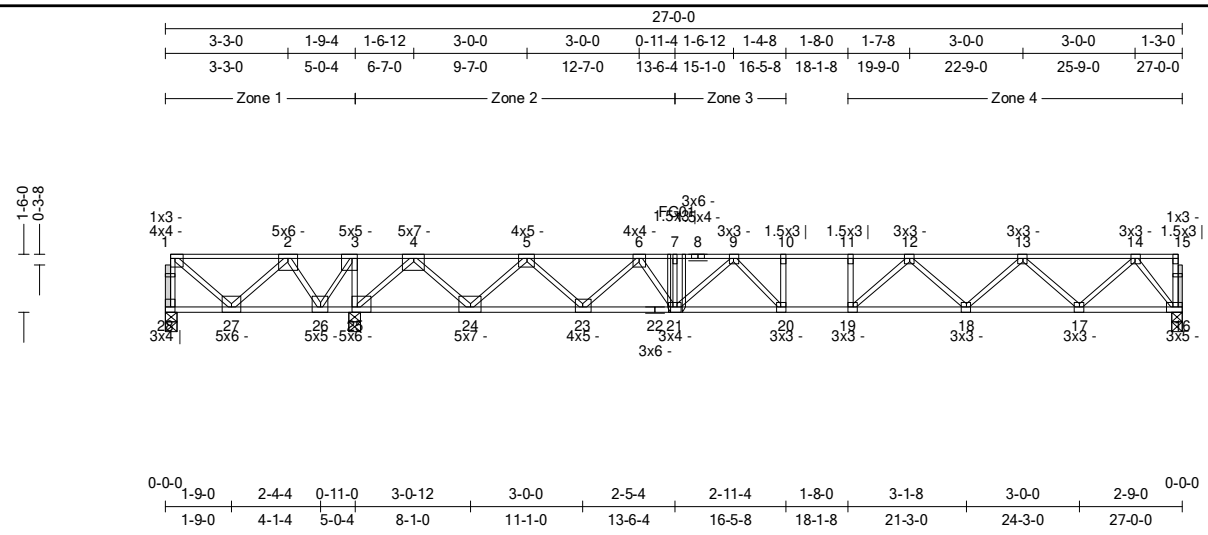
Carried Truss	Carrying Chord	Carrying Offset
F05	TC	0-9-13
F05	TC	2-5-0

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
3) Hangers are for graphical interpretation only. Install hangers per manufacturer's recommendations.
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) ▭ Indicates non-structural members.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:FG02 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:47 Page: 1 of 2

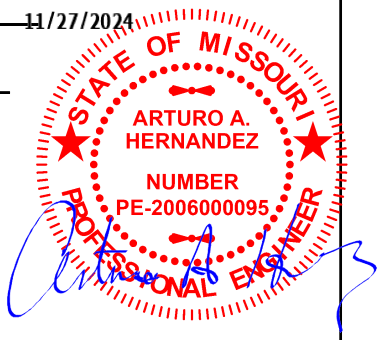
SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
27-0-0	0/12	1	0-0-0	0-0-0	2	53.75 in	142 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI		Deflection		L/	(loc)	Allowed
Carried Loads (psf)	Bldg Code :	IBC 2018/	TC :	0.56 (3-4)	Vert TL:	0.3 in	L / 862	(20-21)	L / 240
TCLL : 40		TPI 1-2014	BC :	0.40 (20-21)	Vert LL:	0.18 in	L / 999	(20-21)	L / 360
TCDL : 10	Rep Mbr :	No	Web :	0.32 (4-24)	Horz TL:	0.02 in		16	
BCLL : 0	Lumber D.O.L. :	100 %							
BCDL : 10									

11/27/2024



Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
25	1	3.5 in	1.50 in	5,763 lbs	·	·	·	·	·
28	1	3.5 in	N/A	0 lbs	-2,036 lbs	·	·	-2,036 lbs	·
16	1	3.5 in	1.50 in	1,143 lbs	·	·	·	·	·

Material

TC: SYP 2400/1.8 4 x 2
BC: SYP 2400/1.8 4 x 2
Web: SYP #1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Load Case L1: Std Live Load

Distributed Loads

Member	Location 1	Location 2	Direction	Spread	Start Load	End Load	Trib Width
Top	0-0-0	5-2-0	Down	Proj	9.79 plf	9.79 plf	
Top	5-2-0	13-1-8	Down	Proj	150.1 plf	150.1 plf	
Top	13-1-8	13-6-12	Down	Proj	73.75 plf	73.75 plf	
Top	13-6-12	27-0-0	Down	Proj	22.19 plf	22.19 plf	
Top	0-0-0	27-0-0	Down	Proj	29.06 plf	29.06 plf	

Load Case D1: Std Dead Load

Distributed Loads

Member	Location 1	Location 2	Direction	Spread	Start Load	End Load	Trib Width
Top	0-0-0	5-2-0	Down	Proj	2.45 plf	2.45 plf	
Top	5-2-0	13-1-8	Down	Proj	37.53 plf	37.53 plf	
Top	13-1-8	13-6-12	Down	Proj	18.44 plf	18.44 plf	
Top	13-6-12	27-0-0	Down	Proj	5.55 plf	5.55 plf	
Top	0-0-0	27-0-0	Down	Proj	7.27 plf	7.27 plf	
Bot	0-0-0	5-2-0	Down	Proj	2.45 plf	2.45 plf	
Bot	5-2-0	13-1-8	Down	Proj	37.53 plf	37.53 plf	
Bot	13-1-8	13-6-12	Down	Proj	18.44 plf	18.44 plf	
Bot	13-6-12	27-0-0	Down	Proj	5.55 plf	5.55 plf	
Bot	0-0-0	27-0-0	Down	Proj	7.27 plf	7.27 plf	

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.190	1,196 lbs	5-6	0.280	-1,546 lbs	10-11	0.235	-2,424 lbs		
	2-3	0.357	3,091 lbs	6-7	0.226	-2,584 lbs	11-12	0.237	-2,424 lbs		
	3-4	0.564	3,836 lbs	7-9	0.230	-2,584 lbs	12-13	0.172	-1,765 lbs		
	4-5	0.380	615 lbs	9-10	0.238	-2,424 lbs	13-14	0.092	-946 lbs		

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
27-0-0	0/12	1	0-0-0	0-0-0	2	53.75 in	142 lbs

BC	16-17	0.070	427 lbs	19-20	0.381	2,424 lbs	23-24	0.163	661 lbs	26-27	0.219	-2,376 lbs
	17-18	0.163	1,416 lbs	20-21	0.395	2,570 lbs	24-25	0.202	-2,039 lbs			
	18-19	0.338	2,098 lbs	21-23	0.267	2,304 lbs	25-26	0.334	-3,836 lbs			
Web	1-28	0.174	1,021 lbs	4-25	0.290	-2,394 lbs	7-21	0.041	-334 lbs	14-16	0.078	-698 lbs
	1-27	0.193	-1,593 lbs	4-24	0.320	1,932 lbs	12-19	0.075	433 lbs			
	2-27	0.271	1,600 lbs	5-24	0.214	-1,730 lbs	12-18	0.056	-452 lbs			
	2-26	0.152	-1,356 lbs	5-23	0.201	1,201 lbs	13-18	0.079	474 lbs			
	3-26	0.231	1,343 lbs	6-23	0.131	-1,027 lbs	13-17	0.078	-637 lbs			
	3-25	0.130	-1,182 lbs	6-21	0.086	497 lbs	14-17	0.117	704 lbs			

Truss to Truss Connection Summary

Carried Truss	Carrying Chord	Carrying Offset
FG01	TC	13-6-12

Notes

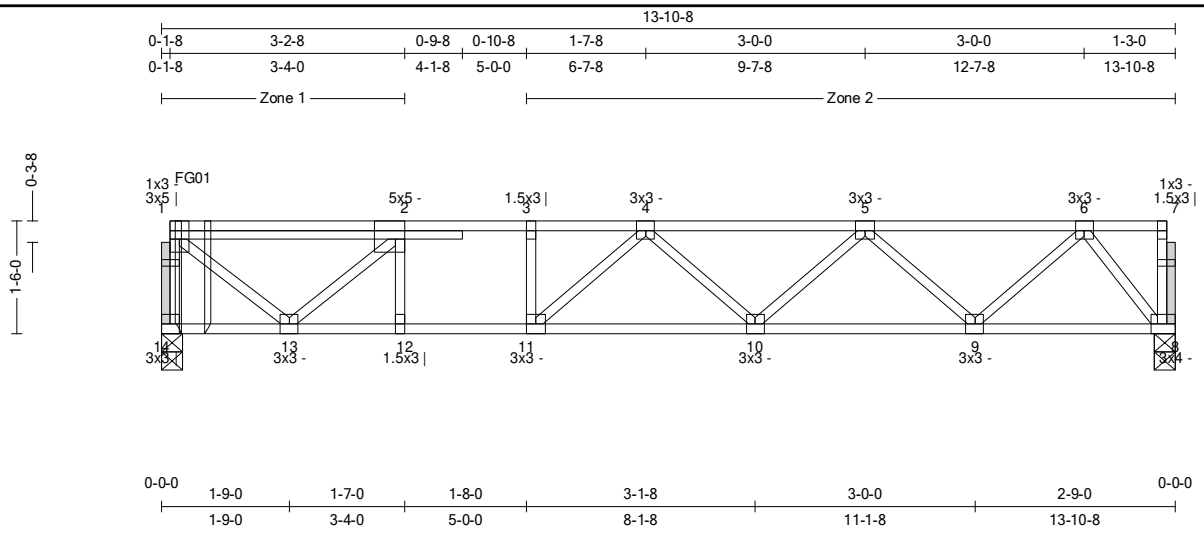
1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Unless otherwise specified by the Building Designer, one strongback every 10'-0".
3) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) ▭ Indicates non-structural members.
7) Due to negative reactions in gravity load cases, special connections to the bearing surface at joint 28 may need to be considered.
8) The forces shown for this multi-ply truss are per ply and the reactions are for all plies. Two identical trusses shall be built and attached as follows: SDS Simpson 0.250"x6" Screws TC - 1 row @ 1-9-8 oc, BC - 1 row @ 2-0-0 oc , Webs - 1 @ 2-0-0 oc, minimum one fastener per web.

Provided the hanger connections do not adequately transfer the applied load to all plies: in addition to connectors shown above, attach girder plies with supplemental SDS Simpson 0.250"x6" Screws as follows within 24" of the location shown:
TC: 13-6-12,(2)Connectors

Connectors shall not encroach on other girder ply connectors or truss-to-truss connectors in accordance with the NDS or the connector manufacturer recommendations.
9) Screws shall be installed in the same truss ply that the hangers are attached to. If both plies are loaded, the screws shall be divided between the two plies, with the spacing on each side twice the minimum indicated.
10) Strongbacks shall be attached to each ply.
11) Center screw vertically on the 1-1/2" dimension of chords and webs. If splitting occurs, it may be necessary to pre-drill the holes in accordance with the NDS.
12) Install screws per manufacturer recommendations.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:FG03 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:49 Page: 1 of 2

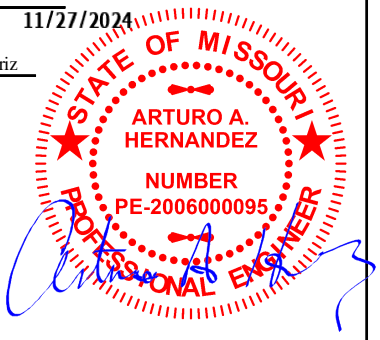
SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
13-10-8	0/12	1	0-0-0	0-0-0	1	25.84 in	76 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General	CSI	Deflection	L/	(loc)	Allowed
Carried Loads (psf)	Bldg Code: IBC 2018/	TC: 0.38 (2-3)	Vert TL: 0.1 in	L / 999	(10-11)	L / 240
TCLL: 40	TPI 1-2014	BC: 0.38 (11-12)	Vert LL: 0.07 in	L / 999	(10-11)	L / 360
TCDL: 10	Rep Mbr: No	Web: 0.13 (1-14)	Horz TL: 0.01 in		8	
BCLL: 0	Lumber D.O.L.: 100 %					
BCDL: 10						

11/27/2024



Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
14	1	3.5 in	1.50 in	1,108 lbs	·	·	·	·	·
8	1	3.5 in	1.50 in	400 lbs	·	·	·	·	·

Material

TC: SYP#1 4 x 2
BC: SYP#1 4 x 2
Web: SYP#1 4 x 2

Loads

1) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Load Case L1: Std Live Load

Distributed Loads

Member	Location 1	Location 2	Direction	Spread	Start Load	End Load	Trib Width
Top	0-0-0	13-10-8	Down	Proj	12.4 plf	12.4 plf	
Top	0-0-0	0-5-4	Down	Proj	19.58 plf	19.58 plf	
Top	0-5-4	13-10-8	Down	Proj	19.58 plf	19.58 plf	

Load Case D1: Std Dead Load

Distributed Loads

Member	Location 1	Location 2	Direction	Spread	Start Load	End Load	Trib Width
Top	0-0-0	13-10-8	Down	Proj	3.1 plf	3.1 plf	
Top	0-0-0	0-5-4	Down	Proj	4.9 plf	4.9 plf	
Top	0-5-4	13-10-8	Down	Proj	4.9 plf	4.9 plf	
Bot	0-0-0	13-10-8	Down	Proj	3.1 plf	3.1 plf	
Bot	0-0-0	0-5-4	Down	Proj	4.9 plf	4.9 plf	
Bot	0-5-4	13-10-8	Down	Proj	4.9 plf	4.9 plf	

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.320	-452 lbs	3-4	0.233	-901 lbs	5-6	0.141	-593 lbs		
	2-3	0.380	-905 lbs	4-5	0.149	-963 lbs					
BC	9-10	0.227	846 lbs	11-12	0.379	901 lbs					
	10-11	0.321	1,010 lbs	12-13	0.379	901 lbs					
Web	1-14	0.125	-1,089 lbs	5-9	0.042	-343 lbs					
	1-13	0.098	591 lbs	6-9	0.068	409 lbs					
	2-13	0.070	-592 lbs	6-8	0.053	-477 lbs					

Truss to Truss Connection Summary

Carried Truss	Carrying Chord	Carrying Offset
FG01	TC	0-5-4

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
13-10-8	0/12	1	0-0-0	0-0-0	1	25.84 in	76 lbs

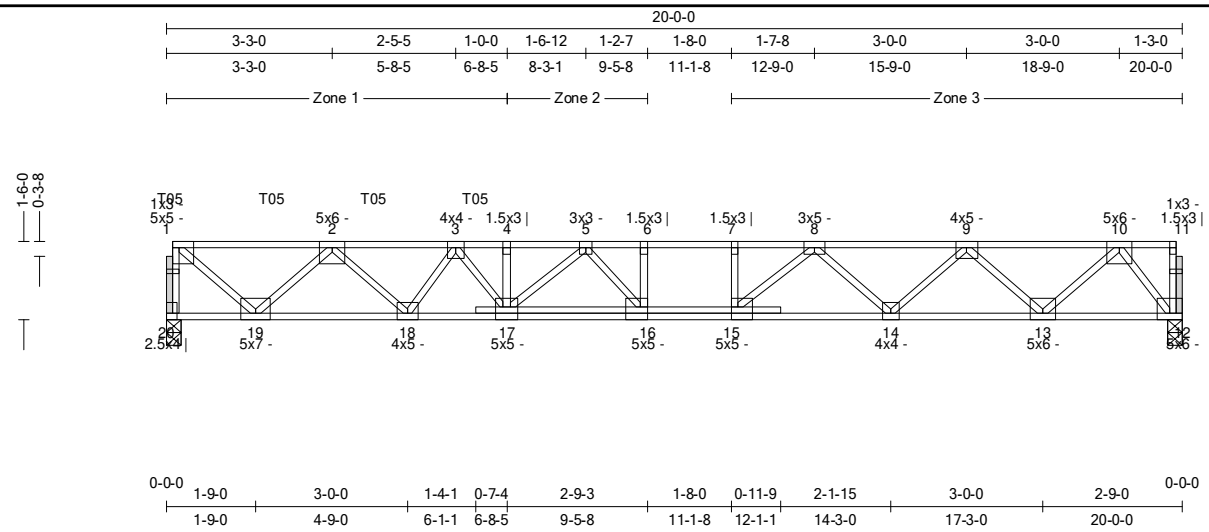
Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Unless otherwise specified by the Building Designer, one strongback every 10'-0".
3) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) ▭ Indicates non-structural members.

Quality Line Truss Co., LLC
34593 S 4350 RD
Address 2
Adair, OK 74330

Truss:FG04
Job: QU02705_RESERVE BLDG J_REFRE
Date: 11/27/24 10:54:51

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
20-0-0	0/12	1	0-0-0	0-0-0	2	50.84 in	114 lbs



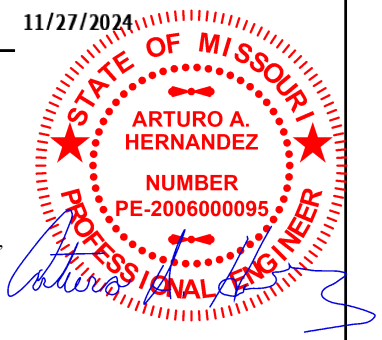
All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI		Deflection		L/	(loc)	Allowed
Carried Loads (psf)	Bldg Code :	IBC 2018/	TC :	0.76 (2-3)	Vert TL:	0.45 in	L / 522	16	L / 240
TCLL : 40		TPI 1-2014	BC :	0.95 (14-15)	Vert LL:	0.24 in	L / 961	(15-16)	L / 360
TCDL : 10	Rep Mbr :	No	Web :	0.35 (1-19)	Horz TL:	0.09 in		12	
BCLL : 0	Lumber D.O.L. :	100 %							
BCDL : 10									

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
20	1	3.5 in	1.50 in	2,984 lbs	·	·	·	·	·
12	1	3.5 in	1.50 in	2,967 lbs	·	·	·	·	·

11/27/2024



Material

TC: SYP#1 4 x 2
BC: SYP#1 4 x 2
Web: SYP#1 4 x 2

Loads

1) This truss has been designed for the effects of (psf) sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has not been designed for the effects of unbalanced snow loads.
3) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Load Case L1: Std Live Load

Distributed Loads

Member	Location 1	Location 2	Direction	Spread	Start Load	End Load	Trib Width
Top	0-0-0	20-0-0	Down	Proj	140.52 plf	140.52 plf	
Top	7-0-12	20-0-0	Down	Proj	28.96 plf	28.96 plf	

Load Case D1: Std Dead Load

Distributed Loads

Member	Location 1	Location 2	Direction	Spread	Start Load	End Load	Trib Width
Top	0-0-0	20-0-0	Down	Proj	35.13 plf	35.13 plf	
Top	7-0-12	20-0-0	Down	Proj	7.24 plf	7.24 plf	
Bot	0-0-0	20-0-0	Down	Proj	35.13 plf	35.13 plf	
Bot	7-0-12	20-0-0	Down	Proj	7.24 plf	7.24 plf	

Point Loads

Member	Location	Direction	Load	Trib Width
Top	6-8-5	Down	43 lbs	

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.679	-1,478 lbs	4-5	0.536	-4,875 lbs		7-8	0.583	-5,441 lbs					
	2-3	0.755	-3,720 lbs	5-6	0.573	-5,441 lbs		8-9	0.690	-4,236 lbs					
	3-4	0.524	-4,875 lbs	6-7	0.591	-5,441 lbs		9-10	0.484	-2,363 lbs					
BC	12-13	0.314	1,098 lbs	14-15	0.953	4,958 lbs		16-17	0.704	5,283 lbs	18-19	0.585	2,797 lbs		
	13-14	0.710	3,487 lbs	15-16	0.692	5,441 lbs		17-18	0.820	4,331 lbs					
Web	1-20	0.174	-1,469 lbs	3-17	0.149	900 lbs		9-14	0.168	1,016 lbs					
	1-19	0.349	1,968 lbs	5-17	0.071	-533 lbs		9-13	0.187	-1,525 lbs					
	2-19	0.233	-1,789 lbs	5-16	0.097	511 lbs	(-189 lbs)	10-13	0.284	1,716 lbs					
	2-18	0.208	1,253 lbs	8-15	0.147	771 lbs		10-12	0.202	-1,796 lbs					
	3-18	0.125	-1,078 lbs	8-14	0.125	-976 lbs									

SPAN	PITCH	QTY	OHL	OHR	PLYS	SPACING	WGT/PLY
20-0-0	0/12	1	0-0-0	0-0-0	2	50.84 in	114 lbs

Truss to Truss Connection Summary

Carried Truss	Carrying Chord	Carrying Offset
T05	TC	0-0-12
T05	TC	2-0-12
T05	TC	4-0-12
T05	TC	6-0-12

Notes

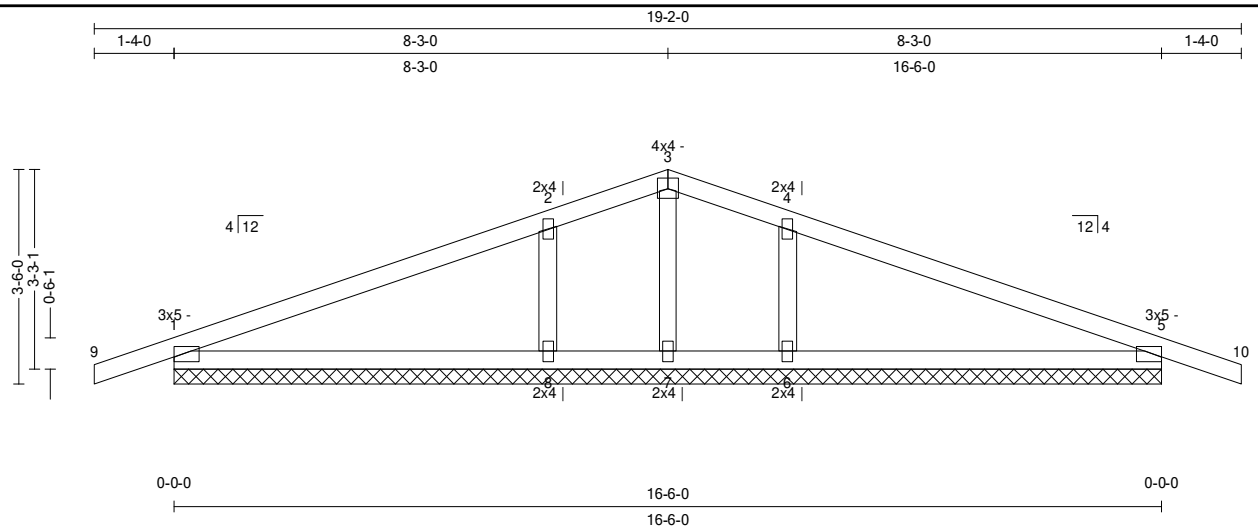
1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Unless otherwise specified by the Building Designer, one strongback every 10'-0".
3) The fabrication tolerance for this floor truss is 10 % (Cq = 0.90).
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) ▭ Indicates non-structural members.
7) The forces shown for this multi-ply truss are per ply and the reactions are for all plies. Two identical trusses shall be built and attached as follows: SDS Simpson 0.250"x6" Screws TC - 1 row @ 1-10-8 oc, BC - 1 row @ 2-0-0 oc , Webs - 1 @ 2-0-0 oc, minimum one fastener per web.

Provided the hanger connections do not adequately transfer the applied load to all plies: in addition to connectors shown above, attach girder plies with supplemental SDS Simpson 0.250"x6" Screws as follows within 24" of the location shown:
TC: 0-0-12,(1)Connectors
TC: 2-0-12,(1)Connectors
TC: 4-0-12,(1)Connectors
TC: 6-0-12,(1)Connectors
TC: 6-8-5,(1)Connectors

Connectors shall not encroach on other girder ply connectors or truss-to-truss connectors in accordance with the NDS or the connector manufacturer recommendations.
8) Screws shall be installed in the same truss ply that the hangers are attached to. If both plies are loaded, the screws shall be divided between the two plies, with the spacing on each side twice the minimum indicated.
9) Strongbacks shall be attached to each ply.
10) Center screw vertically on the 1-1/2" dimension of chords and webs. If splitting occurs, it may be necessary to pre-drill the holes in accordance with the NDS.
11) Install screws per manufacturer recommendations.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:GE01 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:33 Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
16-6-0	4/12	1	1-4-0	1-4-0	0-0-0	0-0-0	1	24 in	61 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI		Deflection		L/	(loc)	Allowed
TCLL: 20	Bldg Code:	IBC 2018/	TC:	0.38 (4-5)	Vert TL:	0.02 in	L / 999	(5-6)	L / 240
TCDL: 10		TPI 1-2014	BC:	0.20 (5-6)	Vert LL:	0 in	L / 999	5	L / 360
BCLL: 0	Rep Mbr:	No	Web:	0.05 (4-6)	Horz TL:	0 in			
BCDL: 10	Lumber D.O.L.:	115 %							

Reaction

Brg Combo	Brg Width	Max React	Ave React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
1	-	1,221 lbs	240 plf	-889 lbs	-134 lbs	-453 lbs	-889 lbs	689 lbs

Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#2 2 x 4

Bracing

TC: Sheathed or Purlins at 6-3-0, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.

11/27/2024

STATE OF MISSOURI
ARTURO A. HERNANDEZ
NUMBER PE-2006000095
PROFESSIONAL ENGINEER

Loads

1) This truss has been designed for the effects of balanced (14 psf) and unbalanced sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

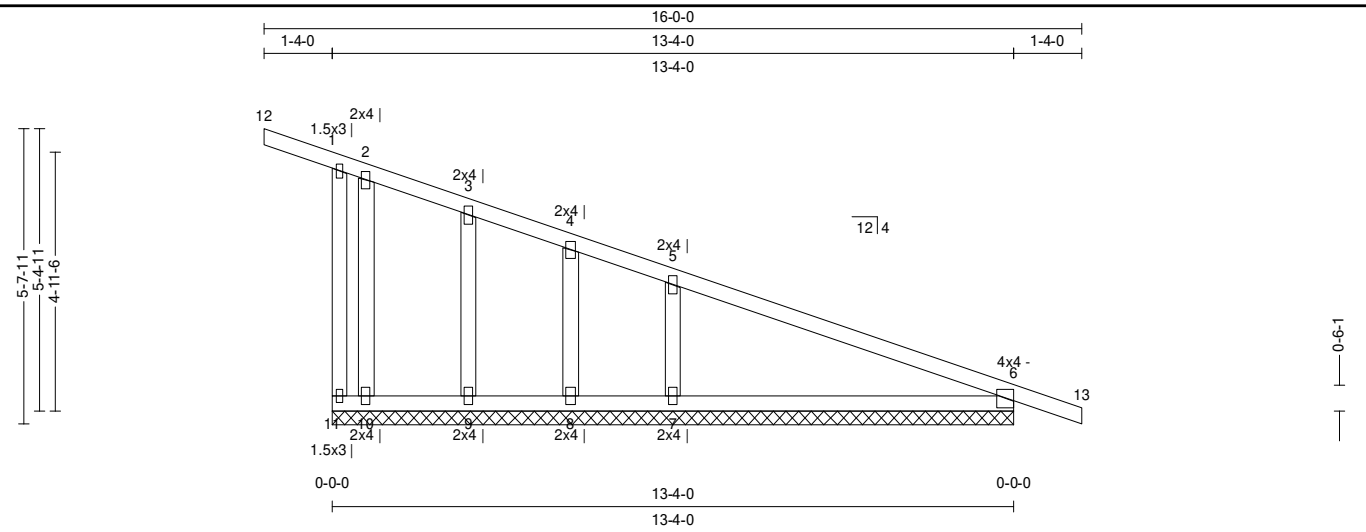
TC	1-2	0.375	1,051 lbs	(-422 lbs)					
	4-5	0.375	1,051 lbs	(-422 lbs)					
BC									
Web	2-8	0.050	-355 lbs		4-6	0.050	-355 lbs		

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Gable requires continuous bottom chord bearing.
3) Gable webs placed at 24 " OC, U.N.O.
4) Attach gable webs with 2x4 20ga plates, U.N.O.
5) Bracing shown is for in-plane requirements. For out-of-plane requirements, refer to BCSI-B3 published by the SBCA.
6) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
7) A creep factor of 1.00 has been applied for this truss analysis.
8) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
9) Due to negative reactions in gravity load cases, special connections to the bearing surface at joints 7, 5, 1 may need to be considered.
10) Listed wind uplift reactions based on MWFRS & C&C loading.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:GE02 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:34 Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
13-4-0	-4/12	1	1-4-0	1-4-0	0-0-0	0-0-0	1	24 in	67 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI	Deflection		L/	(loc)	Allowed
TCLL: 20	Bldg Code:	IBC 2018/	TC: 0.52 (5-6)	Vert TL:	0.03 in	L / 999	(6-7)	L / 240
TCDL: 10		TPI 1-2014	BC: 0.28 (6-7)	Vert LL:	0 in UP	L / 999	(6-7)	L / 360
BCLL: 0	Rep Mbr:	No	Web: 0.23 (1-11)	Horz TL:	0 in			
BCDL: 10	Lumber D.O.L.:	115 %						

Reaction

Brg Combo	Brg Width	Max React	Ave React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
1	-	1,654 lbs	246 plf	-1,283 lbs	-250 lbs	-788 lbs	-1,283 lbs	893 lbs

11/27/2024

STATE OF MISSOURI
ARTURO A. HERNANDEZ
NUMBER PE-2006000095
PROFESSIONAL ENGINEER

Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#2 2 x 4

Bracing

TC: Sheathed or Purlins at 6-3-0, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.

Loads

1) This truss has been designed for the effects of balanced (14 psf) and unbalanced sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

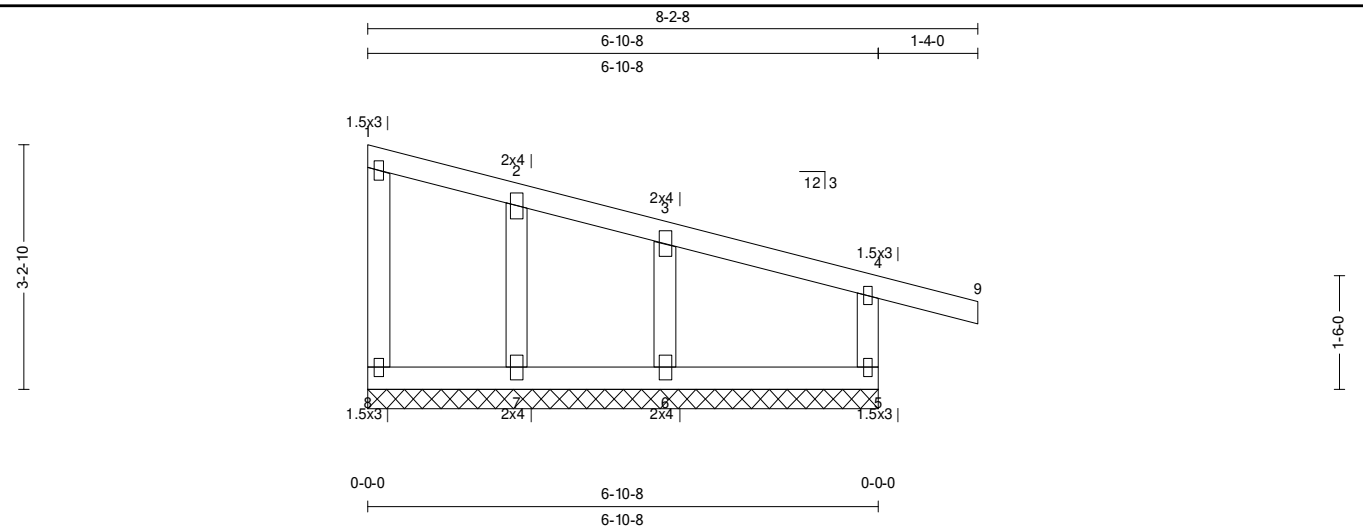
TC	5-6	0.516	1,466 lbs	(-794 lbs)
BC				
Web	1-11	0.230	303 lbs	(-183 lbs)
	5-7	0.053	-347 lbs	

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Gable requires continuous bottom chord bearing.
3) Gable webs placed at 24 " OC, U.N.O.
4) Attach gable webs with 2x4 20ga plates, U.N.O.
5) Bracing shown is for in-plane requirements. For out-of-plane requirements, refer to BCSI-B3 published by the SBCA.
6) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
7) A creep factor of 1.00 has been applied for this truss analysis.
8) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
9) Due to negative reactions in gravity load cases, special connections to the bearing surface at joints 8, 10, 6 may need to be considered.
10) Listed wind uplift reactions based on MWFRS & C&C loading.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:GE03 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:35 Page: 1 of 1

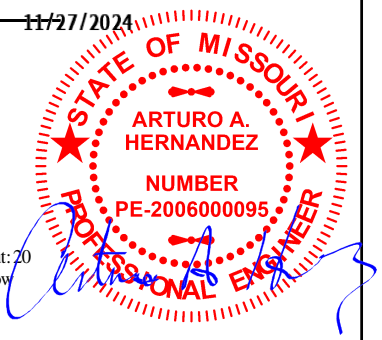
SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
6-10-8	-3/12	2	0-0-0	1-4-0	0-0-0	0-0-0	1	24 in	32 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI	Deflection		L/	(loc)	Allowed
TCLL: 20	Bldg Code:	IBC 2018/	TC: 0.25 (4-9)	Vert TL:	0 in	L / 999	(5-6)	L / 240
TCDL: 10		TPI 1-2014	BC: 0.06 (5-6)	Vert LL:	0 in	L / 999	5	L / 360
BCLL: 0	Rep Mbr:	No	Web: 0.42 (4-5)	Horz TL:	0 in			
BCDL: 10	Lumber D.O.L.:	115 %						

11/27/2024



Reaction

Brg Combo	Brg Width	Max React	Ave React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
1	-	230 lbs	95 plf	-	-54 lbs	-228 lbs	-228 lbs	-172 lbs

Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#2 2 x 4

Bracing

TC: Sheathed or Purlins at 6-3-0, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.

Loads

1) This truss has been designed for the effects of balanced (20 psf) sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has not been designed for the effects of unbalanced snow loads.
3) This truss has been designed to account for the effects of ice dams forming at the eaves.
4) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

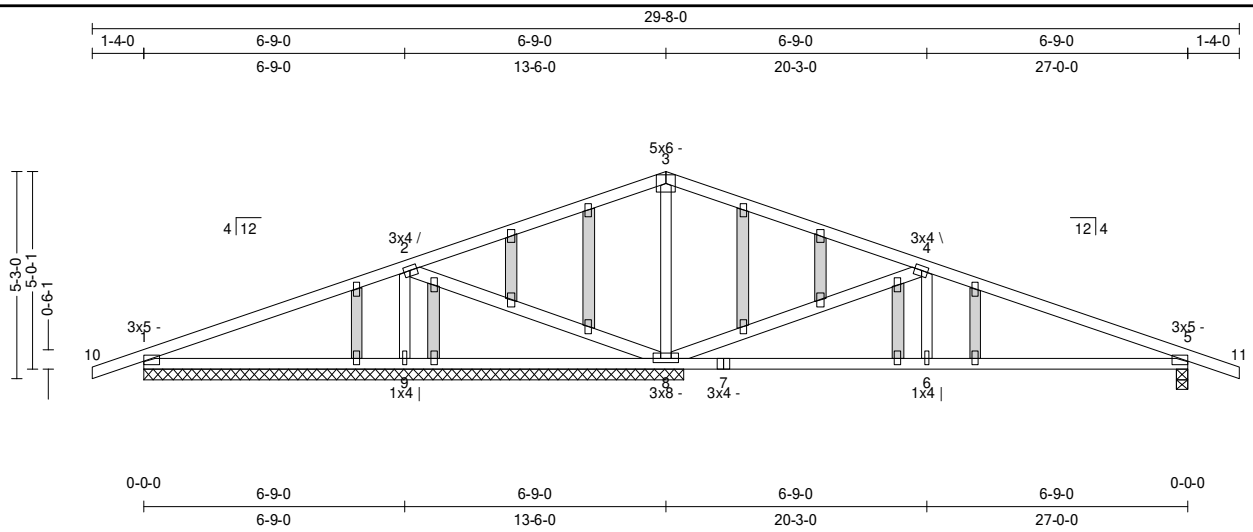
TC		
BC		
Web		

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Gable requires continuous bottom chord bearing.
3) Gable webs placed at 24 " OC, U.N.O.
4) Attach gable webs with 1.5x3 20ga plates, U.N.O.
5) Bracing shown is for in-plane requirements. For out-of-plane requirements, refer to BCSI-B3 published by the SBCA.
6) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
7) A creep factor of 1.00 has been applied for this truss analysis.
8) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
9) Listed wind uplift reactions based on MWFRS & C&C loading.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:SGE01 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:37 Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
27-0-0	4/12	1	1-4-0	1-4-0	0-0-0	0-0-0	1	24 in	139 lbs



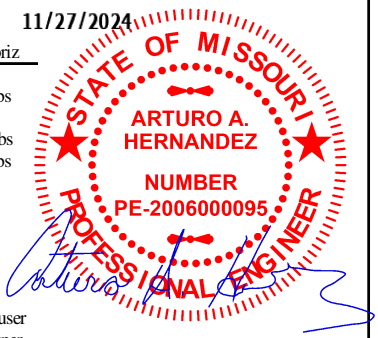
All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI		Deflection		L/	(loc)	Allowed
TCLL: 20	Bldg Code:	IBC 2018/	TC:	0.62 (3-4)	Vert TL:	0.11 in	L / 999	(5-6)	L / 240
TCDL: 10		TPI 1-2014	BC:	0.49 (5-6)	Vert LL:	0.04 in	L / 999	(5-6)	L / 360
BCLL: 0	Rep Mbr:	No	Web:	0.84 (4-8)	Horz TL:	0.01 in		5	
BCDL: 10	Lumber D.O.L.:	115 %							

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
5	1	3.5 in	1.50 in	625 lbs	·	-64 lbs	-185 lbs	-185 lbs	·
8	1	167.5 in	N/A	1,327 lbs	·	-75 lbs	-252 lbs	-252 lbs	124 lbs
9	1	167.5 in	N/A	557 lbs	·	-40 lbs	-77 lbs	-77 lbs	·
1	1	167.5 in	N/A	88 lbs	-1,288 lbs	-144 lbs	·	-1,288 lbs	-924 lbs
1	1	167.5 in	N/A	1,684 lbs	·	-133 lbs	-150 lbs	-150 lbs	850 lbs

11/27/2024



Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#1 2 x 4

Bracing

TC: Sheathed or Purlins at 6-3-0, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.

Loads

1) This truss has been designed for the effects of balanced (14 psf) and unbalanced sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60
4) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.533	1,502 lbs	(-143 lbs)	3-4	0.619	421 lbs				
	2-3	0.585	384 lbs		4-5	0.447	-808 lbs				
BC	5-6	0.489	714 lbs	(-10 lbs)	6-8	0.489	714 lbs	(-10 lbs)			
Web	2-9	0.043	-337 lbs		4-8	0.842	-1,080 lbs				
	3-8	0.207	-605 lbs								

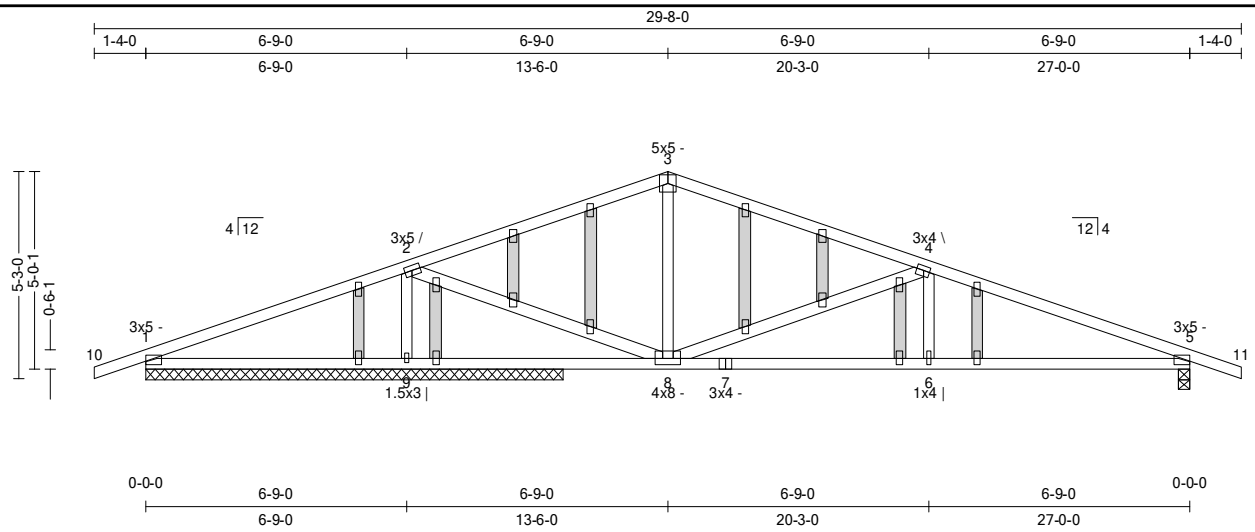
Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Gable webs placed at 24 " OC, U.N.O.
3) Attach structural gable blocks with 2x4 20ga plates, U.N.O.
4) Bracing shown is for in-plane requirements. For out-of-plane requirements, refer to BCSI-B3 published by the SBCA.
5) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
6) A creep factor of 1.00 has been applied for this truss analysis.
7) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
8) ▭ Indicates non-structural members.
9) Due to negative reactions in gravity load cases, special connections to the bearing surface at joint 1 may need to be considered.
10) Listed wind uplift reactions based on MWFRS & C&C loading.

Quality Line Truss Co., LLC
34593 S 4350 RD
Address 2
Adair, OK 74330

Truss:SGE02
Job: QU02705_RESERVE BLDG J_REFRES
Date: 11/27/24 10:54:38
Page: 1 of 1

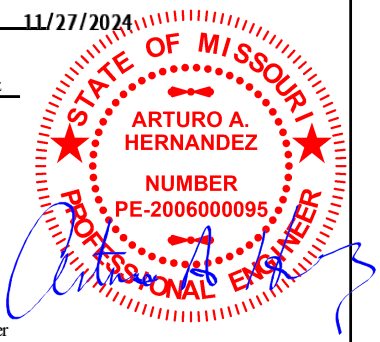
SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
27-0-0	4/12	1	1-4-0	1-4-0	0-0-0	0-0-0	1	24 in	139 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI	Deflection		L/	(loc)	Allowed
TCLL: 20	Bldg Code:	IBC 2018/	TC: 0.65 (1-2)	Vert TL:	0.17 in	L / 999	(6-7)	L / 240
TCDL: 10		TPI 1-2014	BC: 0.63 (6-8)	Vert LL:	0.05 in	L / 999	(6-7)	L / 360
BCLL: 0	Rep Mbr:	No	Web: 0.78 (4-8)	Horz TL:	0.03 in		5	
BCDL: 10	Lumber D.O.L.:	115 %						

11/27/2024



Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
5	1	3.5 in	1.50 in	1,016 lbs	·	-87 lbs	-262 lbs	-262 lbs	·
9	1	129.5 in	N/A	1,591 lbs	·	-94 lbs	-271 lbs	-271 lbs	503 lbs
1	1	129.5 in	N/A	94 lbs	-1,728 lbs	-177 lbs	·	-1,728 lbs	-1,194 lbs
1	1	129.5 in	N/A	1,980 lbs	·	-137 lbs	-185 lbs	-185 lbs	709 lbs

Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#1 2 x 4

Bracing

TC: Sheathed or Purlins at 4-1-0, Purlin design by Others.
BC: Sheathed or Purlins at 8-5-0, Purlin design by Others.

Loads

1) This truss has been designed for the effects of balanced (14 psf) and unbalanced sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL= 1.60
4) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.649	1,967 lbs	(-199 lbs)	3-4	0.460	-926 lbs				
	2-3	0.470	-928 lbs		4-5	0.409	-1,912 lbs				
BC	5-6	0.566	1,755 lbs	(-216 lbs)	6-8	0.630	1,755 lbs	(-216 lbs)	8-9	0.295	-503 lbs
Web	2-9	0.169	-1,315 lbs		4-8	0.776	-996 lbs				
	2-8	0.230	1,388 lbs	(-240 lbs)							

Notes

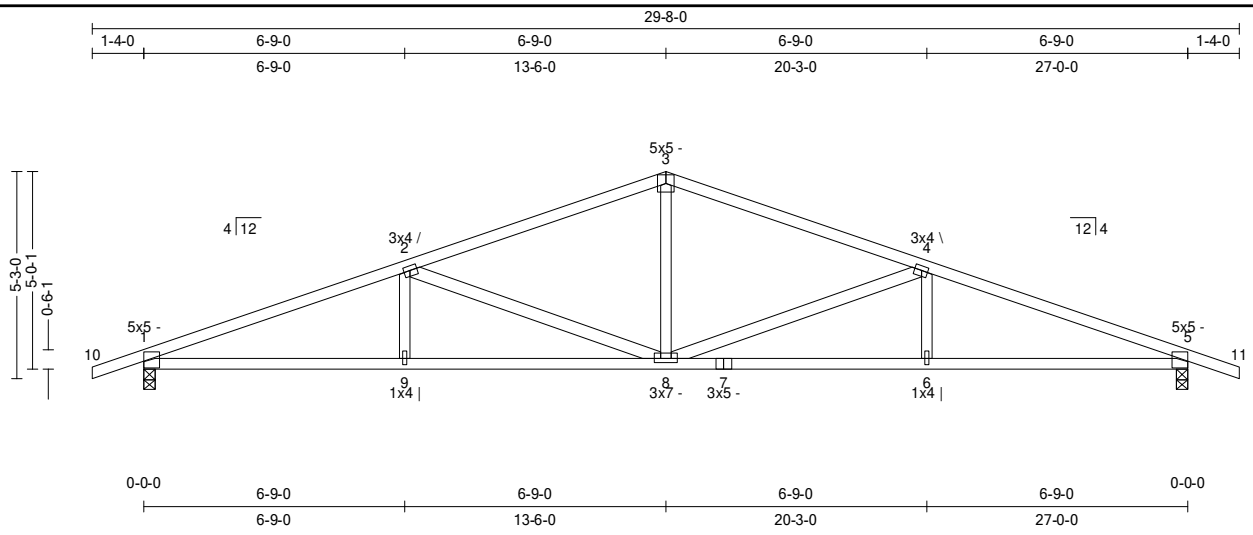
1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Gable webs placed at 24 " OC, U.N.O.
3) Attach structural gable blocks with 2x4 20ga plates, U.N.O.
4) Bracing shown is for in-plane requirements. For out-of-plane requirements, refer to BCSI-B3 published by the SBCA.
5) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
6) A creep factor of 1.00 has been applied for this truss analysis.
7) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
8) ▭ Indicates non-structural members.
9) Due to negative reactions in gravity load cases, special connections to the bearing surface at joint 1 may need to be considered.
10) Listed wind uplift reactions based on MWFRS & C&C loading.

TrueBuild® Truss Software v5.7.13
Eagle Metal Products

Quality Line Truss Co., LLC
34593 S 4350 RD
Address 2
Adair, OK 74330

Truss:T01
Job: QU02705_RESERVE BLDG J_REFRES
Date: 11/27/24 10:54:39
Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
27-0-0	4/12	15	1-4-0	1-4-0	0-0-0	0-0-0	1	24 in	114 lbs



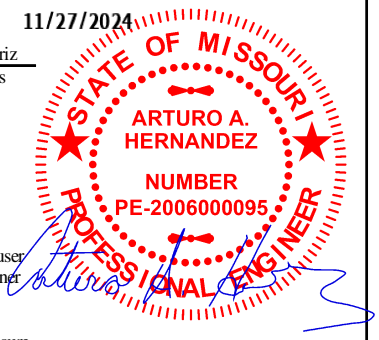
All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL:	20	Bldg Code:	IBC 2018/	TC:	0.57 (4-5)	Vert TL:	0.39 in	L / 817	(6-7)	L / 240
TCDL:	10		TPI 1-2014	BC:	0.80 (5-6)	Vert LL:	0.14 in	L / 999	(6-7)	L / 360
BCLL:	0	Rep Mbr:	Yes	Web:	0.69 (2-8)	Horz TL:	0.11 in		5	
BCDL:	10	Lumber D.O.L.:	115 %							

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
1	1	3.5 in	1.69 in	1,430 lbs	·	-112 lbs	-331 lbs	-331 lbs	-6 lbs
5	1	3.5 in	1.69 in	1,430 lbs	·	-112 lbs	-331 lbs	-331 lbs	·

11/27/2024



Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#1 2 x 4

Bracing

TC: Sheathed or Purlins at 3-4-0, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.

Loads

1) This truss has been designed for the effects of balanced (14 psf) and unbalanced sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60
4) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.567	-3,073 lbs		3-4	0.479	-2,190 lbs							
	2-3	0.479	-2,190 lbs		4-5	0.567	-3,073 lbs							
BC	5-6	0.802	2,849 lbs	(-399 lbs)	6-8	0.798	2,849 lbs	(-399 lbs)	8-9	0.798	2,849 lbs	(-399 lbs)	9-1	0.801	2,849 lbs	(-399 lbs)
Web	2-8	0.685	-880 lbs		4-8	0.685	-880 lbs							
	3-8	0.150	907 lbs	(-19 lbs)										

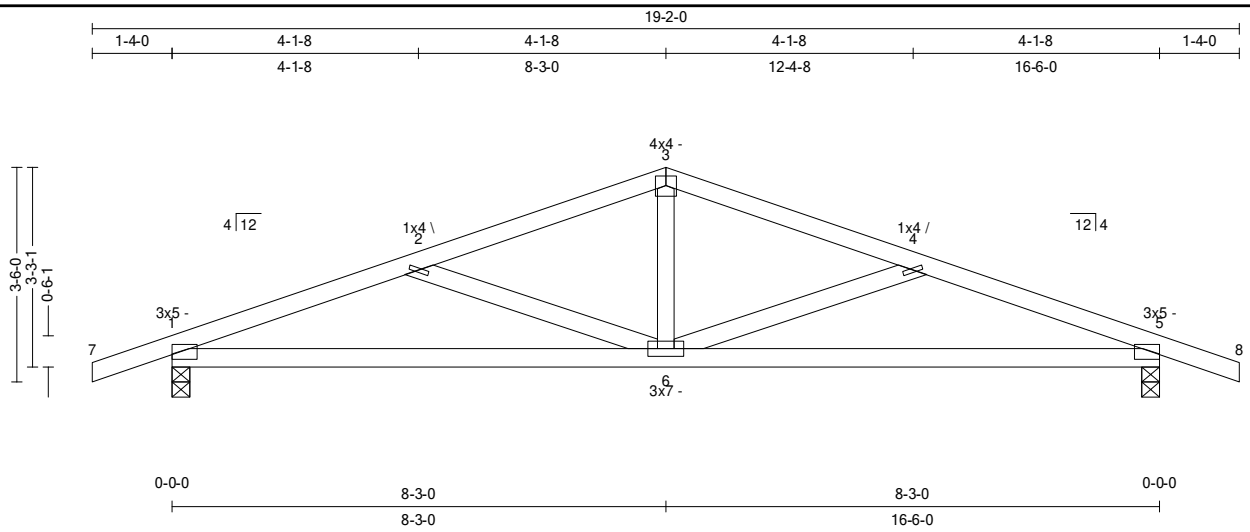
Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
3) Brace bottom chord with approved sheathing or purlins per Bracing Summary.
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) Listed wind uplift reactions based on MWFRS & C&C loading.

Quality Line Truss Co., LLC
34593 S 4350 RD
Address 2
Adair, OK 74330

Truss:T02
Job: QU02705_RESERVE BLDG J_REFRES
Date: 11/27/24 10:54:40
Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
16-6-0	4/12	4	1-4-0	1-4-0	0-0-0	0-0-0	1	24 in	68 lbs



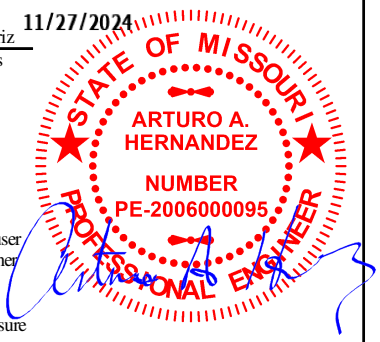
All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL :	20	Bldg Code :	IBC 2018/	TC :	0.24 (4-5)	Vert TL:	0.17 in	L / 999	(5-6)	L / 240
TCDL :	10		TPI 1-2014	BC :	0.62 (6-1)	Vert LL:	0.07 in	L / 999	(5-6)	L / 360
BCLL :	0	Rep Mbr :	Yes	Web :	0.12 (2-6)	Horz TL:	0.04 in		5	
BCDL :	10	Lumber D.O.L. :	115 %							

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
1	1	3.5 in	1.50 in	905 lbs	·	-78 lbs	-356 lbs	-356 lbs	-7 lbs
5	1	3.5 in	1.50 in	905 lbs	·	-78 lbs	-356 lbs	-356 lbs	·

11/27/2024



Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#1 2 x 4

Bracing

TC: Sheathed or Purlins at 4-11-0, Purlin design by Others.
BC: Sheathed or Purlins at 9-6-0, Purlin design by Others.

Loads

1) This truss has been designed for the effects of balanced (14 psf) and unbalanced sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60
4) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

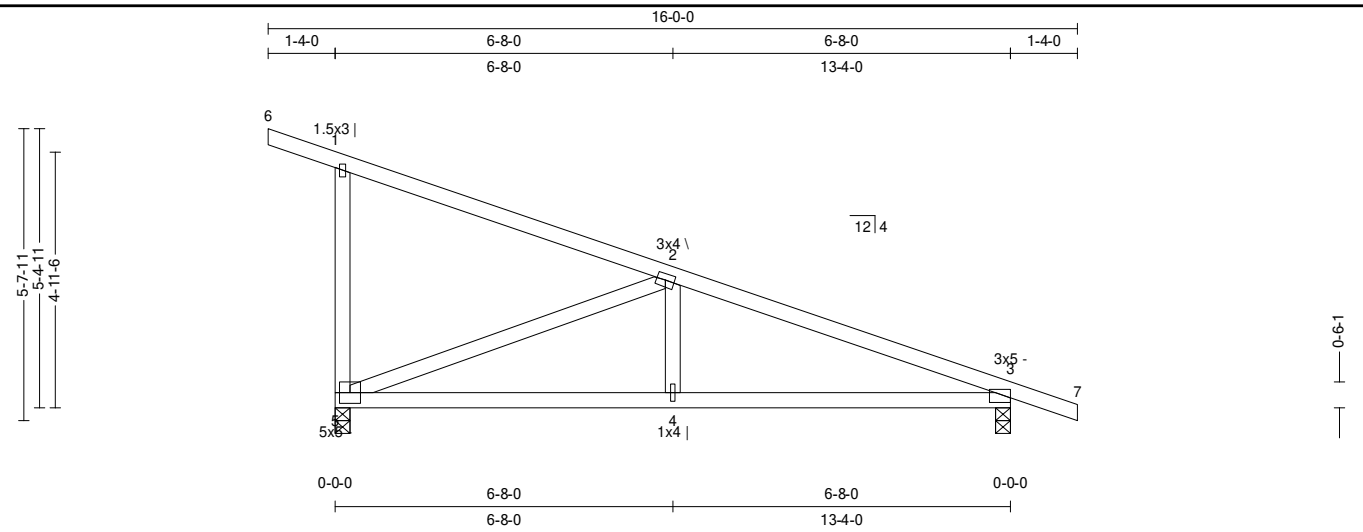
TC	1-2	0.237	-1,667 lbs		3-4	0.227	-1,343 lbs				
	2-3	0.227	-1,343 lbs		4-5	0.237	-1,667 lbs				
BC	5-6	0.621	1,544 lbs	(-455 lbs)	6-1	0.621	1,544 lbs	(-455 lbs)			
Web	2-6	0.123	-396 lbs		3-6	0.087	526 lbs	(-24 lbs)	4-6	0.123	-396 lbs

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
3) Brace bottom chord with approved sheathing or purlins per Bracing Summary.
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) Listed wind uplift reactions based on MWFRS & C&C loading.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:T03 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:41 Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
13-4-0	-4/12	2	1-4-0	1-4-0	0-0-0	0-0-0	1	24 in	61 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI	Deflection		L/	(loc)	Allowed
TCLL: 20	Bldg Code:	IBC 2018/	TC: 0.46 (2-3)	Vert TL:	0.13 in	L / 999	(4-5)	L / 240
TCDL: 10		TPI 1-2014	BC: 0.60 (4-5)	Vert LL:	0.05 in	L / 999	(4-5)	L / 360
BCLL: 0	Rep Mbr:	No	Web: 0.81 (2-5)	Horz TL:	0.02 in		3	
BCDL: 10	Lumber D.O.L.:	115 %						

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
5	1	3.5 in	1.50 in	755 lbs	·	-98 lbs	-398 lbs	-398 lbs	-183 lbs
3	1	3.5 in	1.50 in	738 lbs	·	-37 lbs	-325 lbs	-325 lbs	·

Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#1 2 x 4

Bracing

TC: Sheathed or Purlins at 5-3-0, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.

11/27/2024

STATE OF MISSOURI
ARTURO A. HERNANDEZ
NUMBER PE-2006000095
PROFESSIONAL ENGINEER

Loads

1) This truss has been designed for the effects of balanced (14 psf) and unbalanced sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60
4) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

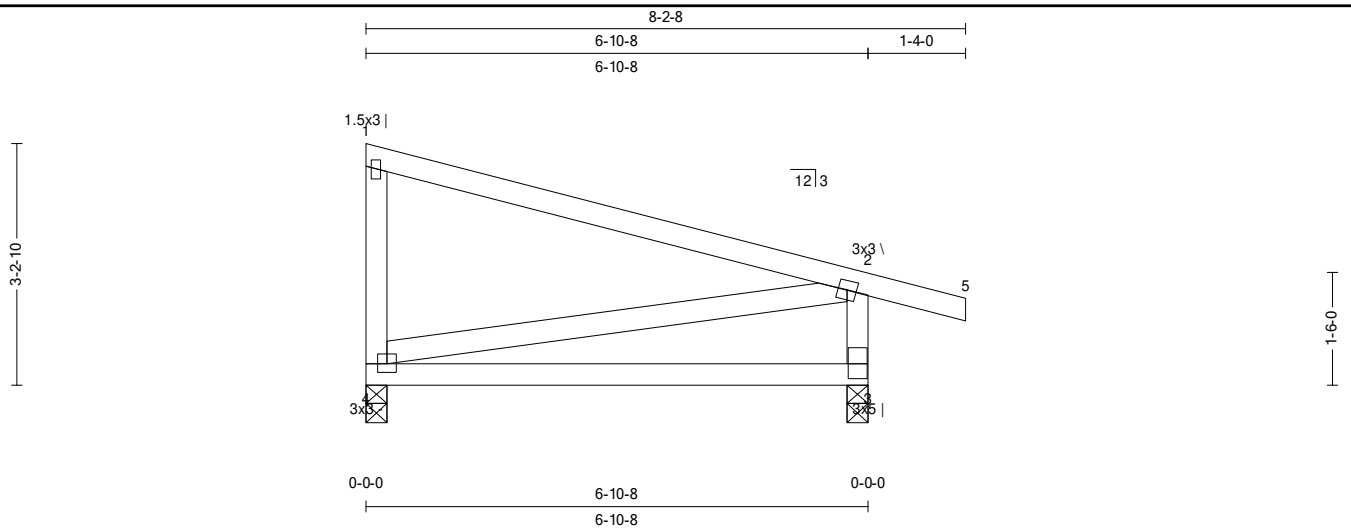
TC	2-3	0.464	-1,158 lbs					
BC	3-4	0.601	1,046 lbs	(-166 lbs)	4-5	0.601	1,046 lbs	(-166 lbs)
Web	2-5	0.815	-1,116 lbs		2-4	0.053	319 lbs	

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
3) Brace bottom chord with approved sheathing or purlins per Bracing Summary.
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) Listed wind uplift reactions based on MWFRS & C&C loading.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:T04 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:42 Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
6-10-8	-3/12	9	0-0-0	1-4-0	0-0-0	0-0-0	1	24 in	35 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI		Deflection		L/	(loc)	Allowed
TCLL: 20	Bldg Code:	IBC 2018/	TC:	0.59 (1-2)	Vert TL:	0.2 in	L / 376	(3-4)	L / 240
TCDL: 10		TPI 1-2014	BC:	0.43 (3-4)	Vert LL:	0.1 in	L / 752	(3-4)	L / 360
BCLL: 0	Rep Mbr:	Yes	Web:	0.12 (1-4)	Horz TL:	0 in		4	
BCDL: 10	Lumber D.O.L.:	115 %							

11/27/2024

Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
4	1	3.5 in	1.50 in	334 lbs	·	-37 lbs	-262 lbs	-262 lbs	·
3	1	3.5 in	1.50 in	434 lbs	·	-49 lbs	-383 lbs	-383 lbs	-130 lbs

Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#1 2 x 4

Bracing

TC: Sheathed or Purlins at 6-3-0, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.

Loads

1) This truss has been designed for the effects of balanced (20 psf) sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has not been designed for the effects of unbalanced snow loads.
3) This truss has been designed to account for the effects of ice dams forming at the eaves.
4) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60
5) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

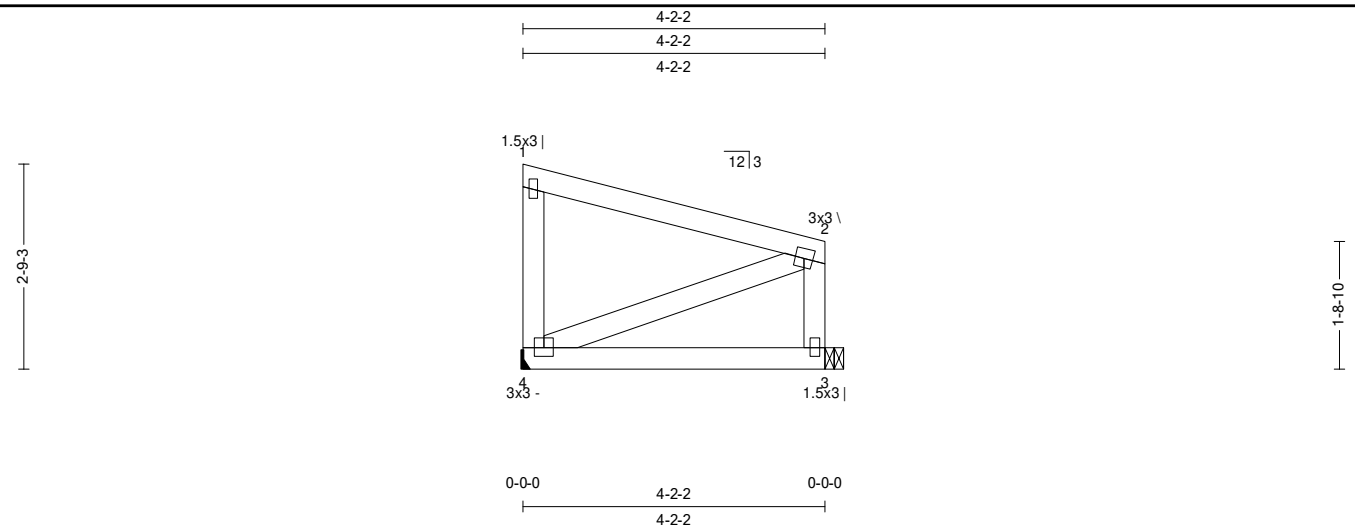
TC				
BC				
Web	2-3	0.067	424 lbs	(-296 lbs)

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
3) Brace bottom chord with approved sheathing or purlins per Bracing Summary.
4) A creep factor of 1.00 has been applied for this truss analysis.
5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
6) Listed wind uplift reactions based on MWFRS & C&C loading.

	Quality Line Truss Co., LLC 34593 S 4350 RD Address 2 Adair, OK 74330	Truss:T05 Job: QU02705_RESERVE BLDG J_REFRES Date: 11/27/24 10:54:45 Page: 1 of 1

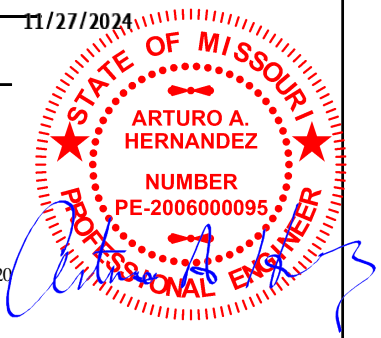
SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
4-2-2	-3/12	5	0-0-0	0-0-0	0-0-0	0-0-0	1	24 in	22 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)		General		CSI		Deflection		L/	(loc)	Allowed
TCLL:	20	Bldg Code:	IBC 2018/	TC:	0.28 (1-2)	Vert TL:	0.03 in	L / 999	(3-4)	L / 240
TCDL:	10		TPI 1-2014	BC:	0.15 (3-4)	Vert LL:	0.01 in	L / 999	(3-4)	L / 360
BCLL:	0	Rep Mbr:	Yes	Web:	0.09 (1-4)	Horz TL:	0 in		3	
BCDL:	10	Lumber D.O.L.:	115 %							

11/27/2024



Reaction

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
4	1	1.5 in	---	209 lbs	·	-29 lbs	-214 lbs	-214 lbs	-93 lbs
3	1	1.5 in	1.50 in	209 lbs	·	-11 lbs	-148 lbs	-148 lbs	·

Material

TC: SYP#1 2 x 4
BC: SYP#1 2 x 4
Web: SYP#1 2 x 4

Bracing

TC: Sheathed or Purlins at 6-3-0, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.

Loads

1) This truss has been designed for the effects of balanced (20 psf) sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 20 psf GSL, Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has not been designed for the effects of unbalanced snow loads.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60
4) Concurrent minimum storage attic loading has been applied in accordance with IBC 1607.1

Member Forces

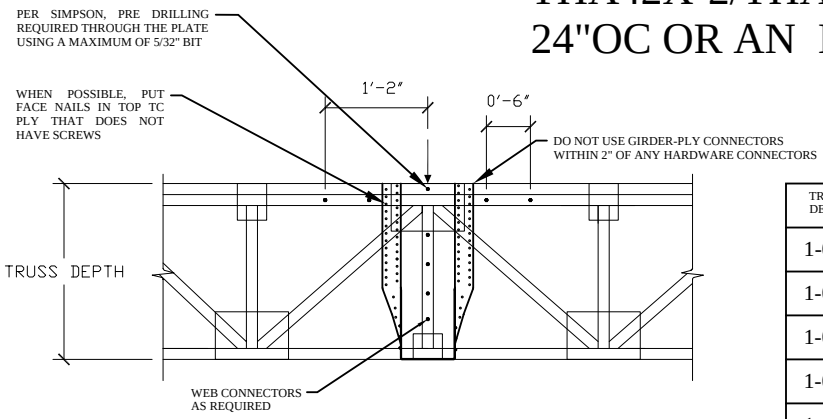
Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

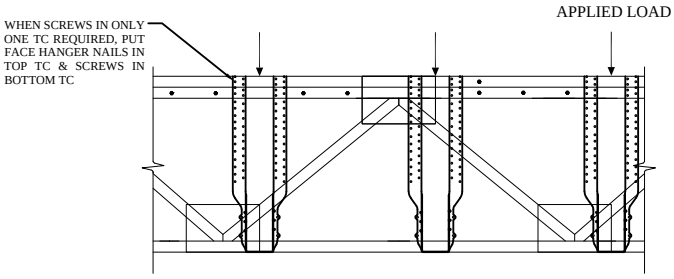
TC				
BC				
Web				

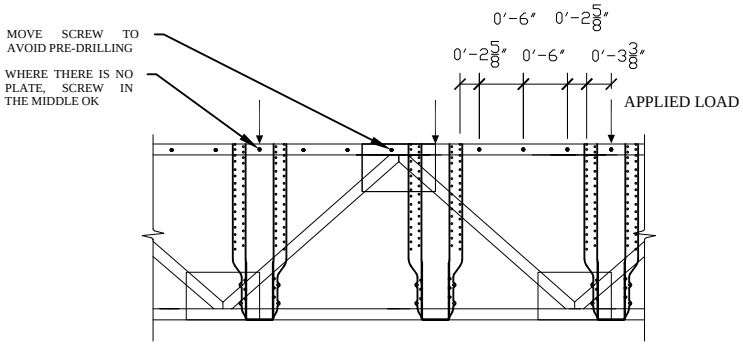
Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
3) Hanger is for graphical interpretation only. Install hanger per manufacturer's recommendation.
4) Nailing schedule shall be specified by truss manufacturer per NDS.
5) Brace bottom chord with approved sheathing or purlins per Bracing Summary.
6) A creep factor of 1.00 has been applied for this truss analysis.
7) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
8) Listed wind uplift reactions based on MWFRS & C&C loading.

THA42X-2/THA4XX WITH TRUSSES @ 24"OC OR AN ISOLATED CONNECTION



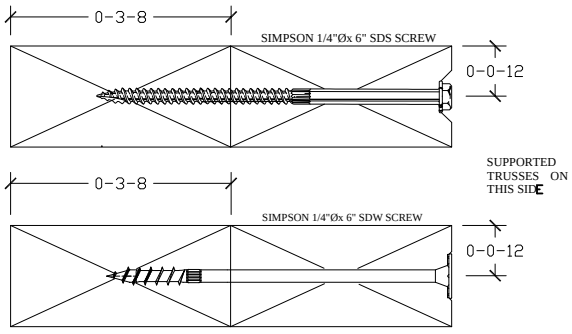




1. TO TRANSFER UNIFORM LOADS APPLIED TO SIMPLY SUPPORTED SPANS ON ASSEMBLY TOP CHORD:
   - 1.1. SPACE SCREWS AS REQUIRED TO TRANSFER HALF THE LOAD INTO THE SUPPORTING TRUSS.
   - 1.2. MINIMUM SCREW SPACING SHALL BE 4" O.C.
2. TO TRANSFER CONCENTRATED LOADS APPLIED TO SIMPLY SUPPORTED SPANS ON AN ASSEMBLY TOP CHORD OR VERTICAL WEB:
   - 2.1. CONCENTRATED LOADS MUST BE APPLIED AT THE PANEL JOINTS.
   - 2.2. SCREWS TO BE INSTALLED WITHIN 12" OF THE CONCENTRATED LOAD ON TOP-CHORD ASSEMBLY
3. GAP BETWEEN THE TRUSSES SHALL NOT EXCEED 1/8" O.C.
4. FLOOR SHEATHING SHALL BE SCREWED OR NAILED TO EACH TOP-CHORD PLY. (FASTENER SPACING PER THE APPLICABLE CODE REQUIREMENTS, OR 12" O.C.)
5. SDW SCREWS SHALL NOT BE INSTALLED IN AREAS WHERE LUMBER WANE EXCEEDS 1/4".
6. HANGERS ON SKEWED GIRDERS:
   - 6.1. HANGER LOADS NOT EXCEEDING 34" O.C. ON A SKEWED GIRDER (RESULTING FROM UNIFORMLY SPACED JOISTS UP TO 24" O.C.) MAY BE CONVERTED TO A UNIFORM LOAD.
   - 6.2. OR GIRDERS WITH HANGER LOAD SPACING IN EXCESS OF 34" O.C. THE LOADS SHALL BE CONSIDERED AS CONCENTRATED LOADS AT THE APPLICABLE LOCATIONS.
7. OTHER CONFIGURATIONS ACCEPTABLE AS LONG AS APPROVED BY TRUSS DESIGN ENGINEER.
8. CONNECTION HAS NO UP-LIFT CAPACITY

TRUSS DEPTH	TOTAL # SCREWS INTO TC (s)	AVAILABLE WEB SCREWS @ 4"OC	# WEB(S)	TOTAL SCREWS	SPF/HF CAPACITY	SP/DFL CAPACITY
1-0-0	3	1	0	3	1,200	1,680
1-0-0	3	1	1	4	1,600	2,240
1-0-0	3	1	2	5	2,000	2,800
1-0-0	3	1	3	6	2,400	3,360
1-0-0	6*	1	0	6*	2,400	3,360
1-2-0	3	1	0	3	1,200	1,680
1-2-0	3	1	1	4	1,600	2,240
1-2-0	3	1	2	5	2,000	2,800
1-2-0	3	1	3	6	2,400	3,360
1-2-0	6*	1	0	6*	2,400	3,360
1-4-0	3	2	0	3	1,200	1,680
1-4-0	3	2	1	5	2,000	2,800
1-4-0	3	2	2	7	2,800	3,920
1-4-0	6*	2	0	6*	2,400	3,360
1-6-0	3	3	0	3	1,200	1,680
1-6-0	3	3	1	6	2,400	3,360
1-6-0	6*	3	0	6*	2,800	3,360
1-8-0	3	3	0	3	1,200	1,680
1-8-0	3	3	1	6	2,400	3,360
1-8-0	6*	3	0	6*	2,400	3,360
1-10-0	3	3	0	3	1,200	1,680
1-10-0	3	3	1	6	2,400	3,360
1-10-0	6*	3	0	6*	2,400	3,360
2-0-0	3	4	0	3	1,200	1,680
2-0-0	3	4	1	7	2,800	3,920
2-0-0	6*	4	0	6*	2,400	3,360

* = DOUBLE TOP CHORD REQUIRED



EAGLE METAL

MULTI-PLY GIRDER CONNECTOR DETAIL

REV: 2.0	DRAWING NUMBER
ENG: MDV	DF-500
CAD: EEM	
DATE: 07/12/16	