

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 Toza Truss, LLC.

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: **Baxter Addition 24 - 1218340**
T1G, T1

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 (NC, 31344)

My license expiration date for the state of NC is 12/31/2025.

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.
3. **DESIGN LIMITATIONS**
The Truss Design Drawing is based upon specifications provided by the Building Designer in accordance with ANSI / 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 10ft 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.

Connections not shown are the responsibility of others.

21. Adequate support shall be provided to resist gravity, lateral and uplift loads.
22. For 4X2 truss orientation, locate plates 0 - 1/16" from outside the edge of the truss.
23. Fabrication of truss shall be in accordance with ANSI / TPI 1.

OTHER NOTES

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

7/1, 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.



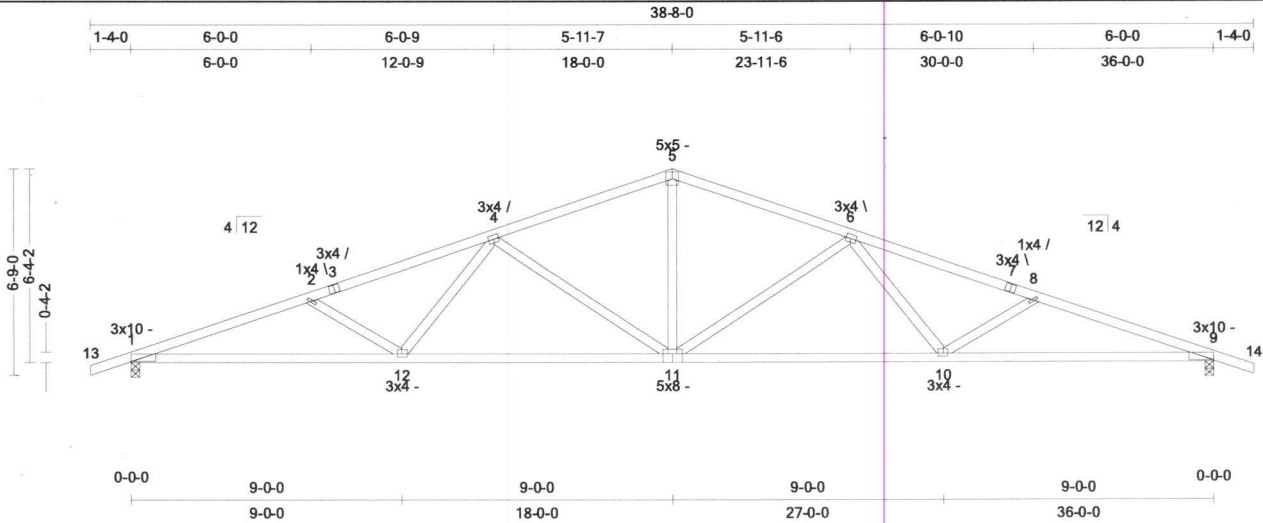
REFERENCES

- 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

TOZA TRUSS LLC
 6633 CARL COX RD
 BENNETT NC 27208
 Off: (336) 879-1212

Truss:T1
 Job: BaxterAddition24
 Date: 09/04/24 16:11:36
 Page: 1 of 1

SPAN 36-0-0 PITCH 4/12 QTY 16 OHL 1-4-0 OHR 1-4-0 CANT L 0-0-0 CANT R 0-0-0 PLYS 1 SPACING 24 in WGT/PLY 159 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General	CSI	Deflection	L/	(loc)	Allowed
TCLL: 20	Bldg Code: IRC 2018/	TC: 0.48 (1-2)	Vert TL: 0.57 in	L/747	(10-11)	L/240
TCDL: 10	TPI 1-2014	BC: 0.90 (12-1)	Vert LL: 0.25 in	L/999	(10-11)	L/360
BCLL: 0	Rep Mbr: Yes	Web: 0.76 (4-11)	Horz TL: 0.16 in		9	
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	1.79 in	1,520 lbs		-141 lbs	-374 lbs	-374 lbs	-6 lbs
9	1	3.5 in	1.79 in	1,520 lbs		-141 lbs	-374 lbs	-374 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 2-11-0, Purlin design by Others.
 BC: Sheathed or Purlins at 8-3-0, Purlin design by Others.

Loads

- This truss has been designed for the effects of balanced (20 psf) and unbalanced roof snow loads, in accordance with ASCE7 - 16 with the following user defined input: 20 psf Roof (GSL = 29 psf), Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15.
- This truss has been designed to account for the effects of ice dams forming at the eaves.
- 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, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60
- Non-concurrent minimum storage attic loading has been applied in accordance with IRC 301.5

Member Forces

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

TC	1-2	0.482	-3,778 lbs	4-5	0.429	-2,363 lbs	6-8	0.455	-3,399 lbs
	2-4	0.456	-3,399 lbs	5-6	0.429	-2,363 lbs	8-9	0.482	-3,778 lbs
BC	9-10	0.901	3,543 lbs	10-11	0.851	2,864 lbs	11-12	0.851	2,864 lbs
			(-609 lbs)			(-482 lbs)			(-482 lbs)
Web	2-12	0.100	-442 lbs	4-11	0.763	-953 lbs	6-11	0.762	-953 lbs
	4-12	0.095	572 lbs	5-11	0.182	1,097 lbs	6-10	0.095	572 lbs
						(-113 lbs)			
							8-10	0.100	-442 lbs

Notes

- Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
- The fabrication tolerance for this roof truss is 10% (Cq = 0.90).
- Brace bottom chord with approved sheathing or purlins per Bracing Summary.
- A creep factor of 1.00 has been applied for this truss analysis.
- The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
- Listed wind uplift reactions based on MWFRS & C&C loading.



ALL PERSONS FABRICATING, HANDLING, ERECTING OR INSTALLING ANY TRUSS BASED UPON THIS TRUSS DESIGN DRAWING ARE INSTRUCTED TO REFER TO ALL OF THE INSTRUCTIONS, LIMITATIONS AND QUALIFICATIONS SET FORTH IN THE EAGLE METAL PRODUCTS DESIGN NOTES ISSUED WITH THIS DESIGN AND AVAILABLE FROM EAGLE UPON REQUEST. DESIGN VALID ONLY WHEN EAGLE METAL CONNECTORS ARE USED.

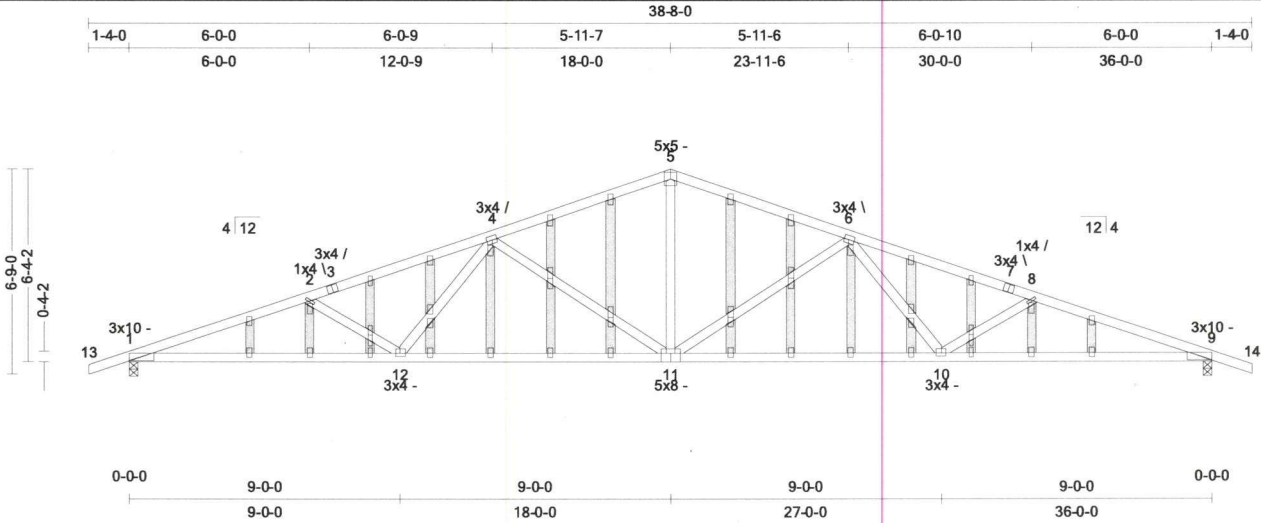
TrueBuild® Truss Software v5.7.12
 Eagle Metal Products

1218340 0003/0004

TOZA TRUSS LLC
 6633 CARL COX RD
 BENNETT NC 27208
 Off: (336) 879-1212

Truss: T1G
 Job: Baxter Addition 24
 Date: 09/04/24 16:11:40
 Page: 1 of 1

SPAN 36-0-0 PITCH 4/12 QTY 2 OHL 1-4-0 OHR 1-4-0 CANT L 0-0-0 CANT R 0-0-0 PLYS 1 SPACING 24 in WGT/PLY 224 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General	CSI	Deflection	L/	(loc)	Allowed
TCCL: 20	Bldg Code: IRC 2018/	TC: 0.48 (1-2)	Vert TL: 0.57 in	L / 747	(10-11)	L / 240
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BCLL: 0	Rep Mbr: Yes	Web: 0.76 (4-11)	Horz TL: 0.16 in		9	
BCDL: 10	Lumber D.O.L.: 115 %					

09/04/2024

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
1	1	3.5 in	1.79 in	1,520 lbs		-141 lbs	-374 lbs	-374 lbs	-6 lbs
9	1	3.5 in	1.79 in	1,520 lbs		-141 lbs	-374 lbs	-374 lbs	

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Loads

- This truss has been designed for the effects of balanced (20 psf) and unbalanced roof snow loads, in accordance with ASCE7 - 16 with the following user defined input: 20 psf Roof (GSL = 29 psf), Terrain C, Exposure (Ce = 1.0), Thermal (Ct = 1.00), DOL = 1.15.
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	4-12	0.095	572 lbs	5-11	0.182	1,097 lbs (-113 lbs)	6-10	0.095	572 lbs

Notes

- Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
- Gable webs placed at 24" OC, U.N.O.
- Attach structural gable blocks with 2x4 20ga plates, U.N.O.
- Bracing shown is for in-plane requirements. For out-of-plane requirements, refer to BCSI-B3 published by the SBCA.
- The fabrication tolerance for this roof truss is 10% (Cq = 0.90).
- A creep factor of 1.00 has been applied for this truss analysis.
- The "SYP" label shown in the "Material Summary" above indicates the new SP1B design values effective June 1, 2013 were used.
- Indicates non-structural members.
- Listed wind uplift reactions based on MWFRS & C&C loading.

ALL PERSONS FABRICATING, HANDLING, ERECTING OR INSTALLING ANY TRUSS BASED UPON THIS TRUSS DESIGN DRAWING ARE INSTRUCTED TO REFER TO ALL OF THE INSTRUCTIONS, LIMITATIONS AND QUALIFICATIONS SET FORTH IN THE EAGLE METAL PRODUCTS DESIGN NOTES ISSUED WITH THIS DESIGN AND AVAILABLE FROM EAGLE UPON REQUEST. DESIGN VALID ONLY WHEN EAGLE METAL CONNECTORS ARE USED.

TrueBuild® Truss Software v5.7.12
 Eagle Metal Products

1218340 0004/0004



Toza Truss

6633 Carl Cox Rd
Bennett, NC 27208

Phone: (336) 879 - 1212 Fax:

Email:sales@tozatruss.com Web Site:tozatruss.com

Quote #	Q13-Baxter Addition Rev
Quote Date	09/04/2024
Sales Person	
Designer	
AP Number	

QUOTE

Customer: A Cash Customer

Project: Baxter Addition 24

Contact:



Prj Description:

Phone:

Tkt Description:

Bill To:				Ship to:			
Name		A Cash Customer		Name			
Address				Address			
City, State, Zip				City, State, Zip			
Phone				Phone			

Roof Trusses Loading: 20 - 10 - 0 - 10 - Building Code: IRC 2018 - Wind Speed: 115

Name	Profile	QTY	Pitch	Unit WGT	Span Spacing	OH Left OH Right	HH Left HH Right	
T1		16	4	160	36-0-0 2-0-0	1-2-8 1-2-8	0-4-2 0-4-2	
T1G		2	4	225	36-0-0 2-0-0	1-2-8 1-2-8	0-4-2 0-4-2	
Total Truss		Max Span		Total WGT		Max Height		Total Price
18		36-0-0		3010		6-8-8		\$2,762.87

Delivery Charges

Description	Type	Dollars	Qty	Delivery Count	Price
Delivery Flat Rate	FlatRate	\$150.00		1	\$150.00

Terms:

Summary:

Truss Price:		\$2,762.87
Wall Panels:		\$0.00
Additional Material:		\$0.00
<hr/>		
Sub - Total		\$2,912.87
Tax: 7.00%	Desc: NC	\$203.90
<hr/>		
Grand Total:		\$3,116.77

Notes:

Disclaimer:

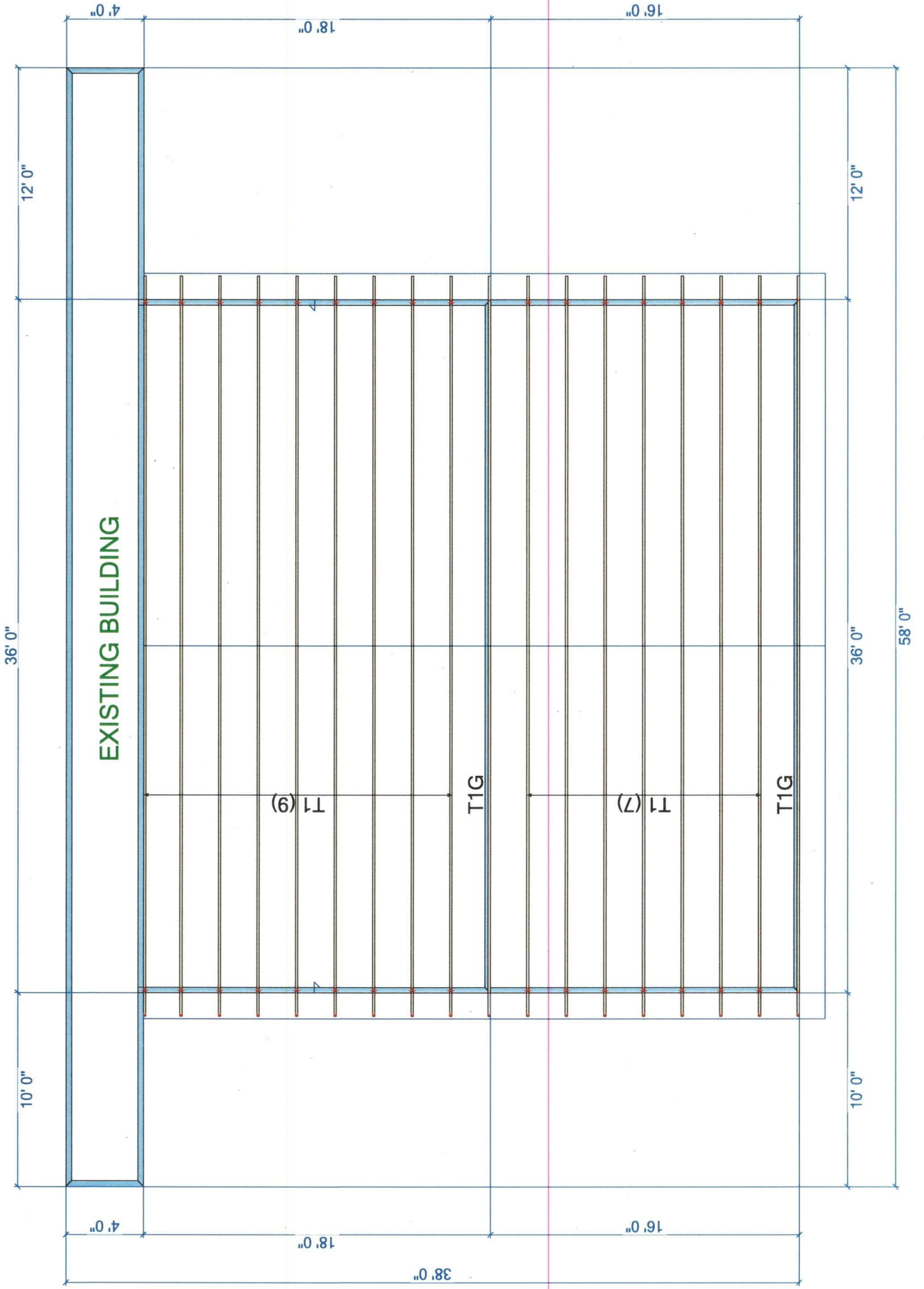
BUYER IS RESPONSIBLE TO VERIFY TRUSS DESIGNS SPECS PRIOR TO FABRICATION!

ALL ORDERS MUST BE PREPAID...

Accepted by: _____ / ____ / _____

QUOTE GOOD FOR 7 DAYS FROM QUOTE DATE!

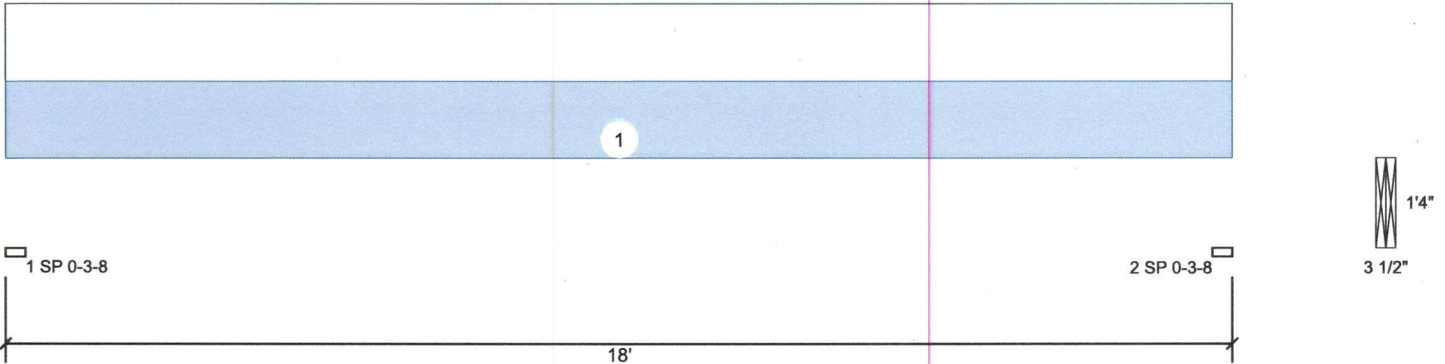
Baxter Addition Layout





Client: Toza Truss - Tanner R Date: 9/6/2024 Page 1 of 1
 Project: Baxter Addition LVLs - 240906083622 Input by: Dan Schreffler
 Address: Baxter Addition LVLs - 240906083622 Job Name: Baxter Addition LVLs
 Bennett, NC Project #: 240906083622

18ft Roof Bm Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	2	Slope:	0/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IRC 2018
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	0 PSF		
Dead:	20 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	3532	3420	0	0
2	Vertical	0	3532	3420	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SP	3.500"	Vert	100%	3532 / 3420	6952	L	D+S
2 - SP	3.500"	Vert	100%	3532 / 3420	6952	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	29782 ft-lb	9'	39750 ft-lb	75%	D+S	L
Unbraced	29782 ft-lb	9'	29792 ft-lb	100%	D+S	L
Shear	5697 lb	16'4 1/2"	13739 lb	41%	D+S	L
LL Defl inch	0.371 (L/569)	9' 1/16"	0.878 (L/240)	42%	S	L
TL Defl inch	0.753 (L/280)	9' 1/16"	1.171 (L/180)	64%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 3'7 5/8" o.c.
- 6 Bottom must be laterally braced at end bearings.
- 7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform Self Weight		19-0-0	Top	20 PSF 12 PLF	0 PSF	20 PSF	0 PSF	0 PSF	

Notes
 Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber
 1. Dry service conditions, unless noted otherwise
 2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation
 1. LVL beams must not be cut or drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
 3. Damaged Beams must not be used
 4. Design assumes top edge is laterally restrained
 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/14/2027

Manufacturer Info
 Metsä Wood
 301 Merritt 7 Building, 2nd Floor
 Norwalk, CT 06851
 (800) 622-5850
 www.metsawood.com/us

Snavely Forest Products -
 Engineered Wood Products
 Pittsburgh, PA 15236