

**NOTICE TO CONTRACTOR**  
 All construction must comply with current NC Building Codes and is subject to field inspection and verification.

**APPROVED**  
 Limited building only review  
 Permit holder responsible for full compliance with the code

02/21/2025




**ELEVATION NOTES:**  
 GRADE ELEVATIONS SHOWN DO NOT NECESSARILY REFER TO THIS OR ANY OTHER LOT. THEY ARE FOR DIAGRAMMATIC PURPOSES ONLY AND MAY VARY. BUILDER IS RESPONSIBLE FOR ADAPTING THIS PLAN TO SUIT THE EXISTING TOPOGRAPHY OF THE SITE.

ROOF VENTILATION TO BE DETERMINED BY BUILDER AS PER CODE.

ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MIN. NET CLEAR OPENING OF 4.0 SQ FT. THE MIN NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 27". THE MIN NET CLEAR OPENING WIDTH SHALL BE 20".

EACH EGRESS WINDOW FROM SLEEPING ROOMS MUST HAVE A SILL HIGHT OF NO MORE THAN 44" FROM THE FLOOR. ALL WINDOW SIZES ARE NOMINAL AND ARE TO BE VERIFIED WITH MANUFACTURER FOR AVAILABILITY AND CONFORMITY TO STATE AND LOCAL CODE REQUIREMENTS.

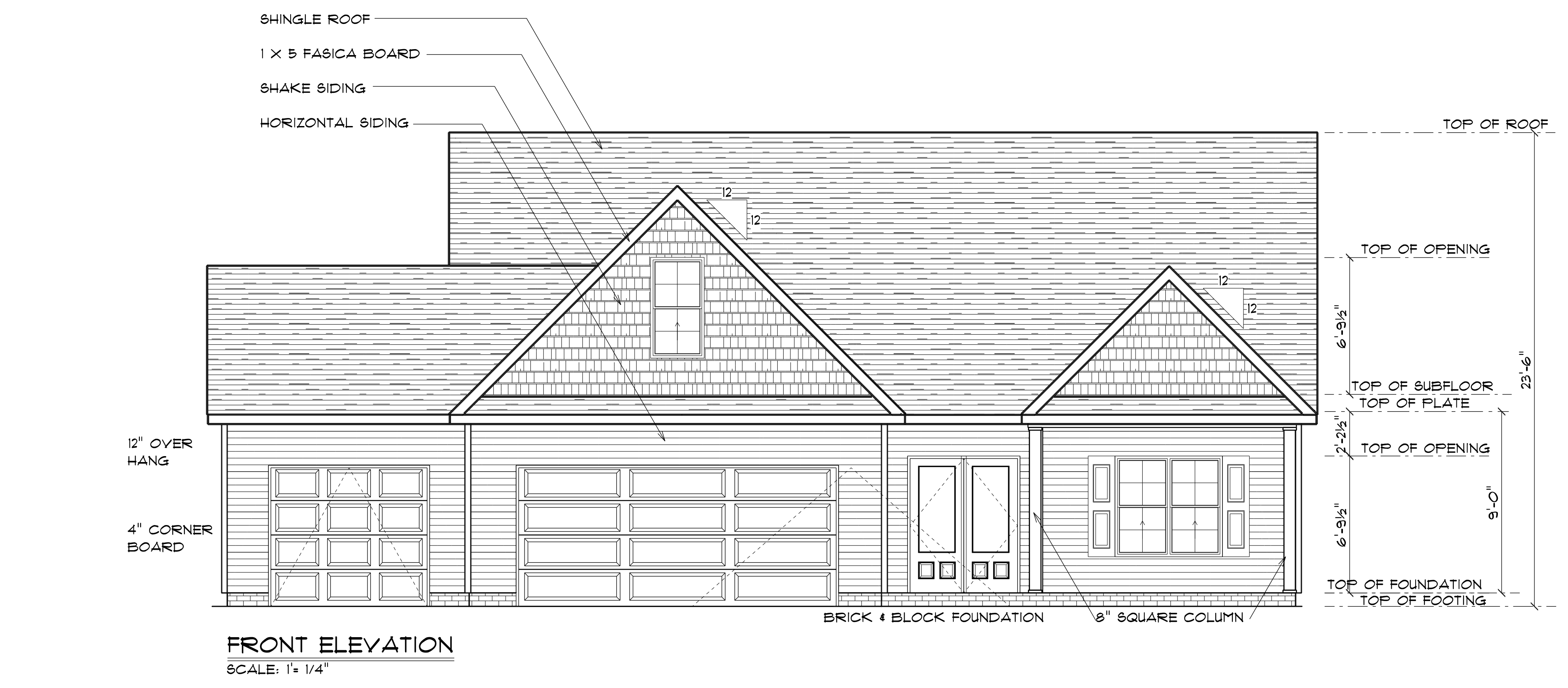
PORCHES, BALCONIES, OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 32" IN HEIGHT.

I ASSUME NO RESPONSIBILITY FOR ANY DISTANCES AFTER START OF CONSTRUCTION.  
 CONTRACTOR/BUILDER SHALL CONSULT WITH HOME OWNER ON ALL INTERIOR AND EXTERIOR MOLDINGS, TRIMS, COLORS, FINISHES, CABINET LAYOUTS, AND MANUFACTURERS BEFORE CONSTRUCTION BEGINS.  
 ALL BEAMS AND FRAMING MEMBERS ARE SIZED BY OTHERS.

1.1 This plan has been drawn to comply with the 2018 NC Building Code

- 1.2 Minimum Design Loads for Building and Other Structures ASCE 7-98
- 2 Roof Dead Load 15 P&F
- 3 Roof Live Load 20 P&F
- 4 Typical Floor Dead Load 10 P&F
- 5 Floor Live Loads
  - 5.1 Rooms other than sleeping rooms 40 P&F
  - 5.2 Sleeping Rooms 30 P&F
  - 5.3 Stairs 40 P&F
  - 5.4 Decks 40 P&F
  - 5.5 Exterior Balconies 60 P&F
- 6 Wind Loads
  - 6.1 Ultimate Design Wind Speeds 115 MPH
  - 6.2 Wind Importance Factor, I<sub>w</sub> 1.00
  - 6.3 Exposure B
  - 6.4 Walls (Component and Cladding) 25 P&F
  - 6.5 Roofs (Component and Cladding)
    - 6.5.1 Roof Slopes 2.25/12 to 1/12 34.8 P&F
    - 6.5.2 Roof Slopes 1/12 to 12/12 21 P&F

It is the sole responsibility of the Contractor and/or Builder to conform to all standards, provisions, requirements, methods of construction and uses of materials provided in buildings and/or structures as required by NC Uniform Building Code, Local Agencies and in accordance with good engineering practices. Verify all dimensions prior to construction.



DRD  
 Diana Rivas Design  
 6225 Hickoryford Lane  
 Raleigh, NC 27615  
 919.770.0355  
 d@harnettcenter.net

SCALE: 1" = 1/4"  
 DRAWN BY:  
 DATE: 11/11/2024

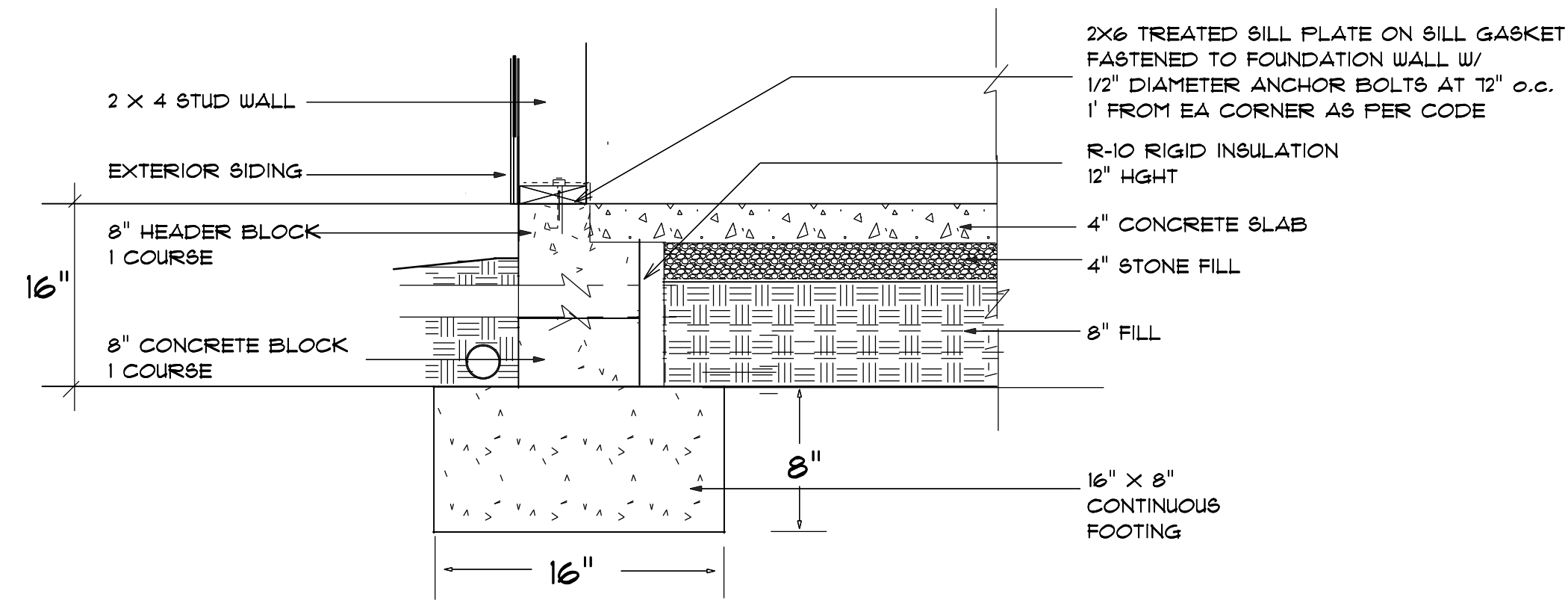
LAMCO HOMES

THE TENLEY  
 LEFT GARAGE

FRONT & REAR  
 ELEVATION C

**FOUNDATION NOTES:**  
 ALL FOOTINGS SHALL BEAR ON ORIGINAL UNDISTURBED SOIL.  
 THE 28 DAY COMPRESSIVE STRENGTH OF ALL FOOTINGS IS 3000 PSI  
 PROVIDE WATER PROOFING AND PERIMETER DRAINS AS REQUIRED.  
 FOUNDATION CONCRETE MIX TO HAVE 1-1/2" MAX AGGREGATE SIZE. CONCRETE FILL MIX TO HAVE 1/2" MAX AGGREGATE SIZE.  
 FOOTING WIDTHS ARE BASED ON A LOAD-BEARING SOIL CAPACITY OF 2000 PSI.  
 PROVIDE 6 MIL POLY VAPOR BARRIER TO COVER GROUND SURFACE IN CRAWL SPACE  
 ALL ANCHOR BOLTS TO BE 12" LONG, 1/2" DIA. A36 UNO ANCHOR BOLTS SHALL BE 6" SPACE AT A MAX OF 6' OC AND NO MORE THAN 1' FROM EA CORNER.

**Termite Soil Treatment:** Treat entire slab area soil or crawl space surface before vapor barrier is installed and slab is poured with a state approved termiticide. Termiticide should be applied by a licensed and certified pest control professional by the state of North Carolina.



**STEM WALL FOUNDATION Detail**

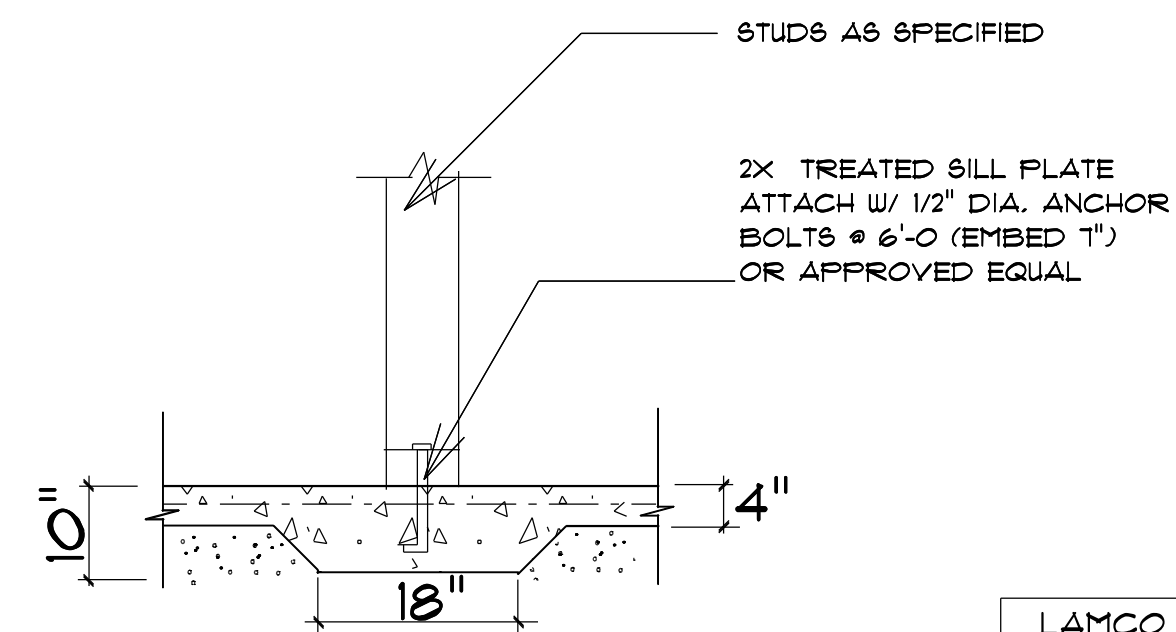
not to scale

PROVIDE EXPANSION JOINTS AT THE EDGES OF SLABS THAT ARE NOT HEATED OR THAT ARE EXPECTED TO CHANGE TEMPERATURE SIGNIFICANTLY OVER THEIR LIFETIMES  
 ALSO PROVIDE EXPANSION JOINTS TO ISOLATE BUILDING ELEMENTS THAT PENETRATE SLABS SUCH AS STRUCTURAL COLUMNS, WALLS, OR PLUMBING

**CONTROL JOINTS**  
 PROVIDE CONTROL JOINTS TO INDUCE CRACKING AT SELECTED LOCATIONS  
 -- TROWEL OR CUT JOINTS INTO THE SURFACE OF SLABS TO ABOUT 1/4 OF THE SLAB DEPTH AND AT 20 FT. INTERVALS  
 -- COLD JOINTS CAN ACT AS CONTROL JTS

**CONCRETE SLAB DETAILS / NOTES**

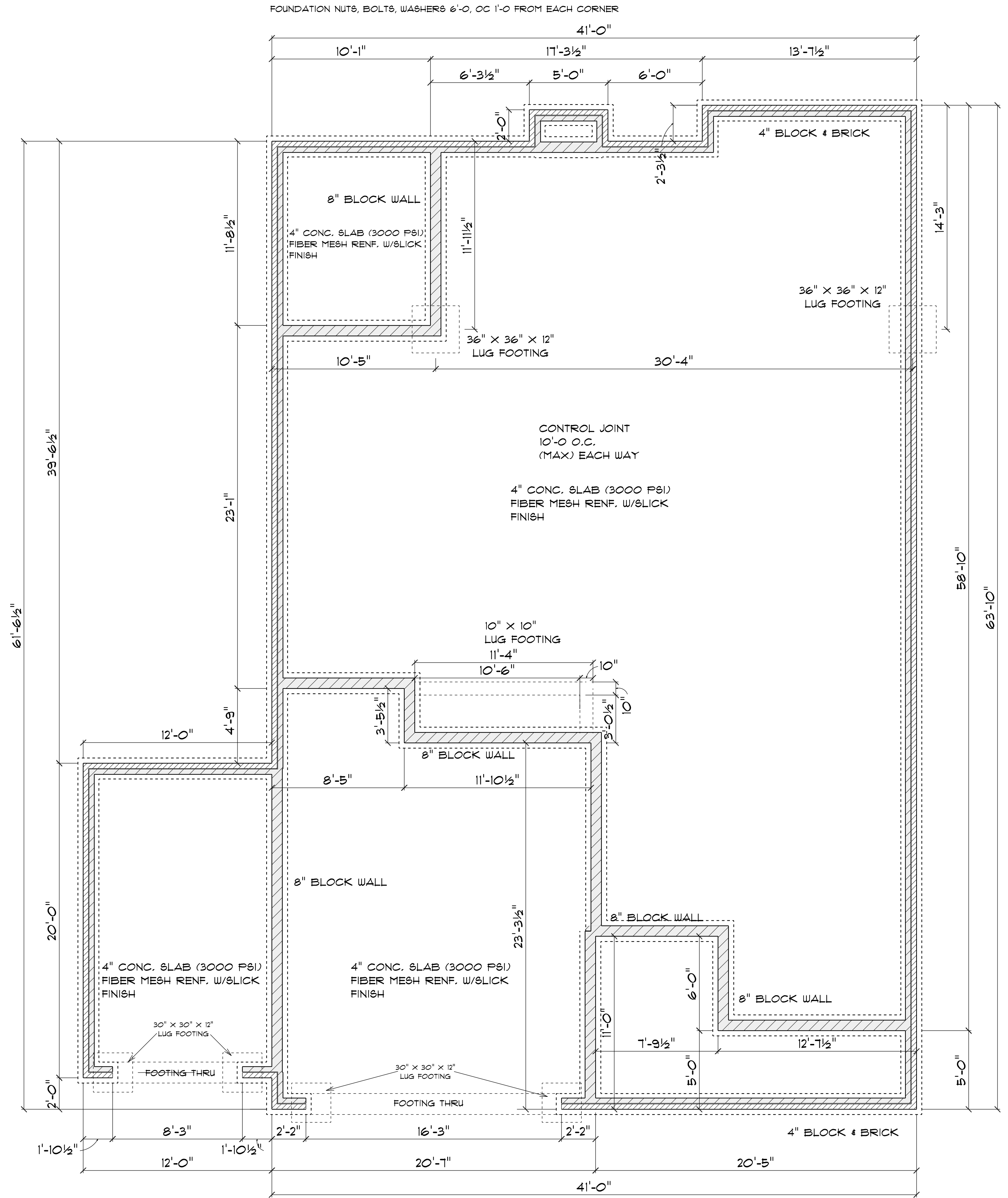
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**TYPICAL THICKENED SLAB**

not to scale

LAMCO CUSTOM BUILDERS/LAMCO HOMES RETAINS TITLE AND OWNERSHIP OF ALL PLANS. THESE PLANS CAN NOT BE COPIED OR REPRODUCED. THESE PLANS CAN NOT BE BUILT BY ANYONE OTHER THAN LAMCO CUSTOM BUILDERS/LAMCO HOMES



**FOUNDATION PLAN**

SCALE: 1" = 1/4"

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**GENERAL FRAMING NOTES:**

ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.

FRAMING LUMBER SHALL BE SYP #2 GRADE AND/OR SPRUCE PINE FIR #1 AND/OR #2, KILN DRIED.

WHERE PRE-ENGINEERED JOISTS ARE USED, JOIST MANUFACTURER SHALL PROVIDE SHOP DRAWINGS, WHICH BEAR SEAL OF A N.C. ENGINEER.

STUDS AND JOISTS SHALL NOT BE CUT TO INSTALL PLUMBING OR WIRING WITHOUT ADDING METAL OR WOOD SIDE PANELS TO STRENGTHEN THE MEMBER TO ITS ORIGINAL CAPACITY.

NAIL MULTIPLE MEMBERS WITH 2 ROWS OF 16d NAIL & STAGGERED 32" OC AN USE 3-16d NAILS 2" IN AT EACH END. DOUBLE ALL STUDS UNDER ROOF POST DOWNS UNO.

NAIL FLOOR JOISTS TO BILL PLATE WITH 8d TOE NAILS.

ALL EXPOSED FRAMING ON PORCHES AND DECKS SHALL BE PRESSURE TREATED.

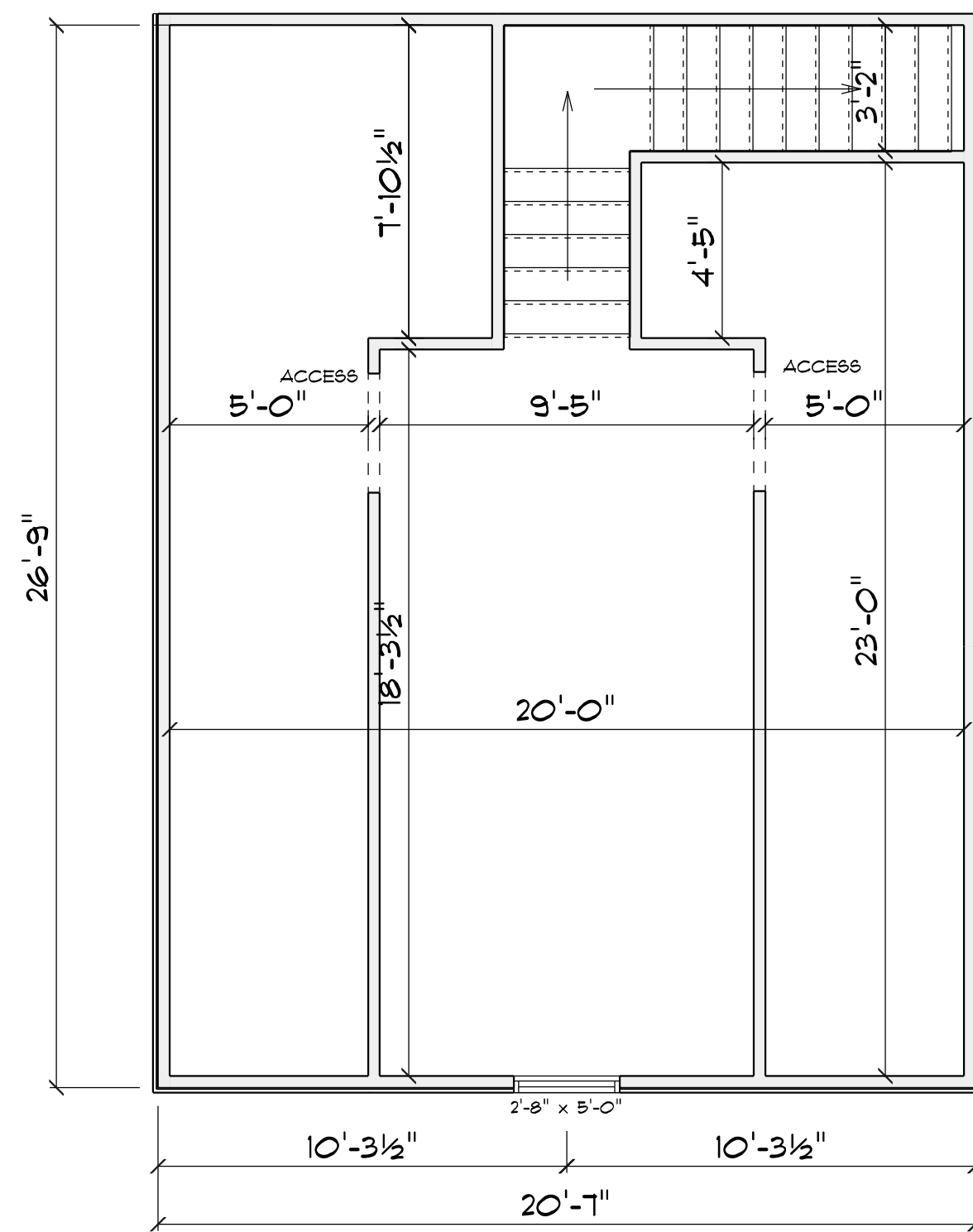
PROVIDE WATERPROOFING AND DRAINS AS REQUIRED.

ALL FRAMING TO BE 16" OC UNO. WALL FRAMING DIMENSIONS ARE BASED ON 2 X 4 STUDS UNO, DOUBLE STUDS UNDER ALL HEADERS.

LVL'S AND TJI'S TO BE SIZED BY OTHERS

EXTERIOR WALLS IN LIVING AREAS ARE 2 X 4

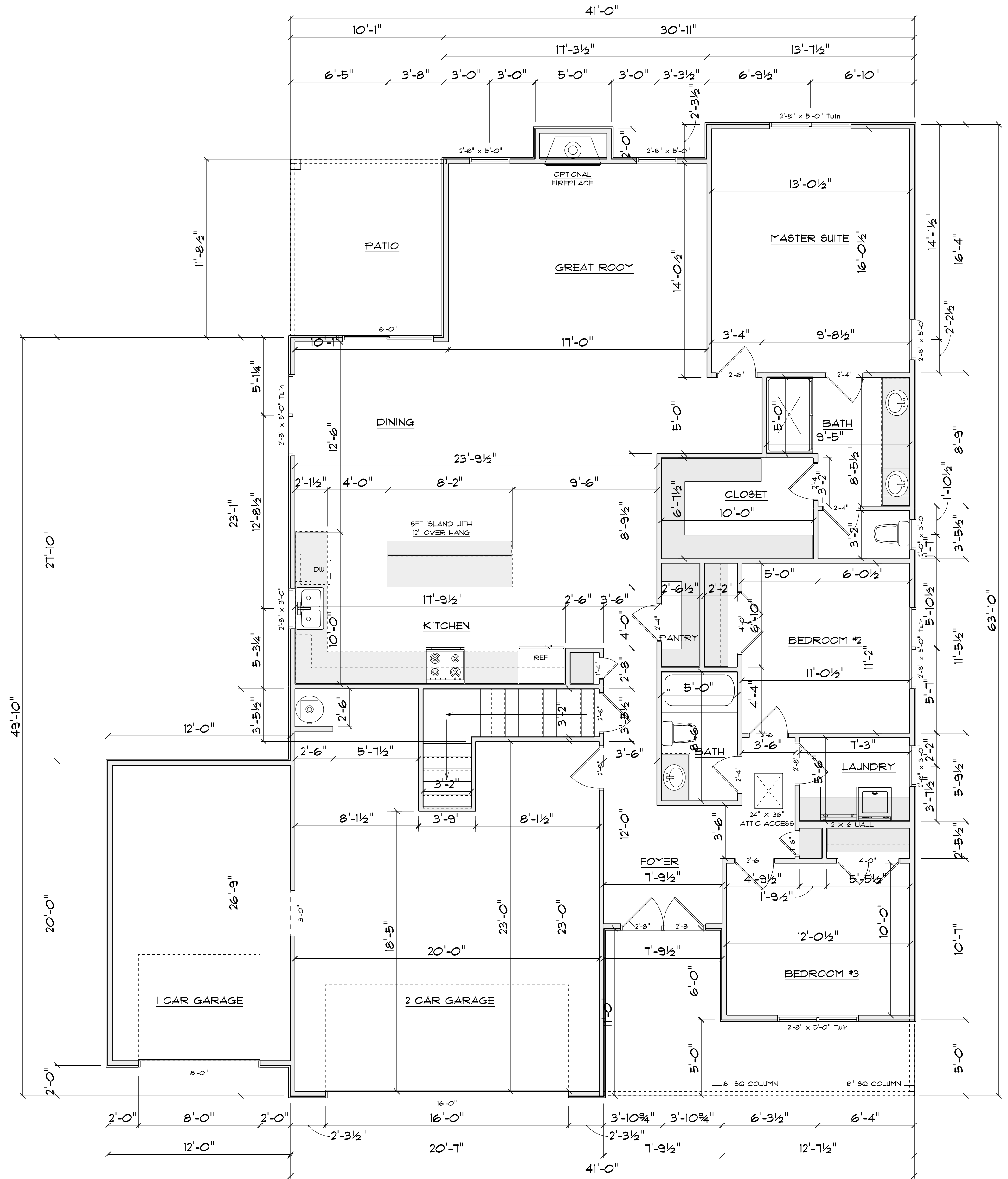
WINDOW SCHEDULE				
SIZE	COUNT	LIBRARY NAME	R.O. WIDTH	R.O. HEIGHT
2'-8" x 3'-0"	2	Window\Single Hung	32"	36"
2'-8" x 5'-0"	2	Window\Single Hung	32"	60-1/2"
2'-0" x 3'-0"	1	Window\Single Hung	24"	36"
2'-8" x 5'-0"	5	Window\Single Hung	32"	60-1/2"
2'-8" x 5'-0" Twin	4	Window\Single Hung	64"	60-1/2"



**BONUS ROOM**

SCALE: 1" = 1/4"

AREA SCHEDULE	
NAME	AREA
Bonus Room	256 sq. ft.

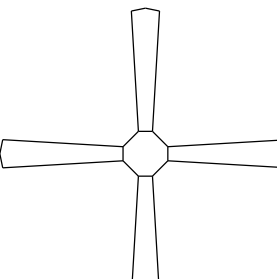
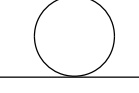
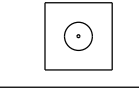
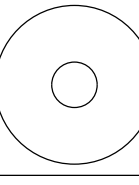
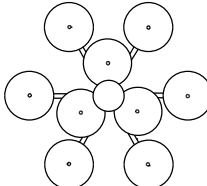
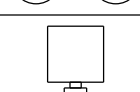

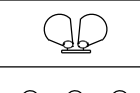
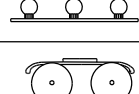
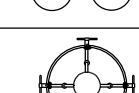
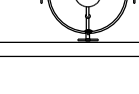


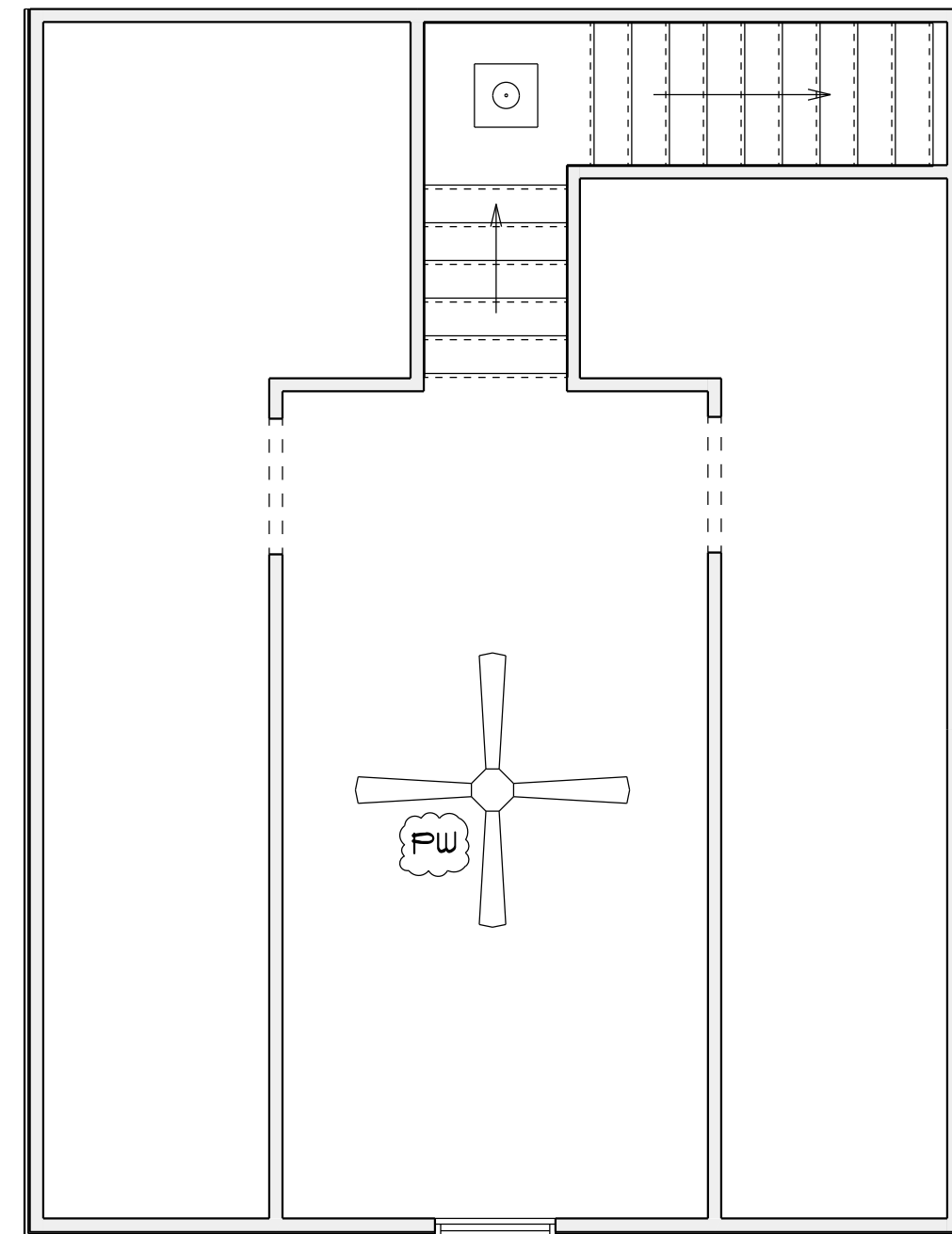
**FLOOR PLAN**

SCALE: 1" = 1/4"

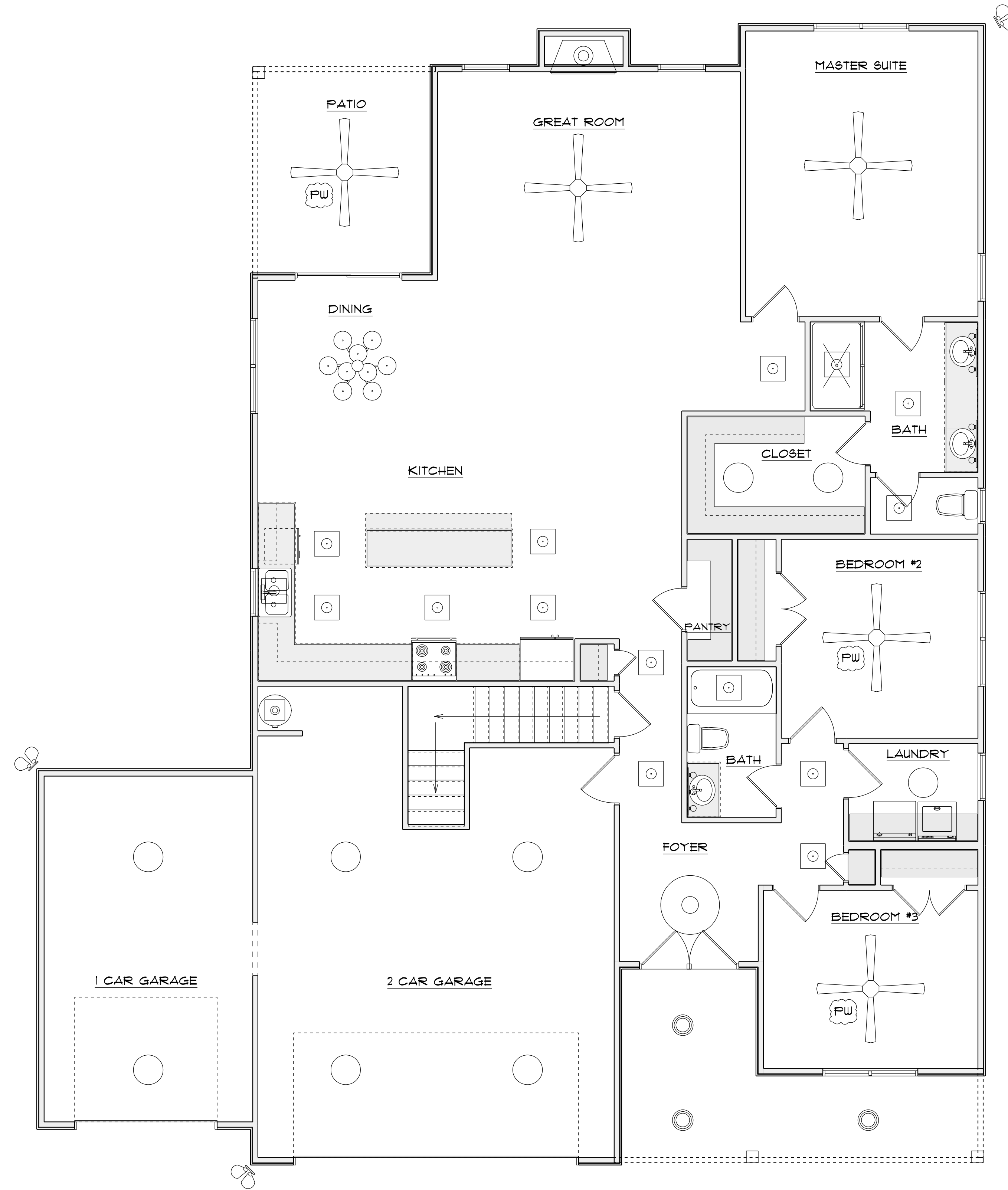
AREA SCHEDULE	
AREA	NAME
1736 sq. ft.	Heated
539 sq. ft.	Garage
153 sq. ft.	Covered Rear Porch
151 sq. ft.	Covered Front Porch
240 sq. ft.	Single Car Garage

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ELECTRICAL LEGEND		
ELECTRICAL	COUNT	SYMBOL
ceiling fan	2	
10" led	9	
7" led	16	
foyer light	1	
dinning room light	1	
coach light		
exterior over head	3	
flood light	3	
vanity bar light	3	
wall sconce		
pendant light		



BONUS ROOM



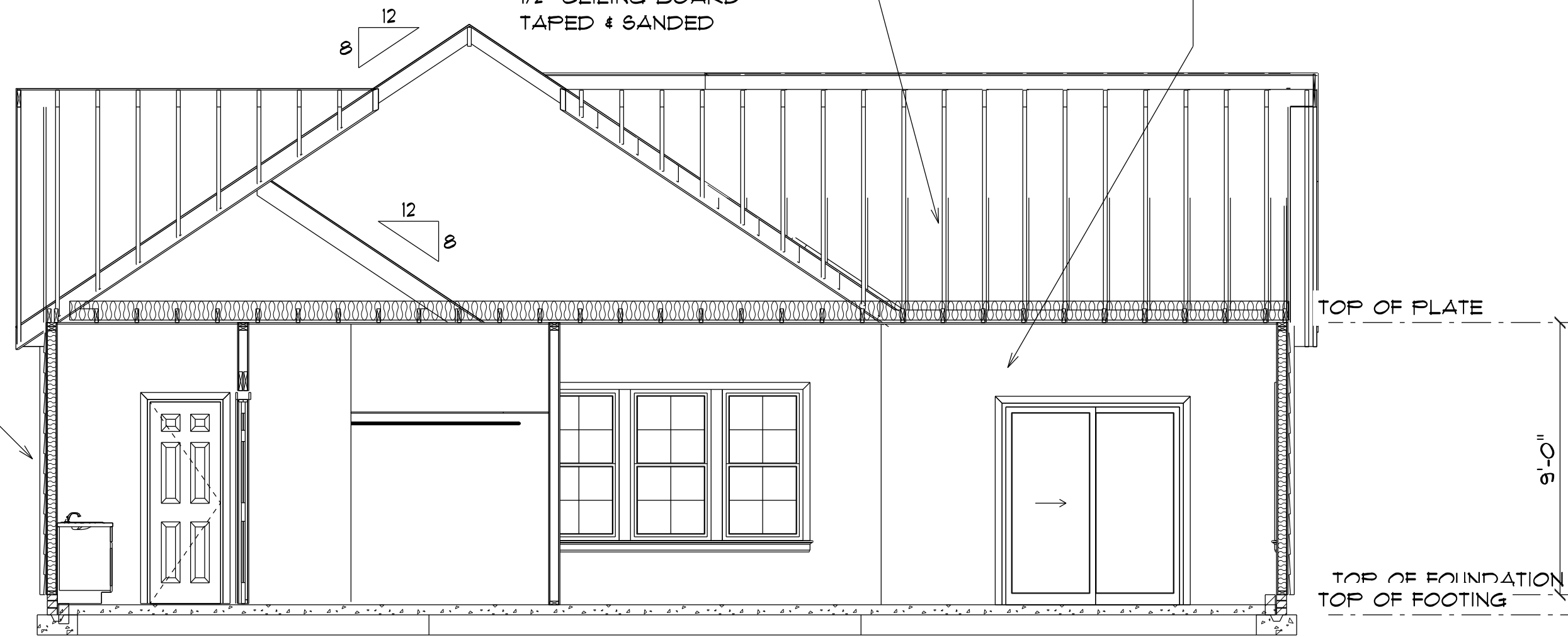
FLOOR PLAN

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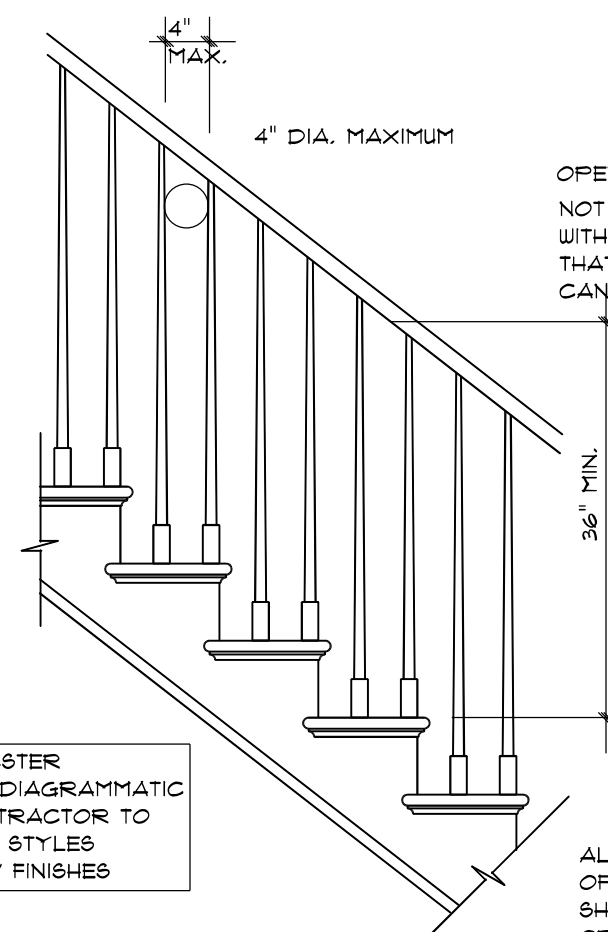
TYPICAL 2x4 SIDING EXTERIOR WALL:  
HORIZONTAL OR BOARD & BATTEN SIDING  
1/16" PLYWOOD SHEATHING  
2x4 STUDS @ 16" o.c.  
R15 BATT INSULATION  
1/2" DRYWALL  
TAPED & SANDED

TYPICAL TRUSS ROOF:  
SHINGLES  
7/16" ROOFING PLYWOOD c/w  
1" CLIPS  
BLOCK & BRACE PER TRUSS MGR.  
PRE-ENGINEERED TRUSSES @ 24" o.c.  
2x4 TRUSS BRACING  
R38 BLOWN INSULATION  
1/2" CEILING BOARD  
TAPED & SANDED

TYPICAL 2x4 WALL:  
1/2" DRYWALL  
TAPED & SANDED  
2x4 STUDS @ 16" o.c.  
1/2" DRYWALL  
TAPED & SANDED



**SECTION A**  
SCALE: 1" = 1/4"



**STAIR RAILING**  
NOT TO SCALE

OPEN BALUSTRADE BALCONY / STAIR RAILINGS  
NOT LESS THAN 36" IN HEIGHT  
WITH PATTERN / SPACING SUCH  
THAT A SPHERE 4" IN DIA.  
CANNOT PASS THROUGH

ALL HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH  
OF THE STAIRS. HANDGRIP PORTION OF ALL HANDRAILS  
SHALL NOT BE LESS THAN 1 1/4" NOR MORE THAN 2" IN  
CROSS SECTIONAL DIMENSION, OR THE SHAPE SHALL  
PROVIDE AN EQUIVALENT GRIPPING SURFACE

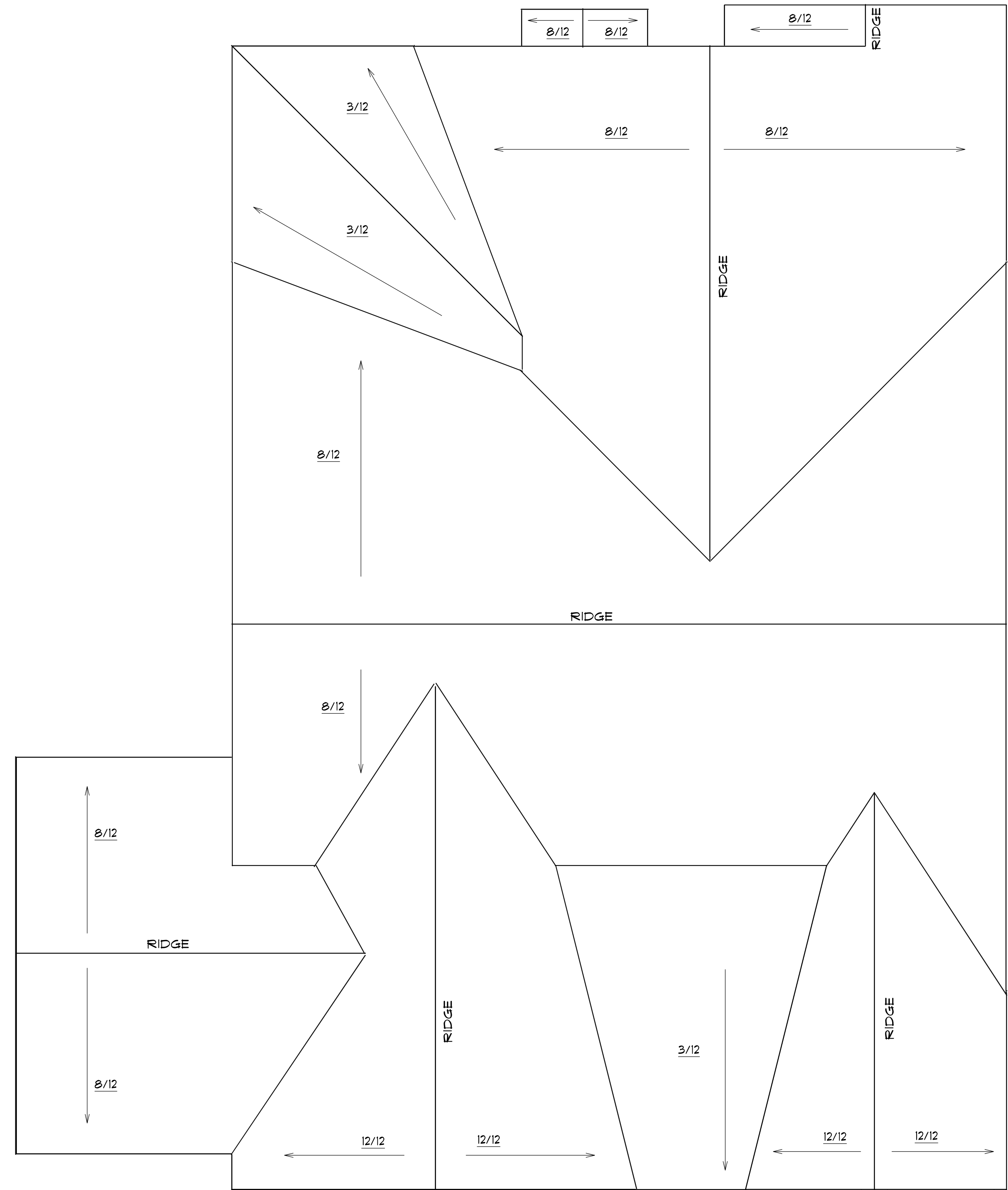
**ROOF NOTES:**

TRUSSES, BRACINGS, BRIDGING AND CONNECTORS ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER.

IDENTIFY LUMBER BY OFFICIAL GRADE MARKINGS.

DO NOT CUT OR REMOVE CHORDS OR OTHER TRUSS MEMBERS.  
DO NOT NOTCH OR DRILL TRUSS MEMBERS.

WHERE PRE-ENGINEERED ROOF TRUSSES ARE USED, TRUSS MANUFACTURER SHALL PROVIDE SHOP DRAWINGS, WHICH BEAR SEAL OF A N. C. REGISTERED ENGINEER.

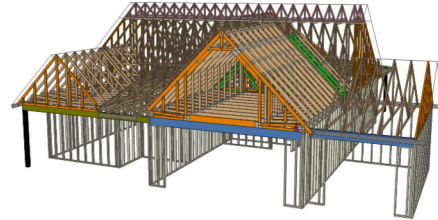


**ROOF PLAN** 12" OVER HANG ALL  
SCALE: 1" = 1/4"



Carter Sanford Component Plant  
298 Harvey Faulk Rd  
Sanford, NC 27332

Phone #:919-775-1450



**Builder: Lamco Custom Builders LLC**

**Model: Tenley A 3CG**

THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.
9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

**General Notes:**

\*\* CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

\*\* ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

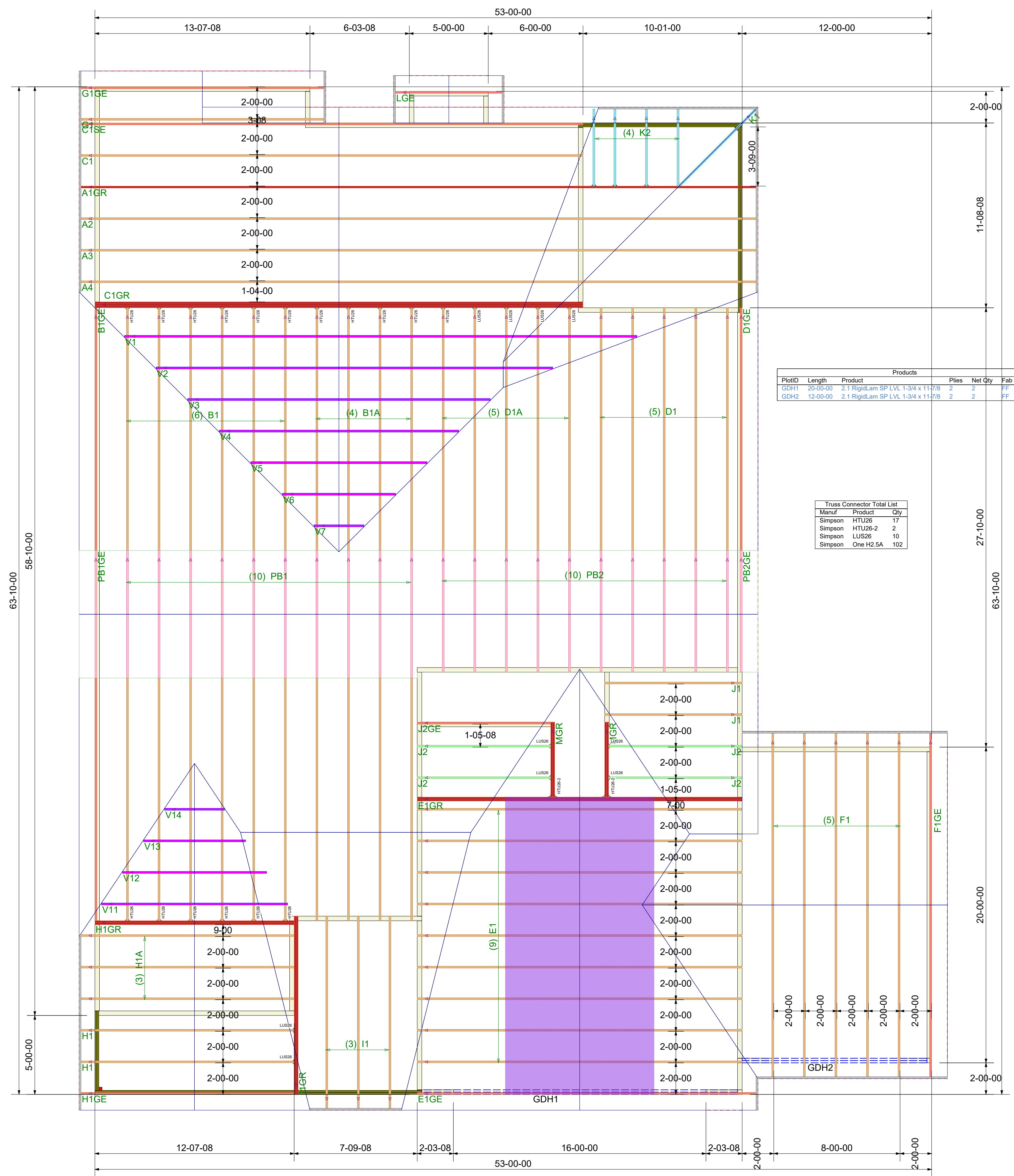
Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name

**THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.** These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding the bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53179

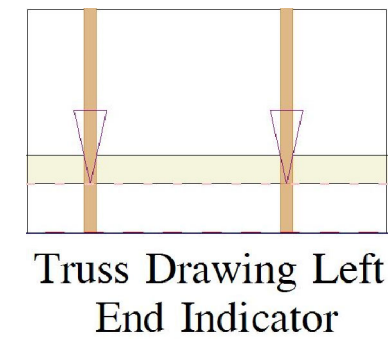


Lamco Custom Builders LLC  
**Tenley A 3CG-Roof-Tenley A 3CG**  
**ROOF PLACEMENT PLAN**

Scale: **NTS**  
 Date: **12/24/2024**  
 Designer: **Mike Finch**  
 Project Number: **24110166-01**  
 Sheet Number:  
**1/1**



\*\* FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. \*\* DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT. \*\* TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE.



\*\* GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS. \*\* DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH. \*\* All uplift connectors shown within these documents are recommendations only. Per ANS/ITPI 1, all uplift connectors are the responsibility of the bldg designer and/or contractor.

\*\* TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS.

\*\* PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.

\*\* REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.



Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **01**  
Level: **1st FLOOR**  
Label: **GDH2 - i46**  
Type: **Beam**

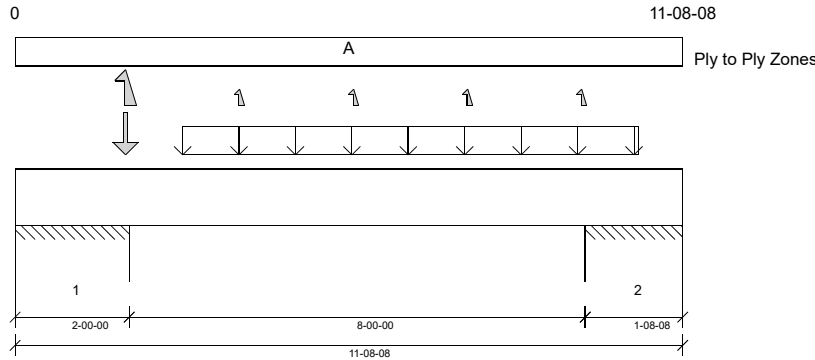
**2 Ply Member**  
**2.1 RigidLam SP LVL 1-3/4**  
**x 11-7/8**

Status:  
**Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 12/24/2024 11:16



**DESIGN INFORMATION a**

Building Code: IRC 2021  
Design Methodology: ASD  
Risk Category: II (General Construction) Residential  
Service Condition: Dry  
System Spacing: -  
LL Deflection Limit: L/360, 0.75" (absolute)  
TL Deflection Limit: L/240, 1.00" (absolute)

**Lateral Restraint Requirements:**

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 1'- 10 1/2" Bottom: 11'- 8 1/2"

**Bearing Stress of Support Material:**

- 1323 psi Wall @ 0'- 1 1/2"
- 1323 psi Wall @ 1'- 10 1/2"
- 1323 psi Wall @ 10'- 1 1/2"
- 1323 psi Wall @ 11'- 7"

**ANALYSIS RESULTS**

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	5'- 11 1/4"	D + Lr	1.15	1668 lb ft	24315 lb ft	Passed - 7%
Max Neg. Moment:	10'- 1 1/2"	D + Lr	1.15	2215 lb ft	22342 lb ft	Passed - 10%
Max Shear:	9'- 1/8"	D + Lr	1.15	1365 lb	9241 lb	Passed - 15%
Total Load (TL) Pos. Defl.:	5'- 11 5/8"	D + 0.75(L + Lr + 0.6W)		0.018"	L/240	Passed - L/999

**SUPPORT AND REACTION INFORMATION**

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	5-00	0.6D + 0.6W	1.60	272 lb		13125 lb	23153 lb	Passed - 2%
1	5-00	D + 0.75(L + Lr + 0.6W)	1.60		-1233 lb	-	-	
1	1-06-00	D + 0.75(L + Lr + 0.6W)	1.60	4706 lb		47250 lb	83349 lb	Passed - 10%
1	1-06-00	0.6D + 0.6W	1.60		-1826 lb	-	-	
2	1-02-08	D + 0.75(L + Lr + 0.6W)	1.60	3824 lb		38063 lb	67142 lb	Passed - 10%
2	1-02-08	0.6D + 0.6W	1.60		-749 lb	-	-	
2	6-00	0.6D + 0.6W	1.60	313 lb		15750 lb	27783 lb	Passed - 2%
2	6-00	D + 0.75(L + Lr + 0.6W)	1.60		-1554 lb	-	-	

**LOADING**

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	11'- 8 1/2"	Self Weight	Top	11 lb/ft	-	-	-	-
Uniform	2'- 11 1/4"	10'- 11 1/4"	Smoothed Load	Top	210 lb/ft	-	152 lb/ft	220 lb/ft	84 lb/ft
Point	1'- 11 1/4"	1'- 11 1/4"	F1(c01)	Top	802 lb	-	834 lb	1205 lb	438/-2613 lb
Point	3'- 11 1/4"	3'- 11 1/4"	F1(c02)	Top	-	-	-	-	-602 lb
Point	5'- 11 1/4"	5'- 11 1/4"	F1(c05)	Top	-	-	-	-	-602 lb
Point	7'- 11 1/4"	7'- 11 1/4"	F1(c03)	Top	-	-	-	-	-602 lb
Point	9'- 11 1/4"	9'- 11 1/4"	F1(c05)	Top	-	-	-	-	-602 lb

**UNFACTORED REACTIONS**

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'	E20(i45)	1507 lb	-	1297 lb	1874 lb	1261 lb/ -4093 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E20(i45)	-	-	-	-	-
==>	1'- 10 1/2"	1'- 10 1/2"	E20(i45)	1507 lb	-	1297 lb	1874 lb	-
2	10'	11'- 8 1/2"	E10(i10)	1103 lb	-	757 lb	1093 lb	1261 lb/ -4093 lb
==>	10'- 1 1/2"	10'- 1 1/2"	E10(i10)	1103 lb	-	757 lb	1093 lb	-
==>	11'- 7"	11'- 7"	E10(i10)	-	-	-	-	-

**DESIGN NOTES**

- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.99

**PLY TO PLY CONNECTION**





Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **01**  
Level: **1st FLOOR**  
Label: **GDH2 - i46**  
Type: **Beam**

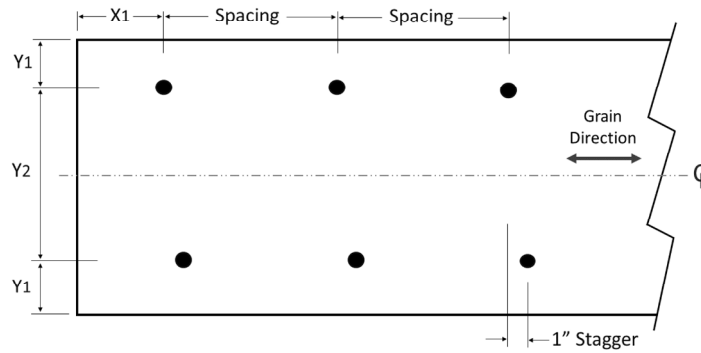
**2 Ply Member**  
**2.1 RigidLam SP LVL 1-3/4**  
**x 11-7/8**

Status:  
**Design**  
**Passed**

### PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 24. Row = 2, Spacing = 12"  
12d (0.148"x3.25") nails properties: D = 0.148", L = 3.25". Fastener capacity = 128 lbs. X1 = 2.25", Y1 = 0.75", Y2 = 1.5"  
Install fasteners from one face.  
X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

#### FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)





Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **01**  
Level: **1st FLOOR**  
Label: **GDH1 - i48**  
Type: **Beam**

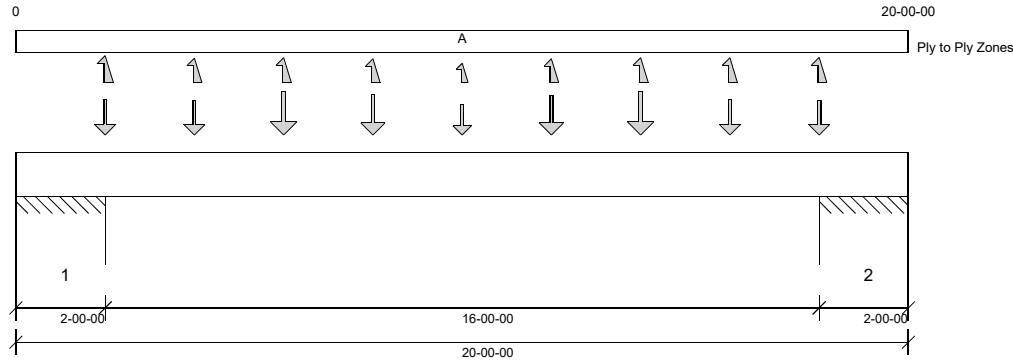
**2 Ply Member**  
**2.1 RigidLam SP LVL 1-3/4**  
**x 11-7/8**

Status:  
**Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 12/24/2024 11:16



**DESIGN INFORMATION a**

Building Code: IRC 2021  
Design Methodology: ASD  
Risk Category: II (General Construction) Residential  
Service Condition: Dry  
System Spacing: -  
LL Deflection Limit: L/360, 0.75" (absolute)  
TL Deflection Limit: L/240, 1.00" (absolute)

**Lateral Restraint Requirements:**

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 20' Bottom: 20'

**Bearing Stress of Support Material:**

- 1323 psi Wall @ 0'- 1 1/2"
- 1323 psi Wall @ 1'- 10 1/2"
- 1323 psi Wall @ 18'- 1 1/2"
- 1323 psi Wall @ 19'- 10 1/2"

**ANALYSIS RESULTS**

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	10'	D + 0.75(L + Lr + 0.6W)	1.60	1587 lb ft	19129 lb ft	Passed - 8%
Max Neg. Moment:	18'- 1 1/2"	D + 0.75(L + Lr + 0.6W)	1.60	2654 lb ft	19129 lb ft	Passed - 14%
Max Shear:	17'- 1/8"	D + 0.75(L + Lr)	1.15	823 lb	9241 lb	Passed - 9%
Live Load (LL) Pos. Defl.:	10'- 1 1/16"	0.75(L + Lr + 0.6W)		0.029"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	10'- 1/2"	D + 0.75(L + Lr + 0.6W)		0.054"	L/240	Passed - L/999

**SUPPORT AND REACTION INFORMATION**

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	8-12	0.6D + 0.6W	1.60	109 lb		31957 lb	40517 lb	Passed - 0%
1	8-12	D + 0.75(L + Lr)	1.15		-1367 lb	-	-	
1	1-03-04	D + 0.75(L + Lr)	1.15	2384 lb		40031 lb	70615 lb	Passed - 6%
1	1-03-04	0.6D + 0.6W	1.60		-228 lb	-	-	
2	1-03-04	D + 0.75(L + Lr)	1.15	2384 lb		40031 lb	70615 lb	Passed - 6%
2	1-03-04	0.6D + 0.6W	1.60		-217 lb	-	-	
2	8-12	0.6D + 0.6W	1.60	110 lb		31957 lb	40517 lb	Passed - 0%
2	8-12	D + 0.75(L + Lr)	1.15		-1368 lb	-	-	

**LOADING**

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	20'	Self Weight	Top	11 lb/ft	-	-	-	-
Point	2'	2'	E1GE(c01)	Top	87 lb	-9 lb	50 lb	102 lb	58/-177 lb
Point	4'	4'	E1GE(c01)	Top	101 lb	8/-3 lb	42 lb	89 lb	46/-150 lb
Point	6'	6'	E1GE(c01)	Top	149 lb	67 lb	45 lb	88 lb	50/-159 lb
Point	8'	8'	E1GE(c01)	Top	100 lb	83 lb	41 lb	81 lb	48/-145 lb
Point	10'	10'	E1GE(c01)	Top	83 lb	53 lb	24 lb	56 lb	14/-87 lb
Point	12'	12'	E1GE(c01)	Top	100 lb	83 lb	41 lb	80 lb	48/-145 lb
Point	14'	14'	E1GE(c01)	Top	149 lb	67 lb	45 lb	88 lb	50/-159 lb
Point	16'	16'	E1GE(c01)	Top	102 lb	8/-3 lb	43 lb	91 lb	47/-155 lb
Point	18'	18'	E1GE(c01)	Top	84 lb	-9 lb	47 lb	101 lb	52/-154 lb

**UNFACTORED REACTIONS**

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'	E21(i47)	1344/-755 lb	532/-359 lb	415/-225 lb	845/-457 lb	291 lb/-786 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E21(i47)	-755 lb	3/-344 lb	-225 lb	-457 lb	-
==>	1'- 10 1/2"	1'- 10 1/2"	E21(i47)	1344 lb	529/-15 lb	415 lb	845 lb	-
2	18'	20'	E12(i3)	1342/-756 lb	532/-359 lb	413/-225 lb	846/-458 lb	291 lb/-786 lb
==>	18'- 1 1/2"	18'- 1 1/2"	E12(i3)	1342 lb	529/-15 lb	413 lb	846 lb	-
==>	19'- 10 1/2"	19'- 10 1/2"	E12(i3)	-756 lb	3/-344 lb	-225 lb	-458 lb	-

**DESIGN NOTES**

- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.56



Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **01**  
Level: **1st FLOOR**  
Label: **GDH1 - i48**  
Type: **Beam**

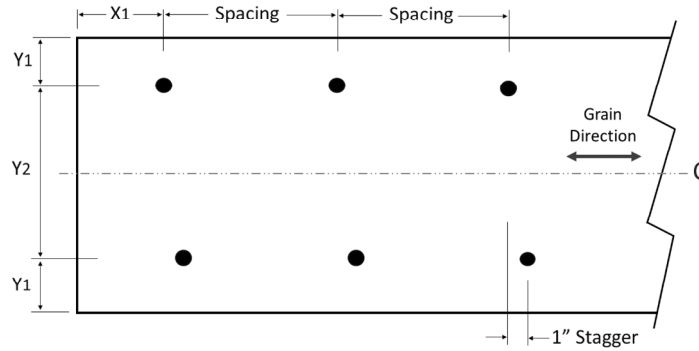
**2 Ply Member**  
**2.1 RigidLam SP LVL 1-3/4**  
**x 11-7/8**

Status:  
**Design**  
**Passed**

### PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 42. Row = 2, Spacing = 12"  
12d (0.148"x3.25") nails properties: D = 0.148", L = 3.25". Fastener capacity = 128 lbs. X1 = 2.25", Y1 = 0.75", Y2 = 1.5"  
Install fasteners from one face.  
X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

#### FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)

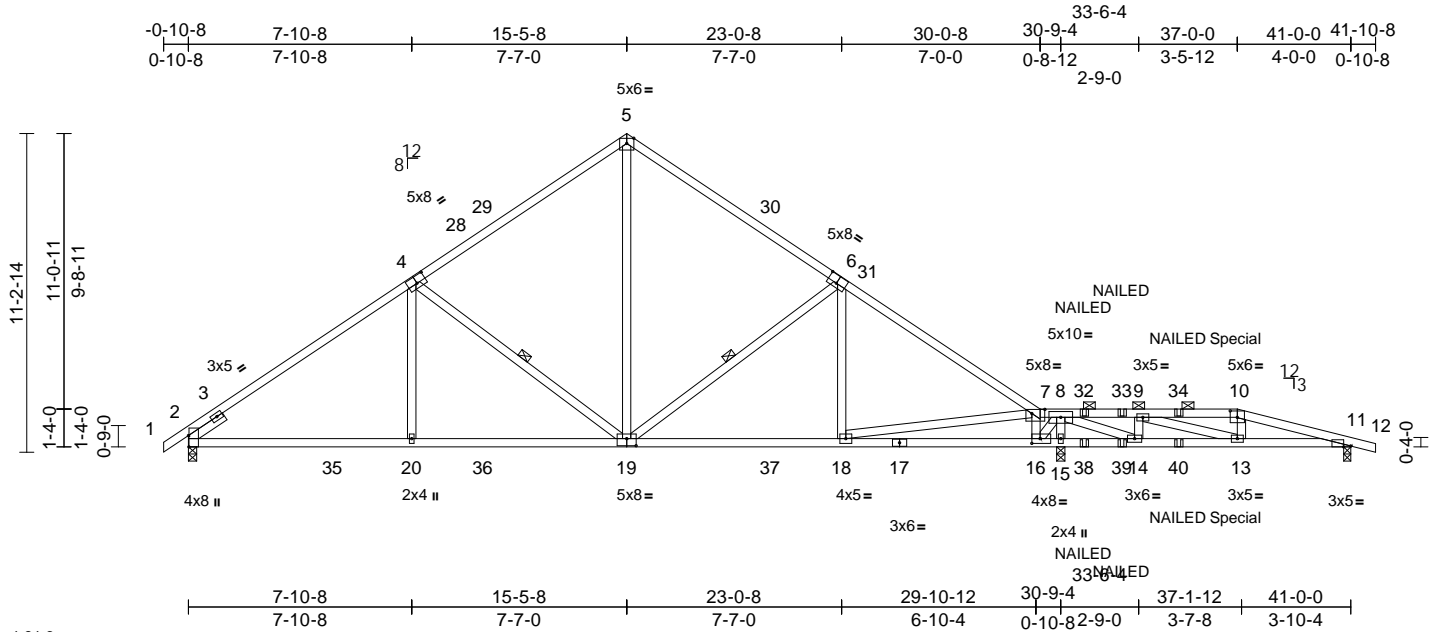


Job 24110166-01	Truss A1GR	Truss Type Roof Special Girder	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398851
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



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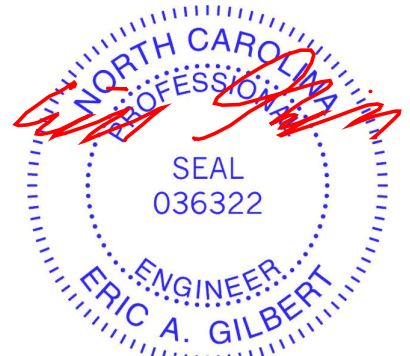
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.13	19-20	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.23	19-20	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.05	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 221 lb	FT = 20%

- LUMBER**
- TOP CHORD** 2x4 SP No.2 \*Except\* 4-5,5-6:2x4 SP 2400F 2.0E, 6-7:2x4 SP No.1
- BOT CHORD** 2x4 SP No.2
- WEBS** 2x4 SP No.3 \*Except\* 19-5:2x4 SP No.2
- SLIDER** Left 2x4 SP No.3 -- 1-6-0
- BRACING**
- TOP CHORD** Structural wood sheathing directly applied or 2-9-7 oc purlins, except 2-0-0 oc purlins (4-11-7 max.); 7-10.
- BOT CHORD** Rigid ceiling directly applied or 5-9-4 oc bracing.
- WEBS** 1 Row at midpt 4-19, 6-19
- REACTIONS** (size) 2=0-3-8, 11=0-3-0, 15=0-3-8  
 Max Horiz 2=-257 (LC 10)  
 Max Uplift 2=-126 (LC 62), 11=-107 (LC 9), 15=-177 (LC 13)  
 Max Grav 2=1448 (LC 26), 11=594 (LC 45), 15=2075 (LC 47)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD** 1-2=0/29, 2-5=-1916/213, 5-7=-1747/220, 7-8=-418/160, 8-9=-657/226, 9-10=-1204/201, 10-11=-1247/190, 11-12=0/18
- BOT CHORD** 2-20=-305/1657, 18-20=-180/1651, 16-18=-144/241, 15-16=-909/104, 14-15=-909/104, 13-14=-178/657, 11-13=-147/1201
- WEBS** 7-16=-1453/247, 10-13=-62/69, 8-15=-1985/135, 8-16=-199/2064, 8-14=-134/1439, 9-14=-465/105, 9-13=-61/834, 4-20=0/386, 4-19=-734/244, 5-19=-89/956, 6-19=-669/235, 6-18=-30/210, 7-18=-26/1250

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 15, and 11. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 184 lb down and 86 lb up at 37-0-0 on top chord, and 66 lb down at 36-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-5=-60, 5-7=-60, 7-10=-60, 10-12=-60, 21-25=-20  
 Concentrated Loads (lb)  
 Vert: 10=-118 (B), 13=-66 (B), 32=-23 (B), 33=-23 (B), 34=-23 (B), 38=-8 (B), 39=-8 (B), 40=-8 (B)



December 27, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



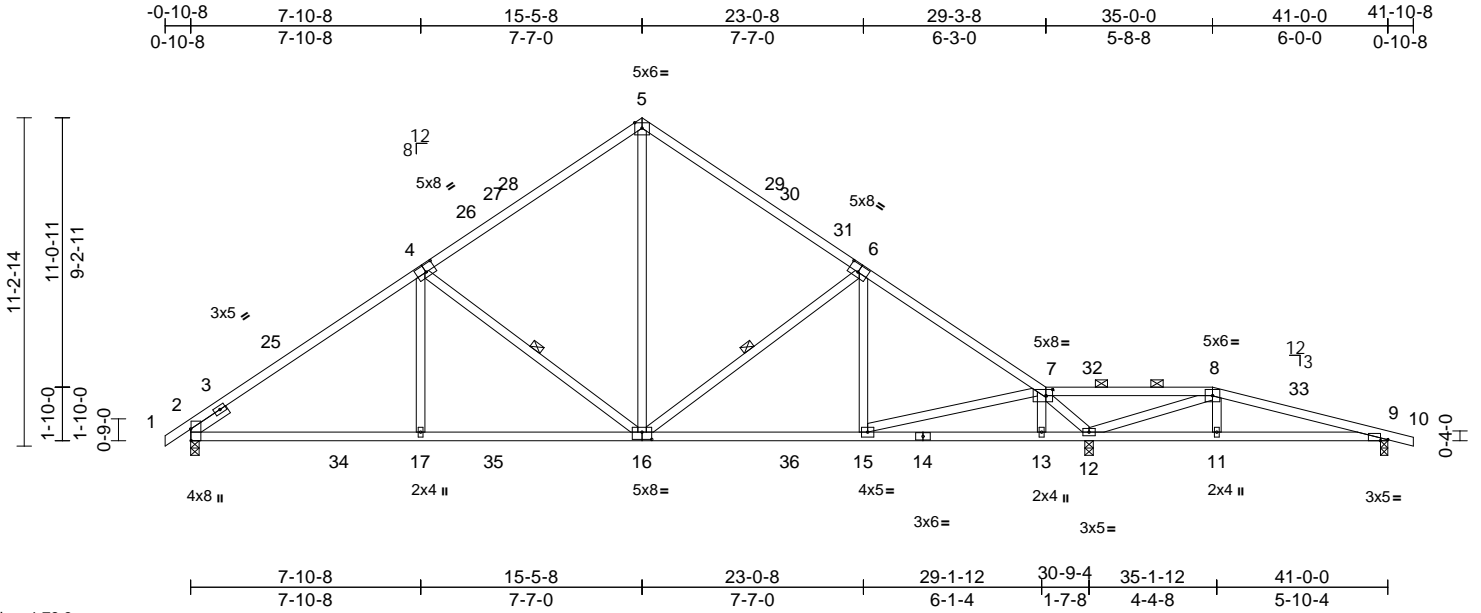
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss A2	Truss Type Roof Special	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398852
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:78.9  
Plate Offsets (X, Y): [2:0-4-13,Edge], [4:0-4-0,0-3-0], [6:0-4-0,0-3-0], [7:0-2-12,0-2-8], [9:0-2-15,Edge], [16:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.12	16-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.22	16-17	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 218 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 4-5,5-6:2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 16-5:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12,9-11.  
WEBS 1 Row at midpt 4-16, 6-16

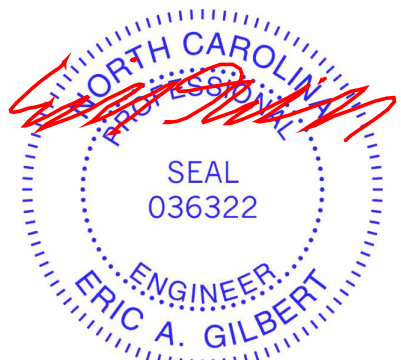
**REACTIONS** (size) 2=0-3-8, 9=0-3-0, 12=0-3-8  
Max Horiz 2=-259 (LC 12)  
Max Uplift 2=-123 (LC 14), 9=-124 (LC 11), 12=-184 (LC 15)  
Max Grav 2=1429 (LC 25), 9=467 (LC 49), 12=2001 (LC 51)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/29, 2-5=-2021/352, 5-7=-1808/349, 7-8=-129/1186, 8-9=-467/234, 9-10=0/18  
BOT CHORD 2-17=-303/1633, 15-17=-175/1627, 13-15=-27/403, 12-13=-31/391, 11-12=-182/401, 9-11=-177/418  
WEBS 7-13=0/156, 7-12=-2283/348, 8-12=-1518/290, 8-11=0/246, 4-17=0/386, 4-16=-735/244, 5-16=-158/1017, 6-16=-612/217, 6-15=-67/161, 7-15=-68/1027

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 3-2-11, Interior (1) 3-2-11 to 11-4-5, Exterior(2R) 11-4-5 to 19-6-11, Interior (1) 19-6-11 to 30-10-13, Exterior(2R) 30-10-13 to 37-9-5, Exterior(2E) 37-9-5 to 41-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 12, and 9. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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



December 27, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

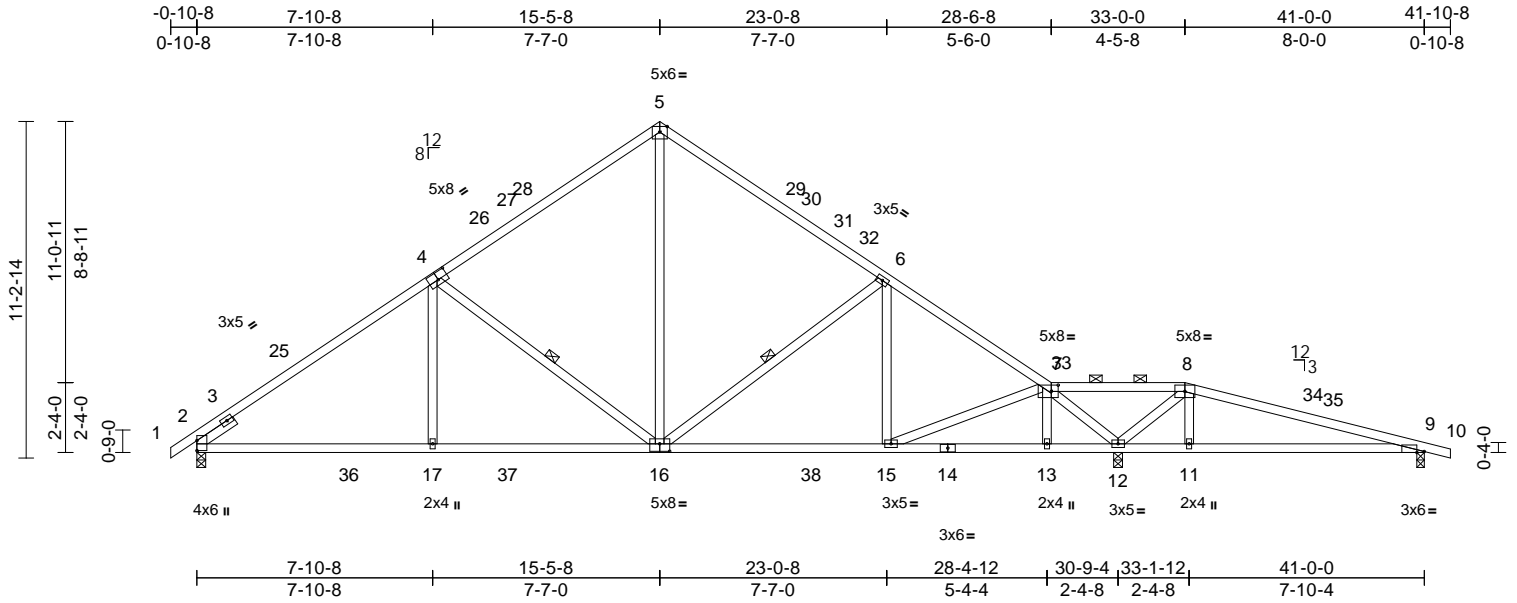
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss A3	Truss Type Roof Special	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398853
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:56  
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Page: 1



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Plate Offsets (X, Y): [4:0-4-0,0-3-0], [7:0-2-12,0-2-8], [9:0-2-15,Edge], [16:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.19	11-24	>636	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.32	11-24	>381	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.05	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 217 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 4-5:2x4 SP 2400F 2.0E, 7-8,1-4:2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 16-5:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (10-0-0 max.): 7-8.  
Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 11-12  
2-2-0 oc bracing: 9-11.  
WEBS 1 Row at midpt 4-16, 6-16

**REACTIONS** (size) 2=0-3-8, 9=0-3-0, 12=0-3-8  
Max Horiz 2=-260 (LC 12)  
Max Uplift 2=-123 (LC 14), 9=-134 (LC 11), 12=-185 (LC 15)  
Max Grav 2=1410 (LC 25), 9=460 (LC 49), 12=2106 (LC 51)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/29, 2-5=-1987/351, 5-6=-1373/347, 6-7=-1697/304, 7-8=-93/1213, 8-9=-275/452, 9-10=0/18  
BOT CHORD 2-17=-304/1609, 15-17=-175/1603, 13-15=-41/484, 12-13=-45/475, 11-12=-388/61, 9-11=-367/248  
WEBS 7-13=0/162, 7-12=-2316/328, 8-12=-1279/220, 8-11=0/385, 4-17=0/386, 4-16=-737/244, 5-16=-154/975, 6-16=-543/216, 6-15=-130/108, 7-15=-49/882

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 3-2-11, Interior (1) 3-2-11 to 11-4-5, Exterior(2R) 11-4-5 to 19-6-11, Interior (1) 19-6-11 to 28-10-13, Exterior(2R) 28-10-13 to 37-1-3, Interior (1) 37-1-3 to 37-9-5, Exterior(2E) 37-9-5 to 41-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 12, and 9. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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



December 27, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
Edenton, NC 27932

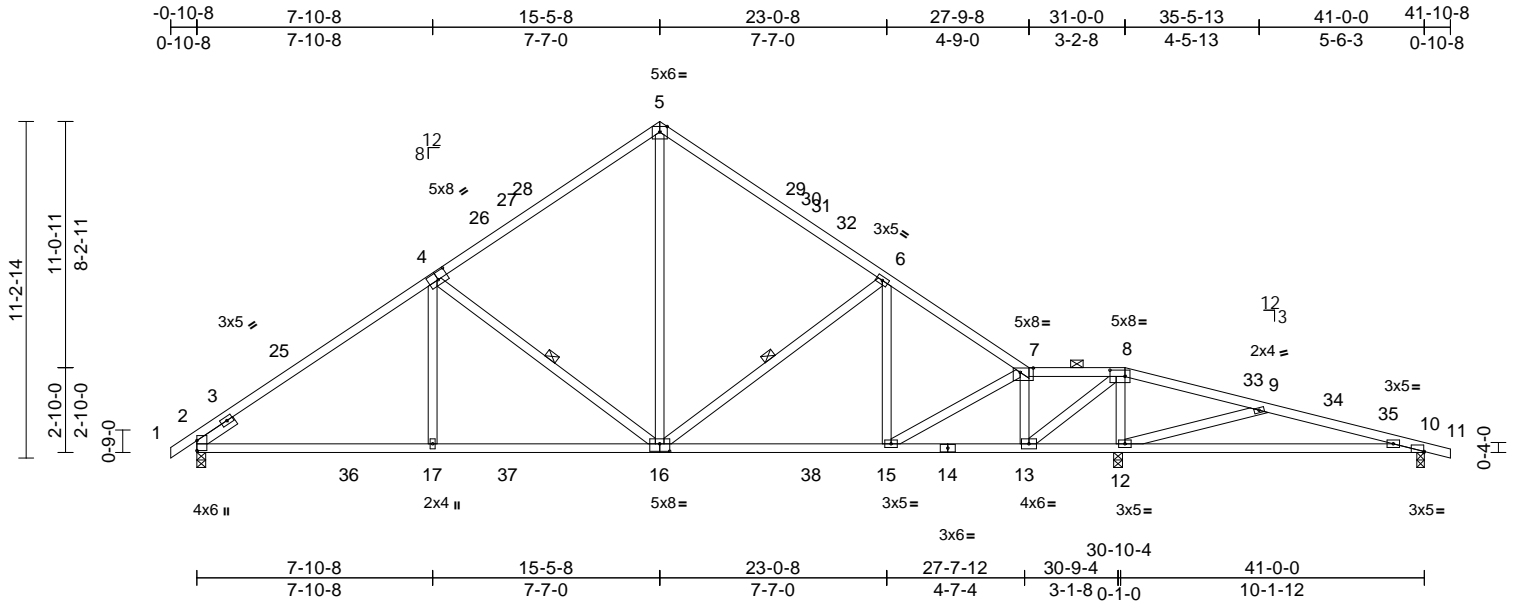
Job 24110166-01	Truss A4	Truss Type Roof Special	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398854
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:56

Page: 1

ID:PUHjSOZxaYyhTH0sV1qx7y5piN-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCdoi7J4zJC?f



Scale = 1:77  
Plate Offsets (X, Y): [4:0-4-0,0-3-0], [7:0-5-4,0-1-12], [8:0-6-0,0-2-8], [10:0-0-3,Edge], [16:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.16	12-24	>739	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.34	12-24	>356	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.05	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 222 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 4-5:2x4 SP 2400F 2.0E, 5-7:2x4 SP No.1  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 16-5:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-6-0

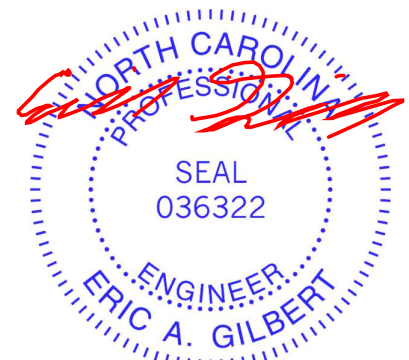
**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (6-0-0 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied or 4-3-4 oc bracing.  
WEBS 1 Row at midpt 4-16, 6-16

**REACTIONS**  
(size) 2=0-3-8, 10=0-3-0, 12=0-3-8  
Max Horiz 2=-262 (LC 12)  
Max Uplift 2=-122 (LC 14), 10=-119 (LC 11), 12=-204 (LC 15)  
Max Grav 2=1400 (LC 25), 10=391 (LC 49), 12=2236 (LC 51)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/29, 2-5=-1962/344, 5-6=-1345/339, 6-7=-1570/287, 7-8=-667/155, 8-9=-156/1165, 9-10=-272/434, 10-11=0/18  
BOT CHORD 2-17=-303/1595, 15-17=-174/1589, 13-15=-22/598, 12-13=-1231/262, 10-12=-359/253  
WEBS 7-13=-1409/243, 8-13=-372/2308, 8-12=-1883/393, 9-12=-1033/264, 4-17=0/387, 4-16=-739/244, 5-16=-145/943, 6-16=-493/199, 6-15=-194/106, 7-15=-55/803

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 3-2-11, Interior (1) 3-2-11 to 11-4-5, Exterior(2R) 11-4-5 to 19-6-11, Interior (1) 19-6-11 to 27-9-8, Exterior(2R) 27-9-8 to 35-1-3, Interior (1) 35-1-3 to 37-9-5, Exterior(2E) 37-9-5 to 41-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 12, and 10. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



December 27, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



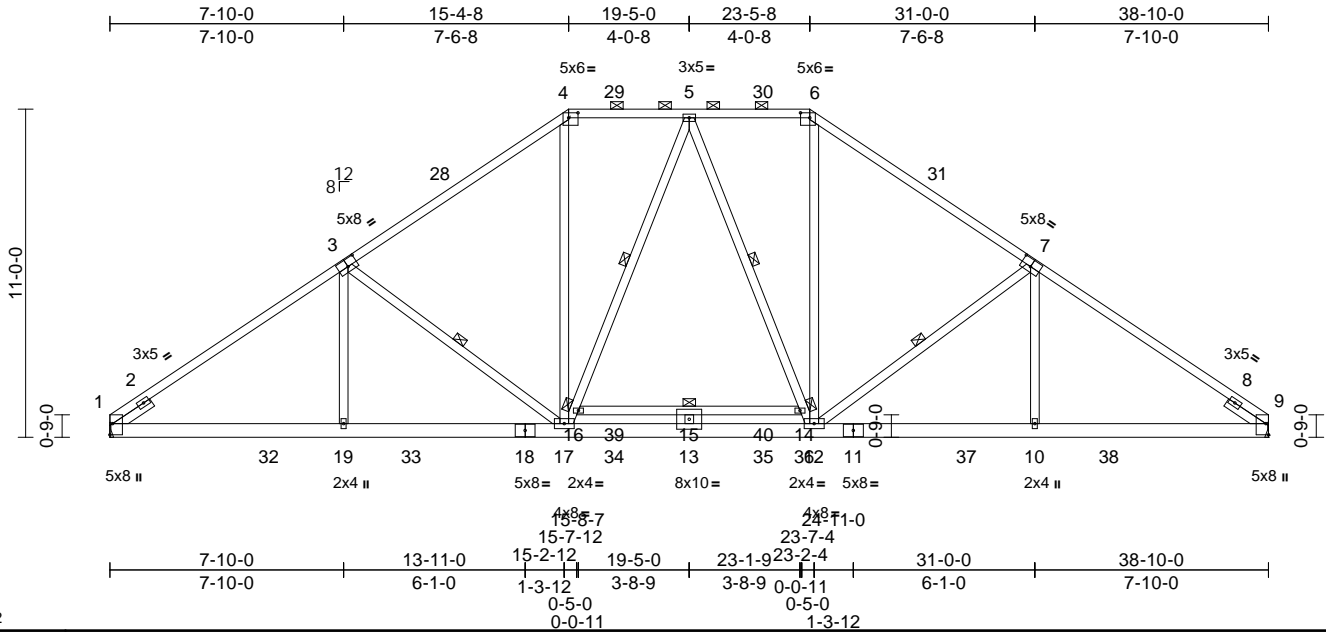
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss B1	Truss Type Piggyback Base	Qty 6	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398855
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:56  
ID:7418BsUP8WGF4P8p?JY9d?y5ohw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:77.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.20	15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.39	15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.10	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 279 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 3-4,6-7:2x4 SP 2400F 2.0E  
BOT CHORD 2x6 SP No.2 \*Except\* 16-14:2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 17-4,17-5,12-5,12-6:2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -- 1-6-0, Right 2x4 SP No.2 -- 1-6-0

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

**REACTIONS**  
(size) 1= Mechanical, 9= Mechanical  
Max Horiz 1=240 (LC 12)  
Max Grav 1=2126 (LC 46), 9=2126 (LC 46)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-4=-3550/38, 4-5=-2396/89, 5-6=-2396/89, 6-9=-3550/38  
BOT CHORD 1-19=0/2840, 17-19=0/2838, 13-17=0/2276, 12-13=0/2276, 10-12=0/2838, 9-10=0/2840, 15-16=-34/0, 14-15=-34/0  
WEBS 3-19=0/249, 3-17=-730/279, 4-17=0/1157, 16-17=-314/153, 5-16=-267/183, 5-14=-267/183, 12-14=-314/152, 6-12=0/1157, 7-12=-730/279, 7-10=0/249, 13-15=-200/0

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-12 to 3-11-6, Interior (1) 3-11-6 to 11-5-14, Exterior(2R) 11-5-14 to 27-4-2, Interior (1) 27-4-2 to 34-10-10, Exterior(2E) 34-10-10 to 38-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 200.0lb AC unit load placed on the bottom chord, 19-5-0 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



December 27, 2024

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

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ENGINEERING BY  
**TRENCO**  
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818 Soundside Road  
Edenton, NC 27932



Job 24110166-01	Truss B1A	Truss Type Piggyback Base	Qty 4	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398856
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:56  
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Page: 1

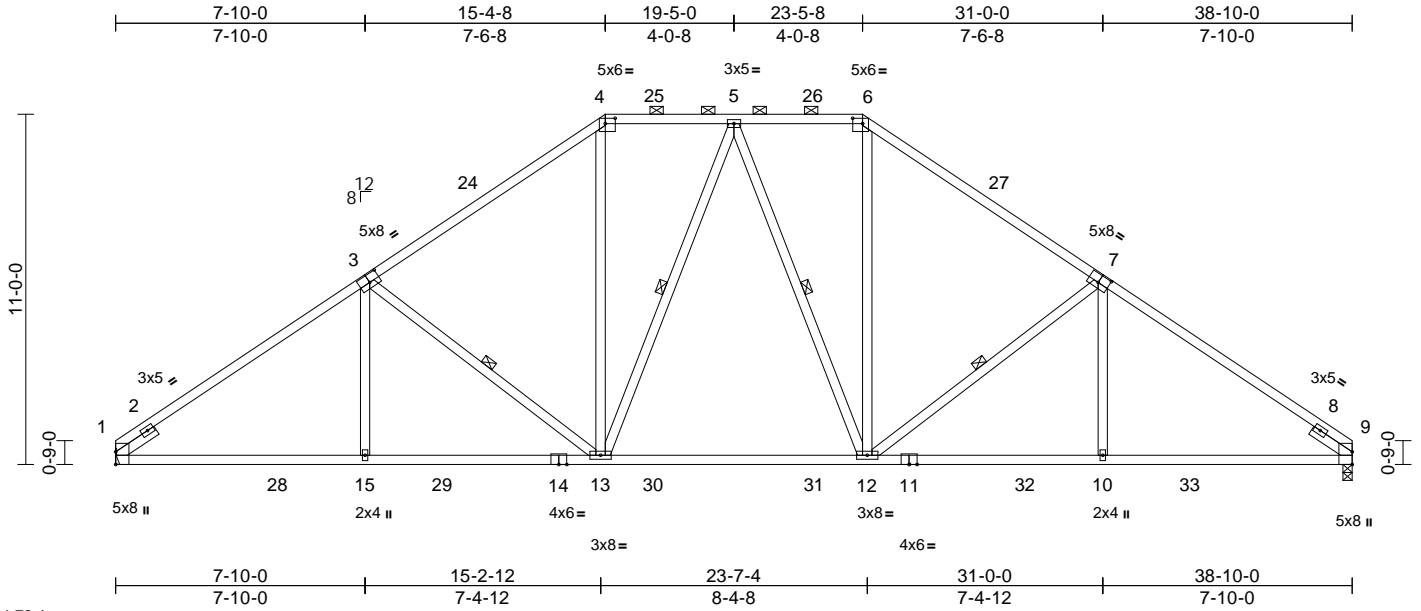


Plate Offsets (X, Y): [3:0-4-0,0-3-0], [4:0-3-12,0-2-0], [6:0-3-12,0-2-0], [7:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.26	12-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.41	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.13	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 236 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 4-6:2x4 SP No.2, 3-1,7-9:2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3 \*Except\* 13-4,12-6,13-5,12-5:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-10-13 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 3-13, 7-12, 5-13, 5-12

**REACTIONS** (size) 1= Mechanical, 9=0-3-8  
Max Horiz 1=-241 (LC 10)  
Max Uplift 1=-111 (LC 14), 9=-111 (LC 15)  
Max Grav 1=1865 (LC 46), 9=1865 (LC 46)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-4=-3124/307, 4-5=-1990/310, 5-6=-1990/310, 6-9=-3124/307  
BOT CHORD 1-15=-308/2477, 13-15=-196/2474, 12-13=-12/1849, 10-12=-120/2474, 9-10=-170/2477  
WEBS 3-15=0/341, 3-13=-793/246, 7-12=-793/247, 7-10=0/341, 4-13=-30/882, 6-12=-30/882, 5-13=-268/183, 5-12=-268/183

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-10-10, Interior (1) 3-10-10 to 11-5-14, Exterior(2R) 11-5-14 to 27-4-2, Interior (1) 27-4-2 to 34-11-6, Exterior(2E) 34-11-6 to 38-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 1.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



December 27, 2024

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

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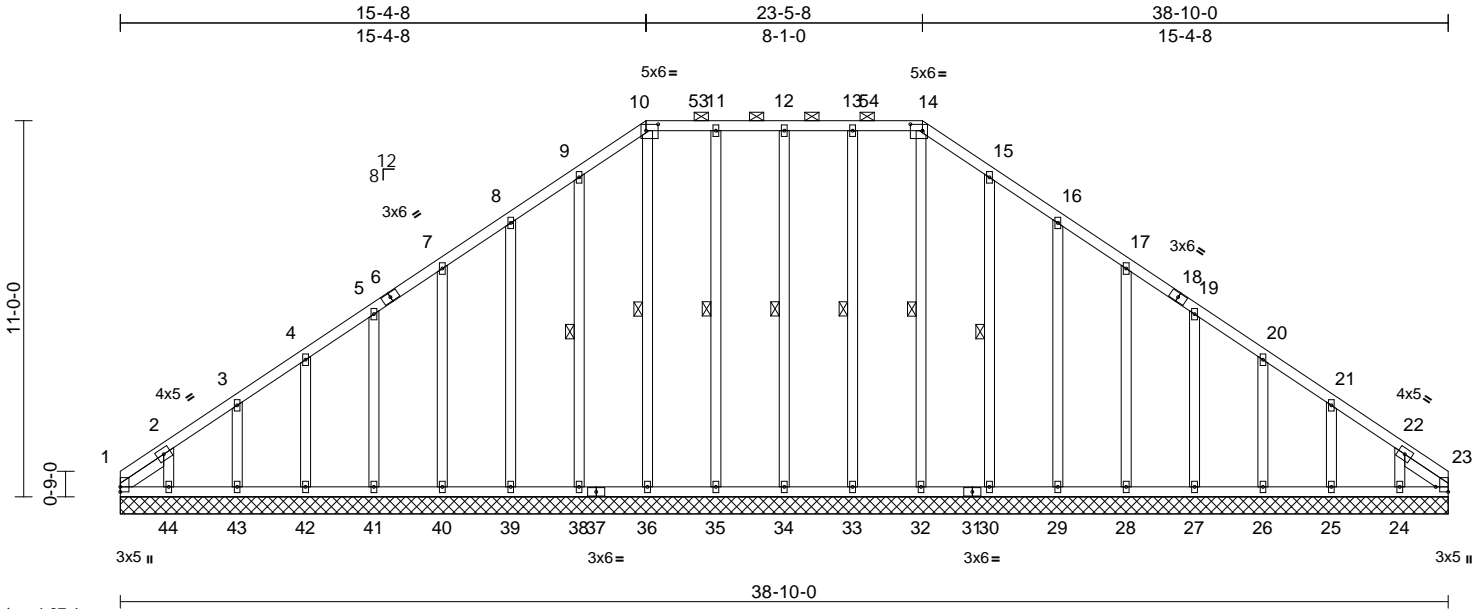
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss B1GE	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398857
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:57  
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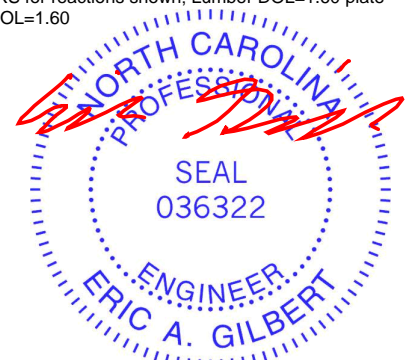


Scale = 1:67.4

Plate Offsets (X, Y): [10:0-4-4,0-2-4], [14:0-4-4,0-2-4], [23:Edge,0-4-6]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	0.01	23	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 315 lb	FT = 20%

LUMBER	Max Grav	WEBS
TOP CHORD 2x4 SP No.2	1=205 (LC 14), 23=148 (LC 15), 24=176 (LC 25), 25=171 (LC 52), 26=168 (LC 25), 27=183 (LC 52), 28=227 (LC 40), 29=225 (LC 40), 30=234 (LC 40), 32=163 (LC 55), 33=239 (LC 39), 34=222 (LC 39), 35=239 (LC 39), 36=178 (LC 55), 38=234 (LC 40), 39=225 (LC 40), 40=227 (LC 40), 41=183 (LC 50), 42=168 (LC 24), 43=170 (LC 50), 44=197 (LC 24)	12-34=182/51, 11-35=199/52, 10-36=138/35, 9-38=198/82, 8-39=193/84, 7-40=193/82, 5-41=157/82, 4-42=142/82, 3-43=147/82, 2-44=148/132, 13-33=199/54, 14-32=123/9, 15-30=198/80, 16-29=193/85, 17-28=193/81, 19-27=157/82, 20-26=142/82, 21-25=147/83, 22-24=141/116
BOT CHORD 2x4 SP No.2		
OTHERS 2x4 SP No.3 *Except*		
SLIDER Left 2x4 SP No.2 -- 1-7-1, Right 2x4 SP No.2 -- 1-7-1		
BRACING	FORCES	NOTES
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 10-14.	(lb) - Maximum Compression/Maximum Tension	1) Unbalanced roof live loads have been considered for this design.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.	TOP CHORD 1-2=82/69, 2-3=203/186, 3-4=170/165, 4-5=150/148, 5-7=137/145, 7-8=132/178, 8-9=139/213, 9-10=167/246, 10-11=136/223, 11-12=136/223, 12-13=136/223, 13-14=136/223, 14-15=167/246, 15-16=139/192, 16-17=114/135, 17-19=84/80, 19-20=66/46, 20-21=84/62, 21-22=134/84, 22-23=57/31	2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-10-10, Exterior(2N) 3-10-10 to 11-5-0, Corner(3R) 11-5-0 to 27-5-0, Exterior (2N) 27-5-0 to 34-11-6, Corner(3E) 34-11-6 to 38-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
WEBS 1 Row at midpt 12-34, 11-35, 10-36, 9-38, 13-33, 14-32, 15-30	BOT CHORD 1-44=82/165, 43-44=82/165, 42-43=82/165, 41-42=82/165, 40-41=82/165, 39-40=82/165, 38-39=82/165, 36-38=82/165, 35-36=81/164, 34-35=81/164, 33-34=81/164, 32-33=81/164, 30-32=81/165, 29-30=81/165, 28-29=81/165, 27-28=81/165, 26-27=81/165, 25-26=81/165, 24-25=81/165, 23-24=81/165	
REACTIONS		
(size) 1=38-10-0, 23=38-10-0, 24=38-10-0, 25=38-10-0, 26=38-10-0, 27=38-10-0, 28=38-10-0, 29=38-10-0, 30=38-10-0, 32=38-10-0, 33=38-10-0, 34=38-10-0, 35=38-10-0, 36=38-10-0, 38=38-10-0, 39=38-10-0, 40=38-10-0, 41=38-10-0, 42=38-10-0, 43=38-10-0, 44=38-10-0		
Max Horiz 1=241 (LC 10)		
Max Uplift 1=135 (LC 12), 23=50 (LC 13), 24=110 (LC 15), 25=56 (LC 15), 26=59 (LC 15), 27=58 (LC 15), 28=57 (LC 15), 29=61 (LC 15), 30=56 (LC 15), 33=30 (LC 11), 34=27 (LC 10), 35=28 (LC 11), 36=5 (LC 11), 38=58 (LC 14), 39=60 (LC 14), 40=58 (LC 14), 41=58 (LC 14), 42=59 (LC 14), 43=55 (LC 14), 44=129 (LC 14)		



December 27, 2024

Continued on page 2

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

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	I70398857
24110166-01	B1GE	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:57  
ID:5aF0UVxp3ntGz3EC5hbcavy5oYl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCELL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 23, 135 lb uplift at joint 1, 27 lb uplift at joint 34, 28 lb uplift at joint 35, 5 lb uplift at joint 36, 58 lb uplift at joint 38, 60 lb uplift at joint 39, 58 lb uplift at joint 40, 58 lb uplift at joint 41, 59 lb uplift at joint 42, 55 lb uplift at joint 43, 129 lb uplift at joint 44, 30 lb uplift at joint 33, 56 lb uplift at joint 30, 61 lb uplift at joint 29, 57 lb uplift at joint 28, 58 lb uplift at joint 27, 59 lb uplift at joint 26, 56 lb uplift at joint 25, 110 lb uplift at joint 24, 50 lb uplift at joint 23 and 135 lb uplift at joint 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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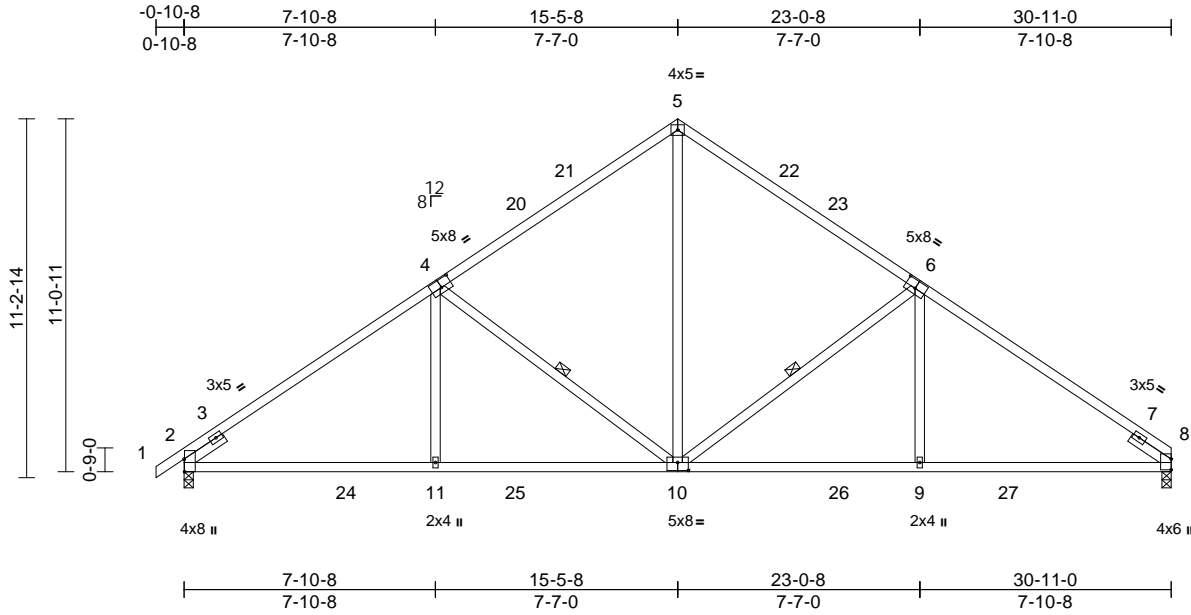
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398858
24110166-01	C1	Common	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:57  
 ID:rMPGZjHyPrPPgq4xU4gHSzy5pmc-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:72.2

Plate Offsets (X, Y): [2:0-4-13,Edge], [4:0-4-0,0-3-0], [6:0-4-0,0-3-0], [10:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.13	10-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.24	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.08	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 167 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* 4-5:2x4 SP 2400F  
 2.0E, 5-6:2x4 SP No.1  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* 10-5:2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

**BRACING**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-10, 4-10

**REACTIONS**

(size) 2=0-3-8, 8=0-3-8  
 Max Horiz 2=251 (LC 11)  
 Max Uplift 2=-122 (LC 14), 8=-105 (LC 15)  
 Max Grav 2=1495 (LC 25), 8=1445 (LC 26)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/29, 2-5=-2239/226, 5-8=-2242/225  
 BOT CHORD 2-11=-313/1744, 9-11=-186/1745, 8-9=-178/1749  
 WEBS 5-10=-84/1216, 6-10=-772/245, 6-9=0/384, 4-10=-766/245, 4-11=0/384

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-2-10, Interior (1) 2-2-10 to 12-4-6, Exterior(2R) 12-4-6 to 18-6-10, Interior (1) 18-6-10 to 27-9-14, Exterior(2E) 27-9-14 to 30-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



December 27, 2024

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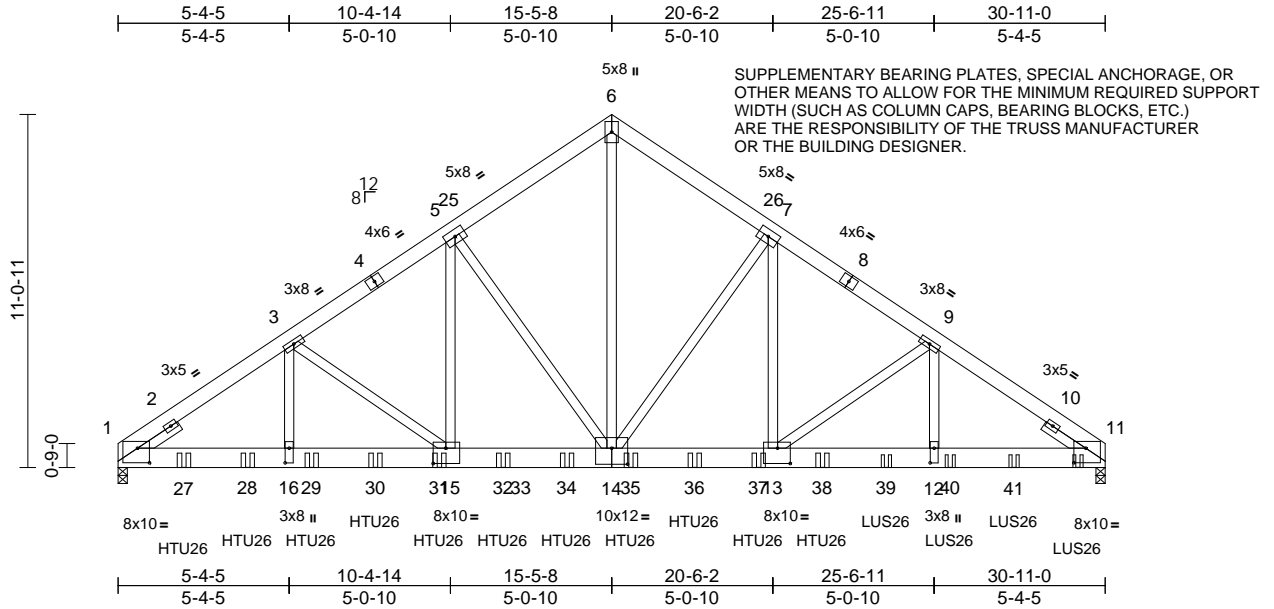
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss C1GR	Truss Type Common Girder	Qty 1	Ply 3	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398859
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:57  
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Page: 1



Scale = 1:72.2

Plate Offsets (X, Y): [1:0-4-8,0-5-8], [11:0-4-8,0-5-8], [12:0-5-8,0-1-8], [13:0-4-12,0-5-12], [14:0-6-0,0-6-0], [15:0-4-12,0-5-12], [16:0-5-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.22	15-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.38	15-16	>957	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.80	Horz(CT)	0.10	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 820 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* 14-6:2x4 SP No.1, 7-13,5-15:2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -- 1-6-0, Right 2x4 SP No.2 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-2-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

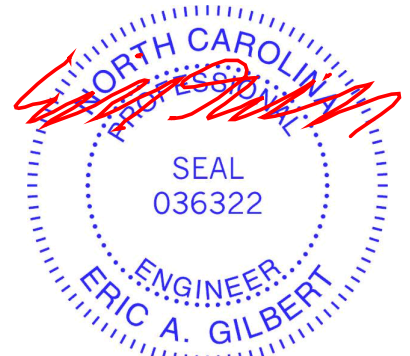
**REACTIONS** (size) 1=0-3-8, (req. 0-4-3), 11=0-3-8, (req. 0-3-9)  
Max Horiz 1=240 (LC 36)  
Max Grav 1=15181 (LC 21), 11=12914 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-3=-22057/0, 3-5=-18114/0, 5-6=-13484/0, 6-7=-13485/0, 7-9=-16606/0, 9-11=-18523/0  
BOT CHORD 1-16=0/18333, 15-16=0/18333, 13-15=0/15199, 12-13=0/15230, 11-12=0/15230  
WEBS 6-14=0/14501, 7-14=-4589/594, 7-13=-482/5197, 9-13=-1842/394, 9-12=-240/2117, 5-14=-6780/0, 5-15=0/7795, 3-15=-3901/0, 3-16=0/4527

**NOTES**  
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-5-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 1, 11 greater than input bearing size.
- Use Simpson Strong-Tie HTU26 (20-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 20-0-12 to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie HTU26 (10-16d Girder, 14-10dx1 1/2 Truss) or equivalent at 22-0-12 from the left end to connect truss(es) to front face of bottom chord.

- Use Simpson Strong-Tie LUS26 (4-SD912 Girder, 4-SD912 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 24-0-12 from the left end to 30-0-12 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-6=-60, 6-11=-60, 17-21=-20  
Concentrated Loads (lb)  
Vert: 23=-986 (F), 27=-1837 (F), 28=-1837 (F), 29=-1837 (F), 30=-1837 (F), 31=-1837 (F), 32=-1837 (F), 34=-1665 (F), 35=-1665 (F), 36=-1665 (F), 37=-1665 (F), 38=-983 (F), 39=-983 (F), 40=-983 (F), 41=-983 (F)



December 27, 2024

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ENGINEERING BY  
**TRENCO**  
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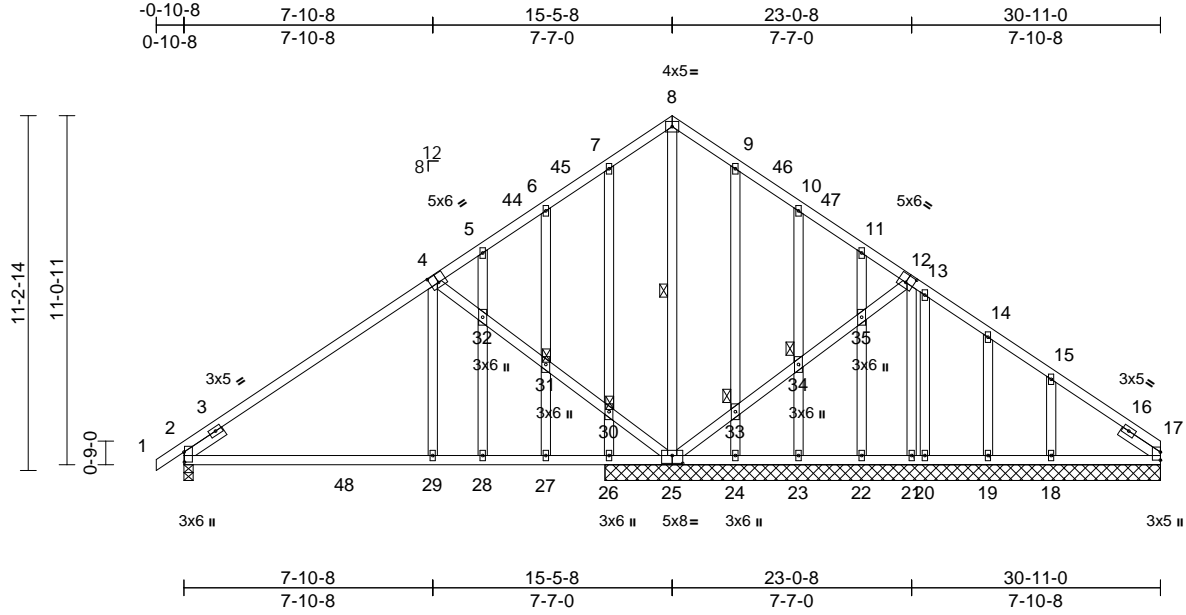
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss C1SE	Truss Type Common Structural Gable	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398860
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:57  
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Page: 1



Scale = 1:73

Plate Offsets (X, Y): [2:0-3-13,0-0-3], [4:0-3-0,0-3-4], [12:0-3-0,0-3-0], [25:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.10	29-38	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.20	29-38	>811	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 252 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 25-8:2x4 SP No.2  
OTHERS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-0-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 8-25  
JOINTS 1 Brace at Jt(s): 30, 31, 33, 34

**REACTIONS** (size)  
2=0-3-8, 17=17-7-0, 18=17-7-0,  
19=17-7-0, 20=17-7-0, 21=17-7-0,  
22=17-7-0, 23=17-7-0, 24=17-7-0,  
25=17-7-0, 26=17-7-0  
Max Horiz 2=251 (LC 11)  
Max Uplift 2=126 (LC 14), 17=9 (LC 14),  
18=118 (LC 15), 19=40 (LC 15),  
20=10 (LC 14), 21=58 (LC 11),  
22=38 (LC 15), 23=69 (LC 15),  
24=47 (LC 15), 26=75 (LC 14)  
Max Grav 2=812 (LC 25), 17=210 (LC 25),  
18=335 (LC 26), 19=153 (LC 26),  
20=147 (LC 25), 21=117 (LC 25),  
22=173 (LC 26), 23=226 (LC 22),  
24=258 (LC 22), 25=377 (LC 27),  
26=450 (LC 21)

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

**TOP CHORD** 1-2=0/29, 2-5=-952/170, 5-6=-239/161,  
6-7=-245/199, 7-8=-293/246, 8-9=-287/257,  
9-10=-267/230, 10-11=-238/194,  
11-13=-211/163, 13-14=-209/117,  
14-15=-197/83, 15-17=-142/42  
**BOT CHORD** 2-29=-338/777, 28-29=-186/770,  
27-28=-186/770, 26-27=-186/770,  
24-26=-186/770, 23-24=-24/129,  
22-23=-24/129, 21-22=-24/129,  
20-21=-23/127, 19-20=-23/127,  
18-19=-23/127, 17-18=-23/127  
**WEBS** 8-25=-228/189, 25-33=-109/136,  
33-34=-108/135, 34-35=-108/136,  
12-35=-111/140, 12-21=-107/61,  
4-32=-810/236, 31-32=-726/206,  
30-31=-781/223, 25-30=-756/219,  
4-29=0/384, 7-30=-266/76, 26-30=-319/84,  
6-31=-143/89, 27-31=-58/60, 5-32=-68/103,  
28-32=-56/0, 9-33=-214/73, 24-33=-214/71,  
10-34=-187/93, 23-34=-187/94,  
11-35=-122/55, 22-35=-122/61,  
13-20=95/29, 14-19=-121/72,  
15-18=-219/128

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-2-10, Interior (1) 2-2-10 to 12-4-6, Exterior(2R) 12-4-6 to 18-6-10, Interior (1) 18-6-10 to 27-9-14, Exterior(2E) 27-9-14 to 30-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



December 27, 2024

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	I70398860
24110166-01	C1SE	Common Structural Gable	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:57  
 ID:AUCDCzeZGBD42Mel\_hFYdWY5o5\_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

**LOAD CASE(S)** Standard

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbccomponents.com](http://www.sbccomponents.com))



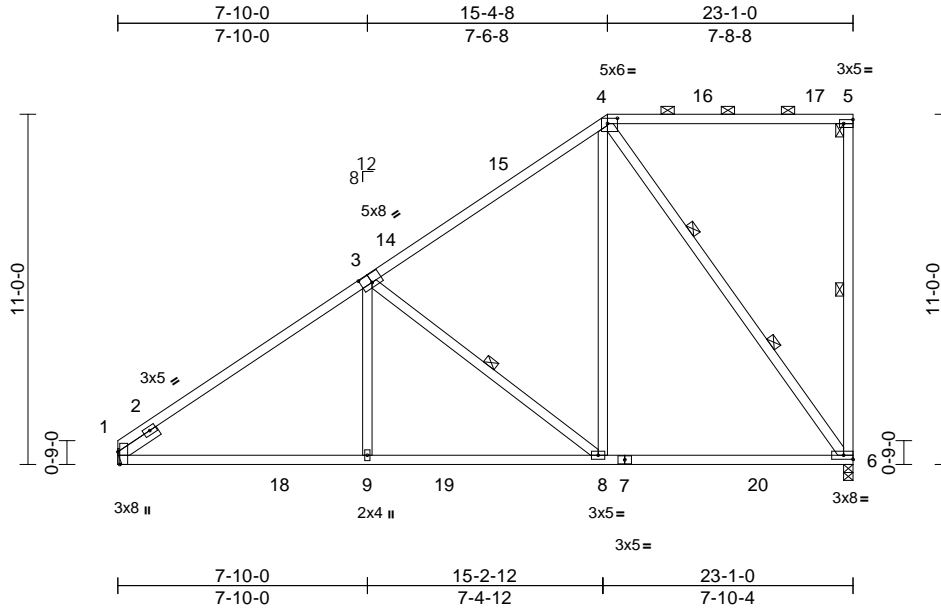
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss D1	Truss Type Piggyback Base	Qty 5	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398861
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:58  
ID:hWYJvBEu8KdHCcltQ8cwxy5oku-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:72.4  
Plate Offsets (X, Y): [1:0-4-13,Edge], [3:0-4-0,0-3-4], [4:0-3-12,0-2-0], [5:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.19	6-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.29	6-8	>934	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 147 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 4-5:2x4 SP 2400F 2.0E, 1-3:2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 5-6:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-6-0

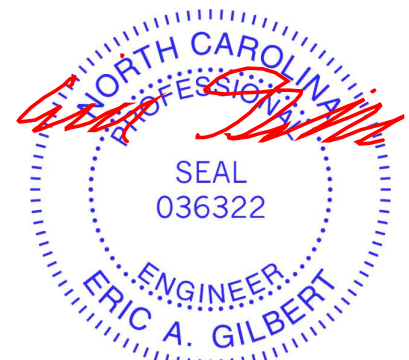
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-6, 3-8  
WEBS 2 Rows at 1/3 pts 4-6

**REACTIONS** (size) 1= Mechanical, 6=0-3-8  
Max Horiz 1=379 (LC 13)  
Max Uplift 1=-79 (LC 14), 6=-153 (LC 11)  
Max Grav 1=1143 (LC 43), 6=1104 (LC 38)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-4=-1540/202, 4-5=-140/188, 5-6=-341/108  
BOT CHORD 1-9=-360/1527, 8-9=-207/1523, 6-8=-153/807  
WEBS 3-9=0/374, 3-8=-892/248, 4-8=-61/882, 4-6=-1214/128

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 1.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 12-4-8, Exterior(2R) 12-4-8 to 18-4-8, Interior (1) 18-4-8 to 19-11-4, Exterior(2E) 19-11-4 to 22-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



December 27, 2024

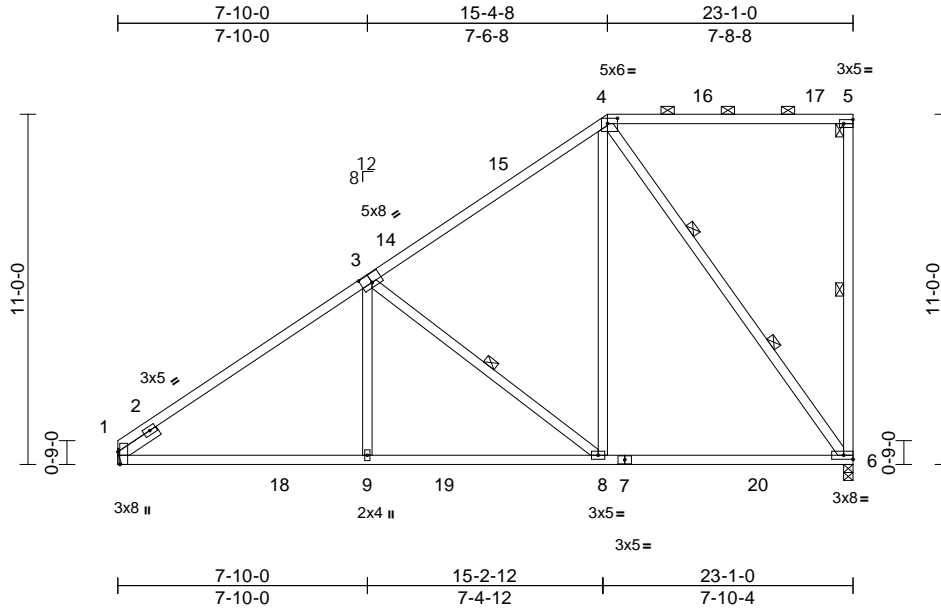


Job 24110166-01	Truss D1A	Truss Type Piggyback Base	Qty 5	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398862
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:58  
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Page: 1



Scale = 1:72.4  
Plate Offsets (X, Y): [1:0-4-13,Edge], [3:0-4-0,0-3-4], [4:0-3-12,0-2-0], [5:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.19	6-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.29	6-8	>934	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 147 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 4-5:2x4 SP 2400F 2.0E, 1-3:2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 5-6:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-6-0

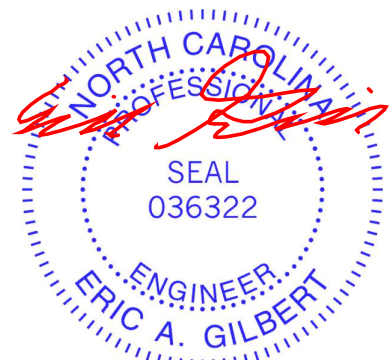
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-6, 3-8  
WEBS 2 Rows at 1/3 pts 4-6

**REACTIONS** (size) 1= Mechanical, 6=0-3-8  
Max Horiz 1=379 (LC 13)  
Max Uplift 1=-79 (LC 14), 6=-153 (LC 11)  
Max Grav 1=1143 (LC 43), 6=1104 (LC 38)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-4=-1540/202, 4-5=-140/188, 5-6=-341/108  
BOT CHORD 1-9=-360/1527, 8-9=-207/1523, 6-8=-153/807  
WEBS 3-9=0/374, 3-8=-892/248, 4-8=-61/882, 4-6=-1214/128

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 1.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 12-4-8, Exterior(2R) 12-4-8 to 18-4-8, Interior (1) 18-4-8 to 19-11-4, Exterior(2E) 19-11-4 to 22-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



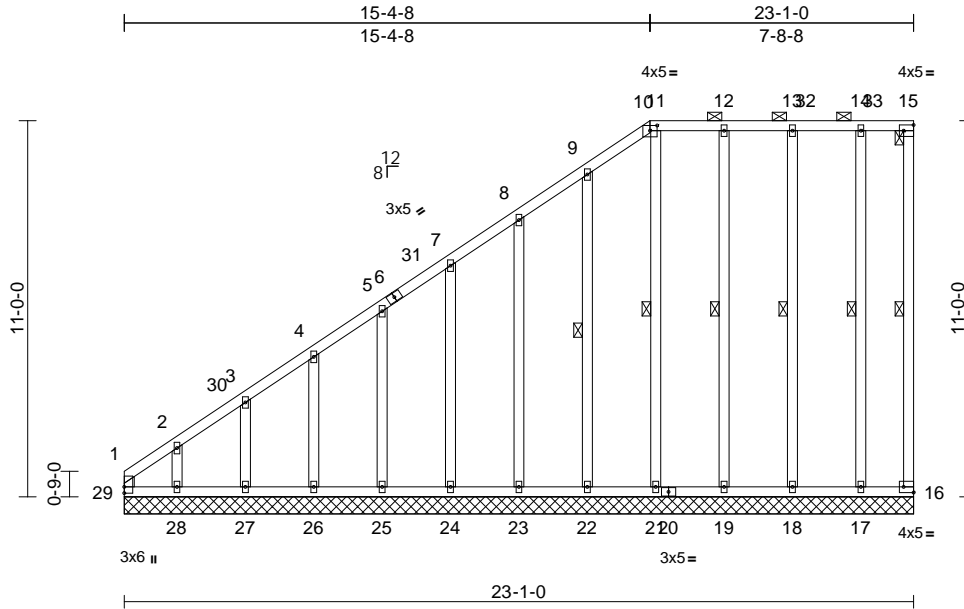
December 27, 2024

Job 24110166-01	Truss D1GE	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398863
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:58  
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Page: 1



Scale = 1:67.4

Plate Offsets (X, Y): [10:0-2-8,0-1-13], [15:Edge,0-2-0], [16:Edge,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	0.01	16	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 206 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* 15-16:2x4 SP No.2  
 OTHERS 2x4 SP No.3 \*Except\* 21-11,19-12,18-13,17-14:2x4 SP No.2

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 10-15.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 15-16, 9-22, 11-21, 12-19, 13-18, 14-17

**REACTIONS** (size) 16=23-1-0, 17=23-1-0, 18=23-1-0, 19=23-1-0, 21=23-1-0, 22=23-1-0, 23=23-1-0, 24=23-1-0, 25=23-1-0, 26=23-1-0, 27=23-1-0, 28=23-1-0, 29=23-1-0  
 Max Horiz 29=383 (LC 11)  
 Max Uplift 16=19 (LC 11), 17=46 (LC 10), 18=38 (LC 11), 19=36 (LC 10), 21=71 (LC 11), 22=55 (LC 14), 23=60 (LC 14), 24=58 (LC 14), 25=57 (LC 14), 26=64 (LC 14), 27=35 (LC 14), 28=199 (LC 14), 29=178 (LC 12)  
 Max Grav 16=61 (LC 36), 17=204 (LC 36), 18=231 (LC 36), 19=233 (LC 36), 21=169 (LC 36), 22=231 (LC 37), 23=225 (LC 37), 24=227 (LC 37), 25=185 (LC 43), 26=171 (LC 24), 27=163 (LC 37), 28=233 (LC 24), 29=327 (LC 11)

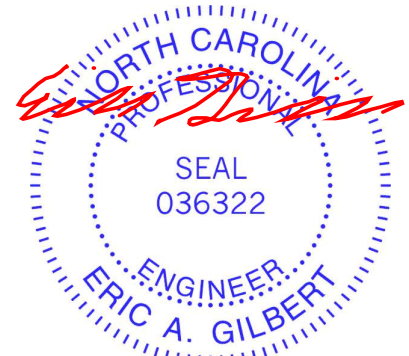
**FORCES** (lb) - Maximum Compression/Maximum Tension

**TOP CHORD** 1-29=-247/293, 1-2=-380/479, 2-3=-313/402, 3-4=-285/377, 4-5=-250/343, 5-7=-231/312, 7-8=-215/279, 8-9=-200/250, 9-10=-179/236, 10-11=-136/216, 11-12=-136/216, 12-13=-136/216, 13-14=-136/216, 14-15=-136/216, 15-16=-115/198  
**BOT CHORD** 28-29=-137/216, 27-28=-137/216, 26-27=-137/216, 25-26=-137/216, 24-25=-137/216, 23-24=-137/216, 22-23=-137/216, 21-22=-137/216, 19-21=-137/216, 18-19=-137/216, 17-18=-137/216, 16-17=-137/216  
**WEBS** 8-23=-189/85, 7-24=-194/82, 5-25=-159/82, 4-26=-145/84, 3-27=-136/81, 2-28=-199/141, 9-22=-205/79, 11-21=-218/94, 12-19=-194/55, 13-18=-191/65, 14-17=-266/132

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 12-4-8, Corner(3R) 12-4-8 to 18-4-8, Exterior (2N) 18-4-8 to 19-11-4, Corner(3E) 19-11-4 to 22-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 29, 19 lb uplift at joint 16, 60 lb uplift at joint 23, 58 lb uplift at joint 24, 57 lb uplift at joint 25, 64 lb uplift at joint 26, 35 lb uplift at joint 27, 199 lb uplift at joint 28, 55 lb uplift at joint 22, 71 lb uplift at joint 21, 36 lb uplift at joint 19, 38 lb uplift at joint 18 and 46 lb uplift at joint 17.



December 27, 2024

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	I70398863
24110166-01	D1GE	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:58  
 ID: \_bxXDU3yE3314frNHJyGWqy5ol2-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 2

14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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

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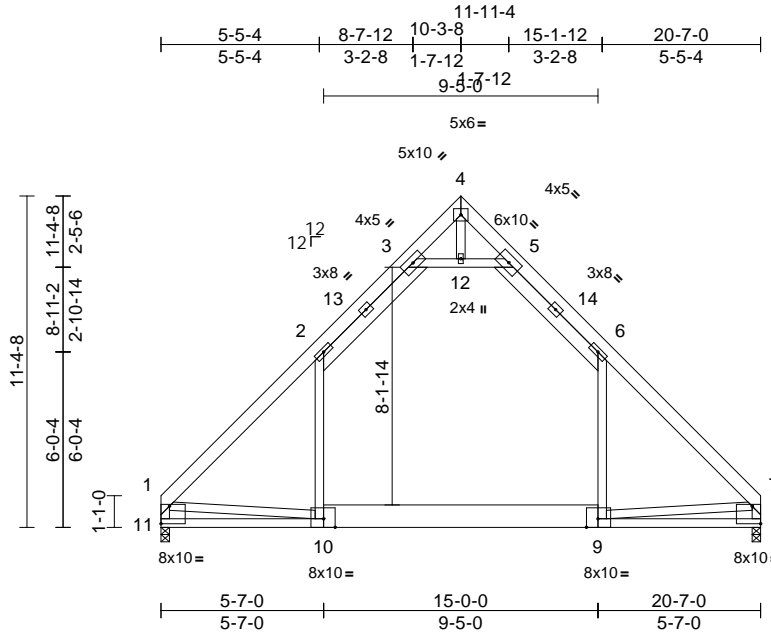
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398864
24110166-01	E1	Attic	9	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:58  
 ID:y019a0fq\_Ezde9D5KSA6Vay5p86-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:79.1

Plate Offsets (X, Y): [8:Edge,0-7-4], [9:0-4-12,Edge], [10:0-4-12,Edge], [11:Edge,0-7-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.14	9-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.23	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH		Attic	-0.08	9-10	>999	360		
BCDL	10.0										Weight: 188 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x6 SP 2400F 2.0E \*Except\* 2-3,5-6:2x6 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 10-9:2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* 3-5:2x4 SP No.2

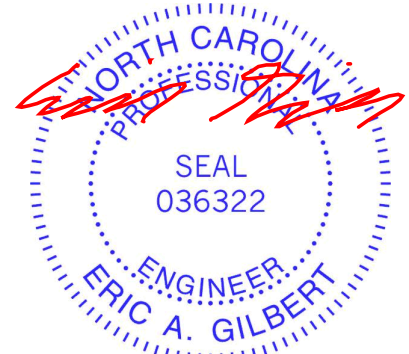
**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 8=0-3-8, 11=0-3-8  
 Max Horiz 11=264 (LC 13)  
 Max Grav 8=1180 (LC 6), 11=1180 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-1467/0, 2-3=-953/133, 3-4=-85/475, 4-5=-84/474, 5-6=-954/133, 6-7=-1466/0, 1-11=-1311/0, 7-8=-1312/0  
 BOT CHORD 8-11=-296/864  
 WEBS 6-9=0/577, 2-10=0/577, 3-12=-1786/236, 5-12=-1786/236, 4-12=-2/115, 1-10=-67/644, 7-9=-85/658

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (5.0 psf) on member(s). 2-3, 5-6, 3-12, 5-12; Wall dead load (5.0psf) on member(s).6-9, 2-10
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 9-10
  - Attic room checked for L/360 deflection.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 7-3-8, Exterior(2R) 7-3-8 to 13-3-8, Interior (1) 13-3-8 to 17-5-4, Exterior(2E) 17-5-4 to 20-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



December 27, 2024

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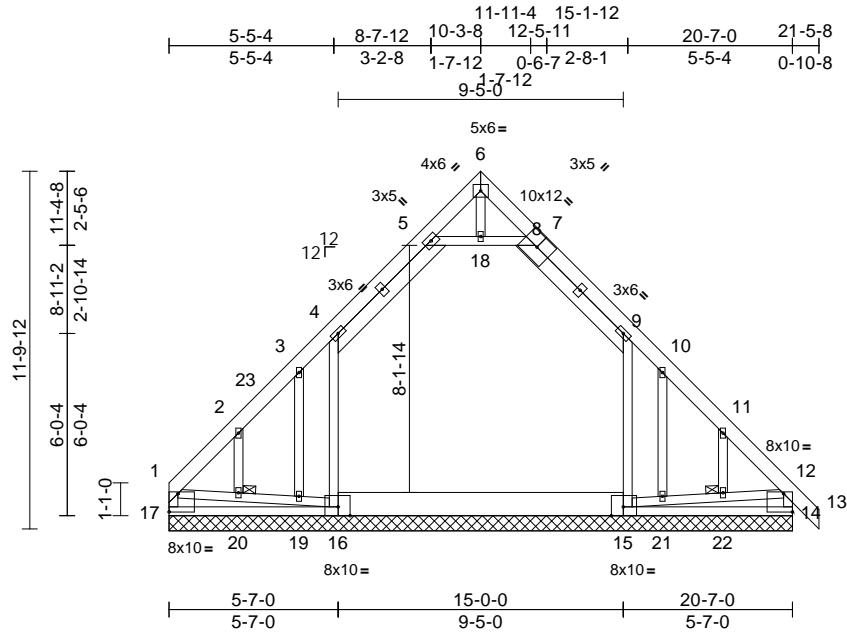


Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398865
24110166-01	E1GE	Attic Supported Gable	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:58  
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Page: 1



Scale = 1:76.1

Plate Offsets (X, Y): [12:Edge,0-7-4], [15:0-4-12,Edge], [16:0-4-12,Edge], [17:Edge,0-7-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 210 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 16-15:2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* 5-7:2x4 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 20, 22

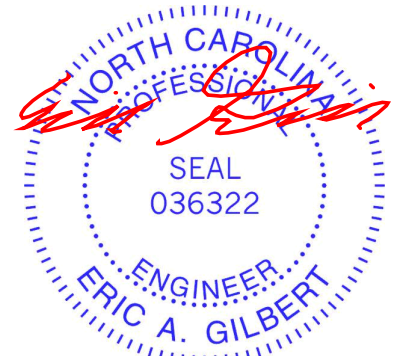
**REACTIONS** (size) 14=20-7-0, 15=20-7-0, 16=20-7-0, 17=20-7-0  
 Max Horiz 17=-211 (LC 12)  
 Max Uplift 15=-138 (LC 15), 16=-145 (LC 14)  
 Max Grav 14=361 (LC 23), 15=608 (LC 27), 16=620 (LC 26), 17=292 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-17=-247/0, 1-2=-250/53, 2-3=-173/68, 3-4=-112/78, 4-5=-186/51, 5-6=-153/39, 6-7=-152/38, 7-9=-183/47, 9-10=-109/65, 10-11=-171/60, 11-12=-247/43, 12-13=0/43, 12-14=-316/8  
 BOT CHORD 14-17=-175/293  
 WEBS 9-15=-252/163, 15-21=-156/315, 21-22=-151/305, 12-22=-150/304, 4-16=-256/186, 1-20=-160/255, 19-20=-162/257, 16-19=-167/265, 5-18=-26/43, 7-18=-26/43, 6-18=-2/0, 3-19=-19/32, 2-20=-31/23, 10-21=-20/46, 11-22=-27/13

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 7-3-8, Corner(3R) 7-3-8 to 13-3-8, Exterior(2N) 13-3-8 to 18-3-11, Corner(3E) 18-3-11 to 21-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Ceiling dead load (5.0 psf) on member(s). 4-5, 7-9, 5-18, 7-18; Wall dead load (5.0psf) on member(s).9-15, 4-16

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 145 lb uplift at joint 16 and 138 lb uplift at joint 15.
  - Attic room checked for L/360 deflection.
- LOAD CASE(S)** Standard



December 27, 2024

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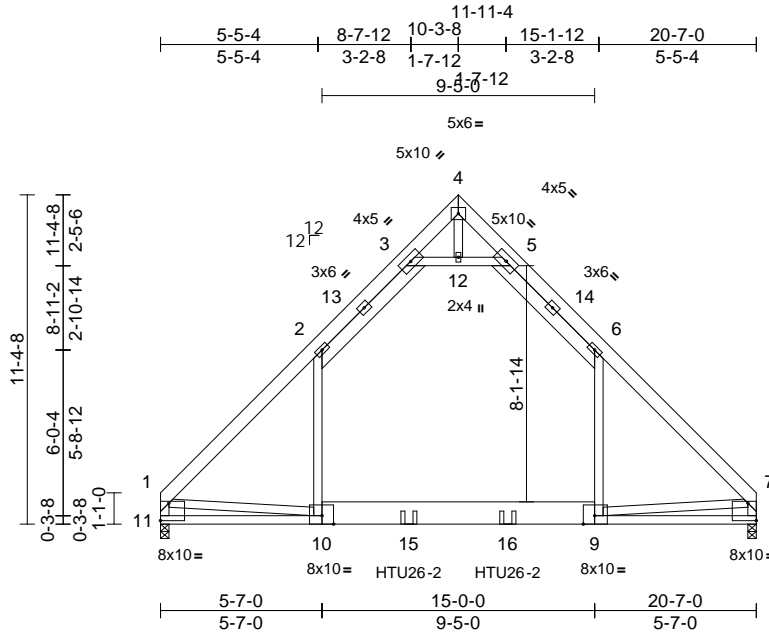
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398866
24110166-01	E1GR	Attic Girder	1	2	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:59  
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Page: 1



Scale = 1:79.6

Plate Offsets (X, Y): [8:Edge,0-7-4], [9:0-4-12,Edge], [10:0-4-12,Edge], [11:Edge,0-7-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	0.18	9-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.23	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH		Attic	-0.07	9-10	>999	360		
BCDL	10.0											
											Weight: 376 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x6 SP 2400F 2.0E \*Except\* 2-3,5-6:2x6 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 10-9:2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* 3-5:2x4 SP No.2

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

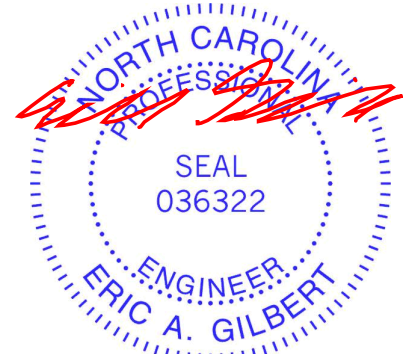
**REACTIONS** (size) 8=0-3-8, 11=0-3-8  
 Max Horiz 11=264 (LC 36)  
 Max Uplift 8=490 (LC 12), 11=490 (LC 13)  
 Max Grav 8=2077 (LC 22), 11=2077 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-2425/652, 2-3=-1309/434, 3-4=-389/935, 4-5=-388/934, 5-6=-1309/434, 6-7=-2424/652, 1-11=-2065/544, 7-8=-2066/544  
 BOT CHORD 8-11=-408/1562  
 WEBS 6-9=-433/1343, 2-10=-435/1344, 3-12=-2807/1053, 5-12=-2807/1053, 4-12=-40/168, 1-10=-369/1141, 7-9=-388/1155

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 2-3, 5-6, 3-12, 5-12; Wall dead load (5.0psf) on member(s).6-9, 2-10
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 9-10
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 8. This connection is for uplift only and does not consider lateral forces.
- Use Simpson Strong-Tie HTU26-2 (20-10d Girder, 14-10d Truss) or equivalent spaced at 3-5-0 oc max. starting at 8-7-0 from the left end to 12-0-0 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

- 14) Attic room checked for L/360 deflection.
- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-60, 2-3=-70, 3-4=-60, 4-5=-60, 5-6=-70, 6-7=-60, 10-11=-20, 9-10=-30, 8-9=-20, 3-12=-10, 5-12=-10  
 Drag: 6-9=-10, 2-10=-10  
 Concentrated Loads (lb)  
 Vert: 15=-640 (B), 16=-640 (B)

- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc.



December 27, 2024

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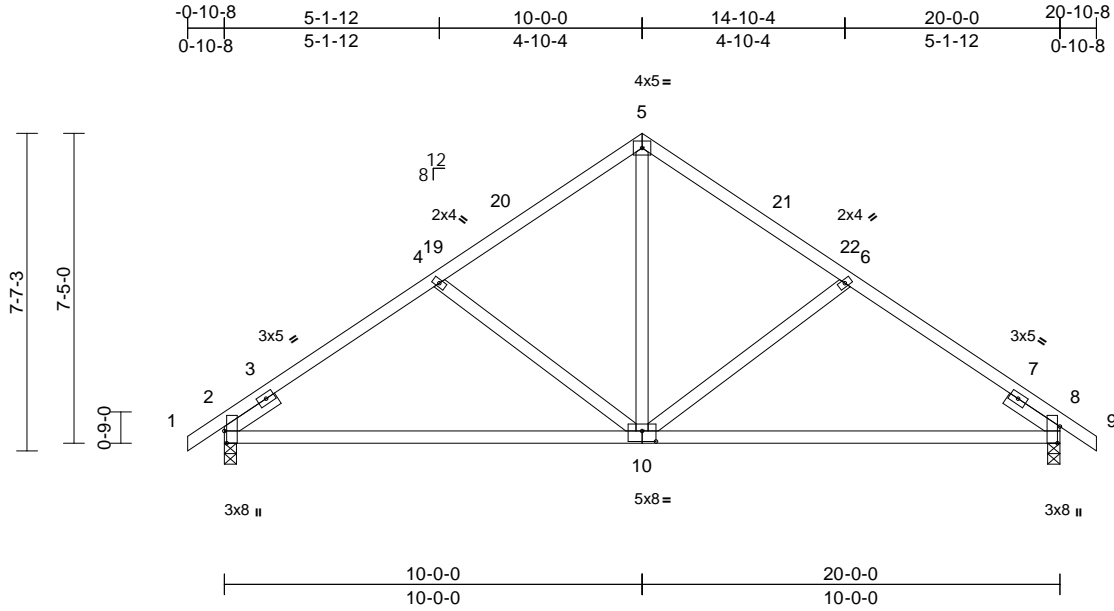
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss F1	Truss Type Common	Qty 5	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398867
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:59  
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Page: 1



Scale = 1:55.2

Plate Offsets (X, Y): [2:0-3-8,Edge], [8:0-4-13,Edge], [10:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.14	10-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.27	10-13	>877	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 101 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-2-11 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 2=0-3-8, 8=0-3-8  
 Max Horiz 2=-170 (LC 12)  
 Max Uplift 2=-85 (LC 14), 8=-85 (LC 15)  
 Max Grav 2=900 (LC 21), 8=900 (LC 22)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

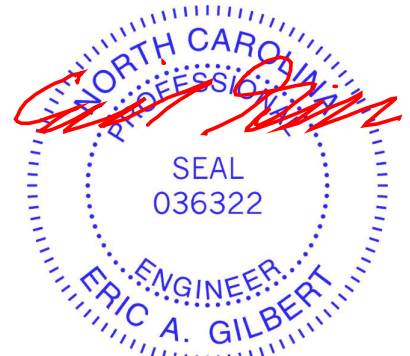
TOP CHORD 1-2=0/29, 2-4=-990/147, 4-5=-867/139, 5-6=-867/139, 6-8=-990/147, 8-9=0/29  
 BOT CHORD 2-8=-195/878  
 WEBS 5-10=-30/579, 6-10=-352/184, 4-10=-352/184

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 7-0-0, Exterior(2R) 7-0-0 to 13-0-0, Interior (1) 13-0-0 to 17-10-8, Exterior(2E) 17-10-8 to 20-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.

**LOAD CASE(S)** Standard



December 27, 2024

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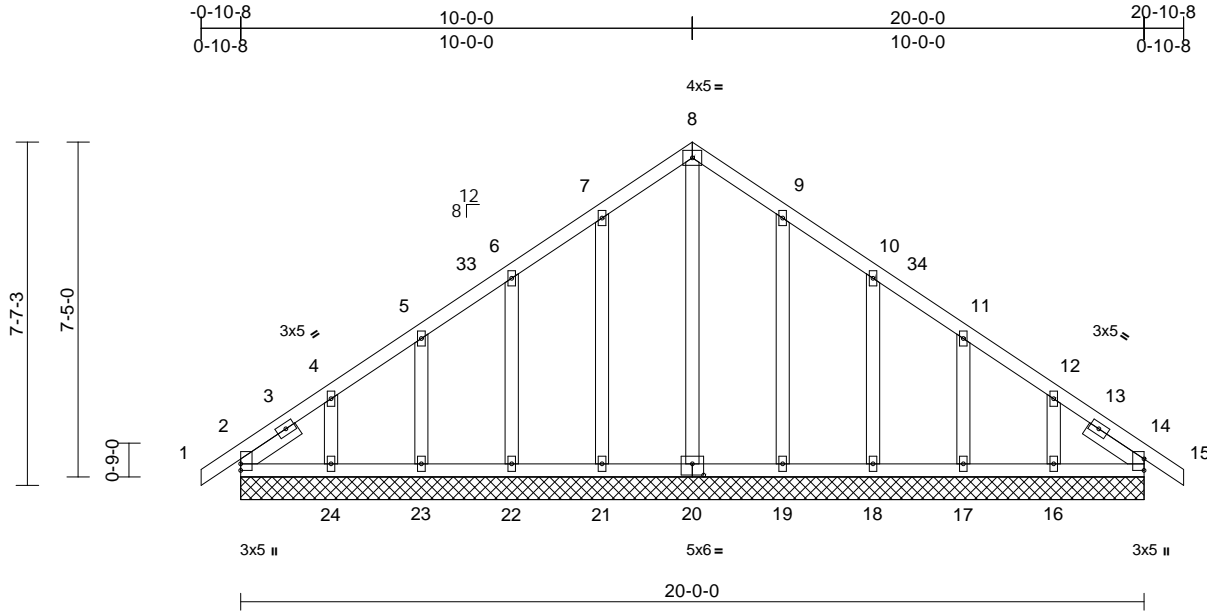
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss F1GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398868
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:59  
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Page: 1



Scale = 1:51  
Plate Offsets (X, Y): [20:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 126 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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

**REACTIONS** (size) 2=20-0-0, 14=20-0-0, 16=20-0-0, 17=20-0-0, 18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0  
Max Horiz 2=170 (LC 12)  
Max Uplift 2=46 (LC 10), 14=6 (LC 11), 16=94 (LC 15), 17=49 (LC 15), 18=62 (LC 15), 19=56 (LC 15), 21=57 (LC 14), 22=62 (LC 14), 23=47 (LC 14), 24=104 (LC 14)  
Max Grav 2=174 (LC 26), 14=149 (LC 22), 16=183 (LC 26), 17=165 (LC 26), 18=222 (LC 22), 19=259 (LC 22), 20=168 (LC 33), 21=259 (LC 21), 22=222 (LC 21), 23=163 (LC 25), 24=194 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/29, 2-4=-143/127, 4-5=-116/94, 5-6=-106/95, 6-7=-93/132, 7-8=-119/192, 8-9=-119/192, 9-10=-92/132, 10-11=-68/68, 11-12=-75/40, 12-14=-102/67, 14-15=0/29

**BOT CHORD** 2-24=-55/122, 23-24=-55/122, 22-23=-55/122, 21-22=-55/122, 19-21=-55/122, 18-19=-55/122, 17-18=-55/122, 16-17=-55/122, 14-16=-55/122  
**WEBS** 8-20=-149/34, 7-21=-219/83, 6-22=-182/91, 5-23=-142/84, 4-24=-148/108, 9-19=-219/83, 10-18=-182/91, 11-17=-142/84, 12-16=-148/108

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 7-0-0, Corner(3R) 7-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 17-10-8, Corner(3E) 17-10-8 to 20-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 2, 6 lb uplift at joint 14, 57 lb uplift at joint 21, 62 lb uplift at joint 22, 47 lb uplift at joint 23, 104 lb uplift at joint 24, 56 lb uplift at joint 19, 62 lb uplift at joint 18, 49 lb uplift at joint 17, 94 lb uplift at joint 16, 46 lb uplift at joint 2 and 6 lb uplift at joint 14.

**LOAD CASE(S)** Standard



December 27, 2024

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818 Soundside Road  
Edenton, NC 27932

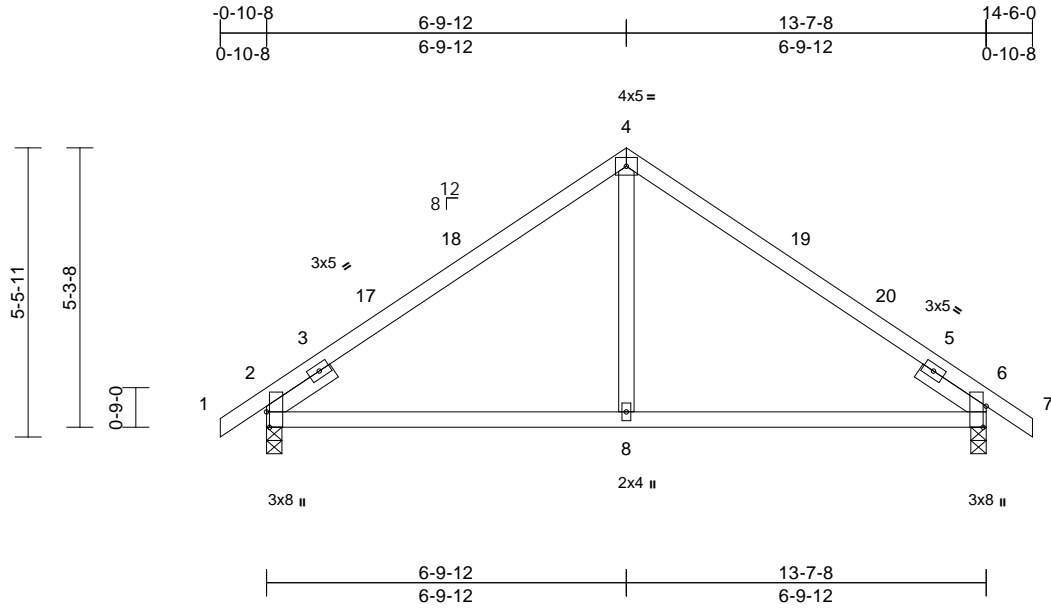


Job 24110166-01	Truss G1	Truss Type Common	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398869
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:59  
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Page: 1



Scale = 1:43.6

Plate Offsets (X, Y): [2:0-3-8,Edge], [6:0-4-13,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.10	8-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.14	8-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.04	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 60 lb	FT = 20%	

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

**BRACING**

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

**REACTIONS**

(size) 2=0-3-8, 6=0-3-8  
 Max Horiz 2=-120 (LC 12)  
 Max Uplift 2=-62 (LC 14), 6=-62 (LC 15)  
 Max Grav 2=677 (LC 21), 6=677 (LC 22)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

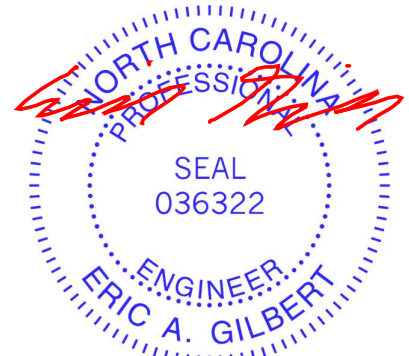
TOP CHORD 1-2=0/29, 2-4=-672/245, 4-6=-672/245, 6-7=0/29  
 BOT CHORD 2-8=-207/447, 6-8=-140/447  
 WEBS 4-8=0/300

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-9-12, Exterior(2R) 3-9-12 to 9-9-12, Interior (1) 9-9-12 to 11-6-0, Exterior(2E) 11-6-0 to 14-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.

**LOAD CASE(S)** Standard



December 27, 2024

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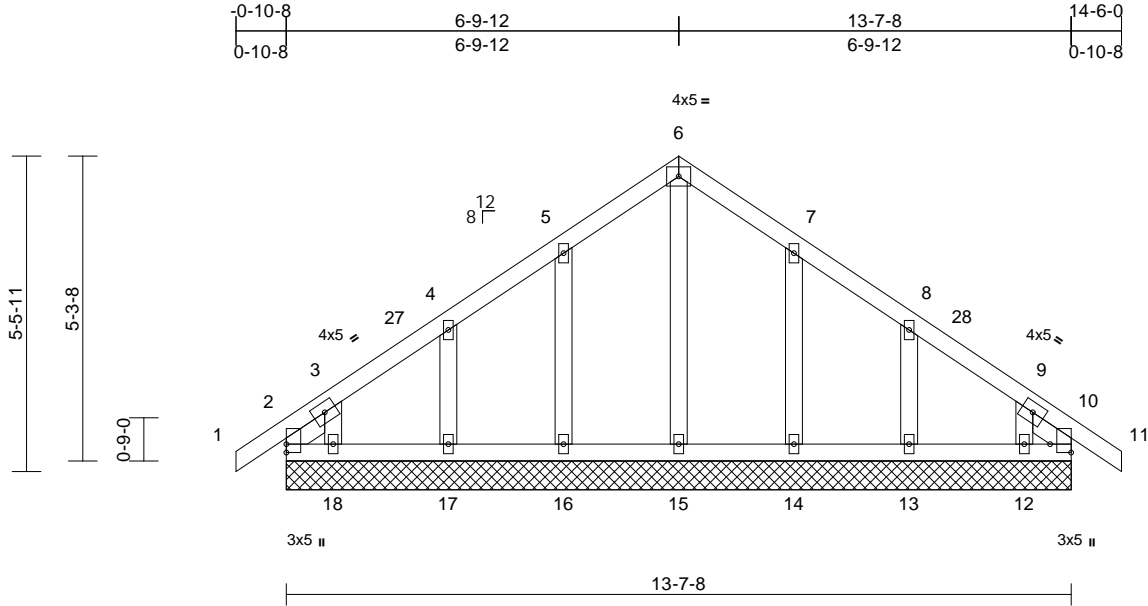
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398870
24110166-01	G1GE	Common Supported Gable	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:59  
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Page: 1



Scale = 1:40  
 Plate Offsets (X, Y): [10:Edge,0-4-6]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 76 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 0-10-5, Right 2x4 SP No.3 -- 0-10-5

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

**REACTIONS** (size) 2=13-7-8, 10=13-7-8, 12=13-7-8, 13=13-7-8, 14=13-7-8, 15=13-7-8, 16=13-7-8, 17=13-7-8, 18=13-7-8  
 Max Horiz 2=120 (LC 13)  
 Max Uplift 2=-58 (LC 10), 10=-20 (LC 11), 12=-80 (LC 15), 13=-59 (LC 15), 14=-60 (LC 15), 16=-61 (LC 14), 17=-59 (LC 14), 18=-93 (LC 14)  
 Max Grav 2=135 (LC 26), 10=109 (LC 22), 12=124 (LC 26), 13=227 (LC 22), 14=259 (LC 22), 15=146 (LC 33), 16=259 (LC 21), 17=227 (LC 21), 18=138 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/29, 2-3=-71/78, 3-4=-91/75, 4-5=-80/78, 5-6=-91/152, 6-7=-91/152, 7-8=-74/78, 8-9=-61/35, 9-10=-71/62, 10-11=0/29  
 BOT CHORD 2-18=-39/114, 17-18=-39/114, 16-17=-39/114, 15-16=-39/114, 14-15=-39/114, 13-14=-39/114, 12-13=-39/114, 10-12=-39/114  
 WEBS 6-15=-105/0, 5-16=-219/108, 4-17=-186/120, 3-18=-109/122, 7-14=-219/108, 8-13=-186/120, 9-12=-109/122

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 3-9-12, Corner(3R) 3-9-12 to 9-9-12, Exterior(2N) 9-9-12 to 11-6-0, Corner(3E) 11-6-0 to 14-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 2, 20 lb uplift at joint 10, 61 lb uplift at joint 16, 59 lb uplift at joint 17, 93 lb uplift at joint 18, 60 lb uplift at joint 14, 59 lb uplift at joint 13, 80 lb uplift at joint 12, 58 lb uplift at joint 2 and 20 lb uplift at joint 10.

**LOAD CASE(S)** Standard



December 27, 2024

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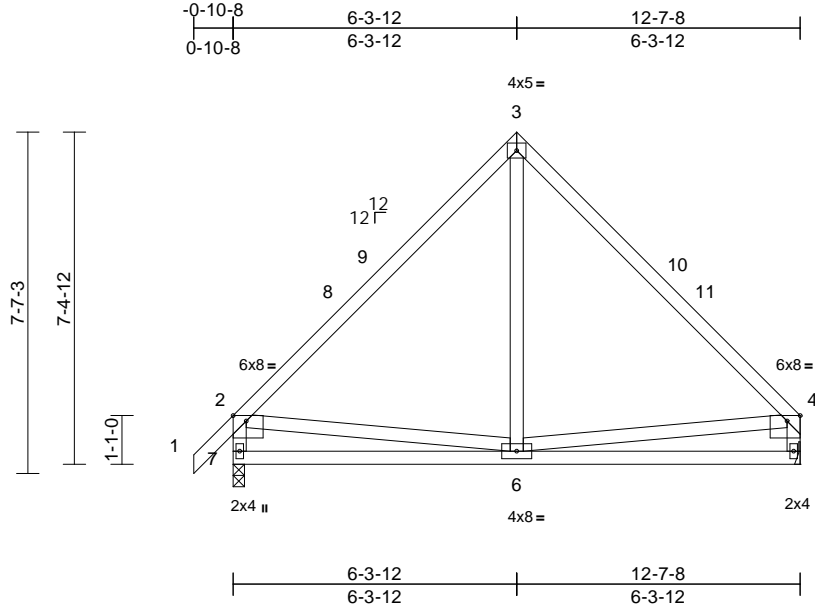
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss H1	Truss Type Common	Qty 2	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398871
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:51.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.03	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.06	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 78 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* 7-2,5-4:2x4 SP No.2

**BRACING**

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

**REACTIONS**

(size) 5= Mechanical, 7=0-3-0  
 Max Horiz 7=191 (LC 11)  
 Max Uplift 5=-35 (LC 14), 7=-43 (LC 14)  
 Max Grav 5=572 (LC 22), 7=638 (LC 21)

**FORCES**

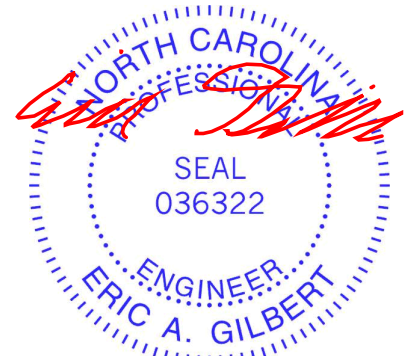
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/43, 2-3=-563/267, 3-4=-552/256,  
 2-7=-583/273, 4-5=-518/225  
 BOT CHORD 6-7=-301/375, 5-6=-156/249  
 WEBS 3-6=-146/260, 2-6=-196/320, 4-6=-134/225

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-3-12, Exterior(2R) 3-3-12 to 9-5-12, Exterior(2E) 9-5-12 to 12-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 5.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.

**LOAD CASE(S)** Standard



December 27, 2024

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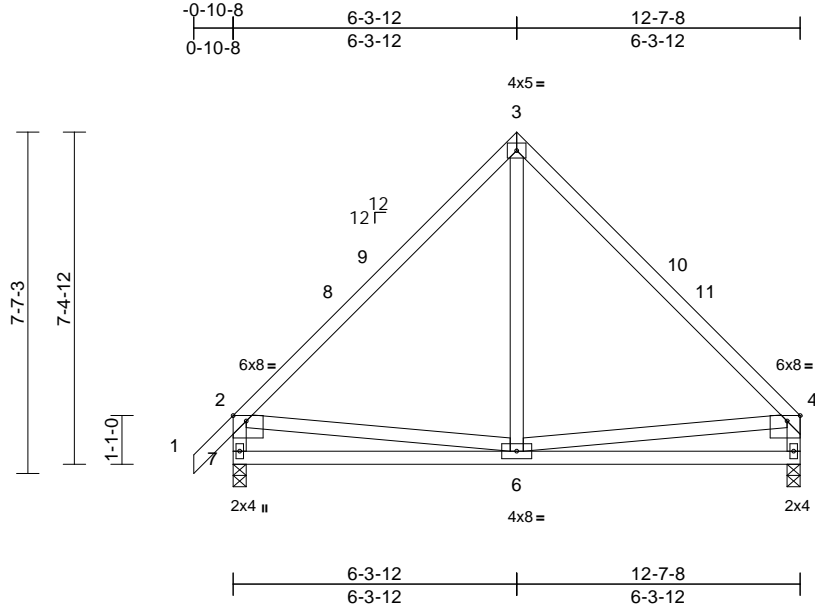
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss H1A	Truss Type Common	Qty 3	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398872
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:59  
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Page: 1



Scale = 1:51.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.03	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.06	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 78 lb	FT = 20%	

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* 7-2,5-4:2x4 SP No.2

**BRACING**

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

**REACTIONS**

(size) 5=0-3-8, 7=0-3-8  
 Max Horiz 7=191 (LC 11)  
 Max Uplift 5=-35 (LC 14), 7=-43 (LC 14)  
 Max Grav 5=572 (LC 22), 7=638 (LC 21)

**FORCES**

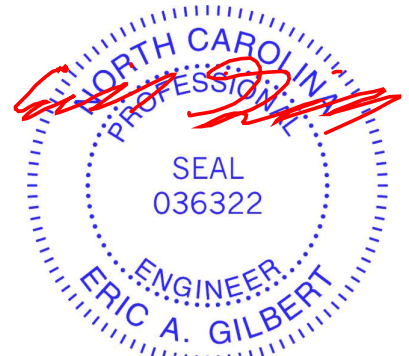
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/43, 2-3=-563/148, 3-4=-552/138,  
 2-7=-583/183, 4-5=-518/134  
 BOT CHORD 6-7=-291/396, 5-6=-127/249  
 WEBS 3-6=0/260, 2-6=-167/320, 4-6=-105/225

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-3-12, Exterior(2R) 3-3-12 to 9-5-12, Exterior(2E) 9-5-12 to 12-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 5. This connection is for uplift only and does not consider lateral forces.

**LOAD CASE(S)** Standard



December 27, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



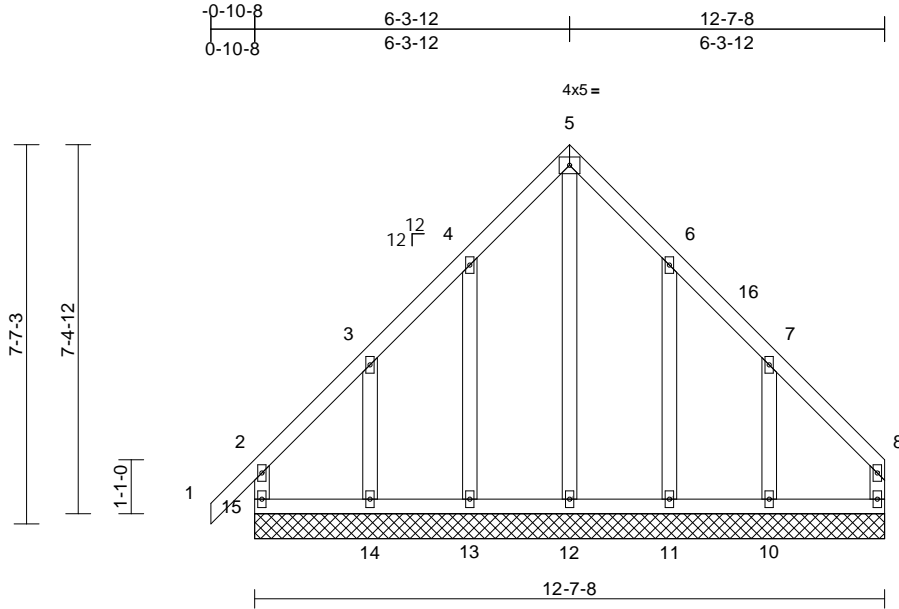
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss H1GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398873
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:19:59  
 ID:nhMstVougMZjXhow7ZNDiVy5pKZ-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?F

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 83 lb	FT = 20%

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

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

**REACTIONS** (size) 9=12-7-8, 10=12-7-8, 11=12-7-8, 12=12-7-8, 13=12-7-8, 14=12-7-8, 15=12-7-8  
 Max Horiz 15=191 (LC 11)  
 Max Uplift 9=62 (LC 11), 10=157 (LC 15), 11=82 (LC 15), 13=80 (LC 14), 14=164 (LC 14), 15=86 (LC 10)  
 Max Grav 9=138 (LC 25), 10=242 (LC 31), 11=277 (LC 22), 12=253 (LC 15), 13=283 (LC 21), 14=230 (LC 25), 15=212 (LC 26)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 2-15=-173/152, 1-2=0/43, 2-3=-146/128, 3-4=-114/235, 4-5=-167/357, 5-6=-168/357, 6-7=-114/236, 7-8=-115/96, 8-9=-104/60  
 BOT CHORD 14-15=-78/87, 13-14=-78/87, 12-13=-78/87, 11-12=-78/87, 10-11=-78/87, 9-10=-78/87  
 WEBS 5-12=-415/130, 4-13=-243/149, 3-14=-190/211, 6-11=-239/146, 7-10=-195/248

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-3-12, Exterior(2N) 2-3-12 to 3-3-12, Corner(3R) 3-3-12 to 9-5-12, Corner(3E) 9-5-12 to 12-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 15, 62 lb uplift at joint 9, 80 lb uplift at joint 13, 164 lb uplift at joint 14, 82 lb uplift at joint 11 and 157 lb uplift at joint 10.

**LOAD CASE(S)** Standard



December 27, 2024

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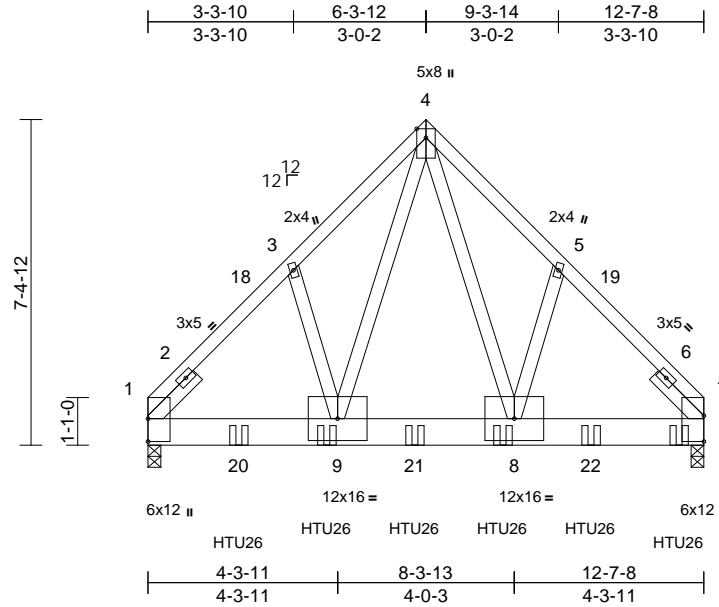
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss H1GR	Truss Type Common Girder	Qty 1	Ply 2	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398874
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:00  
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Page: 1



Scale = 1:52.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.06	8-9	>999	240	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.12	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 203 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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

**REACTIONS** (size) 1=0-3-8, 7=0-3-8  
Max Horiz 1=-148 (LC 8)  
Max Grav 1=5948 (LC 5), 7=7693 (LC 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-3=-6025/0, 3-4=-5890/0, 4-5=-5991/0, 5-7=-6121/0  
BOT CHORD 1-9=0/4173, 8-9=0/3041, 7-8=0/4220  
WEBS 4-8=0/4339, 5-8=-64/256, 4-9=0/4087, 3-9=-55/261

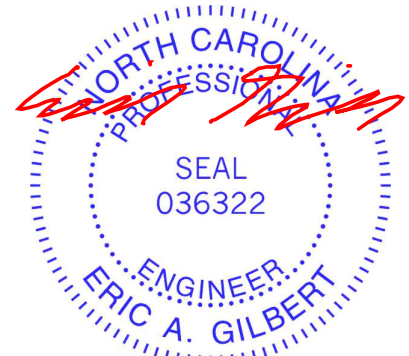
**NOTES**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Use Simpson Strong-Tie HTU26 (20-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 12-0-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 4-7=-60, 10-14=-20  
Concentrated Loads (lb)  
Vert: 8=-1837 (B), 9=-1837 (B), 16=-1842 (B), 20=-1837 (B), 21=-1837 (B), 22=-1837 (B)



December 27, 2024

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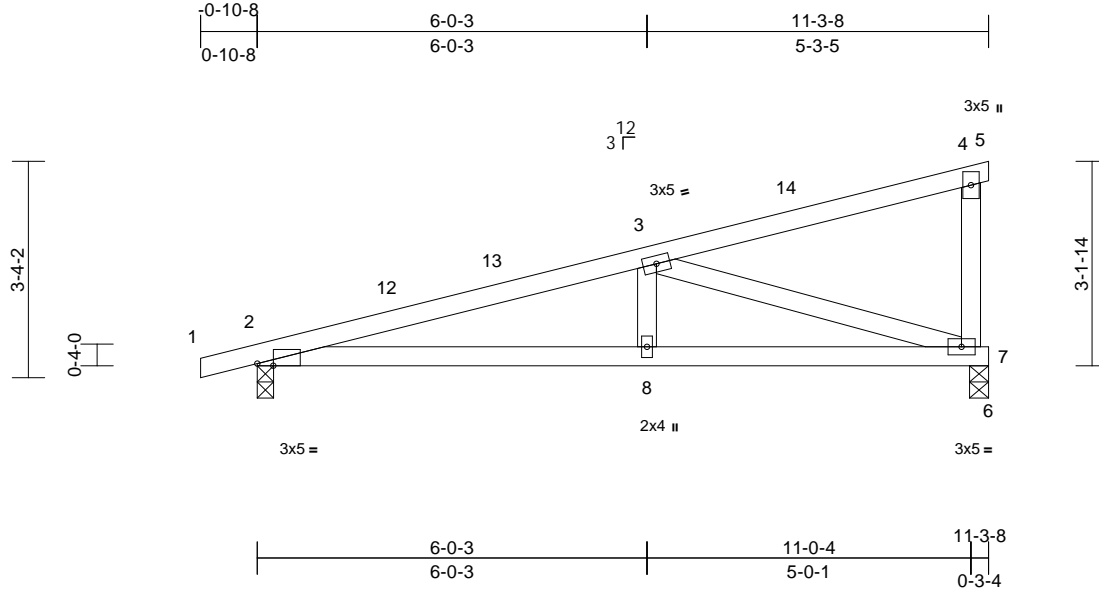
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398875
24110166-01	I1	Monopitch	3	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:00  
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Page: 1



Scale = 1:35.6

Plate Offsets (X, Y): [2:0-2-15,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.08	8-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.12	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 48 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-11-5 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 7-0-12 oc bracing.

**REACTIONS**

(size) 2=0-3-0, 7=0-3-8  
 Max Horiz 2=114 (LC 10)  
 Max Uplift 2=-186 (LC 10), 7=-180 (LC 10)  
 Max Grav 2=555 (LC 21), 7=590 (LC 21)

**FORCES**

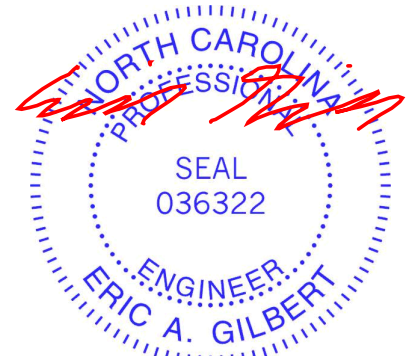
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/13, 2-3=-1194/565, 3-4=-103/6,  
 4-5=-6/0, 4-7=-202/109  
 BOT CHORD 2-8=-648/1138, 7-8=-648/1138, 6-7=0/0  
 WEBS 3-8=-99/242, 3-7=-1145/650

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-3-8, Exterior(2E) 8-3-8 to 11-3-8 zone; cantilever left and right exposed; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.

**LOAD CASE(S)** Standard



December 27, 2024

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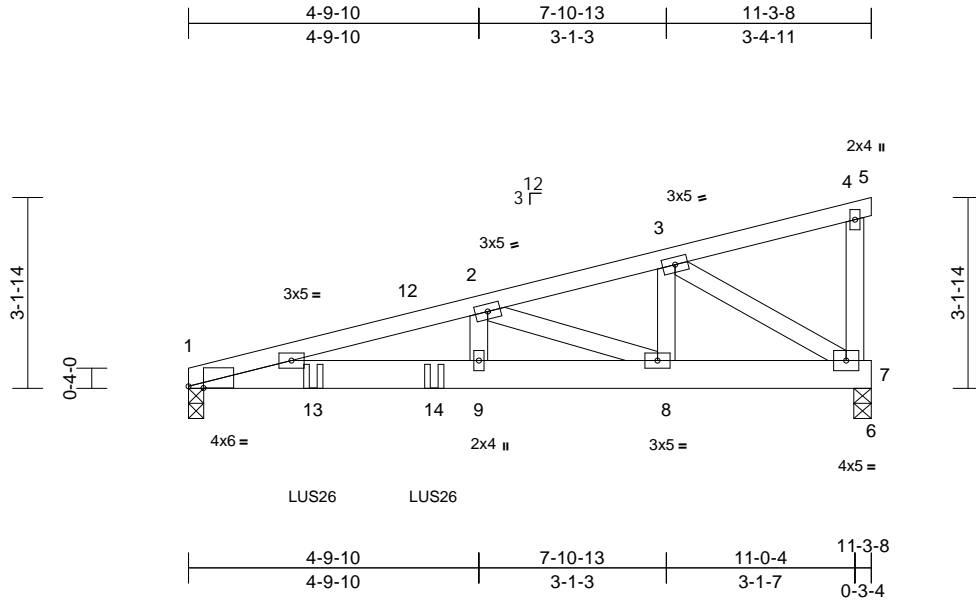
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss 11GR	Truss Type Monopitch Girder	Qty 1	Ply 2	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398876
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:00  
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Page: 1



Scale = 1:38.1

Plate Offsets (X, Y): [1:0-2-15,0-0-5]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.05	9-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.09	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 120 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=0-3-0, 7=0-3-8  
Max Horiz 1=102 (LC 32)  
Max Uplift 1=-195 (LC 8), 7=-195 (LC 8)  
Max Grav 1=1303 (LC 18), 7=884 (LC 18)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-3139/462, 2-3=-1191/204, 3-4=-58/7, 4-5=-6/0, 4-7=-139/42  
BOT CHORD 1-9=-520/3045, 8-9=-520/3045, 7-8=-239/1125, 6-7=0/0  
WEBS 2-9=-83/883, 2-8=-2049/300, 3-8=-113/679, 3-7=-1297/274

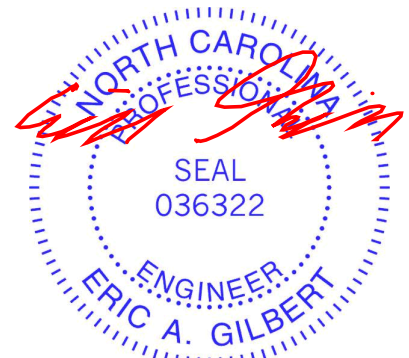
**NOTES**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 7. This connection is for uplift only and does not consider lateral forces.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 4-0-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 4-5=-60, 1-6=-20  
Concentrated Loads (lb)  
Vert: 13=-552 (B), 14=-552 (B)



December 27, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
Edenton, NC 27932

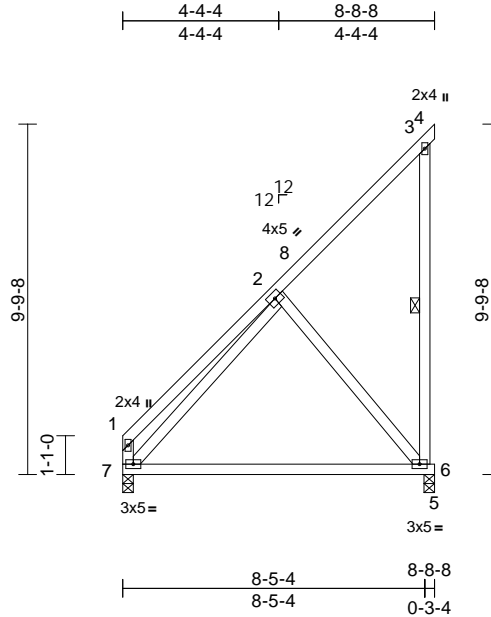


Job 24110166-01	Truss J1	Truss Type Monopitch	Qty 2	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398877
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:00  
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.25	6-7	>402	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.49	6-7	>201	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 64 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-6

**REACTIONS**

(size) 6=0-3-8, 7=0-3-8  
 Max Horiz 7=328 (LC 11)  
 Max Uplift 6=-171 (LC 11), 7=-4 (LC 10)  
 Max Grav 6=506 (LC 20), 7=398 (LC 30)

**FORCES**

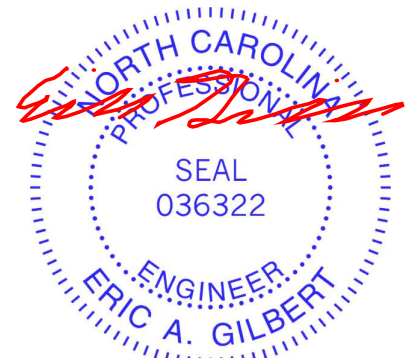
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-97/124, 2-3=-239/238, 3-4=-21/0,  
 3-6=-245/122, 1-7=-147/110  
 BOT CHORD 6-7=-156/306, 5-6=0/0  
 WEBS 2-6=-339/298, 2-7=-342/250

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 5-8-8, Exterior(2E) 5-8-8 to 8-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 7. This connection is for uplift only and does not consider lateral forces.

**LOAD CASE(S)** Standard



December 27, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



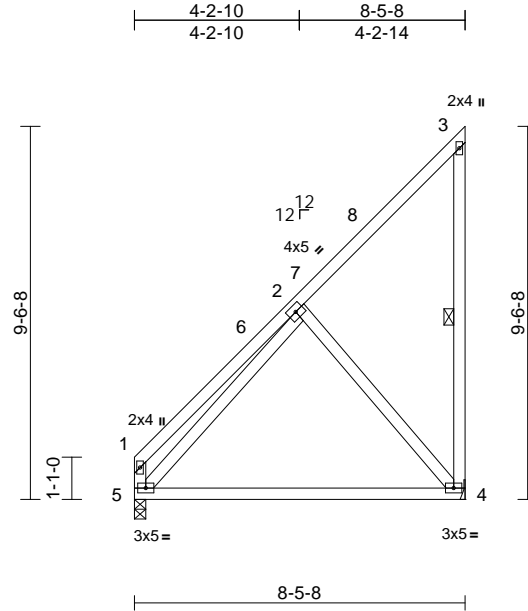
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss J2	Truss Type Jack-Closed	Qty 4	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398878
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:00  
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.27	4-5	>367	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.53	4-5	>184	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 63 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 2-7-8 oc bracing.  
WEBS 1 Row at midpt 3-4

#### REACTIONS

(size) 4= Mechanical, 5=0-3-8  
Max Horiz 5=320 (LC 11)  
Max Uplift 4=-166 (LC 11), 5=-2 (LC 10)  
Max Grav 4=472 (LC 20), 5=389 (LC 25)

#### FORCES

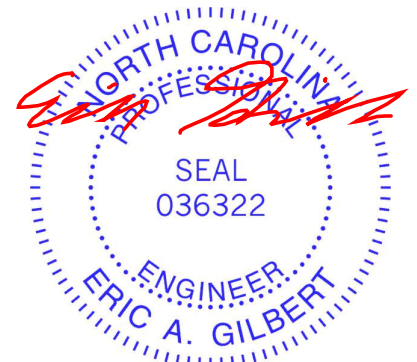
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-5=-127/88, 1-2=-84/119, 2-3=-232/222, 3-4=-215/116  
BOT CHORD 4-5=-155/280  
WEBS 2-5=-334/212, 2-4=-296/332

#### NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 4-0-13, Exterior(2R) 4-0-13 to 8-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined .
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 4.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
- LOAD CASE(S)** Standard



December 27, 2024

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

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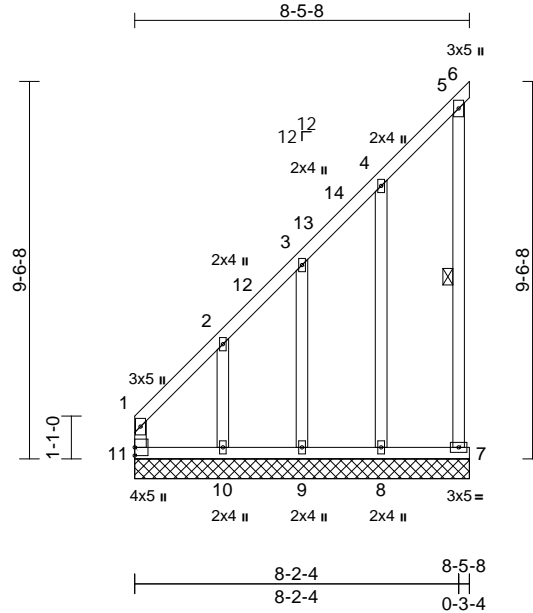
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss J2GE	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398879
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:00  
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Page: 1



Scale = 1:58.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 66 lb	FT = 20%

**LUMBER**

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 5-7:2x4 SP No.2
OTHERS	2x4 SP No.3

**BRACING**

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 5-7

**REACTIONS**

(size)	7=8-5-8, 8=8-5-8, 9=8-5-8, 10=8-5-8, 11=8-5-8
Max Horiz	11=319 (LC 11)
Max Uplift	7=-103 (LC 13), 8=-107 (LC 14), 9=-55 (LC 14), 10=-263 (LC 14), 11=-175 (LC 12)
Max Grav	7=138 (LC 20), 8=282 (LC 20), 9=180 (LC 20), 10=287 (LC 24), 11=353 (LC 11)

**FORCES**

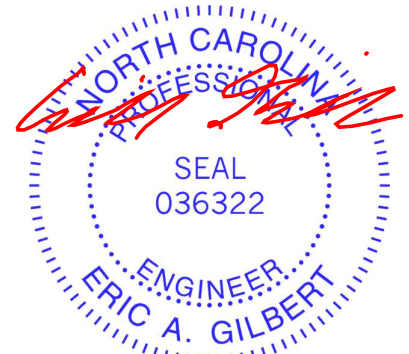
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-11=-286/379, 1-2=-429/550, 2-3=-243/380, 3-4=-236/341, 4-5=-151/186, 5-6=-21/0, 5-7=-136/60
BOT CHORD	10-11=-114/184, 9-10=-114/184, 8-9=-114/184, 7-8=-114/184
WEBS	3-9=-143/199, 2-10=-290/355, 4-8=-270/128

**NOTES**

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 5-5-8, Corner(3E) 5-5-8 to 8-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 11, 103 lb uplift at joint 7, 55 lb uplift at joint 9, 263 lb uplift at joint 10 and 107 lb uplift at joint 8.

**LOAD CASE(S)** Standard



December 27, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



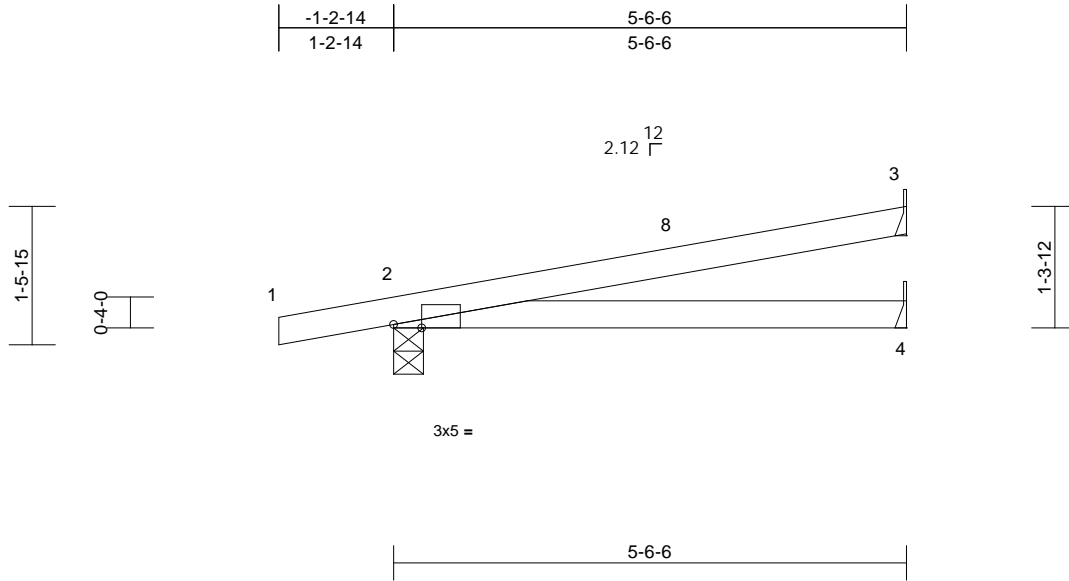
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398880
24110166-01	K1	Jack-Open	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:00  
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Page: 1



Scale = 1:24.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.06	4-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.11	4-7	>602	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 19 lb	FT = 20%

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

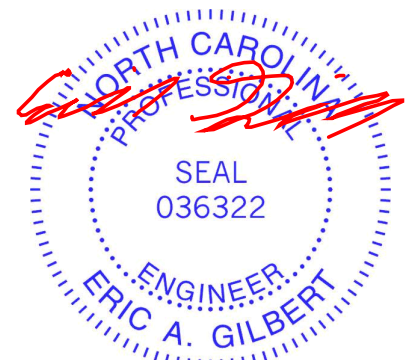
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-14, 3= Mechanical, 4= Mechanical  
Max Horiz 2=46 (LC 10)  
Max Uplift 2=-82 (LC 10), 3=-47 (LC 14)  
Max Grav 2=388 (LC 21), 3=179 (LC 21), 4=96 (LC 7)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/17, 2-3=-212/41  
BOT CHORD 2-4=-70/208

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined .
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 3.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- LOAD CASE(S)** Standard

- NOTES**
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-2-14 to 3-0-1, Exterior(2R) 3-0-1 to 5-5-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.



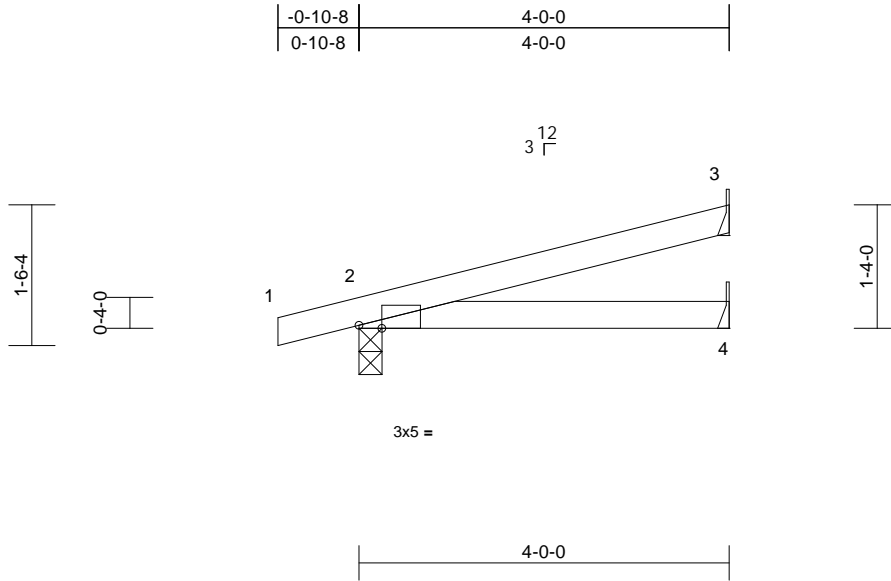
December 27, 2024

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398881
24110166-01	K2	Jack-Open	4	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 E Nov 16 2023 Print: 8.730 E Nov 16 2023 MiTek Industries, Inc. Fri Dec 27 10:52:26  
 ID:TysXPiNrcIVqjY\_aDurE2fy5pp4-m?GVuBdz1mS5UieTboWNHvDX\_lpHKm2fLqWEFvy4nqk

Page: 1



Scale = 1:24.9

Plate Offsets (X, Y): [2:0-2-15,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.02	4-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.03	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 14 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=0-3-0, 3= Mechanical, 4= Mechanical  
 Max Horiz 2=47 (LC 10)  
 Max Uplift 2=-56 (LC 10), 3=-35 (LC 14)  
 Max Grav 2=289 (LC 21), 3=135 (LC 21), 4=70 (LC 7)

**FORCES**

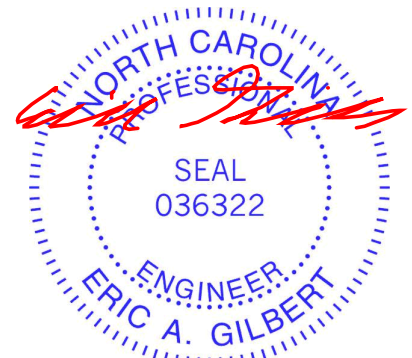
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be User Defined .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 3.
- 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

**LOAD CASE(S)** Standard



December 27, 2024

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

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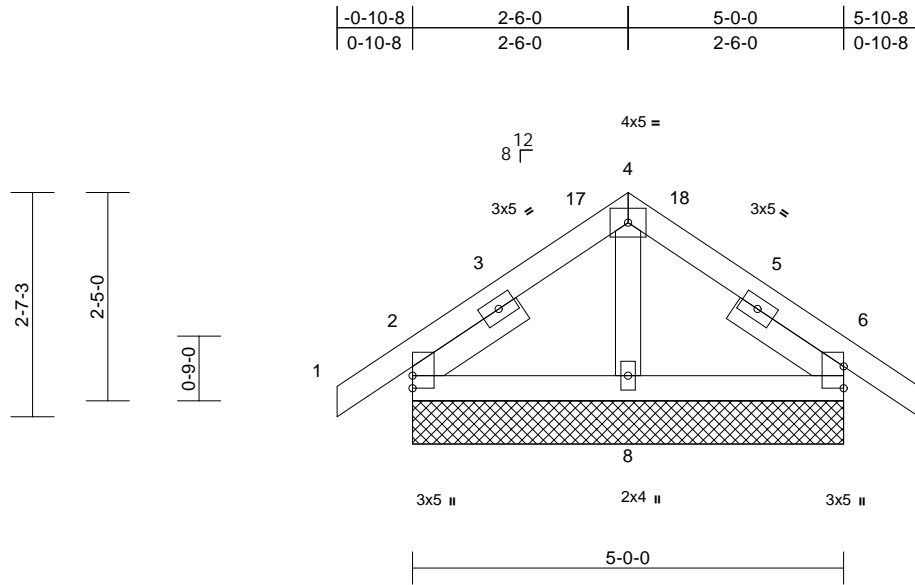
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss LGE	Truss Type Common Supported Gable	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398882
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:00  
ID:XRGCZqZF4vOh0seSbYcl9py5por-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 27 lb	FT = 20%	

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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

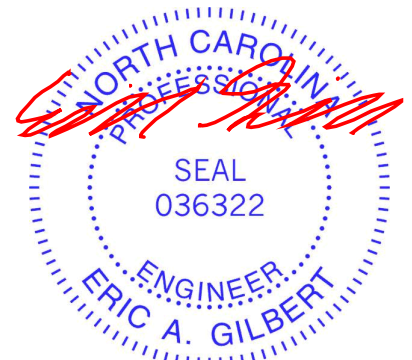
**REACTIONS** (size) 2=5-0-0, 6=5-0-0, 8=5-0-0  
Max Horiz 2=53 (LC 13)  
Max Uplift 2=-59 (LC 14), 6=-64 (LC 15)  
Max Grav 2=297 (LC 21), 6=297 (LC 22), 8=88 (LC 7)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/46, 2-4=-157/206, 4-6=-157/206, 6-7=0/46  
BOT CHORD 2-8=-25/117, 6-8=-25/117  
WEBS 4-8=-120/68

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Corner(3R) 2-1-8 to 2-10-8, Corner(3E) 2-10-8 to 5-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 2, 64 lb uplift at joint 6, 59 lb uplift at joint 2 and 64 lb uplift at joint 6.

**LOAD CASE(S)** Standard



December 27, 2024

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**TRENCO**  
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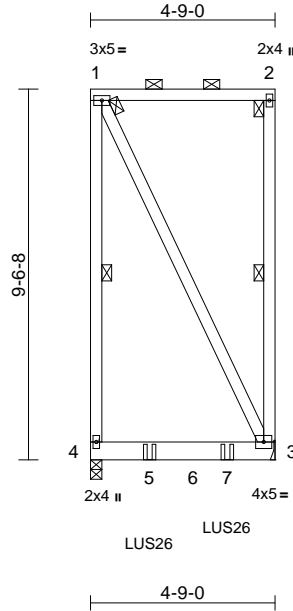
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss MGR	Truss Type Flat Girder	Qty 2	Ply 2	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398883
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:00  
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Scale = 1:59.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.03	3-4	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.04	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 118 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 1-4, 2-3

**REACTIONS** (size) 3= Mechanical, 4=0-3-8

Max Horiz 4=315 (LC 9)  
Max Uplift 3=-542 (LC 9), 4=-518 (LC 8)  
Max Grav 3=930 (LC 21), 4=881 (LC 22)

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

TOP CHORD 1-4=-310/379, 1-2=-117/89, 2-3=-134/55  
BOT CHORD 3-4=-274/246  
WEBS 1-3=-360/360

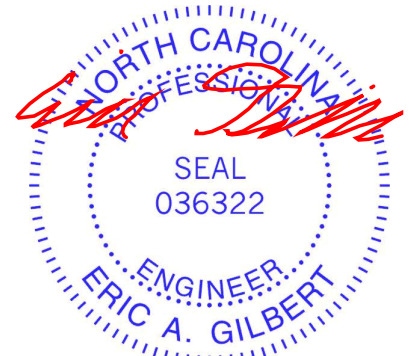
**NOTES**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 542 lb uplift at joint 3.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-6-4 from the left end to 3-6-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-60, 3-4=-20  
Concentrated Loads (lb)  
Vert: 5=-452 (B), 7=-452 (B)



December 27, 2024

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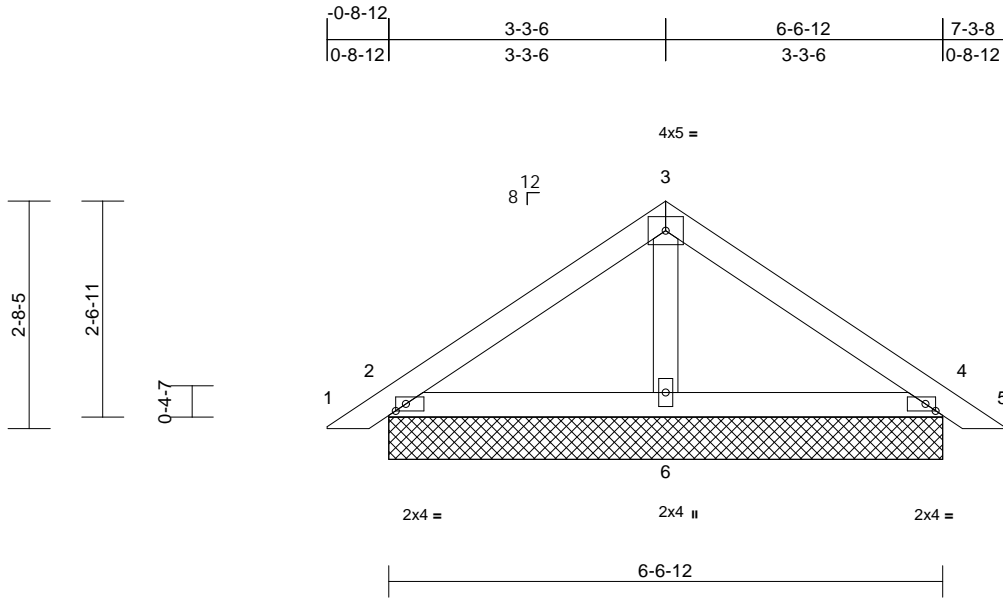
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398884
24110166-01	PB1	Piggyback	10	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:01  
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Page: 1



Scale = 1:27.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 27 lb	FT = 20%	

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=6-6-12, 4=6-6-12, 6=6-6-12  
 Max Horiz 2=59 (LC 13)  
 Max Uplift 2=-34 (LC 14), 4=-42 (LC 15)  
 Max Grav 2=258 (LC 21), 4=258 (LC 22), 6=234 (LC 21)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-3=-145/85, 3-4=-145/85, 4-5=0/26  
 BOT CHORD 2-6=-18/60, 4-6=-6/60  
 WEBS 3-6=-99/17

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-5 to 3-3-5, Exterior(2R) 3-3-5 to 4-9-11, Exterior(2E) 4-9-11 to 7-9-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- N/A

12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



December 27, 2024

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818 Soundside Road  
 Edenton, NC 27932

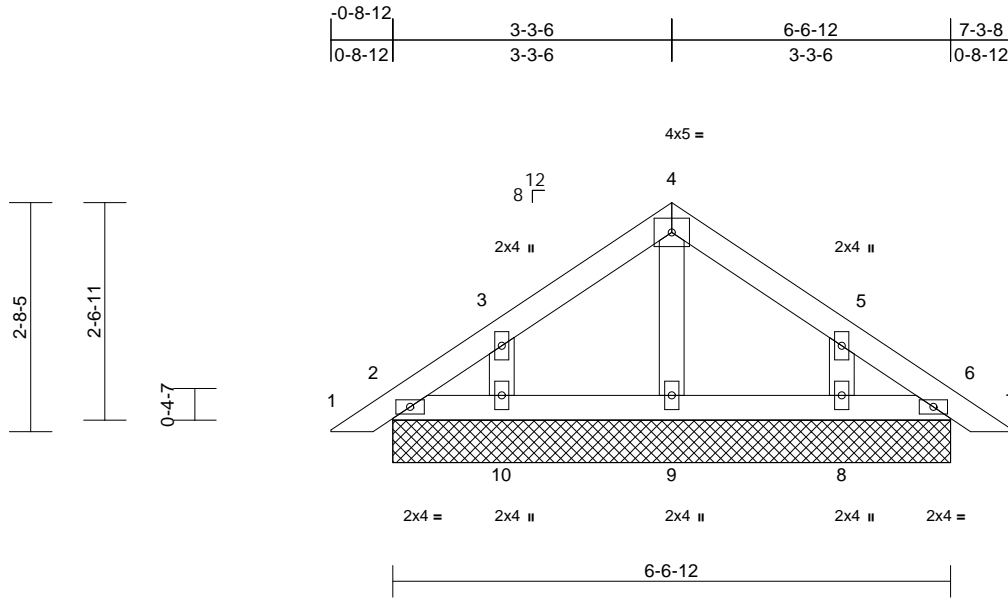


Job 24110166-01	Truss PB1GE	Truss Type Piggyback	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398885
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 29 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size) 2=6-6-12, 6=6-6-12, 8=6-6-12, 9=6-6-12, 10=6-6-12  
Max Horiz 2=-59 (LC 12)  
Max Uplift 2=-6 (LC 10), 8=-63 (LC 15), 10=-64 (LC 14)  
Max Grav 2=110 (LC 21), 6=110 (LC 22), 8=227 (LC 22), 9=126 (LC 21), 10=227 (LC 21)

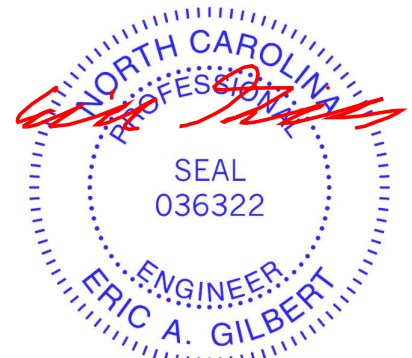
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/26, 2-3=-43/43, 3-4=-82/70, 4-5=-82/70, 5-6=-28/27, 6-7=0/26  
BOT CHORD 2-10=-16/56, 9-10=-16/56, 8-9=-16/56, 6-8=-16/56  
WEBS 4-9=-83/0, 3-10=-197/132, 5-8=-197/132

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-5 to 3-3-5, Exterior(2R) 3-3-5 to 4-9-11, Exterior(2E) 4-9-11 to 7-9-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) N/A

- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



December 27, 2024

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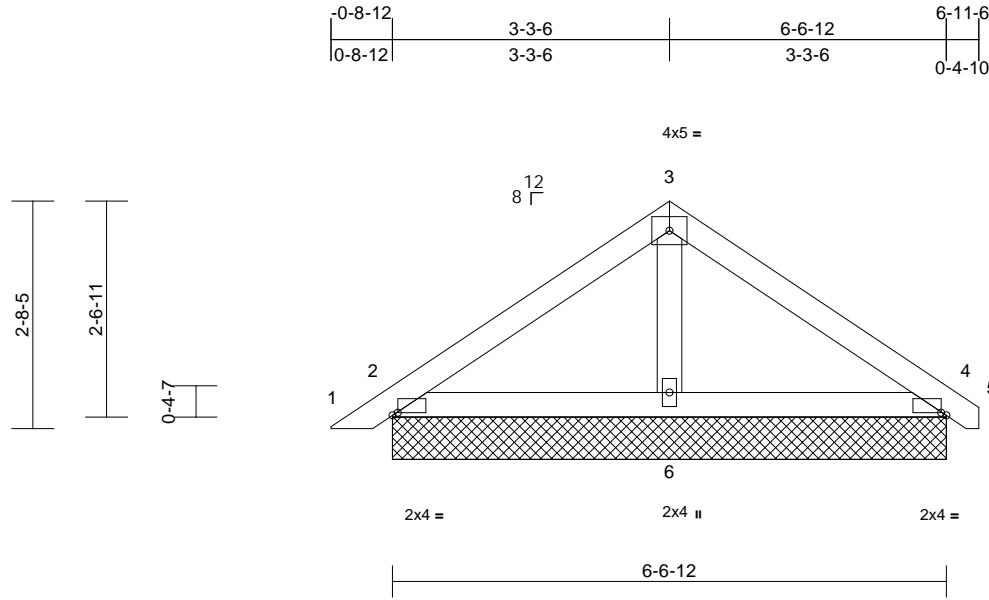
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398886
24110166-01	PB2	Piggyback	10	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:27.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 27 lb	FT = 20%	

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=6-6-12, 4=6-6-12, 6=6-6-12  
Max Horiz 2=58 (LC 13)  
Max Uplift 2=-34 (LC 14), 4=-38 (LC 15)  
Max Grav 2=256 (LC 21), 4=240 (LC 22), 6=235 (LC 22)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/25, 2-3=-144/83, 3-4=-145/83, 4-5=0/16  
BOT CHORD 2-6=-18/59, 4-6=-17/66  
WEBS 3-6=-99/19

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-5 to 3-3-5, Exterior(2R) 3-3-5 to 4-7-10, Exterior(2E) 4-7-10 to 7-7-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- N/A

12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



December 27, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



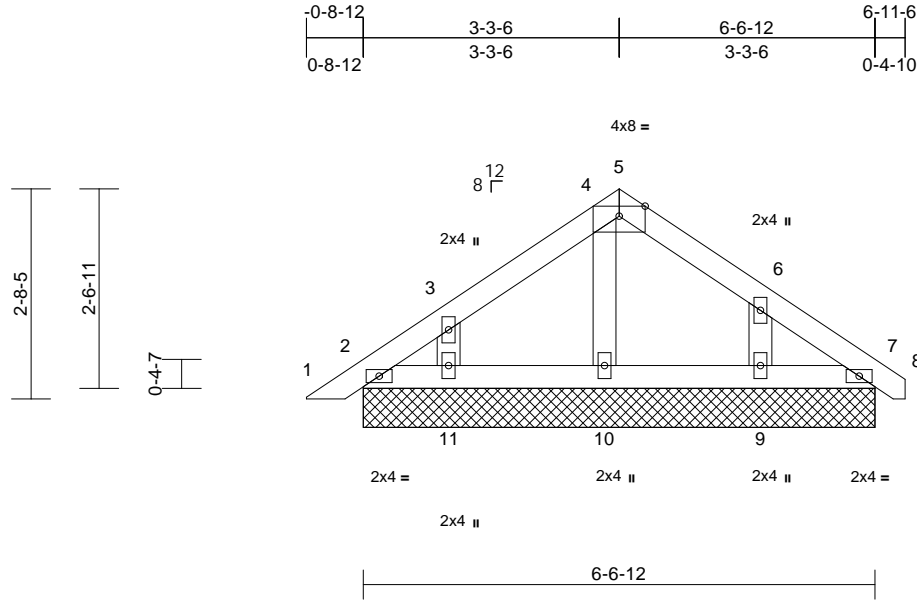
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss PB2GE	Truss Type Piggyback	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398887
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:01  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 29 lb	FT = 20%

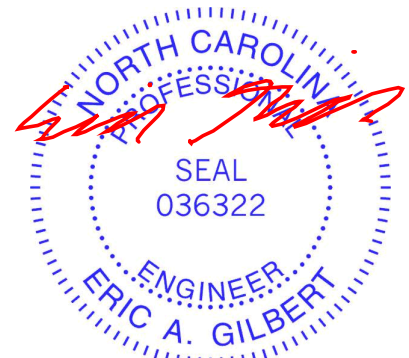
LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
REACTIONS (size)	
	2=6-6-12, 7=6-6-12, 9=6-6-12, 10=6-6-12, 11=6-6-12
Max Horiz	2=58 (LC 13)
Max Uplift	2=-10 (LC 10), 9=-61 (LC 15), 10=-5 (LC 14), 11=-64 (LC 14)
Max Grav	2=78 (LC 21), 7=104 (LC 22), 9=230 (LC 22), 10=182 (LC 21), 11=211 (LC 21)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/25, 2-3=-68/56, 3-4=-52/59, 4-5=-50/51, 5-6=-77/33, 6-7=-52/46, 7-8=0/16
BOT CHORD	2-11=-33/81, 10-11=-33/81, 9-10=-33/81, 7-9=-33/81
WEBS	4-10=-139/45, 3-11=-185/136, 6-9=-186/122

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-5 to 3-3-5, Exterior(2R) 3-3-5 to 4-7-10, Exterior(2E) 4-7-10 to 7-7-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- N/A

- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



December 27, 2024

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

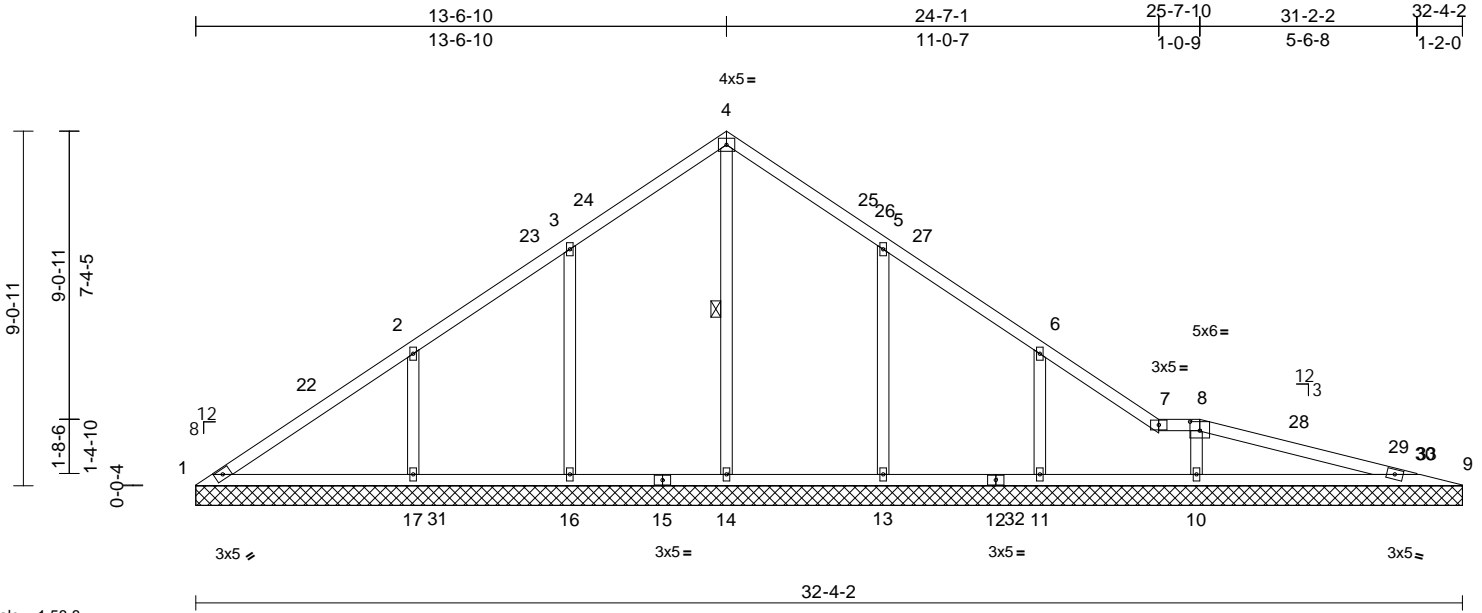
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss V1	Truss Type Valley	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398888
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:01  
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Page: 1



Scale = 1:58.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.72	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horiz(TL)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											

Weight: 143 lb FT = 20%

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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 7-8.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**WEBS** 1 Row at midpt 4-14

**REACTIONS** (size)  
 1=32-4-2, 9=32-4-2, 10=32-4-2, 11=32-4-2, 13=32-4-2, 14=32-4-2, 16=32-4-2, 17=32-4-2  
 Max Horiz 1=-210 (LC 12)  
 Max Uplift 1=-26 (LC 10), 9=-17 (LC 11), 10=-66 (LC 15), 11=-94 (LC 15), 13=-132 (LC 15), 16=-115 (LC 14), 17=-151 (LC 14)  
 Max Grav 1=163 (LC 25), 9=206 (LC 48), 10=570 (LC 50), 11=436 (LC 56), 13=560 (LC 56), 14=562 (LC 24), 16=466 (LC 35), 17=571 (LC 24)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-229/320, 2-3=-85/248, 3-4=-40/254, 4-5=-42/237, 5-6=0/230, 6-7=-75/220, 7-8=-87/135, 8-9=-687/170  
 BOT CHORD 1-17=-146/205, 16-17=-146/145, 14-16=-146/145, 13-14=-146/145, 11-13=-146/145, 10-11=-146/145, 9-10=-126/665  
 WEBS 4-14=-360/0, 3-16=-361/168, 2-17=-335/188, 5-13=-393/183, 6-11=-340/147, 8-10=-344/132

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-3-3, Interior (1) 3-3-3 to 10-4-3, Exterior(2R) 10-4-3 to 16-9-13, Interior (1) 16-9-13 to 24-7-7, Exterior(2R) 24-7-7 to 28-0-8, Exterior (2E) 28-0-8 to 31-3-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL); Lum DOL=1.15 Plate DOL=1.15; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1, 17 lb uplift at joint 9, 115 lb uplift at joint 16, 151 lb uplift at joint 17, 132 lb uplift at joint 13, 94 lb uplift at joint 11 and 66 lb uplift at joint 10.

- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



December 27, 2024

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 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



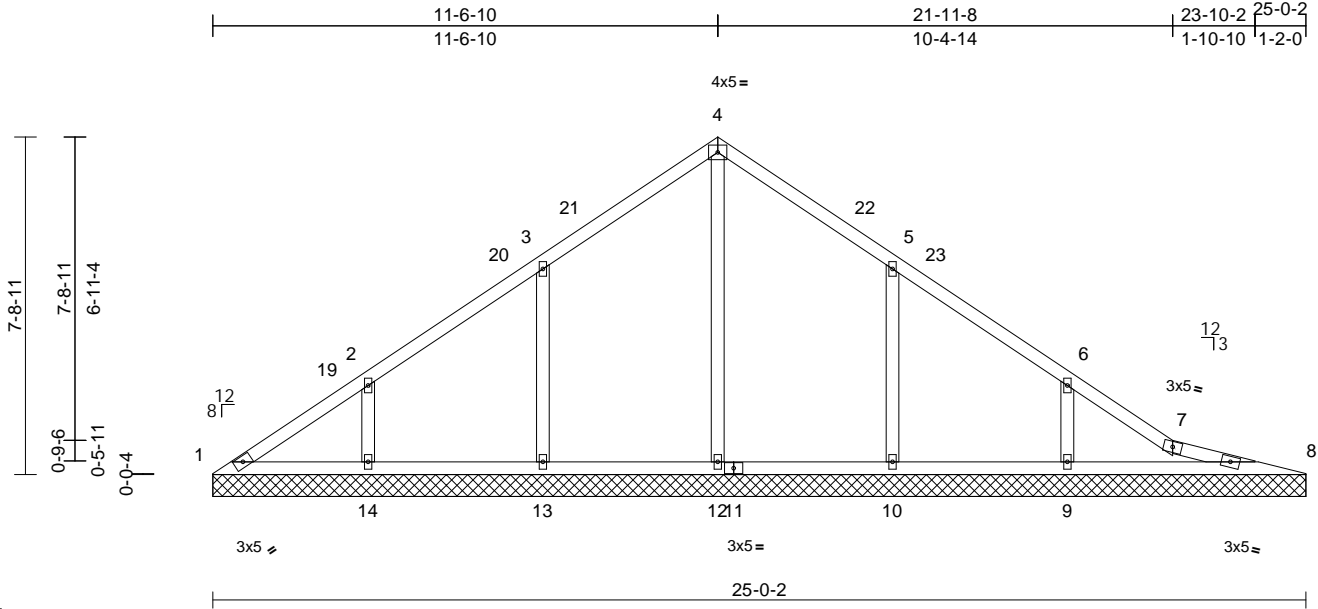
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss V2	Truss Type Valley	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398889
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:01  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horiz(TL)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 108 lb	FT = 20%

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

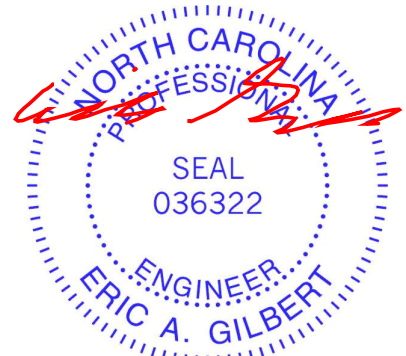
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size)  
1=25-0-2, 8=25-0-2, 9=25-0-2,  
10=25-0-2, 12=25-0-2, 13=25-0-2,  
14=25-0-2  
Max Horiz 1=-179 (LC 10)  
Max Uplift 1=-37 (LC 12), 8=24 (LC 11),  
9=-96 (LC 15), 10=-132 (LC 15),  
13=-130 (LC 14), 14=-107 (LC 14)  
Max Grav 1=88 (LC 11), 8=167 (LC 42),  
9=434 (LC 35), 10=460 (LC 37),  
12=615 (LC 24), 13=477 (LC 5),  
14=385 (LC 24)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-161/324, 2-3=-112/302, 3-4=-38/288,  
4-5=-9/279, 5-6=-9/264, 6-7=-96/280,  
7-8=-310/207  
BOT CHORD 1-14=-195/124, 13-14=-195/124,  
12-13=-195/124, 10-12=-195/124,  
9-10=-195/124, 8-9=-195/287  
WEBS 4-12=-445/0, 3-13=-386/180, 2-14=-243/147,  
5-10=-379/181, 6-9=-312/140

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 8-7-0, Exterior(2R) 8-7-0 to 14-7-0, Interior (1) 14-7-0 to 21-11-14, Exterior(2E) 21-11-14 to 25-0-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 1, 24 lb uplift at joint 8, 130 lb uplift at joint 13, 107 lb uplift at joint 14, 132 lb uplift at joint 10 and 96 lb uplift at joint 9.

LOAD CASE(S) Standard



December 27, 2024

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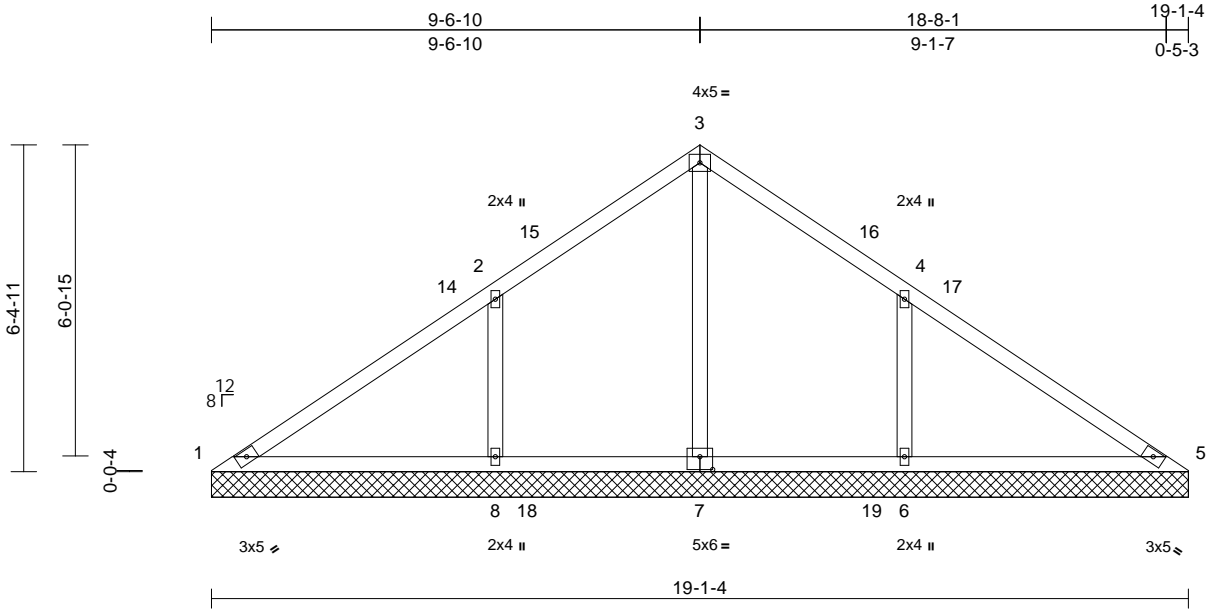
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398890
24110166-01	V3	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:01  
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Page: 1



Scale = 1:45.1

Plate Offsets (X, Y): [7:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horiz(TL)	-0.01	13	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 79 lb	FT = 20%	

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=19-1-4, 5=19-1-4, 6=19-1-4, 7=19-1-4, 8=19-1-4  
 Max Horiz 1=146 (LC 13)  
 Max Uplift 1=-88 (LC 36), 6=-164 (LC 15), 8=-170 (LC 14)  
 Max Grav 1=88 (LC 35), 5=1 (LC 25), 6=585 (LC 6), 7=732 (LC 6), 8=589 (LC 5)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-84/500, 2-3=0/418, 3-4=0/439, 4-5=-136/501  
 BOT CHORD 1-8=-376/104, 6-8=-376/104, 5-6=-400/119  
 WEBS 3-7=-606/0, 2-8=-442/205, 4-6=-441/204

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 6-7-0, Exterior(2R) 6-7-0 to 12-7-0, Interior (1) 12-7-0 to 16-1-10, Exterior(2E) 16-1-10 to 19-1-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 1, 170 lb uplift at joint 8 and 164 lb uplift at joint 6.

**LOAD CASE(S)** Standard



December 27, 2024

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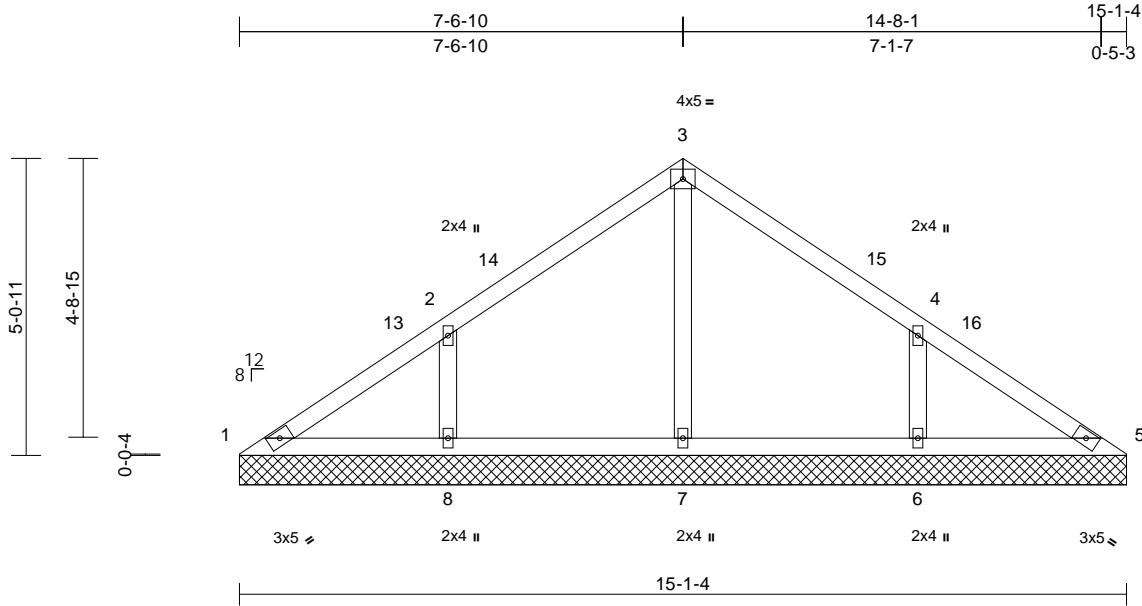
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss V4	Truss Type Valley	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398891
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:01  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 60 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size) 1=15-1-4, 5=15-1-4, 6=15-1-4, 7=15-1-4, 8=15-1-4  
Max Horiz 1=-115 (LC 10)  
Max Uplift 1=-10 (LC 15), 6=-125 (LC 15), 8=-127 (LC 14)  
Max Grav 1=102 (LC 25), 5=93 (LC 36), 6=478 (LC 21), 7=331 (LC 20), 8=478 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-135/145, 2-3=-116/123, 3-4=-116/108, 4-5=-115/111  
BOT CHORD 1-8=-64/123, 7-8=-64/77, 6-7=-64/77, 5-6=-64/90  
WEBS 3-7=-255/8, 2-8=-389/164, 4-6=-389/163

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 127 lb uplift at joint 8 and 125 lb uplift at joint 6.

**LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 4-7-0, Exterior(2R) 4-7-0 to 10-7-0, Interior (1) 10-7-0 to 12-1-10, Exterior(2E) 12-1-10 to 15-1-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



December 27, 2024

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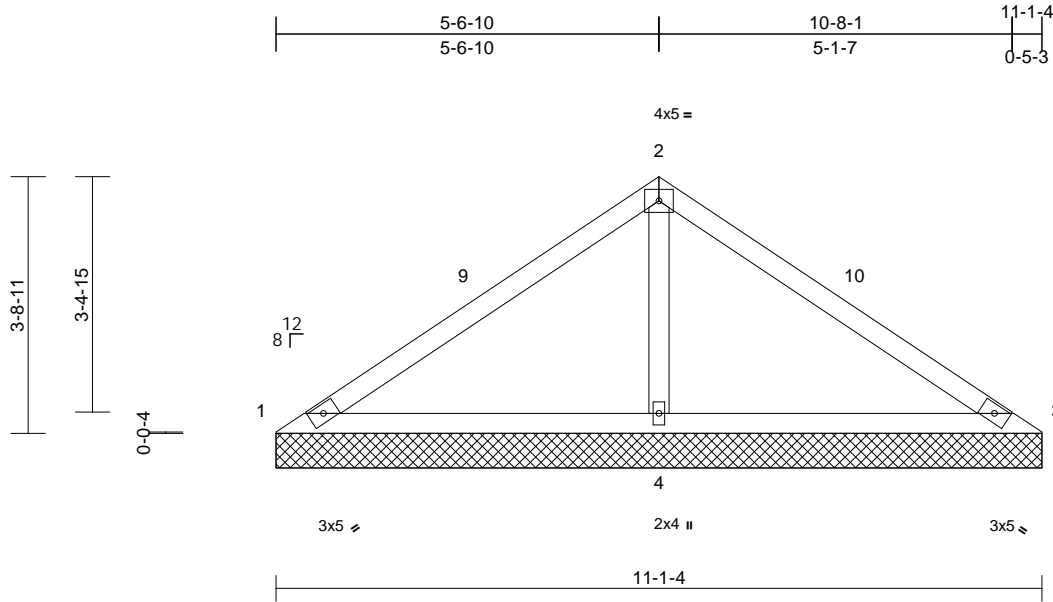
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398892
24110166-01	V5	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:02  
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Page: 1



Scale = 1:33.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.52	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 39 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=11-1-4, 3=11-1-4, 4=11-1-4  
 Max Horiz 1=-83 (LC 10)  
 Max Uplift 1=-75 (LC 21), 3=-75 (LC 20), 4=-104 (LC 14)  
 Max Grav 1=81 (LC 20), 3=81 (LC 21), 4=916 (LC 21)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-120/487, 2-3=-120/487  
 BOT CHORD 1-4=-358/168, 3-4=-358/168  
 WEBS 2-4=-769/251

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 8-1-10, Exterior(2E) 8-1-10 to 11-1-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 1, 75 lb uplift at joint 3 and 104 lb uplift at joint 4.

**LOAD CASE(S)** Standard



December 27, 2024

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818 Soundside Road  
 Edenton, NC 27932

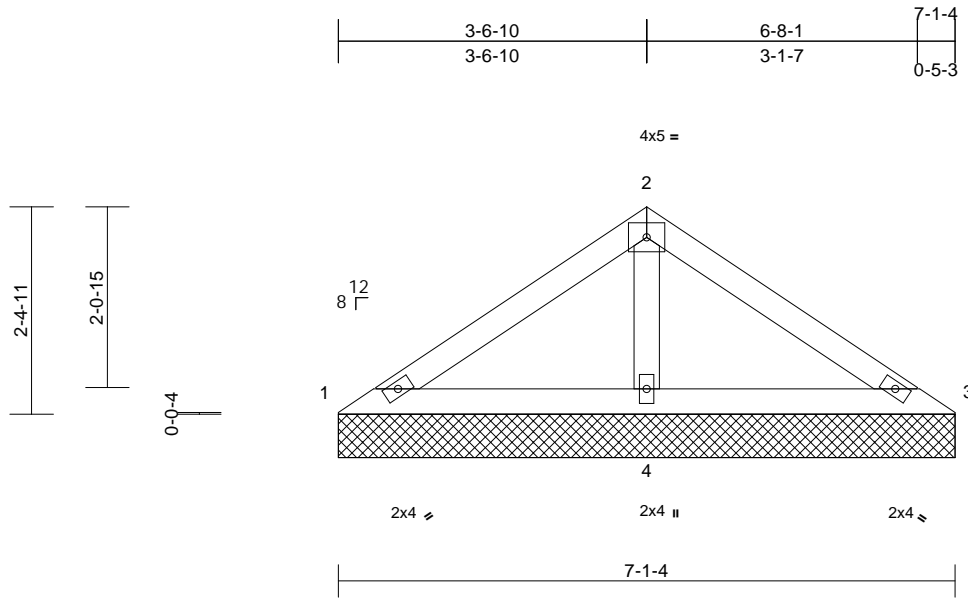


Job 24110166-01	Truss V6	Truss Type Valley	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398893
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:02  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 lb	FT = 20%

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

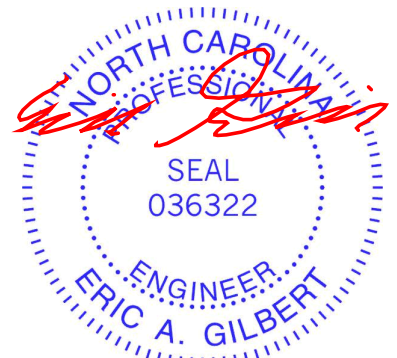
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 7-1-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 1=7-1-4, 3=7-1-4, 4=7-1-4  
Max Horiz 1=-52 (LC 10)  
Max Uplift 1=-8 (LC 21), 3=-9 (LC 15), 4=-51 (LC 14)  
Max Grav 1=103 (LC 20), 3=103 (LC 21), 4=498 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-98/225, 2-3=-98/225  
BOT CHORD 1-4=-190/128, 3-4=-190/128  
WEBS 2-4=-390/163

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1, 9 lb uplift at joint 3 and 51 lb uplift at joint 4.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 4-1-10, Exterior(2E) 4-1-10 to 7-1-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.



December 27, 2024

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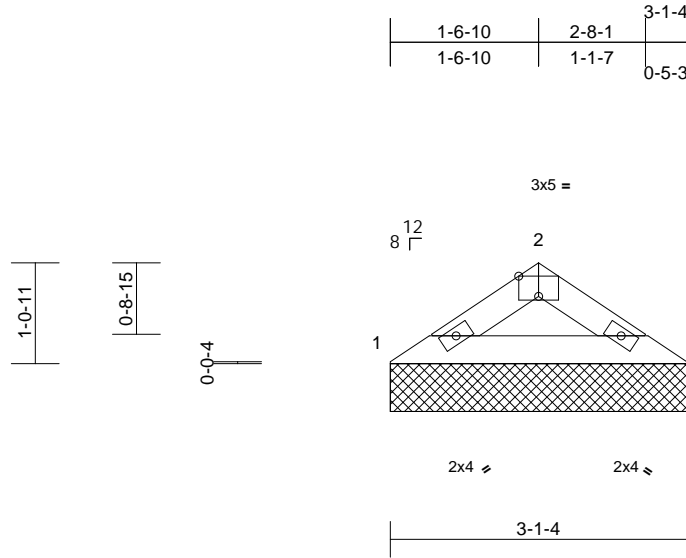
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	170398894
24110166-01	V7	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:02  
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Page: 1



Scale = 1:24.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 9 lb	FT = 20%	

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-1-4 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 1=3-1-4, 3=3-1-4  
 Max Horiz 1=-21 (LC 12)  
 Max Uplift 1=-12 (LC 14), 3=-12 (LC 15)  
 Max Grav 1=140 (LC 20), 3=140 (LC 21)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-204/74, 2-3=-204/74  
 BOT CHORD 1-3=-48/161

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.

- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 12 lb uplift at joint 3.

**LOAD CASE(S)** Standard



December 27, 2024

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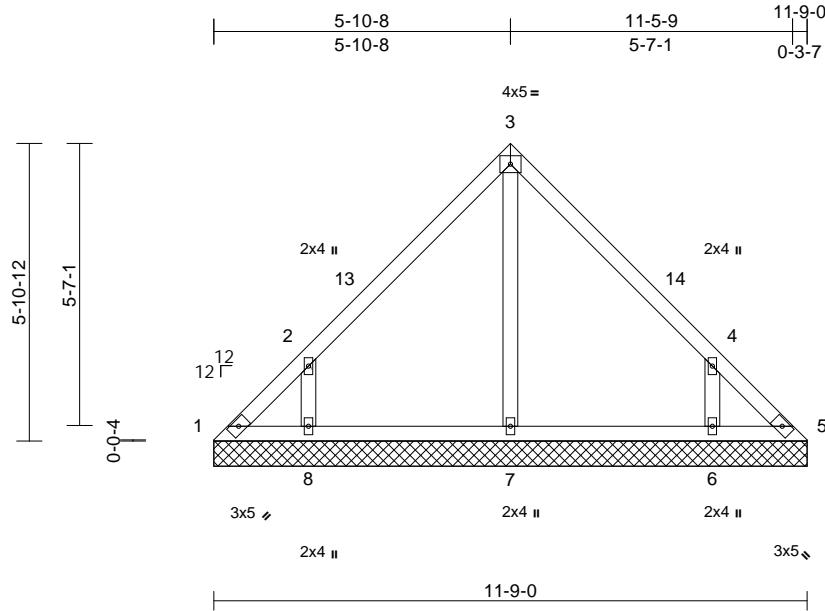
818 Soundside Road  
 Edenton, NC 27932

Job 24110166-01	Truss V11	Truss Type Valley	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398895
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:02  
ID:F3LypOPXS?GpX?zJC3UVgy5pLL-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:45.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 53 lb	FT = 20%	

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 1=11-9-0, 5=11-9-0, 6=11-9-0,  
7=11-9-0, 8=11-9-0  
Max Horiz 1=134 (LC 13)  
Max Uplift 1=-50 (LC 10), 5=-17 (LC 11),  
6=-170 (LC 15), 8=-176 (LC 14)  
Max Grav 1=107 (LC 25), 5=86 (LC 27),  
6=450 (LC 21), 7=241 (LC 21),  
8=450 (LC 20)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

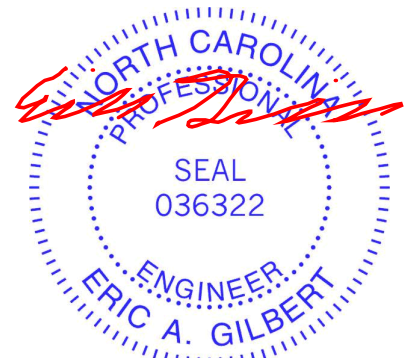
TOP CHORD 1-2=-158/124, 2-3=-253/134, 3-4=-253/134,  
4-5=-133/86  
BOT CHORD 1-8=-45/95, 7-8=-41/95, 6-7=-41/95,  
5-6=-41/95  
WEBS 3-7=-153/0, 2-8=-421/283, 4-6=-421/283

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 8-9-4, Exterior(2E) 8-9-4 to 11-9-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 1, 17 lb uplift at joint 5, 176 lb uplift at joint 8 and 170 lb uplift at joint 6.

LOAD CASE(S) Standard



December 27, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



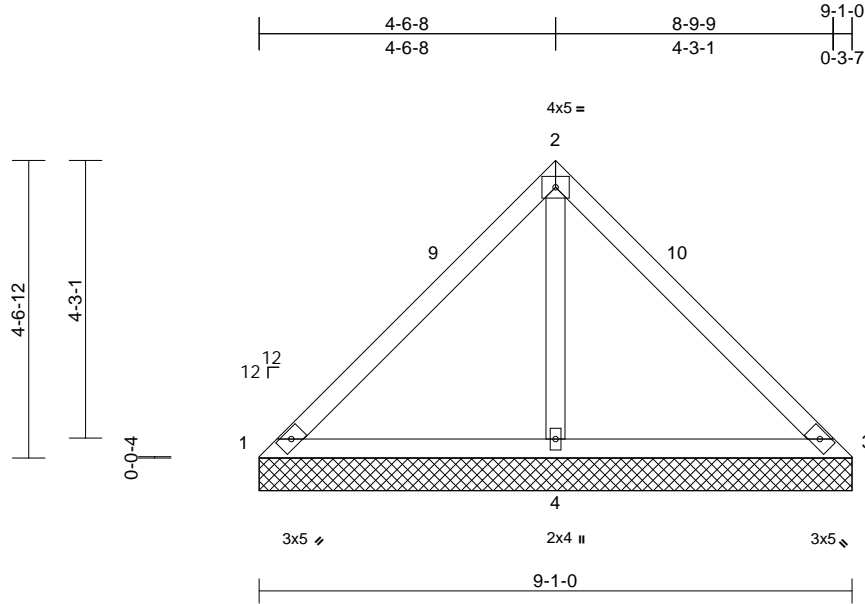
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss V12	Truss Type Valley	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398896
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:02  
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Page: 1



Scale = 1:35.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.41	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 37 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 9'-1-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6'-0-0 oc bracing.

#### REACTIONS

(size) 1=9'-1-0, 3=9'-1-0, 4=9'-1-0  
Max Horiz 1=102 (LC 11)  
Max Uplift 1=-34 (LC 21), 3=-34 (LC 20),  
4=-128 (LC 14)  
Max Grav 1=108 (LC 20), 3=108 (LC 21),  
4=711 (LC 20)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

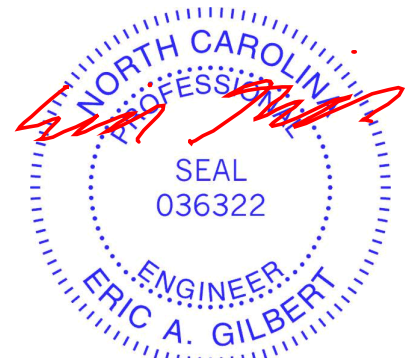
TOP CHORD 1-2=-128/327, 2-3=-128/327  
BOT CHORD 1-4=-197/186, 3-4=-197/186  
WEBS 2-4=-583/301

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 6-1-4, Exterior(2E) 6-1-4 to 9-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06-00 tall by 2'-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1, 34 lb uplift at joint 3 and 128 lb uplift at joint 4.

LOAD CASE(S) Standard



December 27, 2024

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

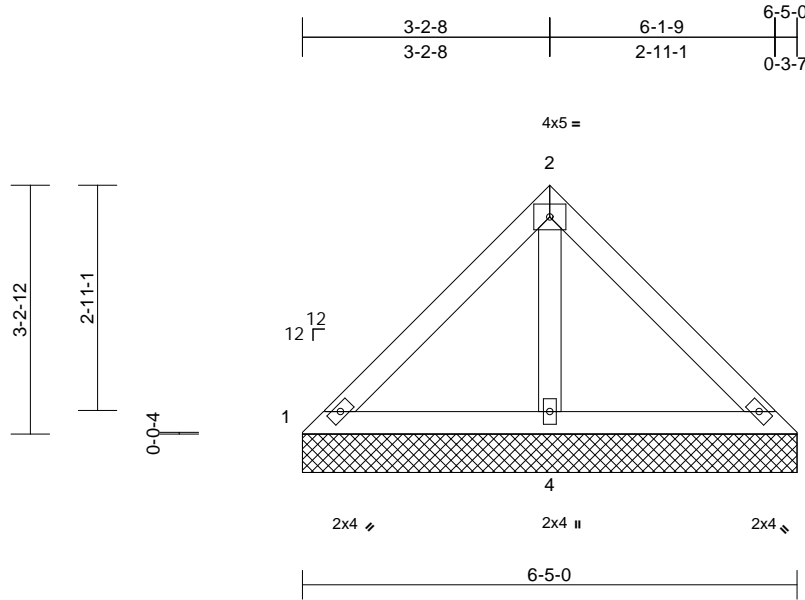
818 Soundside Road  
Edenton, NC 27932

Job 24110166-01	Truss V13	Truss Type Valley	Qty 1	Ply 1	Tenley A 3CG-Roof-Tenley A 3CG Job Reference (optional)	170398897
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:29.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 26 lb	FT = 20%	

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-5-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS**

(size) 1=6-5-0, 3=6-5-0, 4=6-5-0  
Max Horiz 1=-71 (LC 10)  
Max Uplift 1=-2 (LC 21), 3=-2 (LC 20), 4=-77 (LC 14)  
Max Grav 1=108 (LC 20), 3=108 (LC 21), 4=448 (LC 20)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-84/174, 2-3=-84/174  
BOT CHORD 1-4=-133/150, 3-4=-133/150  
WEBS 2-4=-347/184

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1, 2 lb uplift at joint 3 and 77 lb uplift at joint 4.

**LOAD CASE(S)** Standard



December 27, 2024

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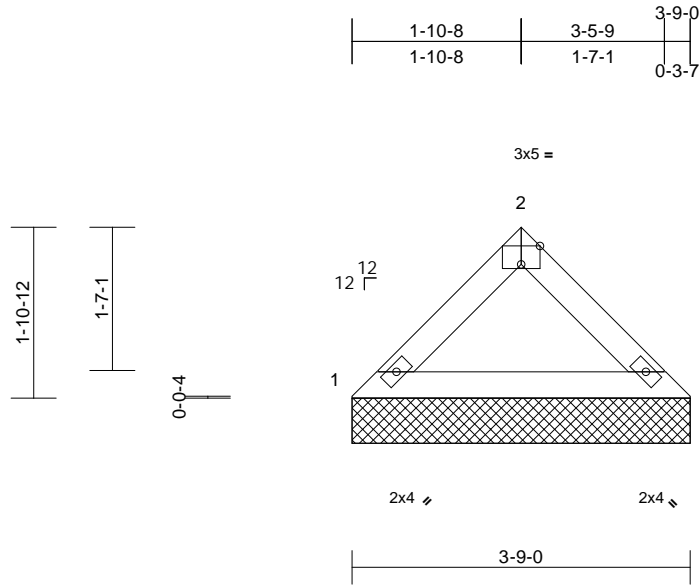
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Tenley A 3CG-Roof-Tenley A 3CG	I70398898
24110166-01	V14	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Dec 24 10:20:02  
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Page: 1



Scale = 1:25.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 12 lb	FT = 20%	

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-9-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 1=3-9-0, 3=3-9-0  
Max Horiz 1=40 (LC 11)  
Max Uplift 1=-10 (LC 14), 3=-10 (LC 15)  
Max Grav 1=180 (LC 20), 3=180 (LC 21)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

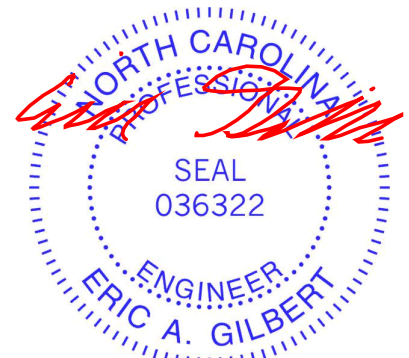
TOP CHORD 1-2=-217/85, 2-3=-217/85  
BOT CHORD 1-3=-45/145

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.

- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 10 lb uplift at joint 3.

**LOAD CASE(S)** Standard



December 27, 2024

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

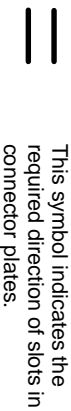
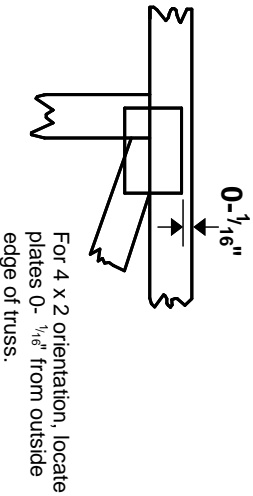
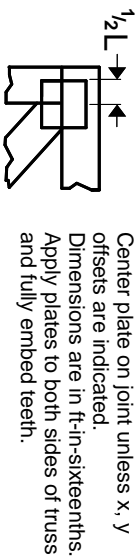
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



\* Plate location details available in MITek software or upon request.

## PLATE SIZE

**4 X 4**

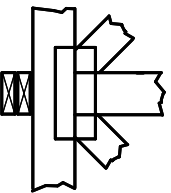
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

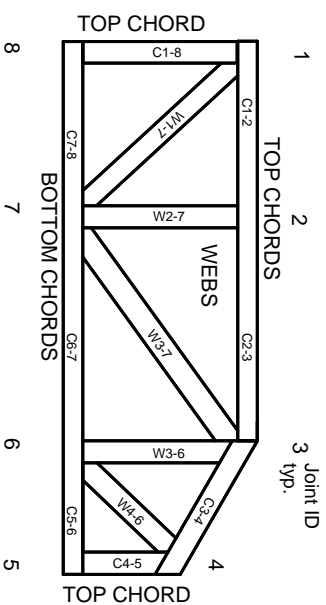


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System



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

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

# Product Code Approvals

ICC-ES Reports:

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

# Design General Notes

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

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

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# General Safety Notes

**Failure to Follow Could Cause Property Damage or Personal Injury**

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

**MITek**

ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

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