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

01/08/2021

Harnett COUNTY NORTH CAROLINA

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 22". THE MIN NET CLEAR OPENING WIDTH SHALL BE 20".

EACH EGRESS WINDOW FROM SLEEPING ROOMS MUST HAVE A SILL HGHT 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.

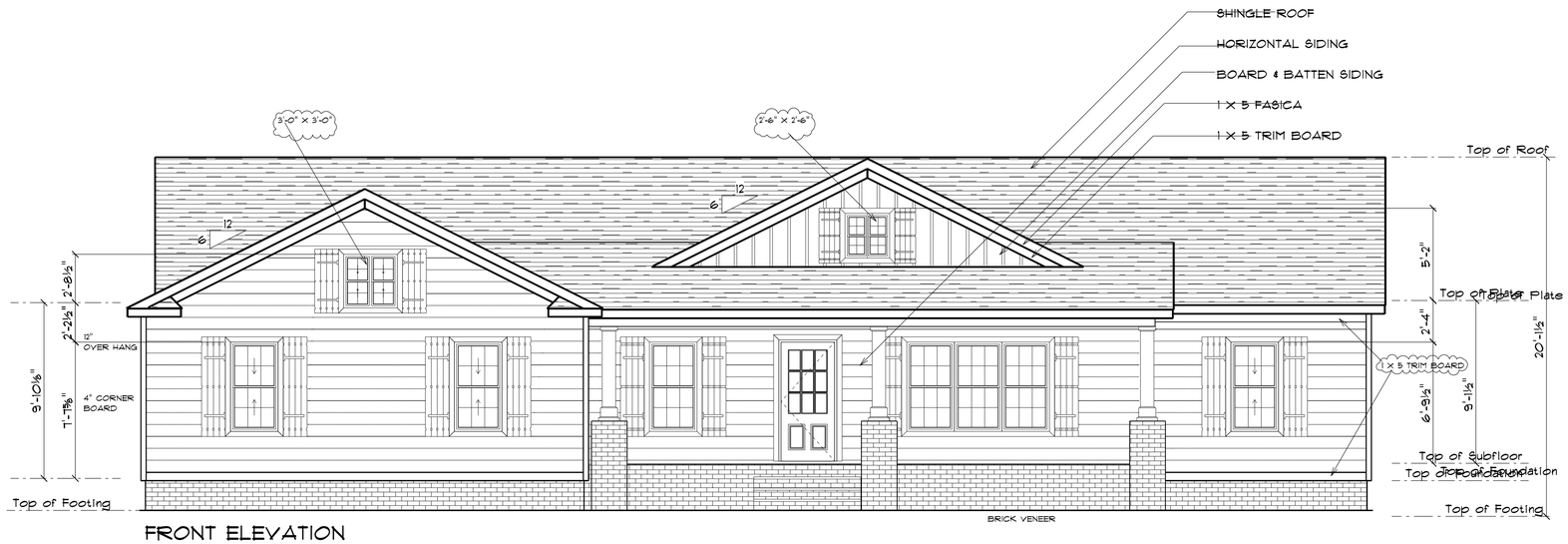
I ASSUME NO RESPONSIBILITY FOR ANY DISTANCES AFTER START OF CONSTRUCTION.
CONTRACTOR/BUILDER SHALL CONSULT WITH HOME OWNER ON ALL INTERIOR AND EXTERIOR MOLDINGS, TRIMS, COLORS, FINISHES, CABINET LAYOUTS, AND MANUFACTORS BEFORE CONSTRUCTION BEGINS.
ALL BEAMS AND FRAMING MEMBERS ARE SIZED BY OTHERS.

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 11.5 PSF
3 Roof Live Load 20 PSF
4 Typical Floor Dead Load 10 PSF
5 Floor Live Loads
- 5.1 Rooms other than sleeping rooms 40 PSF
- 5.2 Sleeping Rooms 30 PSF
- 5.3 Stairs 40 PSF
- 5.4 Decks 40 PSF
- 5.5 Exterior Balconies 60 PSF

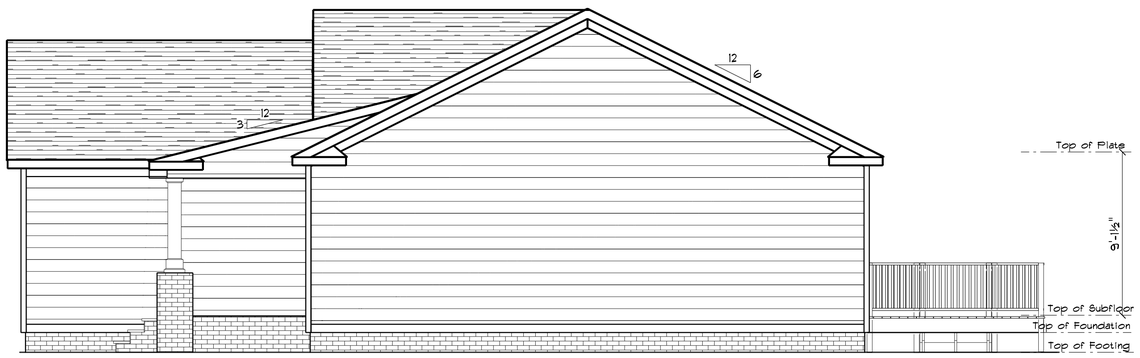
6 Wind Loads
- 6.1 Ultimate Design Wind Speeds 115 MPH
- 6.2 Wind Importance Factor, IW 1.00
- 6.3 Exposure B
- 6.4 Walls (Component and Cladding) 25 PSF
- 6.5 Roofs (Component and Cladding)
  - 6.5.1 Roof Slopes 2.25/12 to 7/12 34.8 PSF
  - 6.5.2 Roof Slopes 7/12 to 12/12 21 PSF

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.



FRONT ELEVATION
SCALE:1'= 1/4"

REAR ELEVATION
SCALE: 1'= 1/4"



RIGHT ELEVATION
SCALE: 1'= 1/4"

LEFT ELEVATION
SCALE: 1'= 1/4"

PAGE #: A

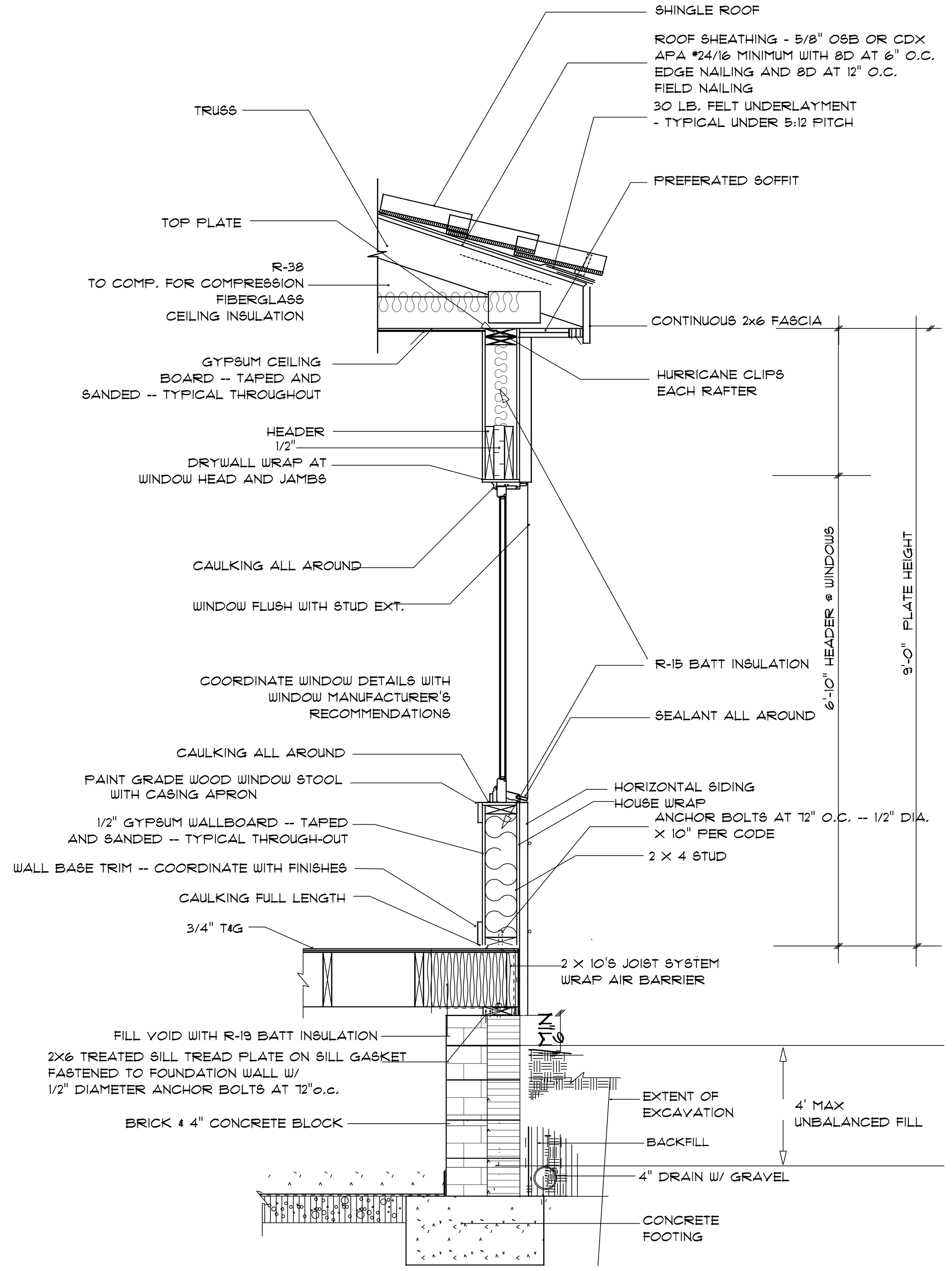
Diane Rives Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-777-6091
golfnuts@charter.net
DRD

SCALE: 1/4" = 1'
DRAWN BY:
DATE: 8/20/2020

HARRINGTON PROPERTIES OF NC, LLC
2656 S.R.A. LEE DRIVE
SANFORD NC 27330

LOT 4
475 MCARTHUR ROAD
GARAGE LEFT

ELEVATIONS



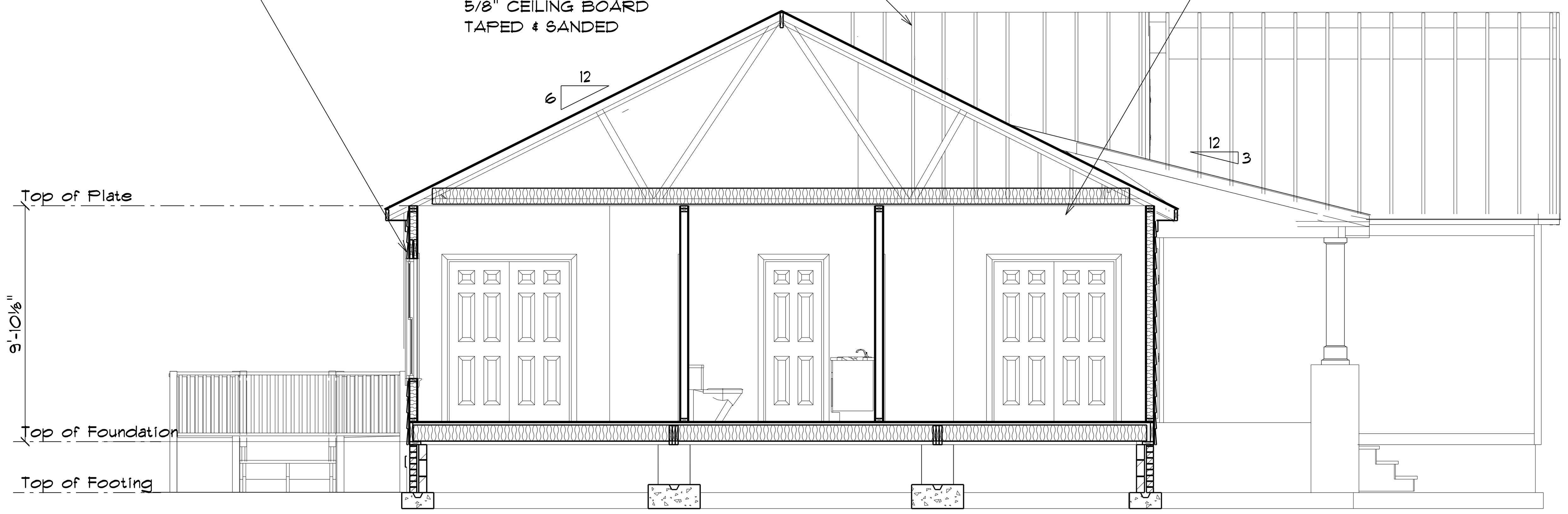
CRAWL SPACE FOUNDATION DETAIL

not to scale

TYPICAL 2x4 SIDING EXTERIOR WALL:
VINYL SIDING
7/16" PLYWOOD SHEATHING
2x4 STUDS @ 16" o.c.
R15 BATT INSULATION
1/2" DRYWALL
TAPED & SANDED

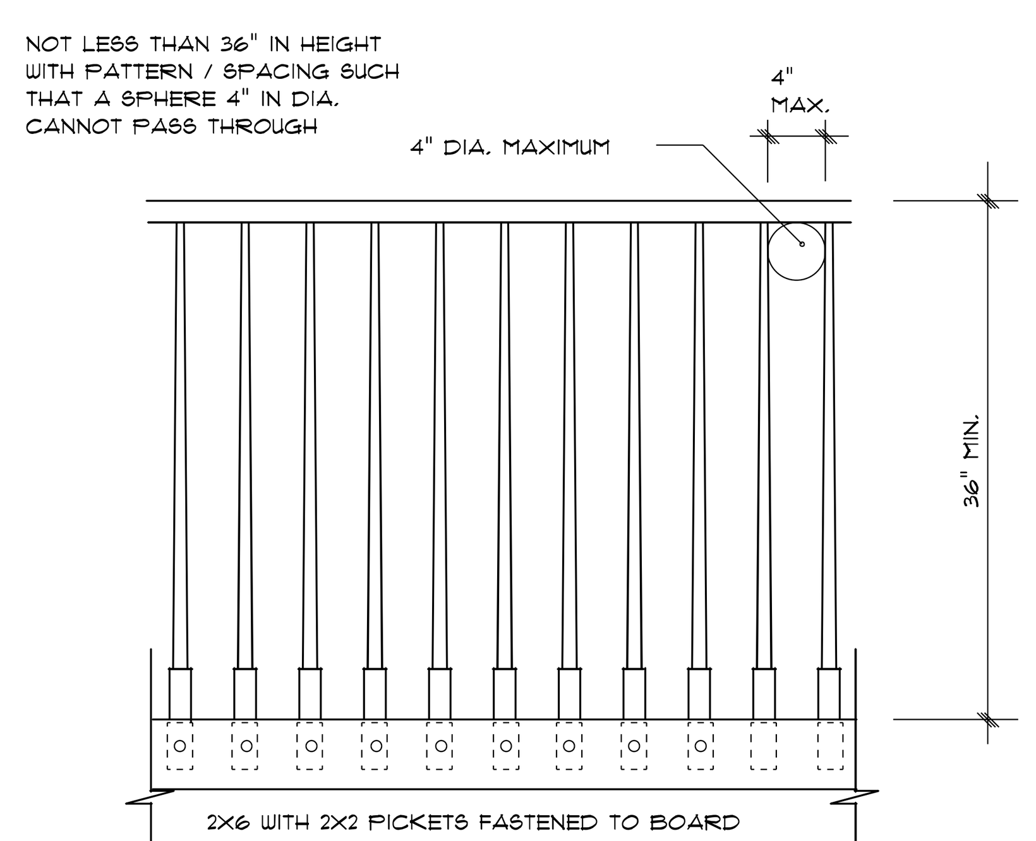
TYPICAL TRUSS ROOF:
SHINGLES
7/16" ROOFING PLYWOOD c/w 'H' CLIPS
BLOCK & BRACE PER TRUSS MGR.
PRE-ENGINEERED TRUSSES @ 24" o.c.
2x4 TRUSS BRACING
R38 BLOWN INSULATION
5/8" CEILING BOARD
TAPED & SANDED

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



SECTION A

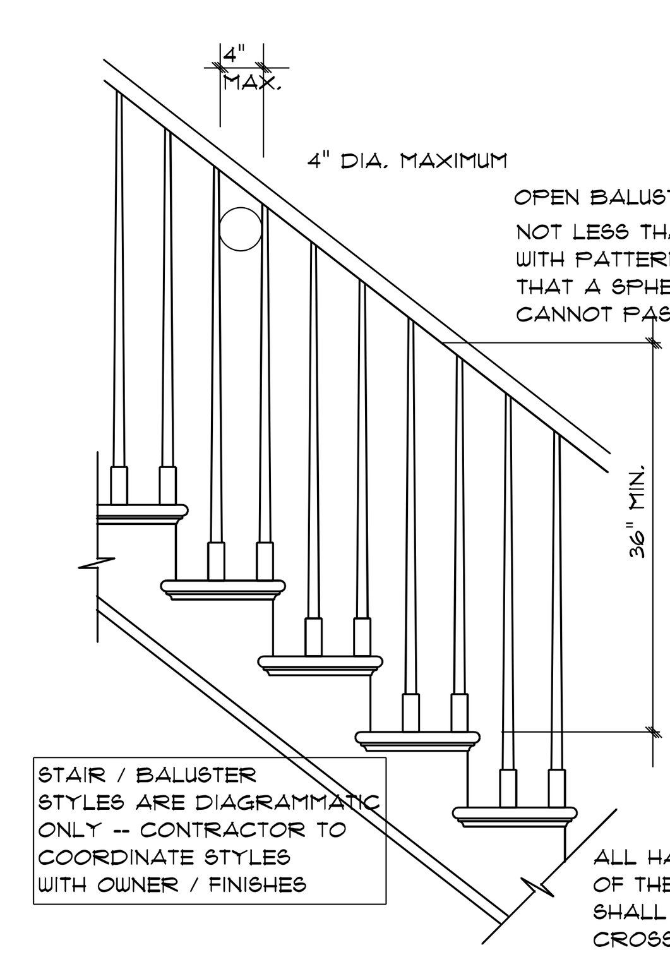
SCALE: 1'= 1/4"



DECK RAILING DETAIL

not to scale

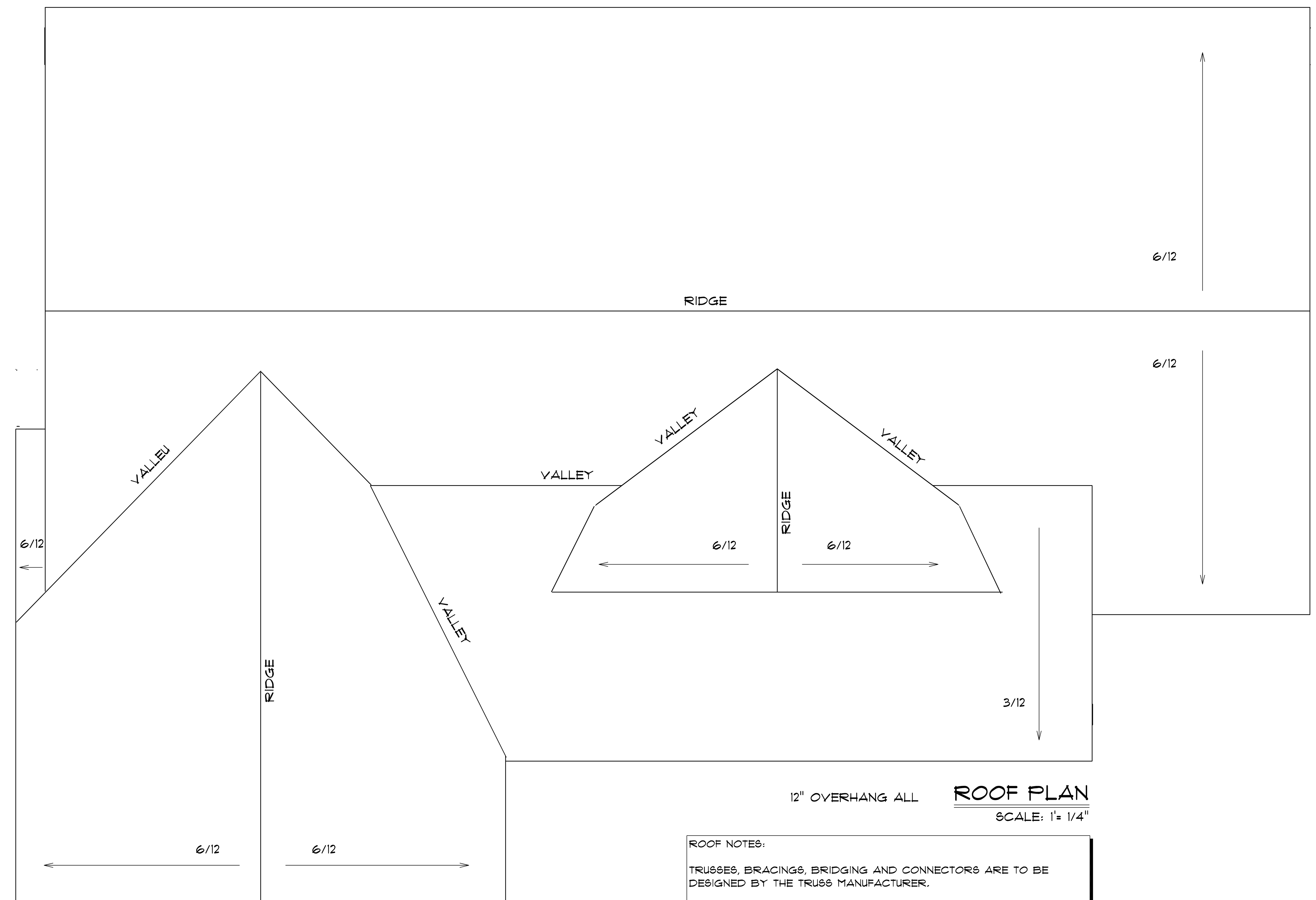
HANDGRIP PORTION OF ALL HANDRAILS SHALL NOT BE LESS THAN 1-1/4" NOR MORE THAN 2" IN CROSS SECTIONAL DIMENSION, OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE



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

STAIR RAILING

not to scale



12" OVERHANG ALL

ROOF PLAN

SCALE: 1'= 1/4"

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.

DRD
Diane Rives Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-777-6091
golfwoman@charter.net

PAGE #: 4A

SCALE:
DRAWN BY:
DATE: 8/20/2020

HARRINGTON PROPERTIES OF NC, LLC
2683 SAN LEE DRIVE
SANFORD NC 27330

LOT 4
475 MCARTHUR ROAD
LEFT SIDE GARAGE

DETAIL SHEET

TYPICAL WALL: 8" BLOCK W/ 16" X 8" FOOTING
TYPICAL WALL: BRICK & 4" BLOCK W/ 16" X 8" FOOTING
3- 2 X 10'S GIRDER
2 X 10'S 16" OC JOIST
2- 2 X 10'S DBL JOIST

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.

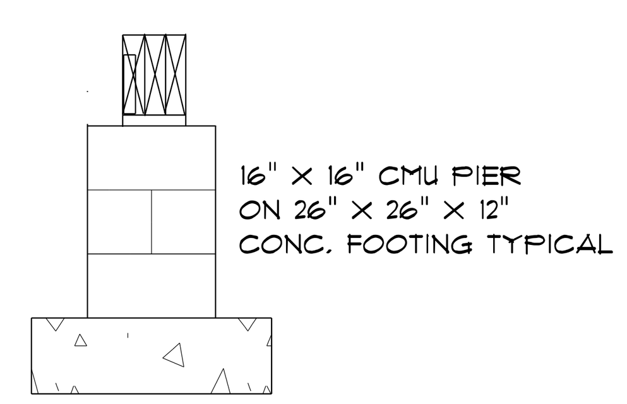
FOUNDATION CONCRETE MIX TO HAVE 1-1/2" MAX AGGREGATE SIZE. CONCRETE FILL MIX TO HAVE 1/2" MAX AGGREGATE SIZE.

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

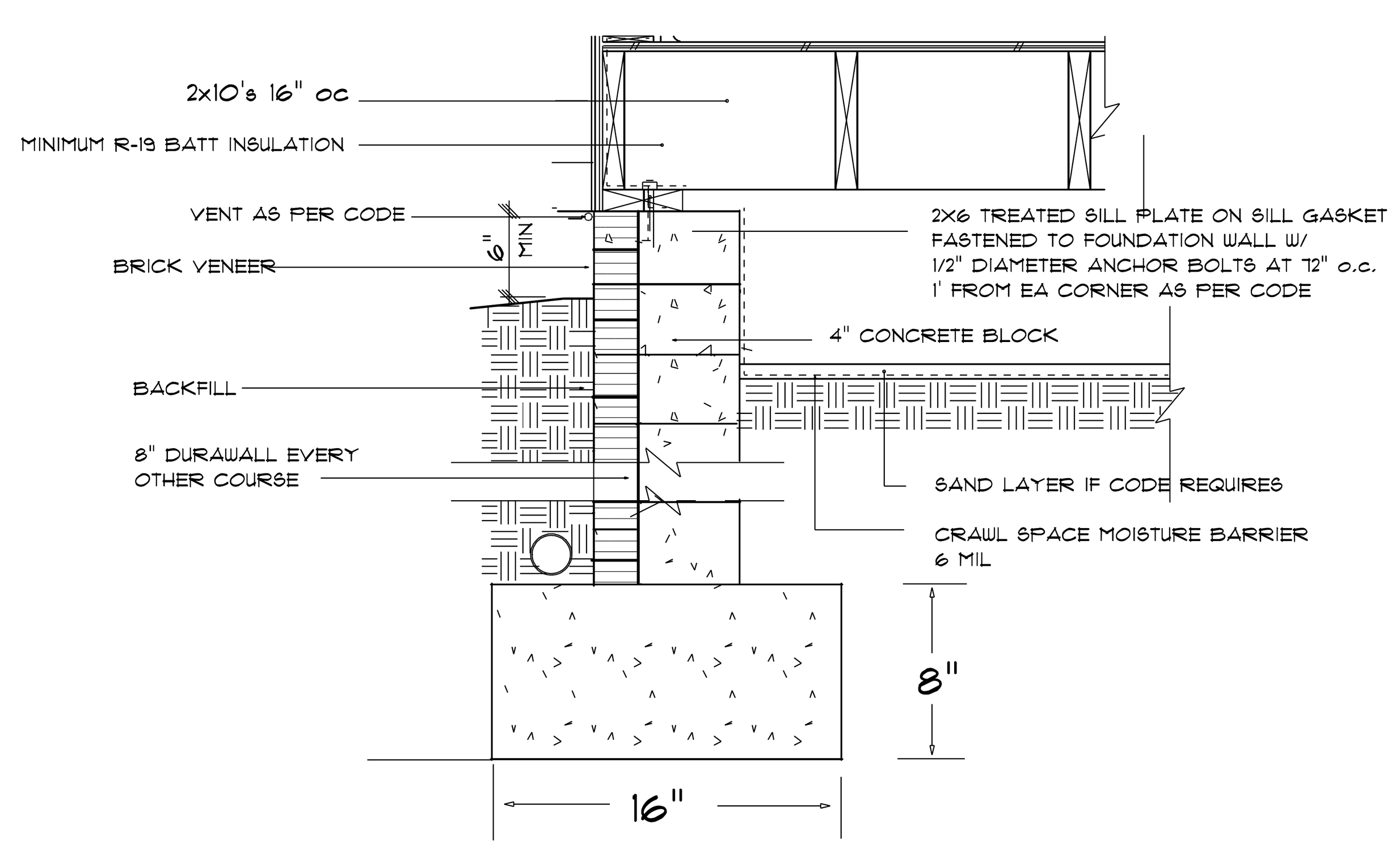
ALL ANCHOR BOLTS TO BE 12" LONG, 1/2" DIA. A36 UNO ANCHOR BOLTS SHALL BE SPACE AT A MAX OF 6' OC AND NO MORE THAN 1' FROM EA CORNER.

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.



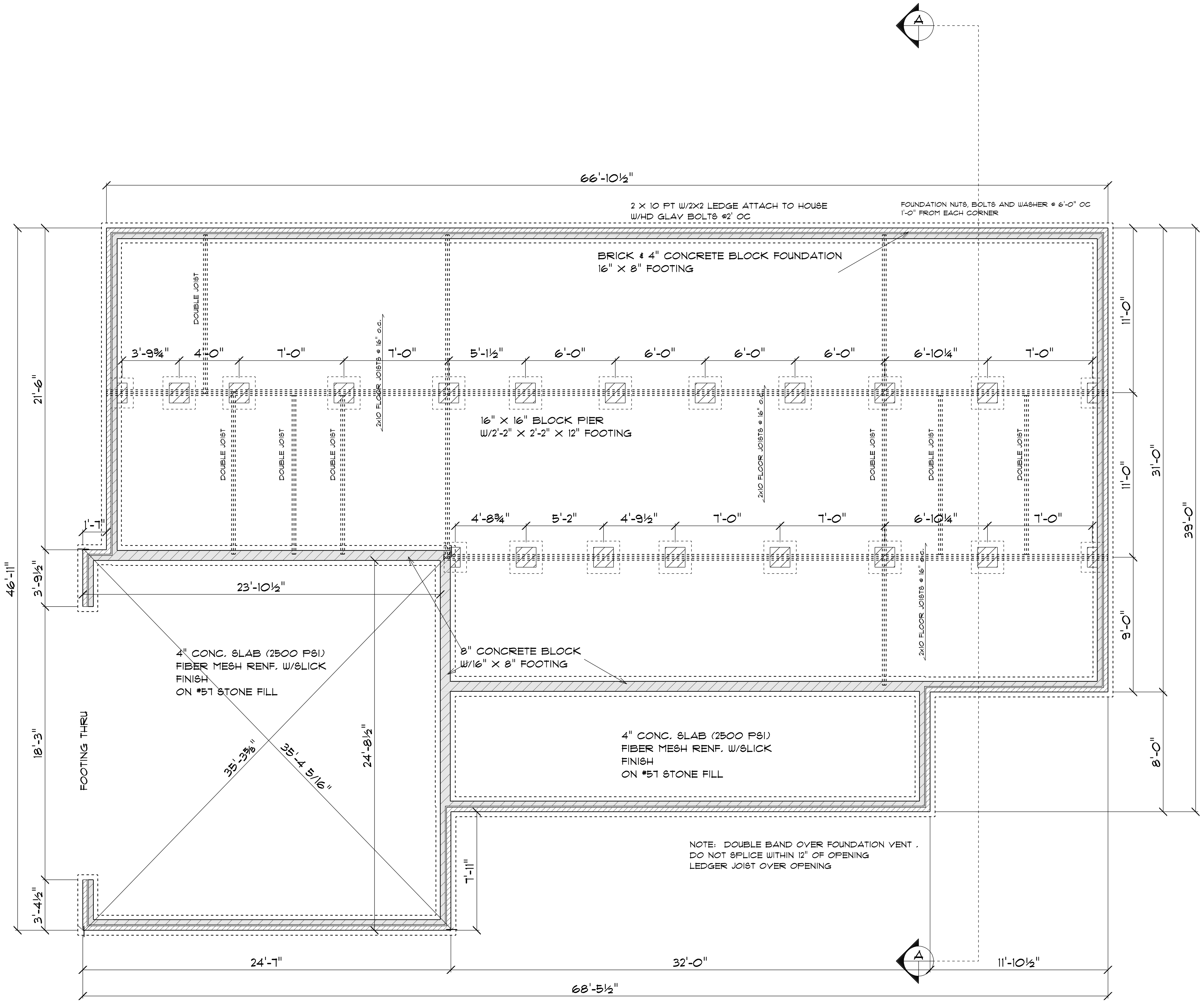
CONCRETE BLOCK PIER DETAIL

NOT TO SCALE



FOOTING & FOUNDATION DETAIL

not to scale



FOUNDATION PLAN

SCALE: 1"= 1/4"

HARRINGTON PROPERTIES OF NC, LLC
2659 SAN LEE DRIVE
SANFORD NC 27330

LOT 4
475 MCARTHUR ROAD
LEFT SIDE GARAGE

FOUNDATION PLAN

SCALE: 1/4" = 1'
DRAWN BY:
DATE: 8/20/2020

DRD
Diane Rives Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-777-6097
golfwomanecharter.net

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 NAILS 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 SILL PLATE WITH 8d TOE NAILS.

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

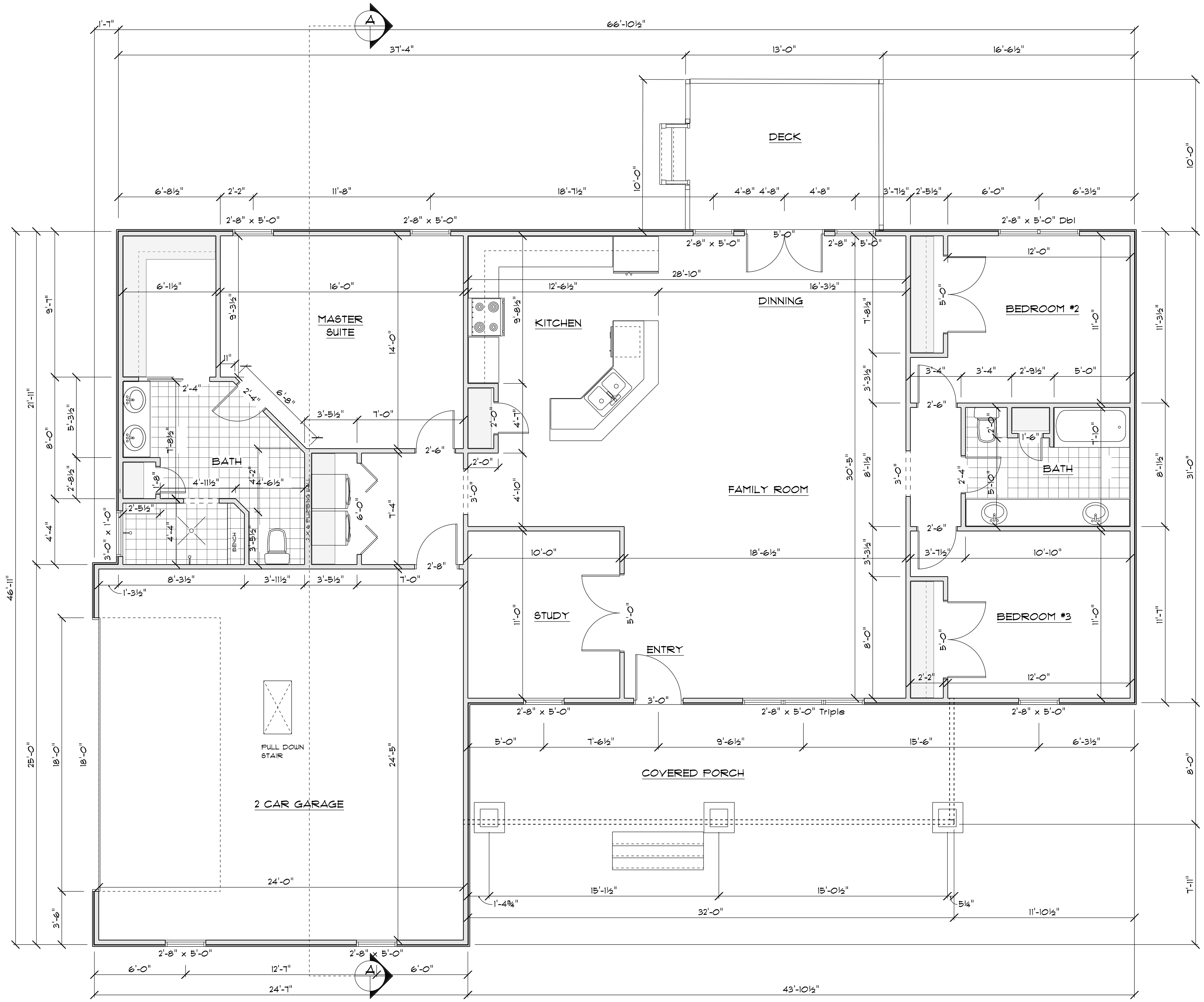
PROVIDE WATERPROOFING AND DRAINS AS REQUIRED.

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

OPENING SCHEDULE			
SIZE	HINGE	COUNT	LIBRARY NAME
2'-8"	R	1	Exterior Door\Colonial
5'-0"	LR	1	Exterior Door\French
18'-0"	U	1	Garage
6'-0"	LR	1	Interior Door\Bifold
1'-6"	L	1	Interior Door\Colonial
1'-8"	R	1	Interior Door\Colonial
2'-0"	R	1	Interior Door\Colonial
2'-4"	L	1	Interior Door\Colonial
2'-4"	R	1	Interior Door\Colonial
2'-6"	L	1	Interior Door\Colonial
2'-6"	R	2	Interior Door\Colonial
5'-0"	LR	2	Interior Door\Colonial
5'-0"	LR	1	Interior Door\French
2'-4"	N	1	Interior Door\Pocket
3'-0"	L	1	Manufacturer\Jeld-Wen\Wood Entry\Classic\Oak
2'-8" x 5'-0" Triple	U	1	Window\Double Hung
2'-8" x 5'-0"	U	10	Window\Double Hung
2'-8" x 5'-0" Dbl	UU	1	Window\Double Hung
2'-6" x 2'-6"	UU	1	Window\Double Hung
3'-0" x 3'-0"	UU	1	Window\Double Hung
3'-0" x 1'-0"	N	1	Window\Transom



FLOOR PLAN

SCALE: 1'= 1/4"

AREA SCHEDULE	
NAME	AREA
Heated Sq Ft	1894.1 sq ft.
Garage Sq Ft	616.7 sq ft.
Covered Porch Sq Ft	251.0 sq ft.
Treated Deck Sq Ft	193.7 sq ft.

3A

DRD
Diane Rives Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-777-6097
golfwoman@charter.net

SCALE: 1'= 1/4"

DRAWN BY:

DATE: 8/17/2020

HARRINGTON PROPERTIES OF NC, LLC
2659 SAN LEE DRIVE
SANFORD NC 27330

LOT 4
475 MCARTHUR ROAD
LEFT SIDE GARAGE

FLOOR PLAN

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

RE: P20-08023 - 475 McARTHUR RD

Site Information:
Project Customer: Project Name:
Lot/Block: Subdivision:
Model:
Address:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.3
Wind Code: N/A Wind Speed: 130 mph Design Method: User defined
Roof Load: 40.0 psf Floor Load: N/A psf

Mean Roof Height (feet): 12 Exposure Category: B

No.	Seal#	Truss Name	Date
1	E14797303	M01	8/28/20
2	E14797304	T01	8/28/20
3	E14797305	T01GE	8/28/20
4	E14797306	T01SGE	8/28/20
5	E14797307	T02	8/28/20
6	E14797308	T02GE	8/28/20
7	E14797309	T03	8/28/20
8	E14797310	T04	8/28/20
9		T05	8/28/20
10	E14797312	T06	8/28/20
11	E14797313	T07	8/28/20

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Longleaf Truss Company.

Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2020.

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

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

August 28,2020
Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	M01	Monopitch Supported Gable	1	1	Job Reference (optional)	E14797303

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:25:37 2020 Page 1
ID:w2GdYv0oto6hYYCPlSh9TYyjN6N-Q0lLawH6wlKYzeF3EgIQl4ySYsbZjHgL3?4lZ4yjMQS

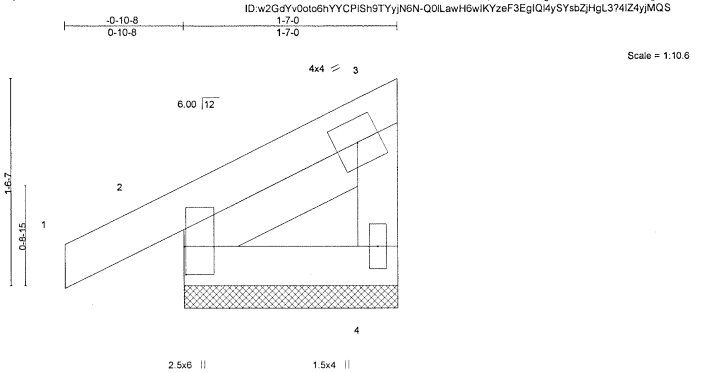


Plate Offsets (X,Y)-- [2:0-2-8,0-0-3]

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	0.04	Vert(LL)	0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							Weight: 10 lb	FT = 20%
BCDL	10.0											

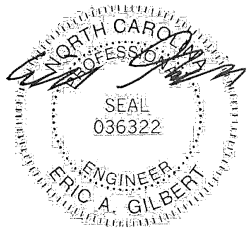
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -x 1-6-0

BRACING-
TOP CHORD Sheathed or 1-7-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=1-7-0, 2=1-7-0
Max Horz 2=35(LC 9)
Max Uplift 4=-9(LC 9), 2=-26(LC 12)
Max Grav 4=46(LC 24), 2=126(LC 2)

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=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; 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 11.6 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 2.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 28,2020

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

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T01	Common	11	1	Job Reference (optional)	E14797304

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:25:40 2020 Page 1
ID:w2GdYv0oto6hYYCPlSh9TYyjN6N-rbRTCyK?DDi6q5_evor7MjaqA3WOwZwnmzlyAPyjMQP

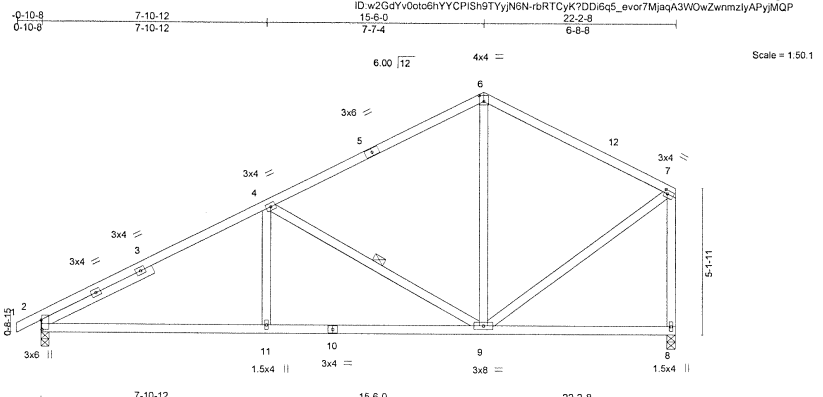


Plate Offsets (X,Y)-- [2:0-4-0,0-0-7], [6:0-2-0,0-2-8], [7:0-1-4,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.08	2-11	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.18	2-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 127 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -x 4-4-11

BRACING-

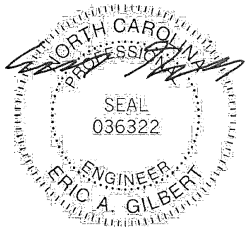
TOP CHORD	Sheathed or 5-3-15 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-9

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=205(LC 11)
Max Uplift 2=-19(LC 12), 8=-2(LC 12)
Max Grav 2=936(LC 2), 8=881(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1348/28, 4-6=-699/76, 6-7=-671/76, 7-8=-824/36
BOT CHORD 2-11=0/1110, 9-11=0/1110
WEBS 4-11=0/329, 4-9=-689/64, 6-9=0/259, 7-9=0/629

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=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; 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 11.6 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 28,2020

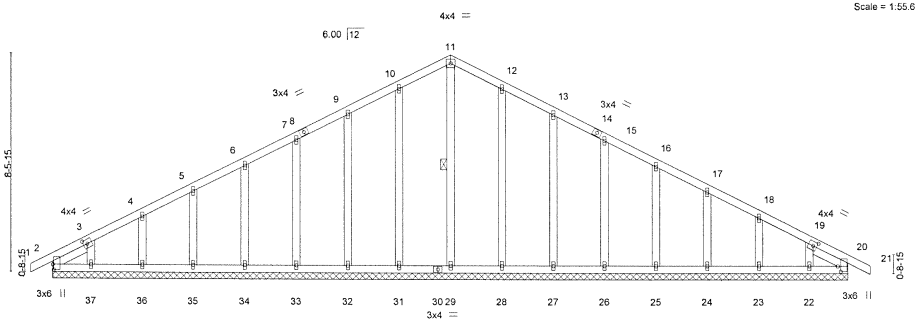
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T01GE	Common Supported Gable	1	1	Job Reference (optional)	E14797305

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:25:43 2020 Page 1
ID:w2GdYv0oto6hYYCPISh9TYyjN6N-FA6crzMtV85hhZjDawPq_LCT_Het7ysDSxXcnjyjMQM

-0-10-8 15-6-0 31-0-0 31-10-8
0-10-8 15-6-0 15-6-0 0-10-8

Scale = 1:55.6



31-0-0
31-0-0

Plate Offsets (X,Y)-- [2:0-2-8,0-0-7], [3:0-1-13,0-2-0], [19:0-1-13,0-2-0], [20:0-2-8,0-1-7]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	20	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	20	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	20	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 200 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -x 1-6-13, Right 2x4 SP No.3 -x 1-6-13

BRACING-

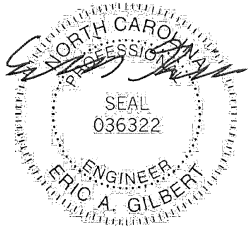
TOP CHORD	Sheathed or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 11-29

REACTIONS. All bearings 31-0-0.
(lb) - Max Horz 2=-149(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 31, 32, 33, 34, 35, 36, 37, 28, 27, 26, 25, 24, 23, 22
Max Grav All reactions 250 lb or less at joint(s) 2, 29, 31, 32, 33, 34, 35, 36, 37, 28, 27, 26, 25, 24, 23, 22, 20

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=31ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; 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 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 31, 32, 33, 34, 35, 36, 37, 28, 27, 26, 25, 24, 23, 22.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 28,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information*** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T01SGE	GABLE	1	1	Job Reference (optional)	E14797306

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:25:47 2020 Page 1
ID:w2GdYv0oto6hYYCPISh9TYyjN6N-8yM7gLPOZMb7AA0_pmTm9BM7Lu0b3mspNYVqwVyjMQI

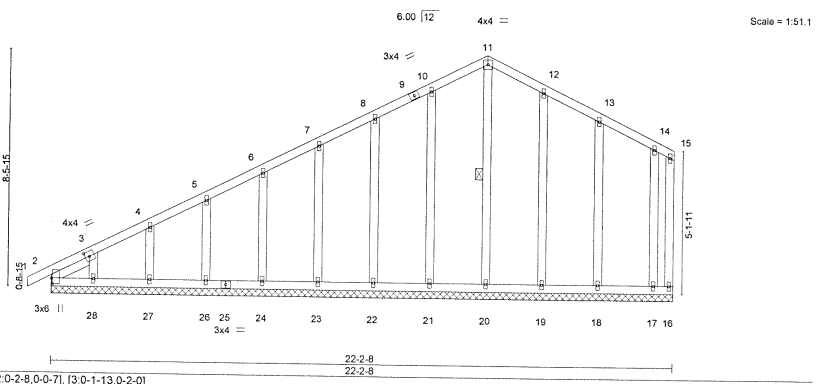


Plate Offsets (X,Y)-- [2:0-2-8,0-0-7], [3:0-1-13,0-2-0]

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	0.14	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	-0.00	16	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 160 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -x 1-6-13

BRACING-

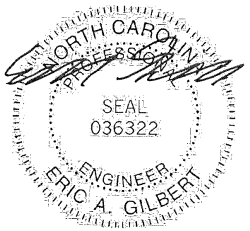
TOP CHORD	Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 11-20

REACTIONS. All bearings 22-2-8.
(lb) - Max Horz 2=205(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 21, 22, 23, 24, 26, 27, 28, 19, 18, 17
Max Grav All reactions 250 lb or less at joint(s) 2, 16, 20, 21, 22, 23, 24, 26, 27, 28, 19, 18, 17

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; 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 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 21, 22, 23, 24, 26, 27, 28, 19, 18, 17.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 28,2020

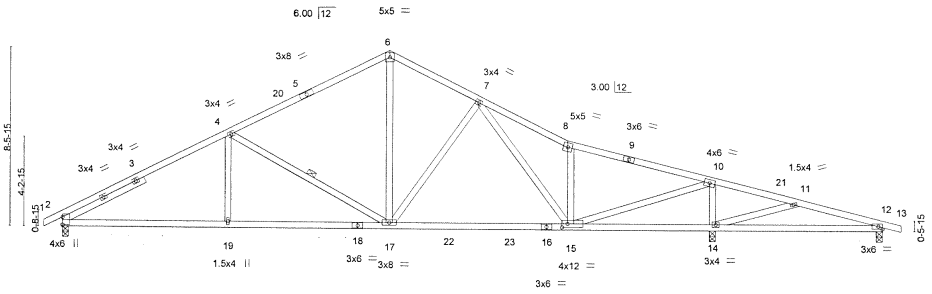
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T02	Roof Special	16	1	Job Reference (optional)	E14797307

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:25:51 2020 Page 1
ID:w2GdYv0oto6hYYCPlSh9TYyjN6N-0jbdWjSudb5ZenKl2cYiJ1XfHVDy?OZPHAT13GyjMQE

-0-10-8	7-10-12	15-6-0	19-9-0	24-0-0	30-10-4	34-8-12	39-0-0	39-10-8
0-10-8	7-10-12	7-7-4	4-3-0	4-3-0	6-10-4	3-10-8	4-3-4	0-10-8

Scale = 1:67.8



7-10-12	15-6-0	24-0-0	30-10-4	39-0-0
7-10-12	7-7-4	8-6-0	6-10-4	8-1-12

Plate Offsets (X,Y)-- [15:0-3-4,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.22	15-17	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.39	15-17	>958	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.05	14	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 207 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -x 4-4-11

BRACING-

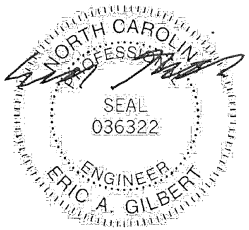
TOP CHORD	Sheathed or 3-7-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 4-17

REACTIONS. (size) 2=0-3-8, 14=0-3-8, 12=0-3-8
Max Horz 2=-144(LC 10)
Max Uplift 2=-21(LC 12), 12=-26(LC 12)
Max Grav 2=1371(LC 24), 14=2001(LC 25), 12=199(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2135/33, 4-6=-1437/77, 6-7=-1406/85, 7-8=-1774/81, 8-10=-1604/25, 10-11=-1/709, 11-12=0/321
BOT CHORD 2-19=0/1905, 17-19=0/1905, 15-17=0/1401, 14-15=-659/35, 12-14=-281/0
WEBS 4-19=0/314, 4-17=-744/70, 6-17=0/908, 7-17=-363/72, 7-15=-9/303, 8-15=-673/90, 10-15=0/2279, 10-14=-1608/75, 11-14=-427/57

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=12ft; B=45ft; L=39ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; Min. flat roof snow load governs.
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 11.6 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 28,2020

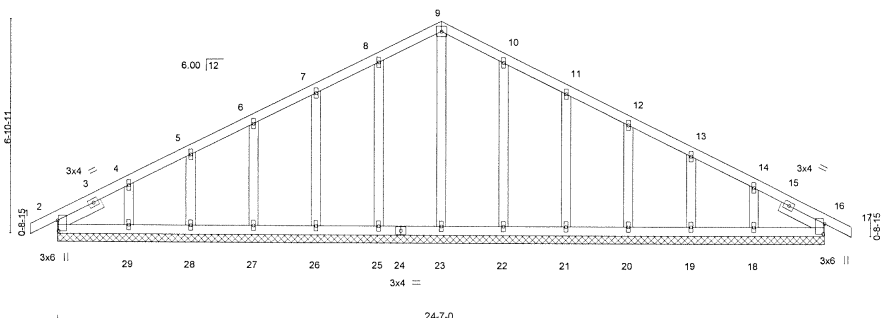
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T02GE	Common Supported Gable	1	1	Job Reference (optional)	E14797308

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:25:53 2020 Page 1
ID:w2GdYv0oto6hYYCPlSh9TYyjN6N-y5jOxOU99CLGu5T8A1aAOScBSJ35TVEilUy878yjMQC

-0-10-8 12-3-8 24-7-0 25-5-8
0-10-8 12-3-8 12-3-8 0-10-8

Scale = 1:45.7



24-7-0
24-7-0

Plate Offsets (X,Y)-- [2:0-4-0,0-0-7], [16:0-4-0,0-0-7]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	16	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	16	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	16	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 145 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -x 1-7-1, Right 2x4 SP No.3 -x 1-7-1

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

REACTIONS. All bearings 24-7-0.
(lb) - Max Horz 2=114(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 22, 21, 20, 19, 18
Max Grav All reactions 250 lb or less at joint(s) 2, 23, 25, 26, 27, 28, 29, 22, 21, 20, 19, 18, 16

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=25ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; 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 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 29, 22, 21, 20, 19, 18.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 16.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 28,2020

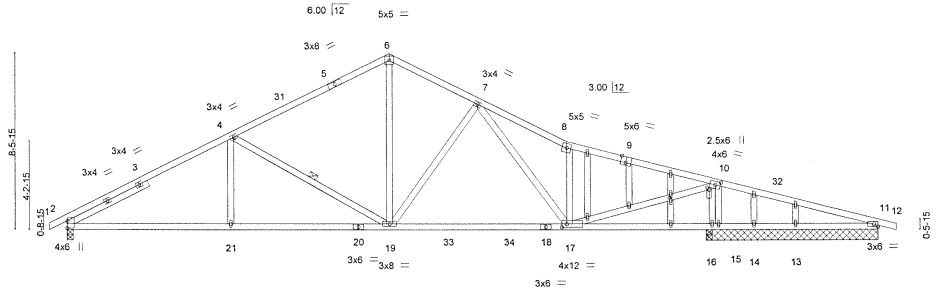
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T03	GABLE	1	1	Job Reference (optional)	E14797309

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:25:57 2020 Page 1
ID:w2GdYv0oto6hYYCPlSh9TYyjN6N-rtzvnmXfCRriMinvPsf6ZlnhZwGDP68Hg6wMHwyjMQ8

-0-10-8 7-10-12 15-6-0 19-9-0 24-0-0 31-3-10 39-0-0 39-10-8
0-10-8 7-10-12 7-7-4 4-3-0 4-3-0 7-3-10 7-8-6 0-10-8

Scale = 1:68.6



7-10-12 15-6-0 24-0-0 31-0-0 31-3-10 39-0-0
7-10-12 7-7-4 8-6-0 7-0-0 0-3-10 7-8-6

Plate Offsets (X,Y)-- [9:0-0-0,0-1-12], [9:0-3-0,Edge], [10:0-1-4,0-1-4], [10:0-2-12,0-2-0], [17:0-2-12,0-2-0], [26:0-1-10,0-0-12], [28:0-1-13,0-0-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.22	17-19	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.40	17-19	>931	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.05	16	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 218 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -x 4-4-11

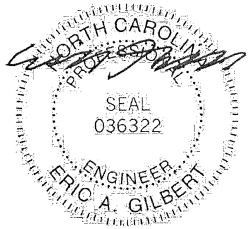
BRACING-

TOP CHORD	Sheathed or 3-4-5 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 4-19

REACTIONS. All bearings 8-3-8 except (jt=length) 2=0-3-8.
(lb) - Max Horz 2=-144(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 14, 11 except 15=-172(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 13, 14, 11 except 2=1402(LC 24), 15=1292(LC 2), 16=576(LC 7), 16=361(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2199/33, 4-6=-1506/77, 6-7=-1473/86, 7-8=-2002/80, 8-10=-1820/24, 10-11=0/533
BOT CHORD 2-21=0/1960, 19-21=0/1960, 17-19=0/1505, 16-17=-459/13, 15-16=-459/13, 14-15=-459/13, 13-14=-459/13, 11-13=-459/13
WEBS 4-21=0/314, 4-19=-739/69, 6-19=0/969, 7-19=-443/72, 7-17=-8/453, 8-17=-718/89, 10-17=0/2260, 10-15=-1654/87

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=12ft; B=45ft; L=39ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; Min. flat roof snow load governs.
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 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 14, 11 except (jt=lb) 15=172.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 28,2020

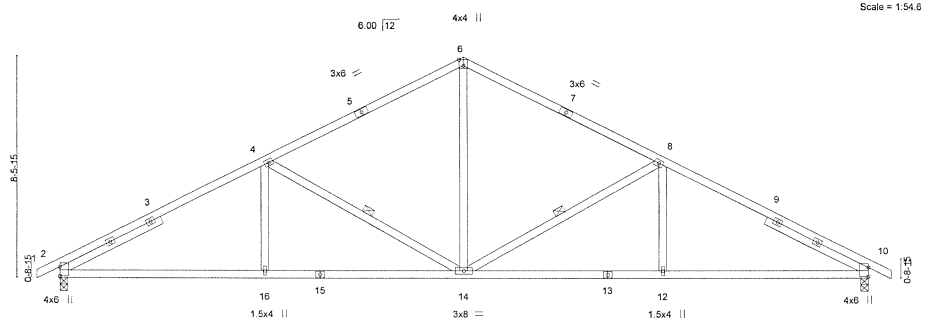
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T04	Common	6	1	Job Reference (optional)	E14797310

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:25:59 2020 Page 1
ID:w2GdYv0oto6hYYCPISh9TYyjN6N-nF4fCSYwk26Qc0xIWhhaejs2aj?0t9Ba7QPSLoyjMQ6

-0-10-8 7-10-12 15-6-0 23-1-4 31-0-0 31-10-8
0-10-8 7-10-12 7-7-4 7-7-4 7-10-12 0-10-8

Scale = 1:54.6



7-10-12 15-6-0 23-1-4 31-0-0
7-10-12 7-7-4 7-7-4 7-10-12

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.09	2-16	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.21	2-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 163 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -x 4-4-11, Right 2x4 SP No.3 -x 4-4-11

BRACING-

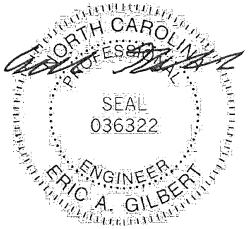
TOP CHORD	Sheathed or 3-6-14 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 8-14, 4-14

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=149(LC 11)
Max Uplift 2=-21(LC 12), 10=-21(LC 12)
Max Grav 2=1293(LC 2), 10=1293(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2067/31, 4-6=-1453/79, 6-8=-1453/79, 8-10=-2067/31
BOT CHORD 2-16=0/1738, 14-16=0/1738, 12-14=0/1738, 10-12=0/1738
WEBS 6-14=0/765, 8-14=-650/65, 8-12=0/325, 4-14=-650/65, 4-16=0/325

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=12ft; B=45ft; L=31ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; 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 11.6 psf on overhangs non-concurrent with other live loads.
6) All plates are 3x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 28,2020

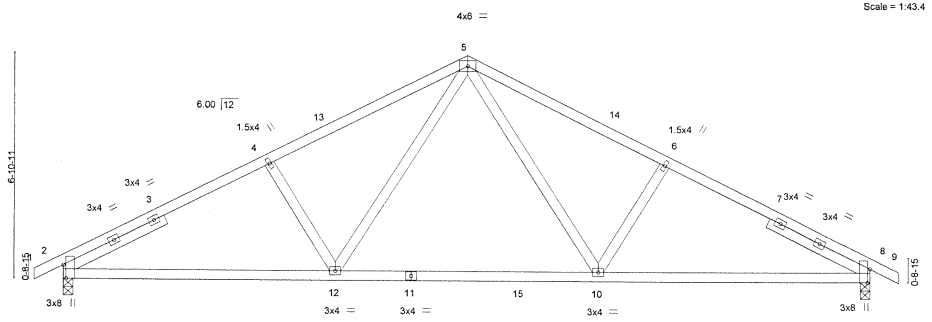
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T05	Common	3	1	Job Reference (optional)	E14797311

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:26:01 2020 Page 1
ID:w2GdYv0oto6hYYCPlSh9TYyjN6N-jeCPd7aAGgM8rK5geijZj8xRtXfAL4ftbkuZQhyjMQ4

0-10-8	6-3-8	12-3-8	18-3-8	24-7-0	25-5-8
0-10-8	6-3-8	6-0-0	6-0-0	6-3-8	0-10-8

Scale = 1:43.4



8-3-8	16-3-8	24-7-0
8-3-8	8-0-0	8-3-8

Plate Offsets (X,Y)-- [2:0-5-0,Edge], [8:0-5-0,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 0.46	Vert(LL) -0.13 10-12 >999 240	MT20 244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL 1.15	BC 0.59	Vert(CT) -0.22 2-12 >999 180	
TCDL	10.0	Rep Stress Incr YES	WB 0.25	Horz(CT) 0.05 8 n/a n/a	
BCLL	0.0 *	Code IRC2018/TPI2014	Matrix-S		Weight: 125 lb FT = 20%
BCDL	10.0				

LUMBER-

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

BRACING-

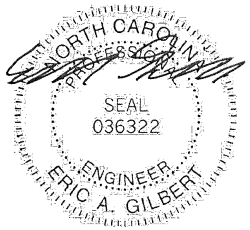
TOP CHORD	Sheathed or 4-7-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-114(LC 10)
Max Uplift 2=-21(LC 12), 8=-21(LC 12)
Max Grav 2=1148(LC 24), 8=1148(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1723/42, 4-5=-1571/67, 5-6=-1571/67, 6-8=-1722/42
BOT CHORD 2-12=0/1529, 10-12=0/1058, 8-10=0/1443
WEBS 5-10=0/648, 6-10=-302/107, 5-12=0/649, 4-12=-302/107

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=12ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; 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 11.6 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 28,2020

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

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T06	Common	8	1		E14797312

Longleaf Truss Company, West End, NC - 27376,

Job Reference (optional)

8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:26:03 2020 Page 1
ID:w2GdYv0oto6hYYCPlSh9TYyjN6N-g1KA1pbQoHcs4dE3l7mWoZ1nMLKYp_7A22NgUZyjMQ2

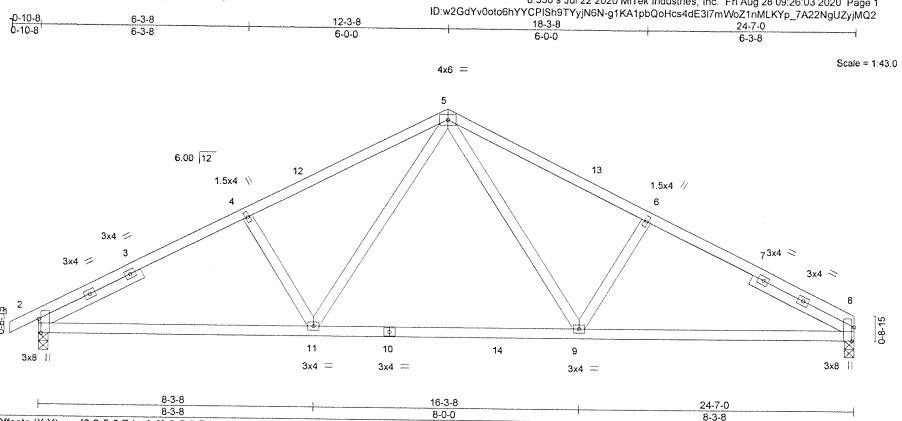


Plate Offsets (X,Y)-- [2:0-5-0,Edge], [8:0-5-0,Edge]

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	0.46	Vert(LL)	-0.13	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.23	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.05	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 123 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Sheathed or 4-6-15 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

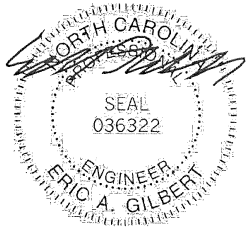
REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=114(LC 11)
Max Uplift 2=-22(LC 12)
Max Grav 8=1100(LC 25), 2=1148(LC 24)

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

TOP CHORD	2-4=-1724/43, 4-5=-1572/68, 5-6=-1575/69, 6-8=-1727/44
BOT CHORD	2-11=0/1530, 9-11=0/1059, 8-9=0/1447
WEBS	5-9=0/652, 6-9=-304/109, 5-11=0/648, 4-11=-302/107

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=12ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; 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 11.6 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 28,2020

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

Job	Truss	Truss Type	Qty	Ply	475 McARTHUR RD	
P20-08023	T07	Common	1	1		E14797313

Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Jul 22 2020 MiTek Industries, Inc. Fri Aug 28 09:26:04 2020 Page 1
ID:w2GdYv0oto6hYYCPISh9TYyjN6N-8DuYF9c2ZbkiinpFJrHiLnZy6kgnYRNJHi6D00yjMQ1

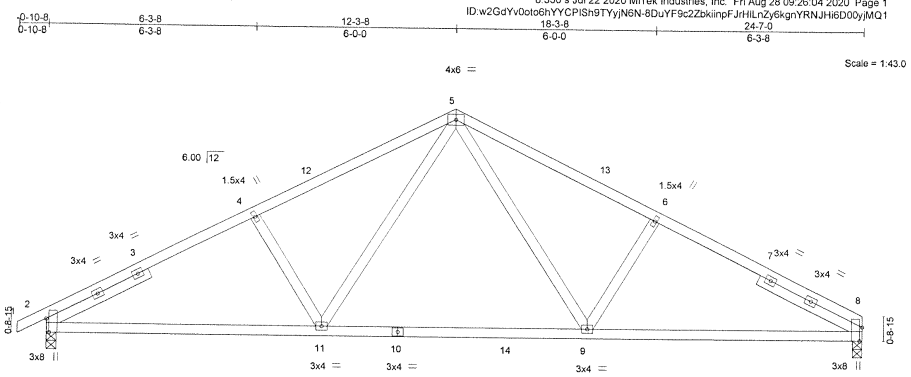


Plate Offsets (X,Y)-- [2:0-5-0,Edge], [8:0-5-0,Edge]

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	0.46	Vert(LL)	-0.13	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.23	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.05	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 123 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Sheathed or 4-6-15 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

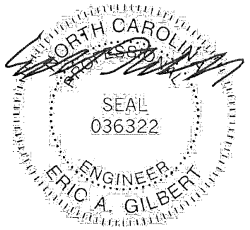
REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=114(LC 11)
Max Uplift 2=-22(LC 12)
Max Grav 8=1100(LC 25), 2=1148(LC 24)

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

TOP CHORD	2-4=-1724/43, 4-5=-1572/68, 5-6=-1575/69, 6-8=-1727/44
BOT CHORD	2-11=0/1530, 9-11=0/1059, 8-9=0/1447
WEBS	5-9=0/652, 6-9=-304/109, 5-11=0/648, 4-11=-302/107

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=12ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; 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 11.6 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

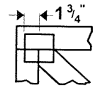


August 28,2020

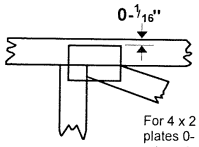
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

4 x 4

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

LATERAL BRACING LOCATION

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

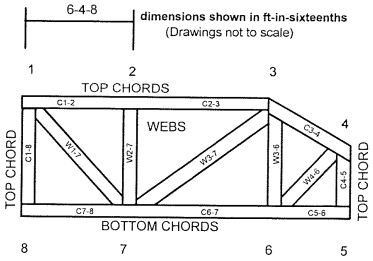
BEARING

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

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek

ENGINEERING BY TRENCO
A MiTek Affiliate

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

General Safety Notes

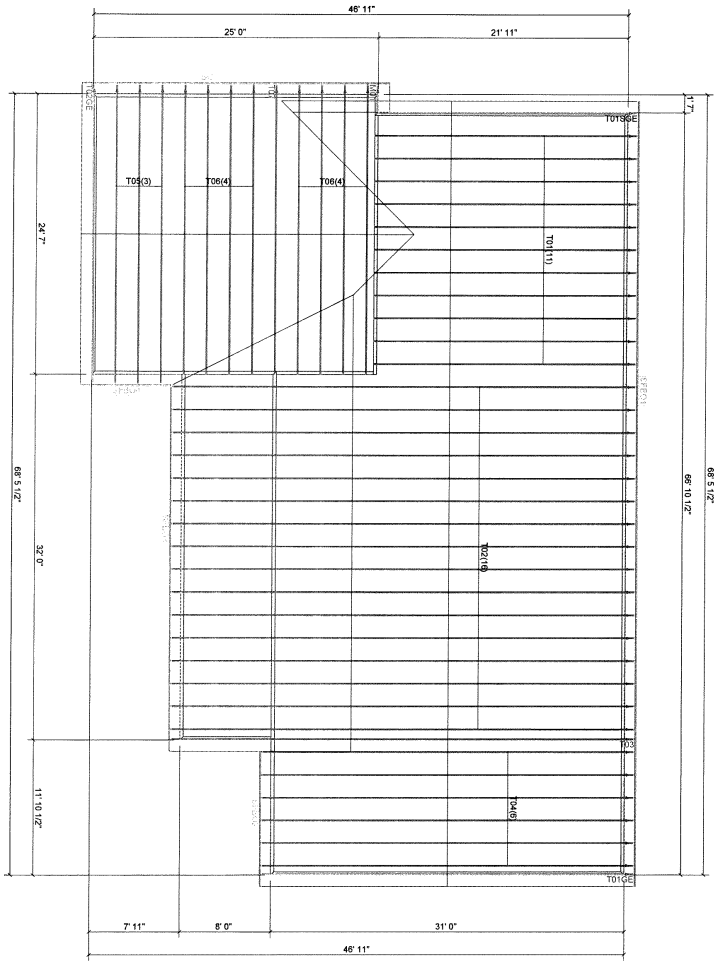
Failure to Follow Could Cause Property Damage or Personal Injury

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

Floor Area: 0 SF
Floor Plywood: 0
Roof Area: 3279.85 SF
Roof Plywood: 65 Sheets
Roof Shingles: 41 Squares

ROOF TRUSS LAYOUT

1/4" = 1'-0"



Client:	SERVICE BUILDING SUPPLY SANF		
Project:	475 McARTHUR RD		
Model:	HARRINGTON PROP		
Lot #:	Subdivision:		
Order #: P20-08023	Designer:	Date: / /	

LONGLEAF TRUSS CO.
4476 Hwy. 21 W
West End, NC 27376
(910) 673-4711

NOTE

IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER OR ARCHITECT TO PROVIDE AN APPROPRIATE CONNECTION FOR TRUSSES TO SUPPORTING STRUCTURE PERREACTIONS SHOWN ON TRUSS ENGINEERING. SPECIAL CONSIDERATIONS FOR MECHANICAL EQUIPMENT AND/OR PLUMBING (AND THEIR CONNECTIONS) IN TRUSS SPACE MUST BE DIAGRAMMED BY BUILDER ON APPROVED TRUSS LAYOUT PRIOR TO FABRICATION.

THIS COMPANY IS A TRUSS MANUFACTURER WHOSE RESPONSIBILITIES ARE LIMITED TO THOSE DESCRFIBED IN WTCA1-1995 "DESIGN RESPONSIBILITIES". ACCORDINGLY, IT DISCLAIMS ANY RESPONSIBILITIES AND/OR LIABILITY FOR THE CONSTRUCTION, DESIGN, DRAWINGS, DOCUMENTS INCLUDING THE INSTALLATION AND BRACING OF TRUSSES MANUFACTURED BY THIS COMPANY. SEE http://support.sbcindustry.com/pubs/TTBDResp-D