

- GABLE VENTILATION TO BE 6/12 G' BASE LOUVRES @ EACH END
- SOFFIT VENTILATION TO BE PERFORATED 12" HARDPLANK FULL LENGTH OF STRUCTURE
- TRUSSES TO HAVE RAT-RUNNERS & L BRACES
- HEADERS OVER WINDOWS AND SMALL DOOR TO BE DOUBLE 2X10'S
- HEADERS OVER GARAGE DOORS TO BE DOUBLE 12" LVL BEAMS
- SINGLE JACK STUDS ON WINDOWS & PASSAGE DOOR
- DBLE JACK STUDS ON 9x7 GARAGE DOOR TRIPLE ON 18x7

2X4 STUDS  
 1/2" 4x4 CORNER SHEATHING @ CORNERS  
 1/2" BLACK GYP BALANCE OF WALL  
 1/2" OSB WITH VINYL SIDING  
 MASONRY EXTERIOR SIDING

UNDISTURBED SOIL  
 6 MIL POLYVINYL VAPOR BARRIER  
 STEEL WIRE MESH & FIBER GLAZ  
 4" CONCRETE SLAB 1/2" BOLTS  
 6" O/C

PRESSURE TREATED  
 2X4 SILL PLATS

GROUND LINE

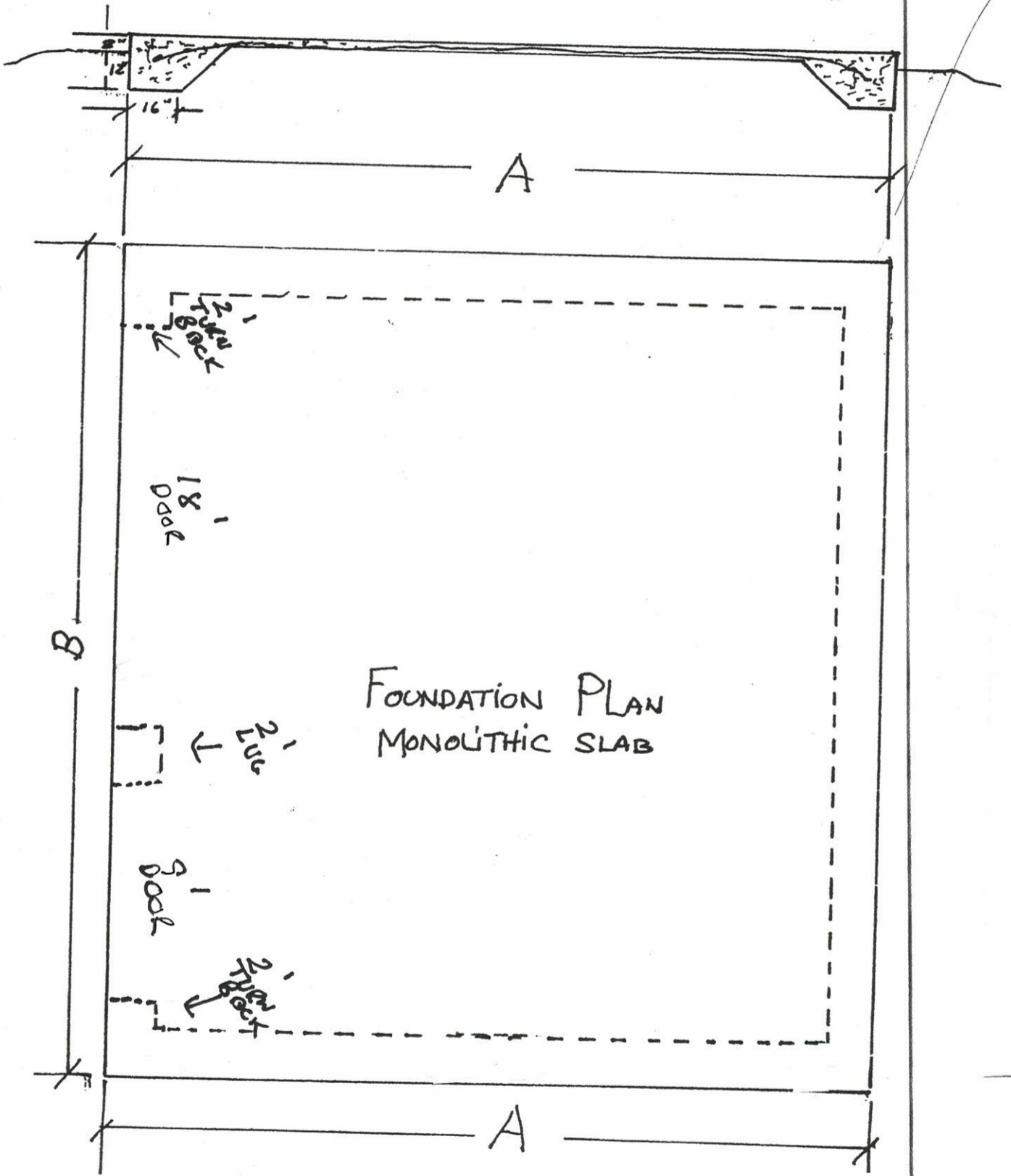
**CONSTRUCTION COMMENTS**

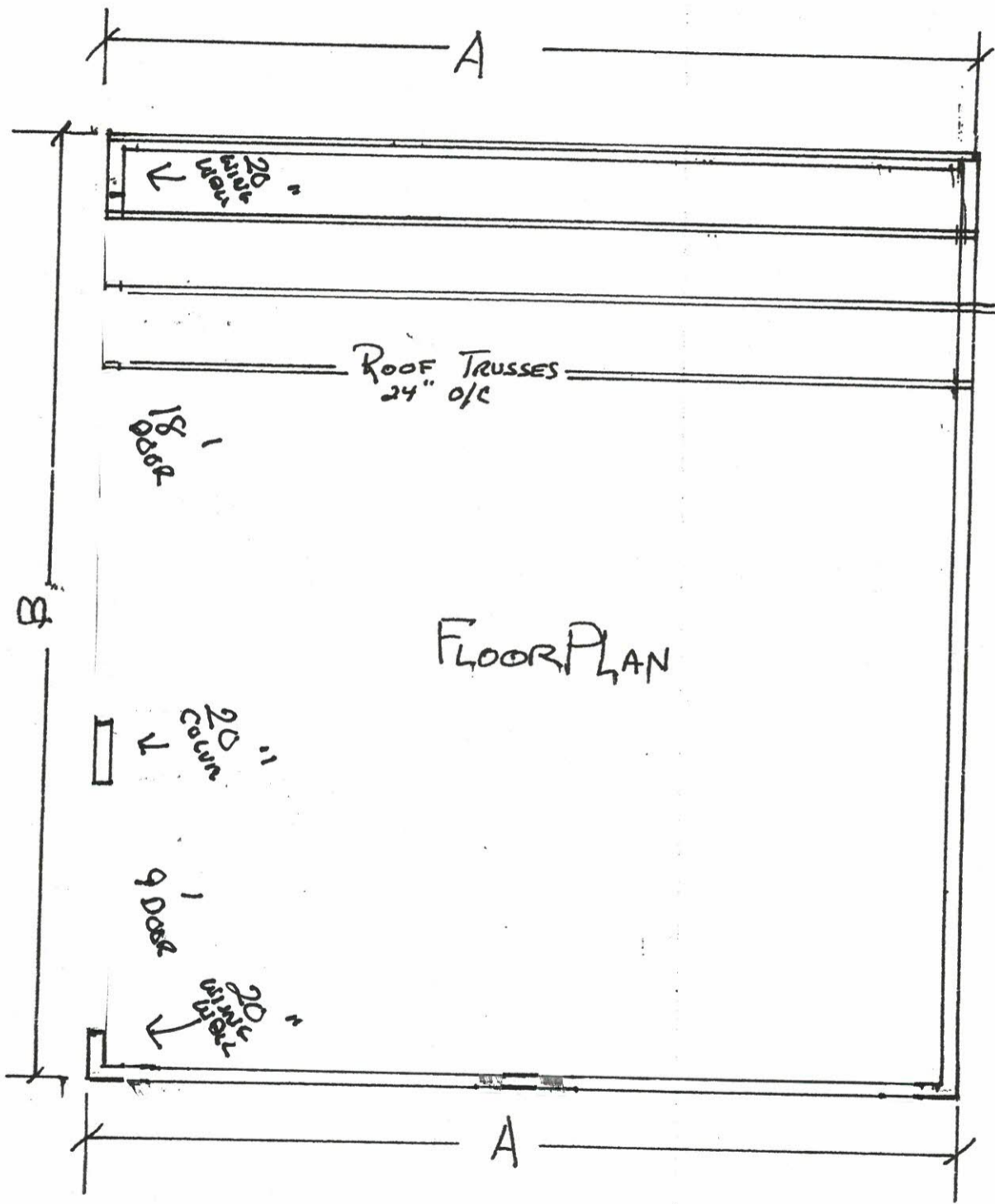
TO N.C.S. BLDG. CODE  
 DATED ON OR AFTER  
 03/01/19.

Provide positive and negative wall and roof cladding design values. ~~\_\_\_\_\_~~  
 wall cladding is designed for a 24.1 lb. per sq ft or greater positive or negative pressure for houses with mean roof house of 30 feet or less. Roof values, both positive and negative, shall be designed as follows:  
 45.4 lbs. per sq. ft. for roof pitches of 0/12 to < 2.25/12,  
 34.8 lbs. per sq. ft. for roof pitches of 2.25/12 to < 7/12 and  
 21 lbs. per sq. ft. for roof pitches of 7/12 to 12/12.  
 Values stated are for roofs with a mean height of 30 feet or less. Roofs with mean roof heights greater than 30 feet must show specific information for cladding.

SCALE: 1/4" = 1'		APPROVED BY:	DRAWN BY: <i>[Signature]</i>
DATE: 2.03.03			REVISED
1 STORY GARAGE			
			DRAWING NUMBER

GABLE DIMENSION	A	22'	(24')	26'	28'	30'			
EAVE DIMENSION	B	22'	24'	26'	28'	30'	(32')	34'	
WALL HIGHT.	D	8'	(9')	10'	12'				
VENTILATION CALCULATION :		$\div 300 \rightarrow$							





**Garage Header 3**

Dry | 1 span | No cant.

February 7, 2019 15:28:43

BC CALC® Member Report

Build 6782

Job name: Carolina Custom Homes

File name: Carolina Custom Homes

Address:

Description:

City, State, Zip:

Specifier:

Builder: Builders 1st Source

Designer: Andrew Thompson

Code reports: ESR-1040

Company: Boise Cascade BMD

**Connection Diagram: Full Length of Member**

a minimum = 2"      c = 6"  
b minimum = 3"      d = 24"

Member has no side loads.  
Connectors are: 3-1/4 in. Pneumatic Gun Nails



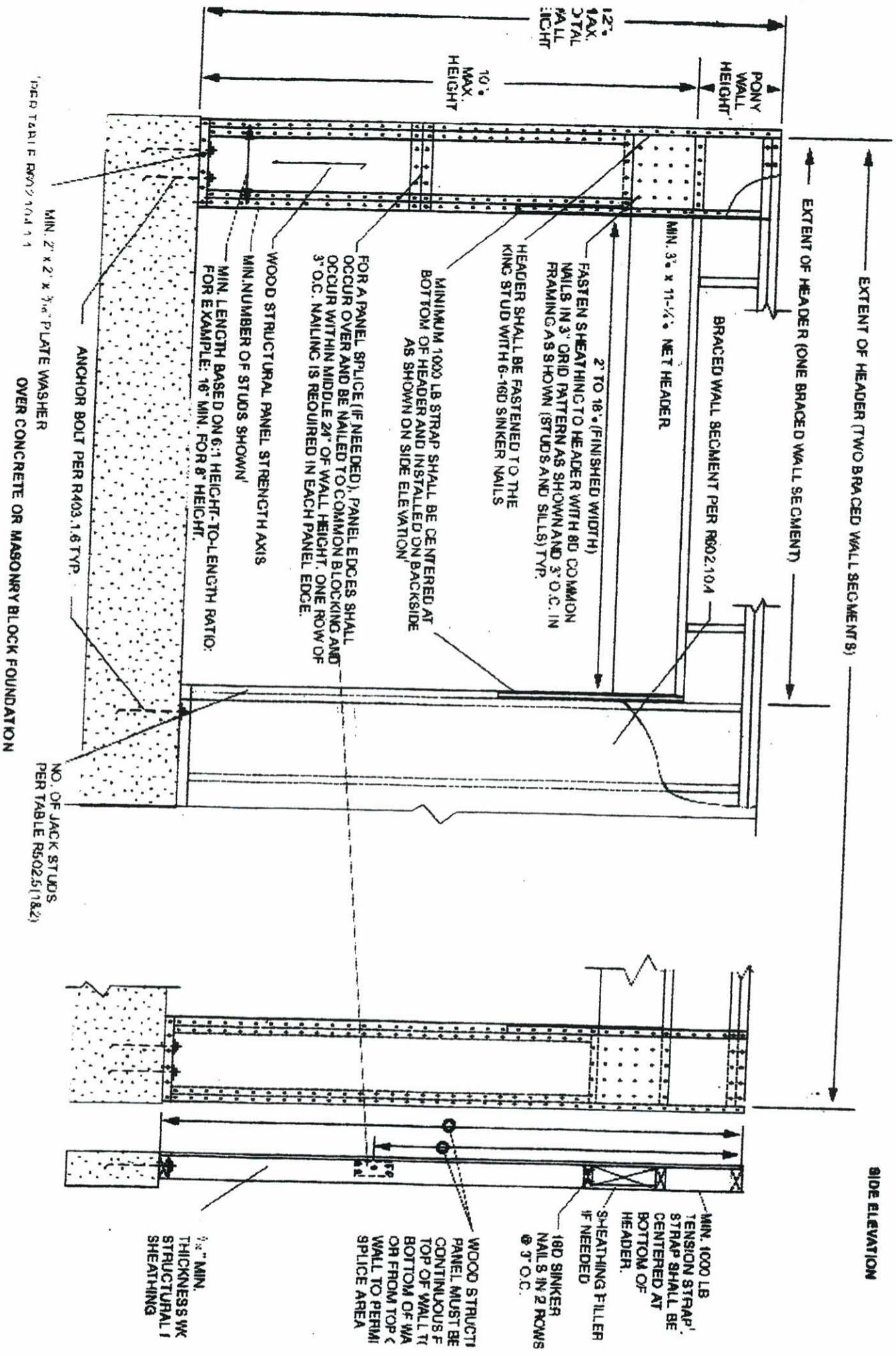
**Disclosure**

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

OUTSIDE ELEVATION

SIDE ELEVATION



EXTENT OF HEADER (ONE BRACED WALL SEGMENT)

EXTENT OF HEADER (TWO BRACED WALL SEGMENTS)

BRACED WALL SEGMENT PER R502.104

MIN. 3" x 11-1/2" NET HEADER

2" TO 18" (FINISHED WIDTH)

FASTEN SHEATHING TO HEADER WITH 8D COMMON NAILS IN 3" GRID PATTERN AS SHOWN AND 3" O.C. IN FRAMING AS SHOWN (STUDS AND SILLS) TYP.

HEADER SHALL BE FASTENED TO THE KING STUD WITH 6-16D SINKER NAILS

MINIMUM 1000 LB STRAP SHALL BE CENTERED AT BOTTOM OF HEADER AND INSTALLED ON BACKSIDE AS SHOWN ON SIDE ELEVATION

FOR A PANEL SPlice (IF NEEDED), PANEL EDGES SHALL OCCUR OVER AND BE NAILED TO COMMON BLOCKING AND 3" O.C. NAILING IS REQUIRED IN EACH PANEL EDGE.

WOOD STRUCTURAL PANEL STRENGTH AXIS

MIN. LENGTH BASED ON 6:1 HEIGHT-TO-LENGTH RATIO: FOR EXAMPLE: 16" MIN. FOR 8" HEIGHT.

MIN. NUMBER OF STUDS SHOWN

MIN. 2" x 2" x 3/16" PLATE WASHER

PER TABLE R502.104.1.1

OVER CONCRETE OR MASONRY BLOCK FOUNDATION

NO. OF JACK STUDS PER TABLE R502.5.11&2

MIN. 1000 LB TENSION STRAP

STRAP SHALL BE CENTERED AT BOTTOM OF HEADER.

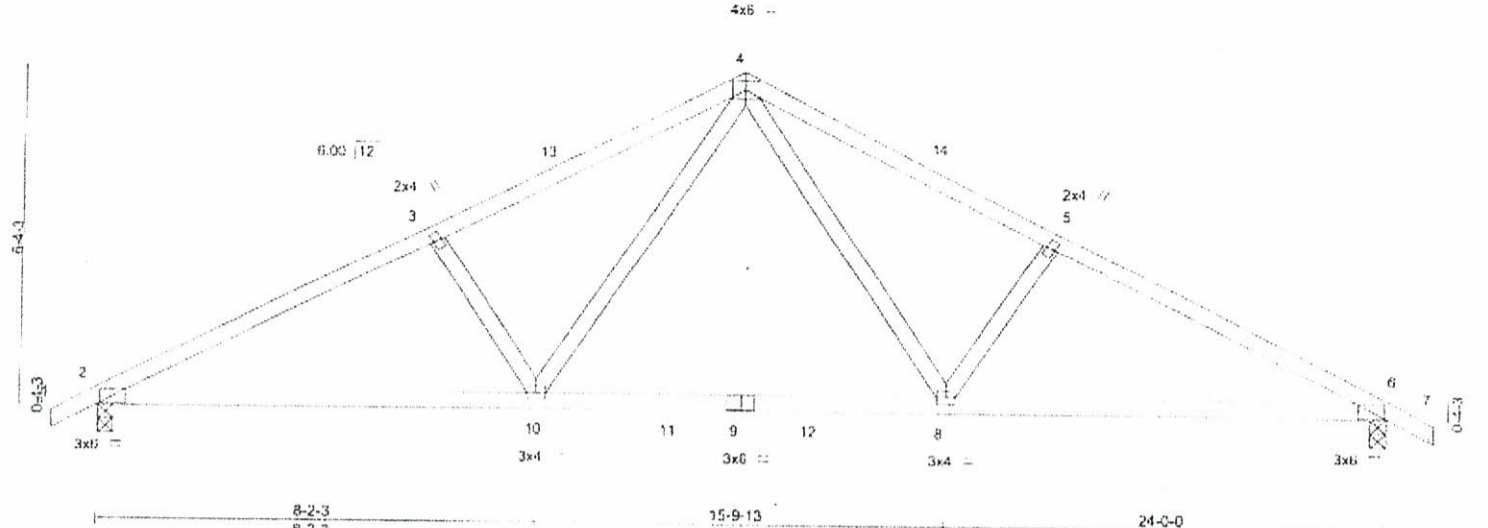
SHEATHING FILLER IF NEEDED

16D SINKER NAILS IN 2 ROWS @ 3" O.C.

WOOD STRUCTURAL PANEL MUST BE CONTINUOUS FROM TOP OF WALL TO BOTTOM OF WALL OR FROM TOP OF WALL TO PERIMETER SPlice AREA

3/8" MIN. THICKNESS W/ STRUCTURAL SHEATHING

Scale = 1/4" = 1'-0"



<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.48	in (loc) l/def L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.69	Vert(LL) -0.13 8-10 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.23	Vert(CT) -0.25 6-8 >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.05 6 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 110 lb	FT = 6%

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

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

**REACTIONS.** (lb/size) 2=881/0-3-8, 6=881/0-3-8  
 Max Horz 2=69(LC 11)  
 Max Uplift 2=-7(LC 12), 6=-7(LC 13)  
 Max Grav 2=1010(LC 2), 6=1010(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1654/19, 3-4=-1456/38, 4-5=-1456/38, 5-6=-1654/19  
 BOT CHORD 2-10=-14/1405, 8-10=0/946, 6-8=0/1405  
 WEBS 3-10=-344/119, 4-10=-9/549, 4-8=-9/549, 5-8=-344/119

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph, TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope), cantilever left and right exposed, end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15), Pl=15.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II, Exp B; Fully Exp.; Cl=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 2.00 times flat roof load of 15.0 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 3-6-0 tall by 1-0-0 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 100 lb uplift at joint(s) 2, 6.



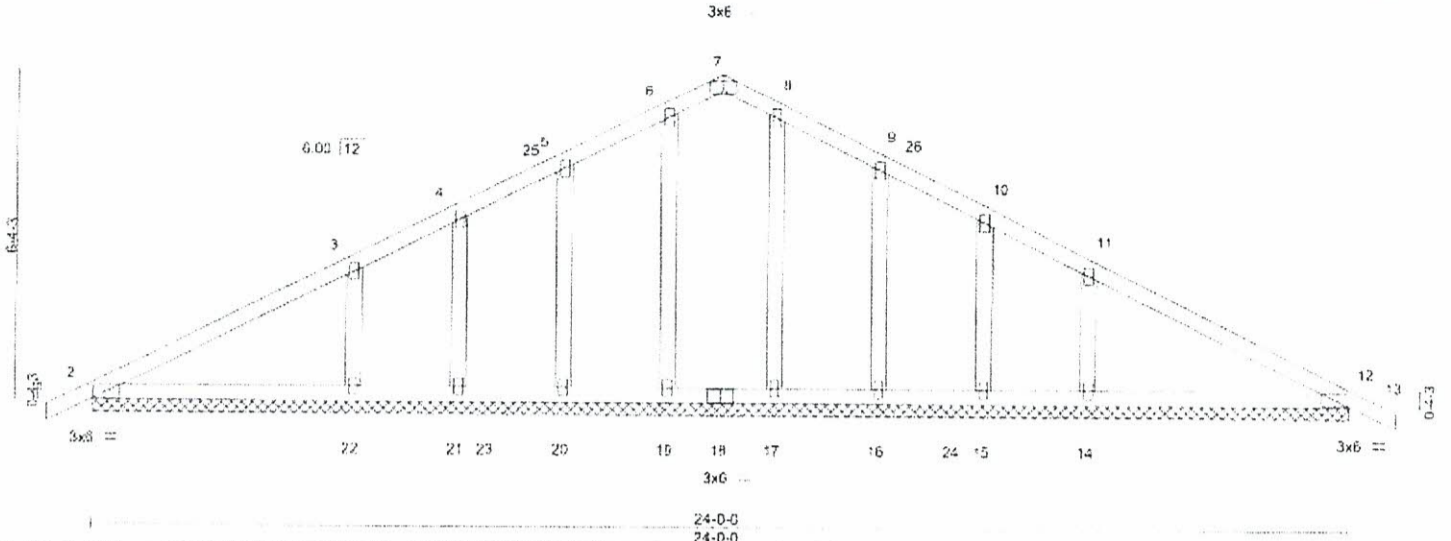


Plate Offsets (X, Y) = [7.0-3.0, Edge]

LOADING (psf)	SPACING-	2-0-0	CSI	DEFL	in (loc)	v/def	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.01	13	n/r	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	0.02	13	n/r		
TCDL 10.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	12	n/a		
BCLL 0.0	Code IBC2015/TPI2014		Matrix-R						
BCDL 10.0								Weight 124 lb	FT = 6%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 24-0-0.  
 (lb) - Max Horz 2=69(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 12, 19, 20, 21, 22, 17, 16, 15, 14  
 Max Grav All reactions 250 lb or less at joint(s) 2, 7, 12, 19, 20, 21, 17, 16, 15 except 22=407(LC 2), 14=407(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-22=-281/92, 11-14=-281/92

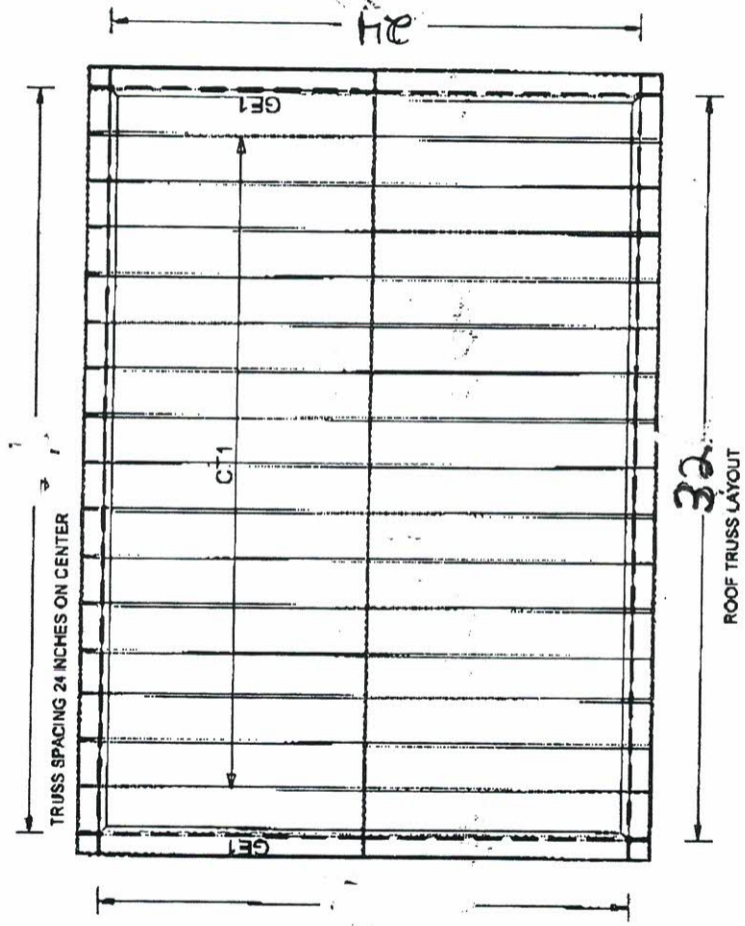
- NOTES-**
- Unbalanced roof live loads have been considered for this design
  - Wind ASCE 7-10, Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf, h=25ft, Cat. II, Exp B, Enclosed, MWFRS (envelope); cantilever left and right exposed, and vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 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 7-10, P=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Cf=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 2.00 times flat roof load of 15.0 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 3-6-0 tall by 1-0-0 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 100 lb uplift at joint(s) 12, 19, 20, 21, 22, 17, 16, 15, 14.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED REFER REFERENCE PAGE MM-7473 FOR 1003-2015 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 indicates 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 1 Quality Criteria, DSR-09 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314



TRUSS BUILDERS INC.  
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MORRISVILLE N.C. 27560  
JOB# 32x24 GARAGE  
CAROLINA CUSTOM BUILDERS





BELLE DAVID A BELLE LEQUITA M  
1400032336

Parcel ID: 03-9587-03- 0020- 41-  
ID NO: 9586-69-3891.000  
CARD NO. 1 of 1

