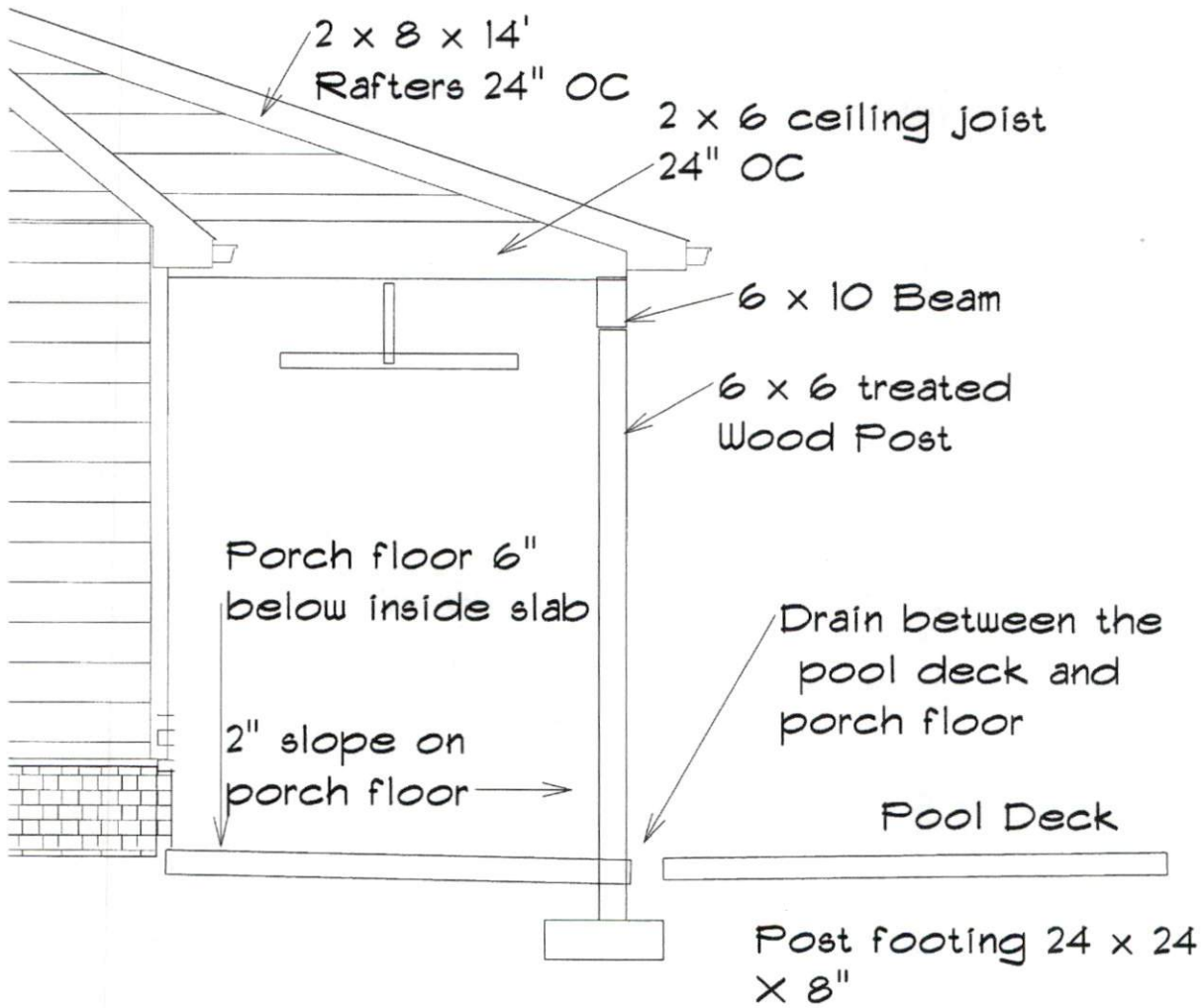
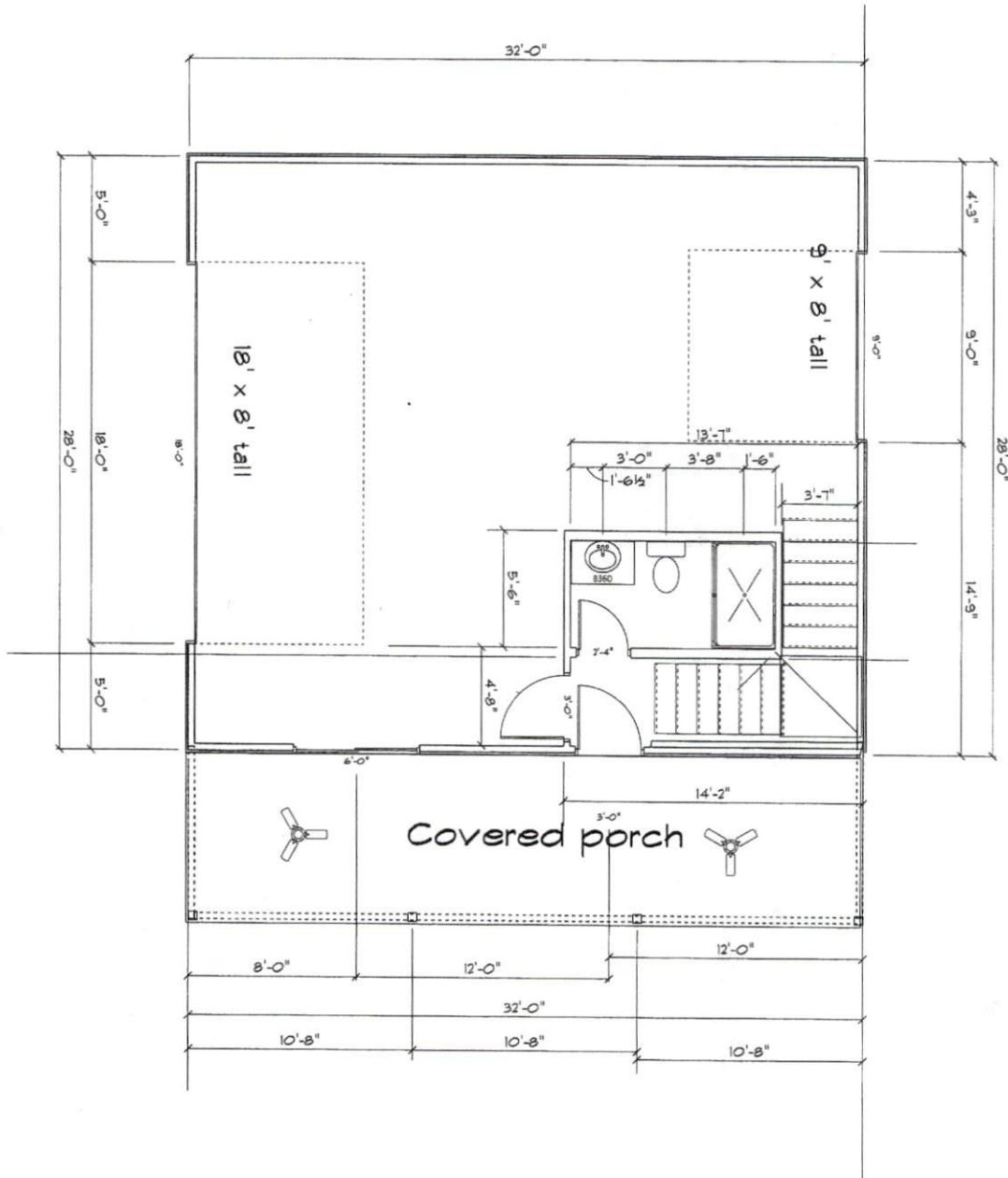


Pitch



896 sq ft down
Rader Garage



Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 19070077
CUSTOM CONTRACTING / RADAR GARAGE

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC).

Pages or sheets covered by this seal: E13317692 thru E13317698

My license renewal date for the state of North Carolina is December 31, 2019.

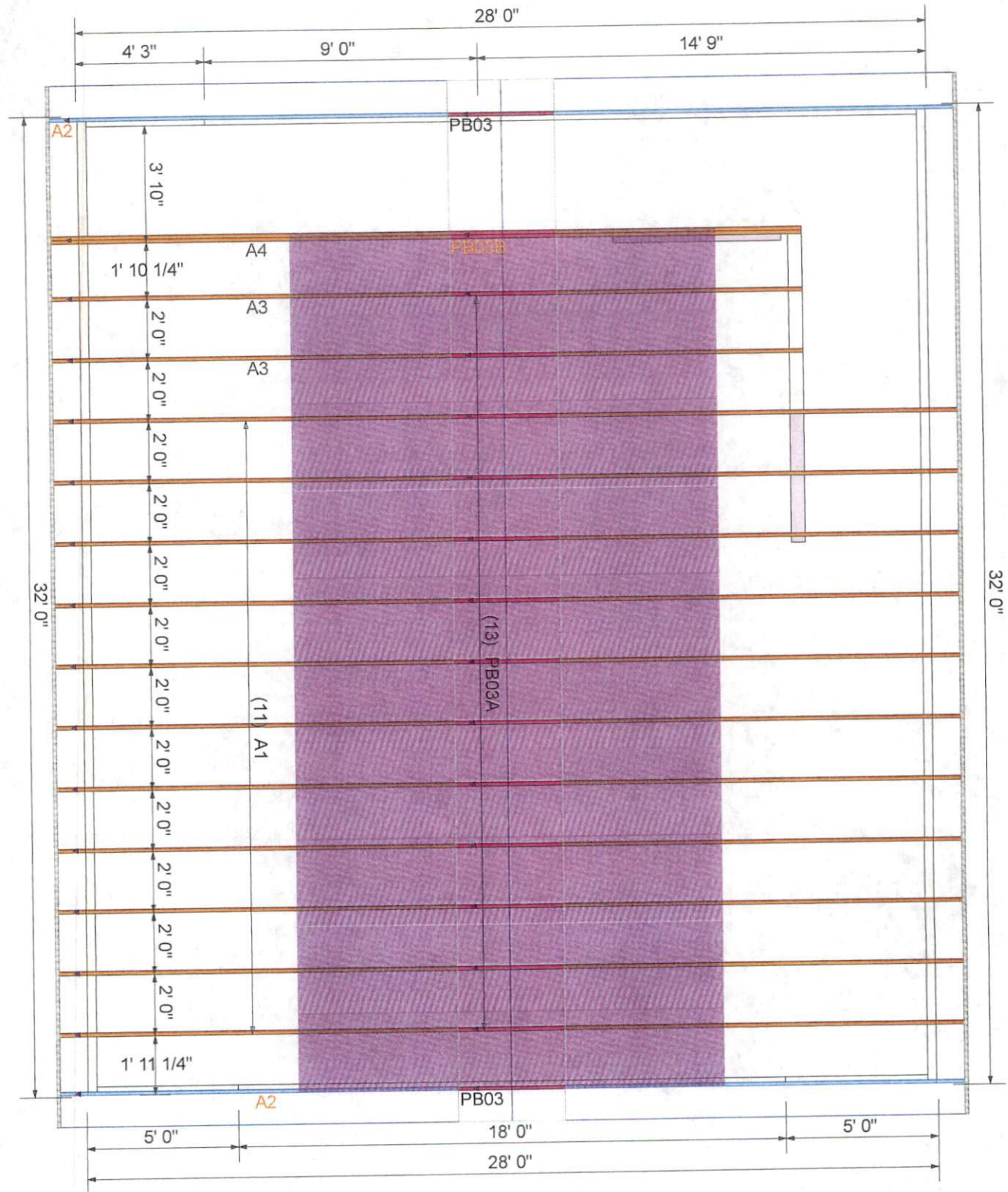
North Carolina COA: C-0844



July 24, 2019

Gilbert, Eric

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.

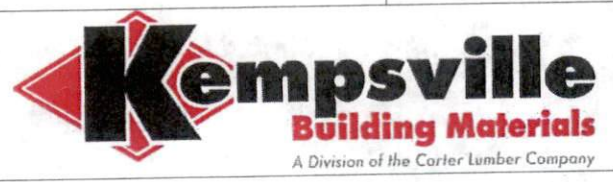


BLOCK SOLID UNDER ALL POST /POINT
LOADS FROM
ABOVE - TYPICAL AT ALL LOCATIONS

ROOF LAYOUT
DRAWING SCALE : NTS

PROJECT NUMBER	REVISIONS	
19070077	DATE	BY
SHEET NUMBER	7-24-19	LEE ATKINS
1 / 1		

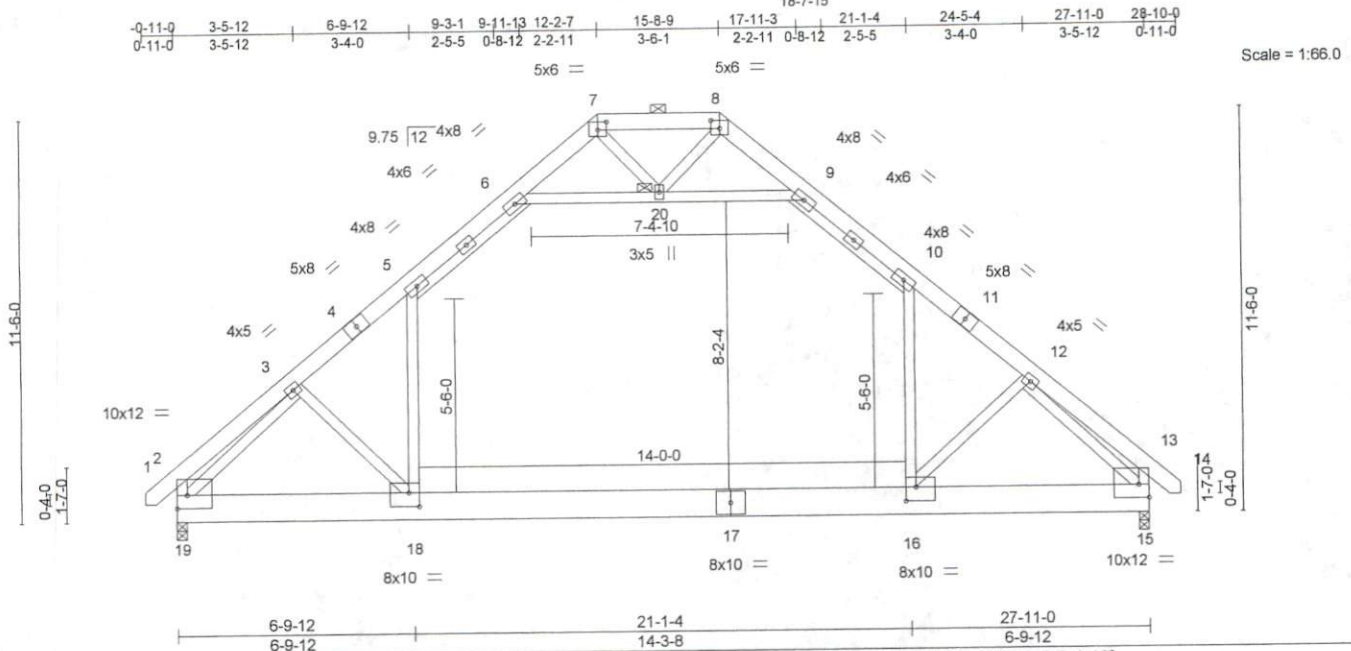
CUSTOM CONTRACTING
RADAR GARAGE
ROOF TRUSS LAYOUT



Job	Truss	Truss Type	Qty	Ply	CUSTOM CONTRACTING / RADAR GARAGE	E13317692
19070077	A1	Attic	11	1	Job Reference (optional)	

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

8.310 s Jun 11 2019 MiTek Industries, Inc. Wed Jul 24 14:38:22 2019 Page 1
 ID:2_Fok_oW2orZ7dt8pE7V90zLuh6-CWMnb5NsyLW9_cv5CM9dCnj_HN70bND2LGRbrYyuuq7F



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.72	Vert(LL) -0.33	16-18	>999	240	MT20	244/190
Snow (Pf/Pg) 18.9/20.0	Lumber DOL 1.15	BC 0.37	Vert(CT) -0.47	16-18	>712	180		
TCDL 10.0	Rep Stress Incr YES	WB 0.79	Horz(CT) 0.02	15	n/a	n/a		
BCLL 0.0 *	Code IRC2015/TPI2014	Matrix-MSH	Attic -0.20	16-18	856	360		
BCDL 10.0							Weight: 275 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 4-7,8-11: 2x6 SP 2400F 2.0E, 5-6,9-10: 2x4 SP No.2	TOP CHORD Sheathed or 3-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 5-18,6-9,10-16: 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 20

REACTIONS. (lb/size) 15=1132/0-3-8, 19=1132/0-3-8
 Max Horz 19=-239(LC 11)
 Max Grav 15=1598(LC 27), 19=1598(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-276/109, 3-5=-1976/107, 5-6=-1282/211, 6-7=-206/253, 7-8=-44/361,
 8-9=-207/253, 9-10=-1282/211, 10-12=-1976/107, 12-13=-276/109, 2-19=-265/126,
 13-15=-265/126
 BOT CHORD 18-19=-5/1506, 16-18=0/1362, 15-16=0/1412
 WEBS 5-18=0/985, 6-20=-1614/186, 9-20=-1614/186, 10-16=0/985, 12-15=-1883/0,
 3-19=-1883/0

- 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) and C-C Exterior(2) 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=1.33
 - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow); Lumber DOL=1.15 Plate DOL=1.15; Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - * 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.
 - Ceiling dead load (5.0 psf) on member(s). 5-6, 9-10, 6-20, 9-20; Wall dead load (5.0psf) on member(s).5-18, 10-16
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 16-18
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Attic room checked for L/360 deflection.

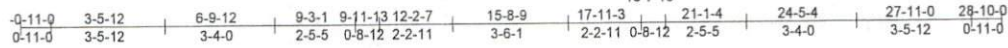


Job	Truss	Truss Type	Qty	Ply	CUSTOM CONTRACTING / RADAR GARAGE	E13317693
19070077	A2	GABLE	2	1	Job Reference (optional)	

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

8.310 s Jun 11 2019 MiTek Industries, Inc. Wed Jul 24 14:38:24 2019 Page 1

ID:2_Fok_oW2orZ7dt8pE?V90zLuh6-8vUX0nO6UymtDvfUJnB5HCoL9App3l6LoawivRyuq7D



Scale = 1:69.6

Plate Offsets (X,Y)-- [2:Edge,0-4-8], [2:0-1-12,0-1-7], [7:0-3-0,0-2-12], [8:0-3-0,0-2-12], [13:0-1-12,0-1-7], [15:Edge,0-4-8], [16:0-3-8,0-4-12], [18:0-3-8,0-4-12], [20:0-2-8,0-0-0], [23:0-1-12,0-1-0], [32:0-1-12,0-1-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	1-11-4	TC 0.70	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 18.9/20.0	Plate Grip DOL 1.15	BC 0.36	Vert(LL) -0.32 16-18 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.76	Vert(CT) -0.45 16-18 >735 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MSH	Horz(CT) 0.02 15 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Attic -0.19 16-18 883 360	Weight: 311 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except	TOP CHORD Sheathed or 3-11-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
4-7,8-11: 2x6 SP 2400F 2.0E, 5-6,9-10: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD 2x10 SP 2400F 2.0E	JOINTS 1 Brace at Jt(s): 20
WEBS 2x4 SP No.3 *Except*	
5-18,6-9,10-16: 2x4 SP No.2	
OTHERS 2x4 SP No.3	

REACTIONS. (lb/size) 15=1097/0-3-8, 19=1097/0-3-8
 Max Horz 19=-232(LC 11)
 Max Grav 15=1548(LC 27), 19=1548(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-268/106, 3-5=-1914/103, 5-6=-1242/205, 7-8=-42/350, 9-10=-1242/205,
 10-12=-1914/103, 12-13=-268/106, 2-19=-257/122, 13-15=-257/122
 BOT CHORD 18-19=-5/1459, 16-18=0/1320, 15-16=0/1368
 WEBS 5-18=0/954, 6-20=-1564/180, 9-20=-1563/180, 10-16=0/954, 12-15=-1824/0,
 3-19=-1824/0

- 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) and C-C Exterior(2) 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=1.33
 - 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; Pr=20.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow); Lumber DOL=1.15 Plate DOL=1.15; Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - * 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.
 - Ceiling dead load (5.0 psf) on member(s) 5-6, 9-10, 6-20, 9-20; Wall dead load (5.0psf) on member(s) 5-18, 10-16
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 16-18
 - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 19. This connection is for uplift only and does not consider lateral forces.

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



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CUSTOM CONTRACTING / RADAR GARAGE	E13317693
19070077	A2	GABLE	2	1	Job Reference (optional)	

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

8.310 s Jun 11 2019 MiTek Industries, Inc. Wed Jul 24 14:38:24 2019 Page 2
 ID:2_Fok_oW2orZ7dt8pE?V90zLuh6-8vUX0nO6UymtDvfUJnB5HCoL9Apg3l6LoawivRyuq7D

NOTES-

14) Attic room checked for L/360 deflection.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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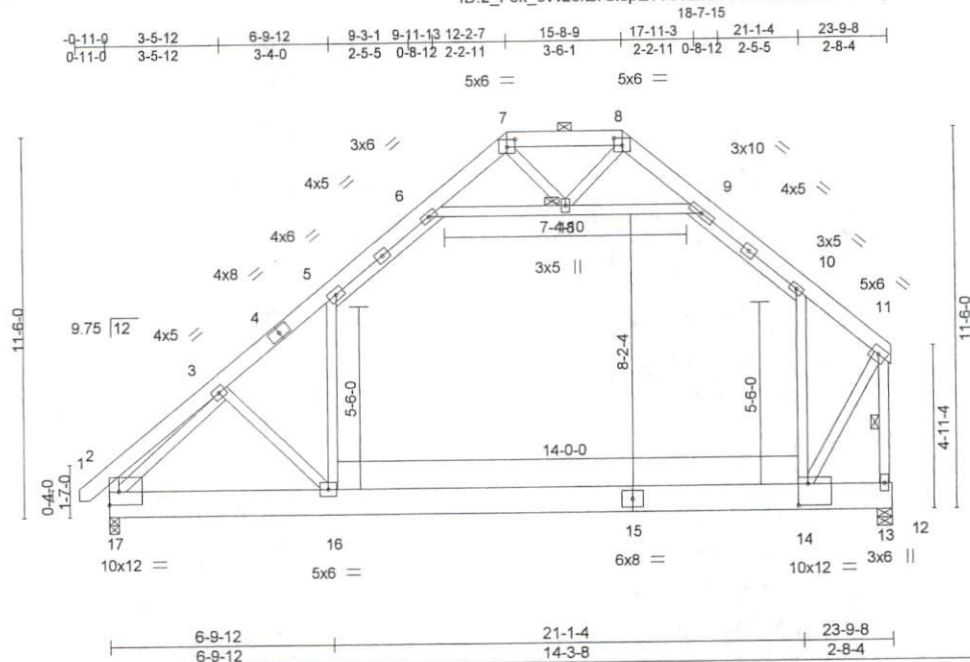
ENGINEERING BY
TRENCO
 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CUSTOM CONTRACTING / RADAR GARAGE	E13317694
19070077	A3	Attic	2	1	Job Reference (optional)	

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

8.310 s Jun 11 2019 MiTek Industries, Inc. Wed Jul 24 14:38:26 2019 Page 1
 ID:2_Fok_oW2orZ7dt8pE?V90zLuh6-4IcHRTQM0a0bTDpsRBDZMtdO_U9XBfeGuPo_Kyuq7B



Scale = 1:69.9

Plate Offsets (X,Y)-- [2:0-1-12,0-1-7], [7:0-3-0,0-2-12], [8:0-3-0,0-2-12], [14:0-3-8,0-7-12], [17:Edge,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.91	Vert(LL)	-0.27 14-16	>999	240	MT20	244/190
Snow (Pf/Pg) 18.9/20.0	Plate Grip DOL 1.15	BC 0.42	Vert(CT)	-0.40 14-16	>707	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.76	Horz(CT)	0.01 13	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MSH	Attic	-0.18 14-16	946	360		
BCDL 10.0	Code IRC2015/TPI2014						Weight: 243 lb	FT = 20%

LUMBER-
 TOP CHORD 2x6 SP No.2 *Except*
 4-7: 2x6 SP 2400F 2.0E, 5-6,9-10: 2x4 SP No.2
 BOT CHORD 2x10 SP 2400F 2.0E
 WEBS 2x4 SP No.3 *Except*
 5-16,6-9,10-14: 2x4 SP No.2

BRACING-
 TOP CHORD Sheathed or 2-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 7-8.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 11-13
 JOINTS 1 Brace at Jt(s): 18

REACTIONS. (lb/size) 17=963/0-3-8, 13=978/0-5-8
 Max Horz 17=202(LC 10)
 Max Grav 17=1355(LC 26), 13=1490(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-262/105, 3-5=-1404/55, 5-6=-918/174, 6-7=-336/114, 8-9=-329/112,
 9-10=-988/183, 10-11=-1279/43, 2-17=-258/130, 11-13=-2538/42
 BOT CHORD 16-17=-114/1108, 14-16=-6/916
 WEBS 5-16=0/703, 6-18=-912/117, 9-18=-1005/127, 10-14=-283/495, 11-14=-12/1873,
 3-16=-274/155, 3-17=-1314/0

- 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) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - * 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.
 - Ceiling dead load (5.0 psf) on member(s). 5-6, 9-10, 6-18, 9-18; Wall dead load (5.0psf) on member(s).5-16, 10-14
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-16
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Attic room checked for L/360 deflection.



July 24,2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY
TRENCO
 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CUSTOM CONTRACTING / RADAR GARAGE	E13317695
19070077	A4	ATTIC	1	2	Job Reference (optional)	

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

8.310 s Jun 11 2019 MiTek Industries, Inc. Wed Jul 24 14:38:27 2019 Page 1

ID:2_Fok_oW2orZ7dt8pE?V90zLuh6-YUAgepR_nt8S4NO2_kvokQn?OqUghsnUY9Mwmyuq7A

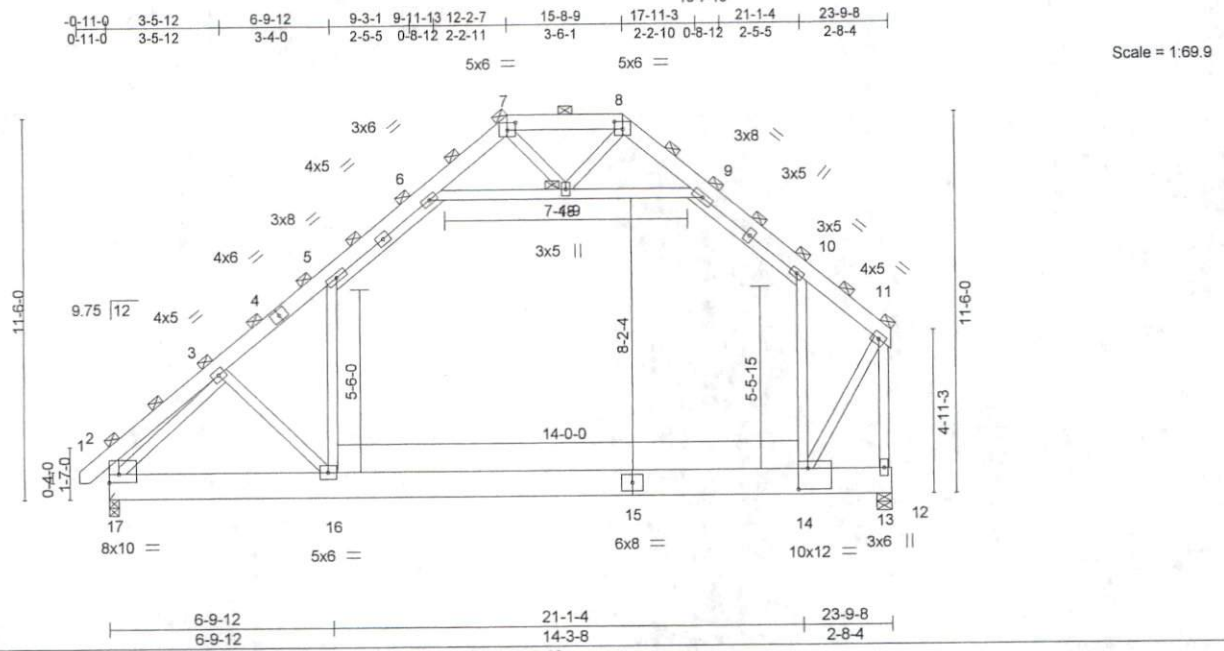


Plate Offsets (X,Y)-- [2:0-1-12,0-1-7], [7:0-3-0,0-2-12], [8:0-3-0,0-2-12], [14:0-3-8,0-7-8], [17:Edge,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.98	Vert(LL) -0.22	14-16	>999	240	MT20	244/190
Snow (Pf/Pg) 18.9/20.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.31	14-16	>892	180		
TCDL 10.0	Rep Stress Incr NO	WB 0.57	Horz(CT) 0.01	13	n/a	n/a		
BCLL 0.0 *	Code IRC2015/TPI2014	Matrix-MSH	Attic -0.14	14-16	1222	360		
BCDL 10.0							Weight: 486 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2 *Except*
 5-6,9-10: 2x4 SP No.2
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except*
 5-16,6-9,10-14: 2x4 SP No.2

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
 (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 7, 8, 2, 11, 18

REACTIONS. (lb/size) 17=1444/0-3-8, 13=1466/0-5-8
 Max Horz 17=407(LC 10)
 Max Grav 17=2029(LC 26), 13=2238(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-407/163, 3-5=-2114/127, 5-6=-1399/296, 6-7=-498/175, 7-8=-310/247,
 8-9=-482/171, 9-10=-1474/298, 10-11=-1923/141, 2-17=-388/187, 11-13=-384/197
BOT CHORD 16-17=-281/1678, 14-16=-114/1404
WEBS 5-16=-31/1015, 6-18=-1412/235, 9-18=-1517/238, 10-14=-414/771, 11-14=-106/2837,
 3-16=-390/238, 3-17=-1983/0

- 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: 2x10 - 2 rows staggered at 0-9-0 oc.
 Webs 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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=1.33
 - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - * 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.
 - Ceiling dead load (5.0 psf) on member(s). 5-6, 9-10, 6-18, 9-18; Wall dead load (5.0psf) on member(s).5-16, 10-14
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-16
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Attic room checked for L/360 deflection.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job 19070077	Truss PB03A	Truss Type Piggyback	Qty 13	Ply 1	CUSTOM CONTRACTING / RADAR GARAGE Job Reference (optional)	E13317697
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Carter Components (Sanford), Sanford, NC - 27332,

8.310 s Jun 11 2019 MiTek Industries, Inc. Wed Jul 24 14:38:29 2019 Page 1

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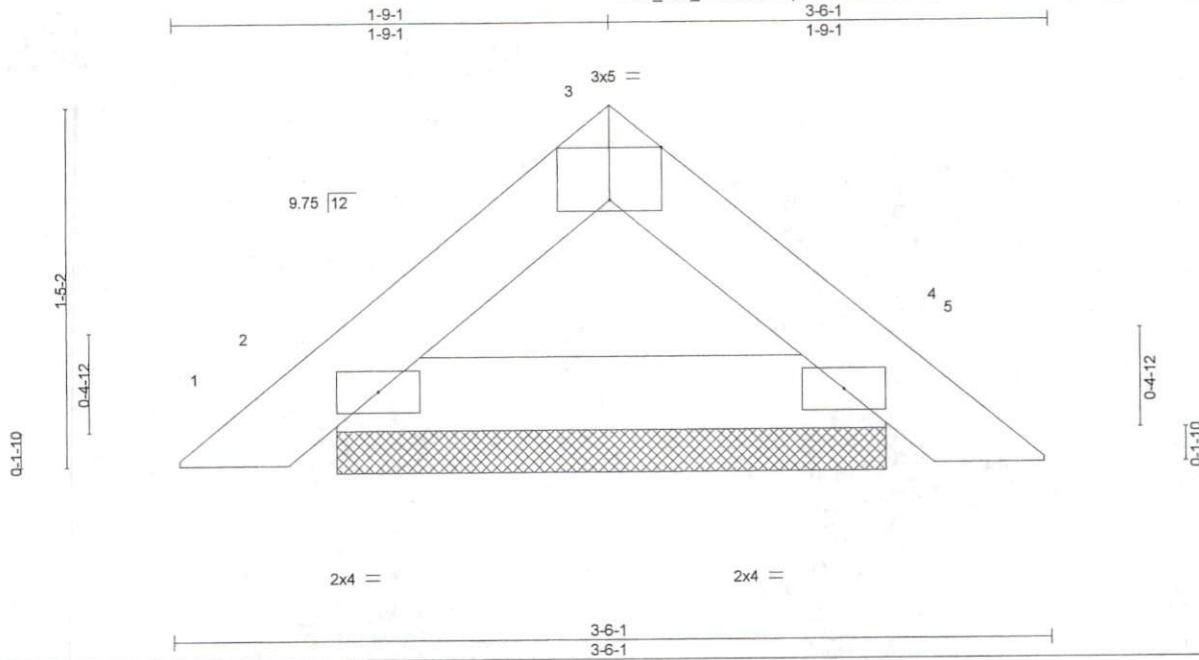


Plate Offsets (X,Y)-- [3:0-2-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.02	Vert(LL)	0.00	4	n/r	MT20	244/190
Snow (Pf/Pg) 13.9/20.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	0.00	4	n/r		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	4	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2015/TPI2014						Weight: 10 lb	FT = 20%

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

BRACING-
TOP CHORD Sheathed or 3-6-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=94/2-2-6, 4=94/2-2-6
Max Horz 2=24(LC 12)
Max Uplift 2=-3(LC 13), 4=-3(LC 14)
Max Grav 2=113(LC 2), 4=113(LC 2)

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

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) and C-C Exterior(2) 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- * 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.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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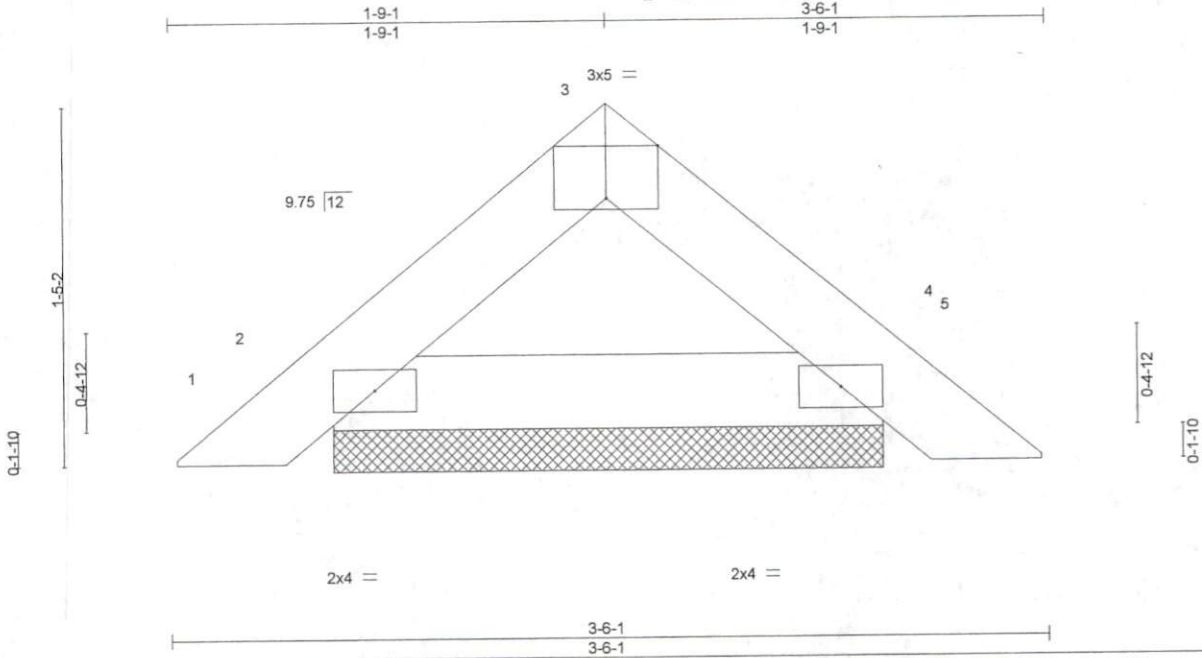
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CUSTOM CONTRACTING / RADAR GARAGE	E13317698
19070077	PB03B	Piggyback	1	2	Job Reference (optional)	

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

8.310 s Jun 11 2019 MiTek Industries, Inc. Wed Jul 24 14:38:30 2019 Page 1

ID:2_Fok_oWZorZ7dt8pE?V90zLuh6-z3roGrT4oW0xq6dg11VWT2XPbxNTAUDBN075yuq77



Scale = 1:9.2

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.01	Vert(LL)	0.00	4	n/r	MT20	244/190
Snow (Pf/Pg) 13.9/20.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	0.00	4	n/r		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	4	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2015/TPI2014						Weight: 20 lb	FT = 20%

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

BRACING-
TOP CHORD Sheathed or 3-6-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=94/2-2-6, 4=94/2-2-6
Max Horz 2=24(LC 12)
Max Uplift 2=-3(LC 13), 4=-3(LC 14)
Max Grav 2=113(LC 2), 4=113(LC 2)

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

NOTES-

- 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow); Lumber DOL=1.15 Plate DOL=1.15; Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- * 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.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 24, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

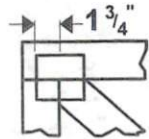
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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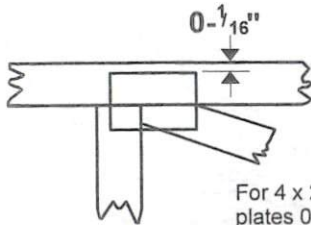
818 Soundside Road
Edenton, NC 27932

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

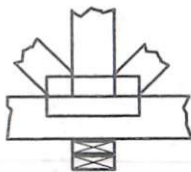
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

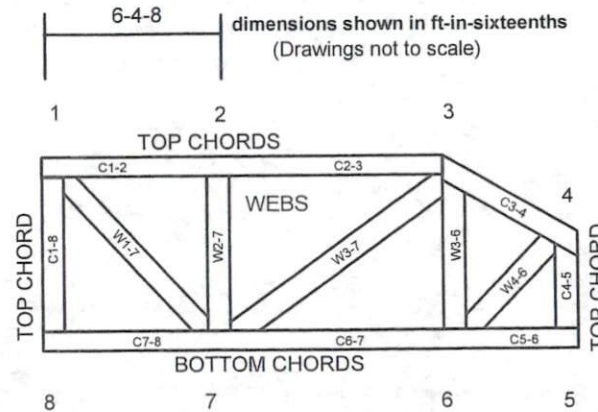


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

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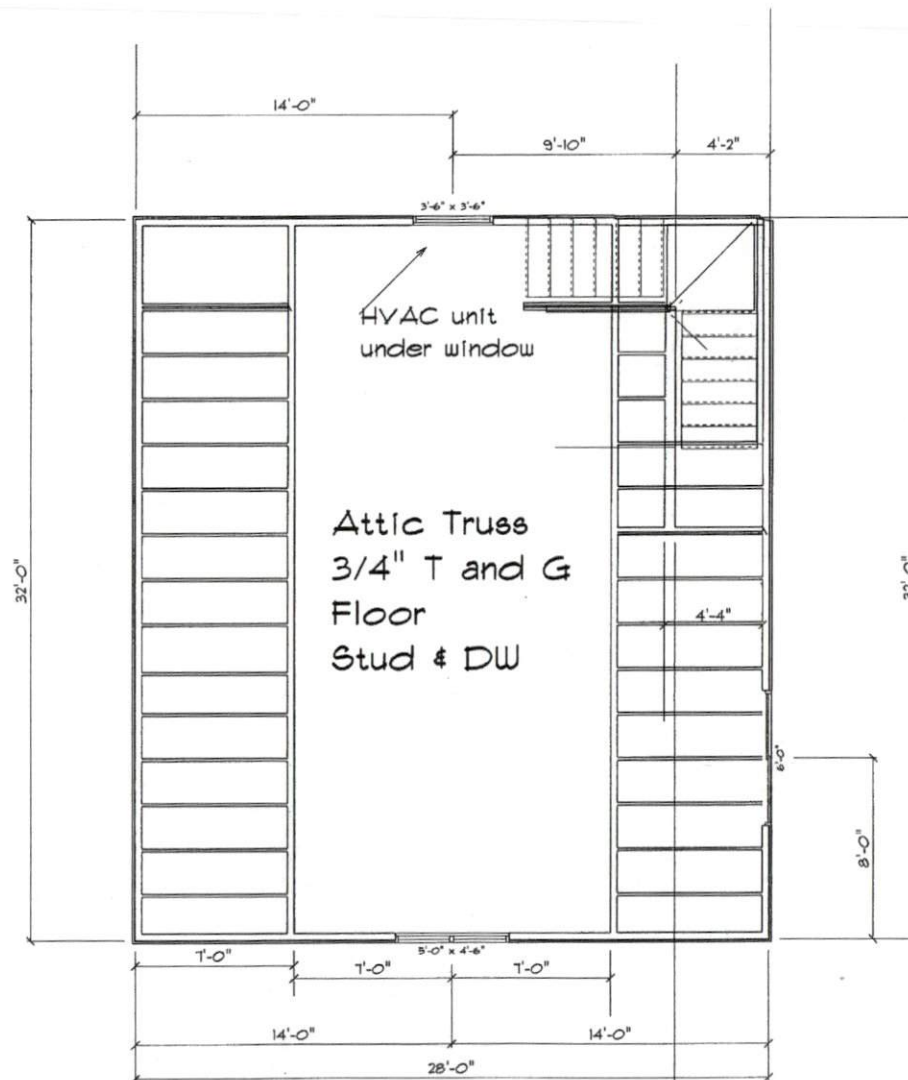


MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

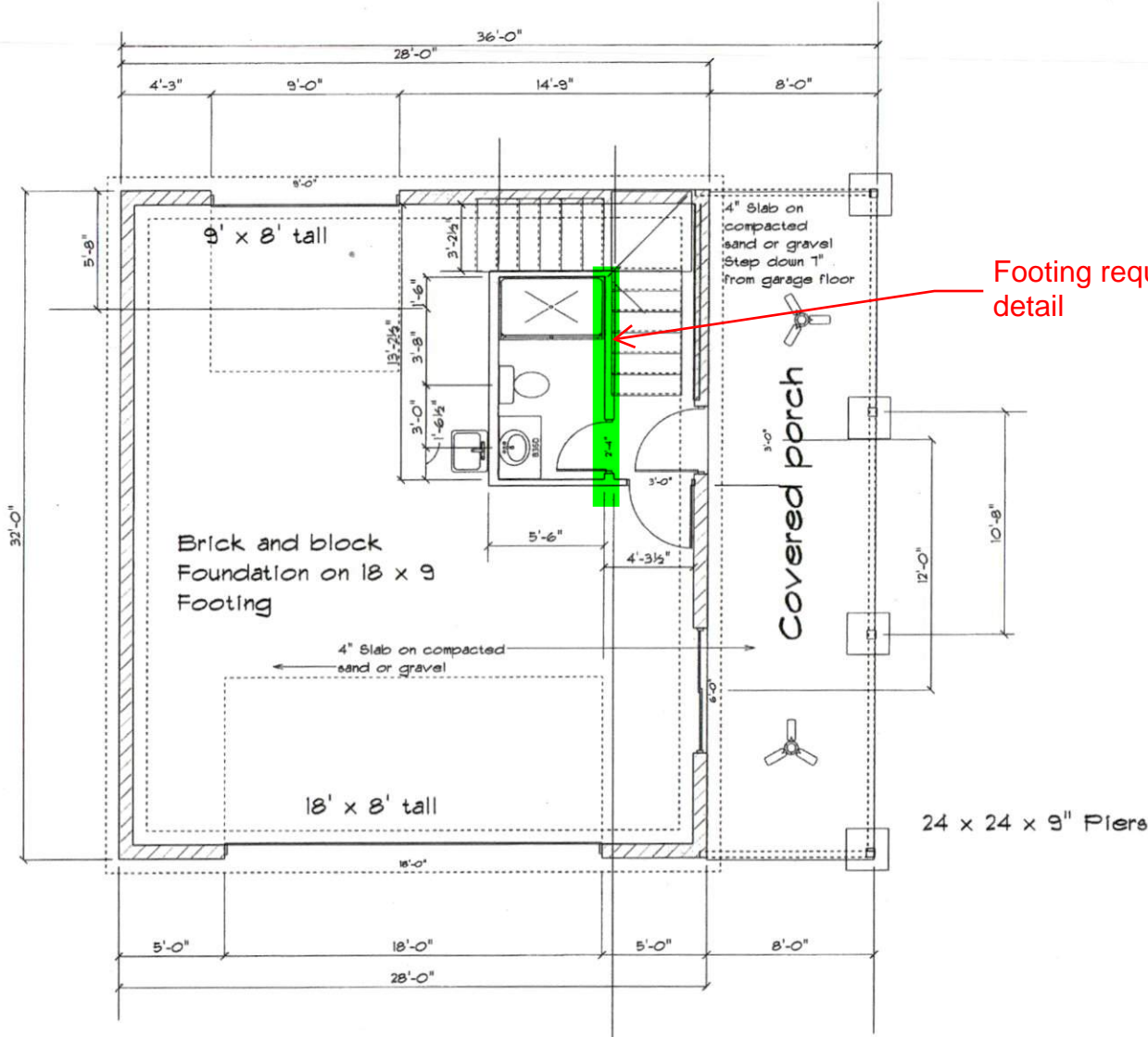
General Safety Notes

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.

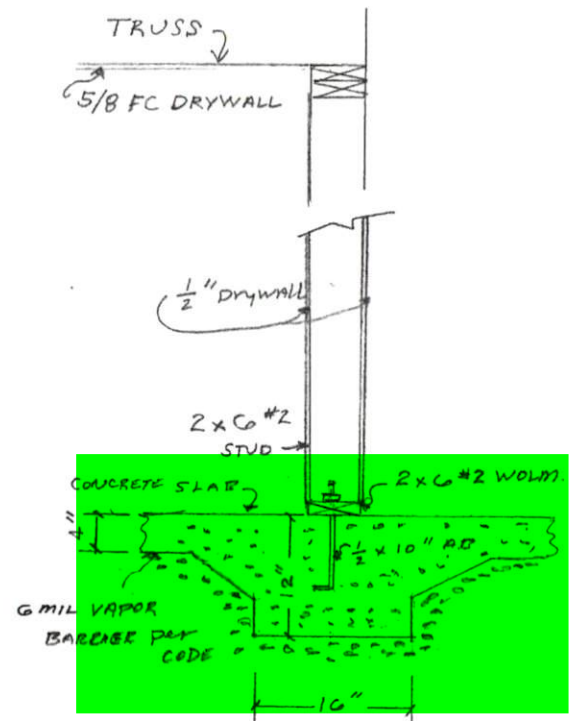
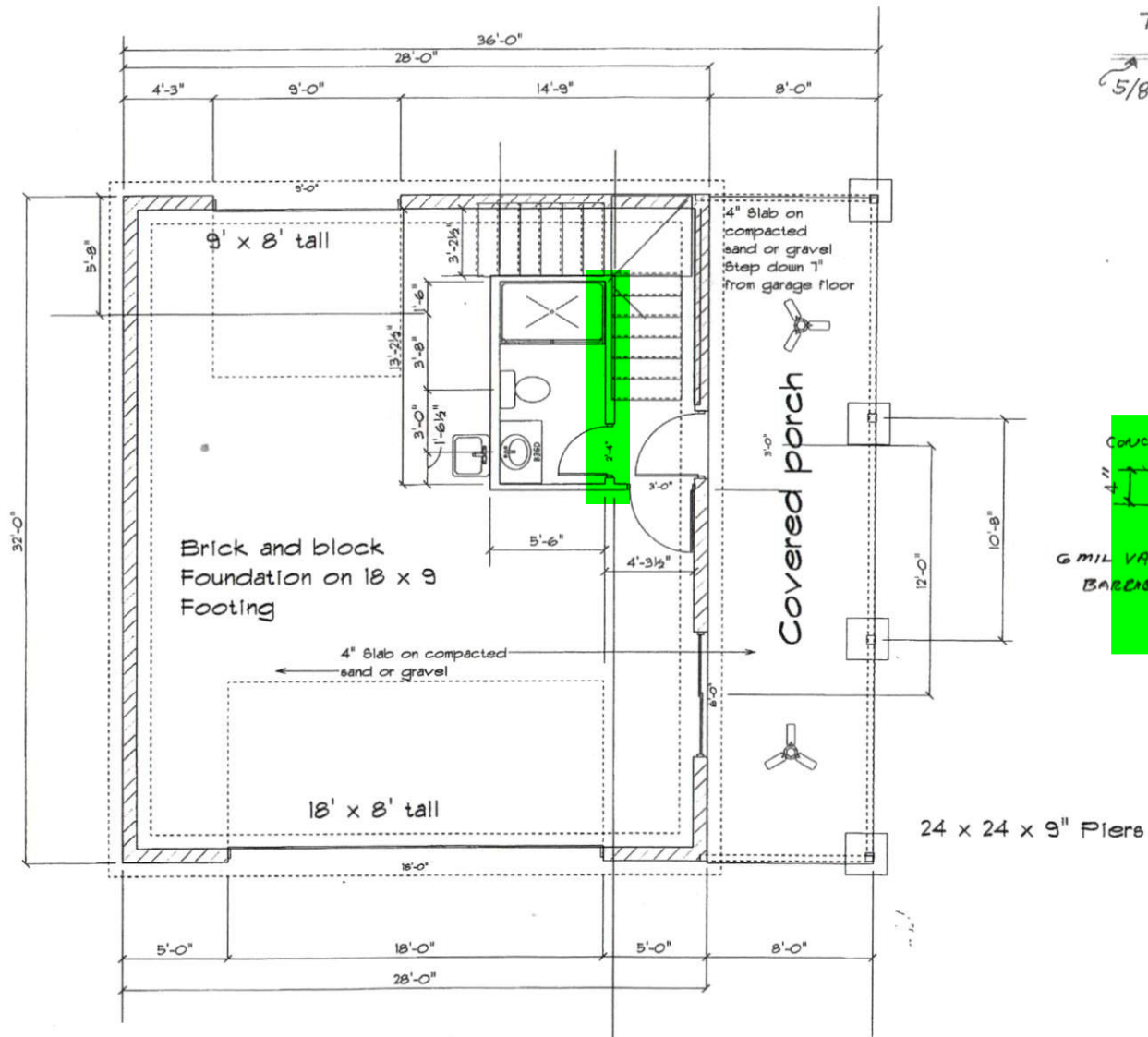


Rader Up Stairs #2



Footing required. See detail

896 sq ft down
Rader Garage Foundation



BATH ROOM WALL SECTION
SCALE 1" = 1'-0"

896 sq ft down
Rader Garage Foundation

BRES1907-0007