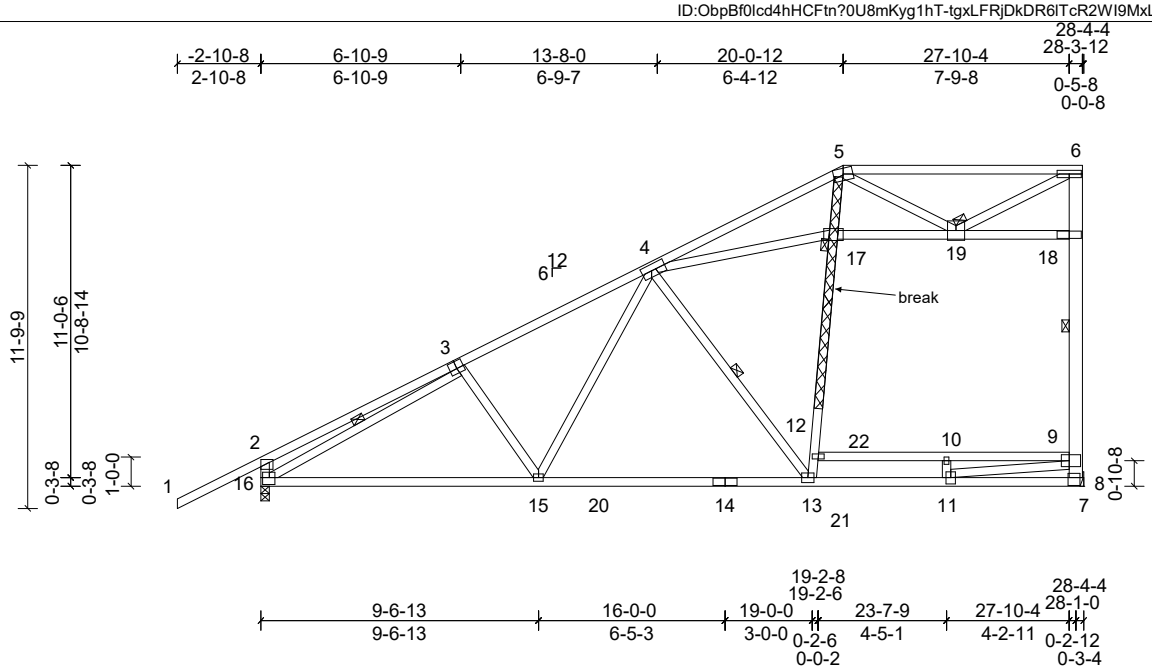
Job	Truss	Truss Type	Qty	Ply	PROFESSIONALRALEIGH FARMHOUSE ROOF
72341284REP1	A1F	Truss	3	1	Job Reference (optional)



Repair for a break in the web where indicated.

Attach 2x4 x 8' SP or SPF No.2 scab to each face of truss centered at the break with 2 rows of 10d (.131" x 3") nails spaced 4" oc

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

Loading	(psf)	Spacing	2-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.38	13-15	>873	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.68	13-15	>492	180	MT18HS	244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 231 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP SS *Except* T1:2x4 SP No.2
BOT CHORD	2x4 SP No.1 *Except* B3:2x4 SP No.2
WEBS	2x4 SP No.3 *Except* W12:2x6 SP SS, W7:2x4 SP No.1, W8,W6:2x4 SP No.2

REACTIONS (lb/size) 8=1469/ Mechanical, (min. 0-1-8), 16=1561/0-3-8, (min. 0-1-13)
Max Horiz 16=519 (LC 10)
Max Uplift 8=-114 (LC 10), 16=-210 (LC 10)
Max Grav 8=1889 (LC 2), 16=1561 (LC 1)

BRACING

TOP CHORD	2-0-0 oc purlins (2-11-2 max.), except end verticals (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 6-0-0 oc bracing: 9-12
WEBS	1 Row at midpt 6-8, 4-13, 3-16
JOINTS	1 Brace at Jt(s): 5, 2, 17, 19, 6

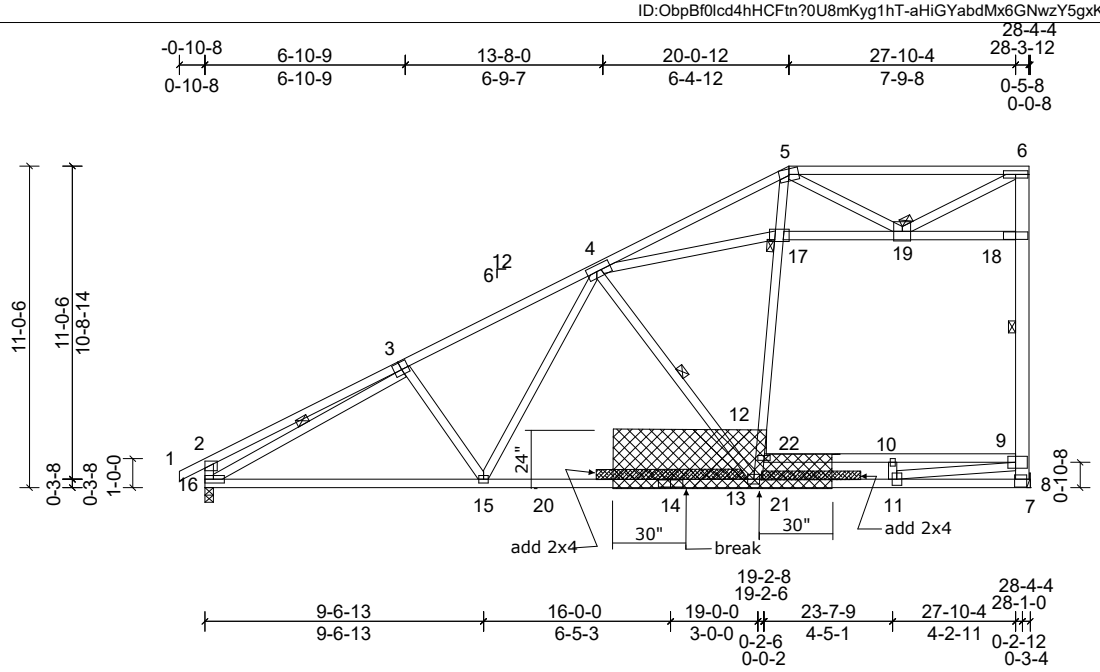
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-390/81, 3-4=-1924/281, 4-5=-3871/1133, 5-6=-1445/516, 8-9=-1675/377, 9-18=-1202/416, 6-18=-1199/415, 2-16=-530/307
BOT CHORD	15-16=-648/1739, 15-20=-450/1402, 14-20=-450/1402, 13-14=-450/1402, 13-21=0/633, 11-21=0/633, 8-11=-918/86, 12-22=-364/0, 10-22=-364/0, 9-10=-364/0
WEBS	4-13=-1589/700, 12-13=-408/1634, 12-17=-360/1786, 5-17=-539/2277, 3-16=-1873/335, 4-15=-93/557, 3-15=-244/265, 9-11=-76/1573, 17-19=-992/2846, 18-19=-613/0, 5-19=-1936/559, 6-19=-577/2005, 4-17=-1047/2928

NOTES (11)

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 8 and 210 lb uplift at joint 16.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Attic room checked for L/360 deflection.
11) This repair has been prepared based on information and use conditions supplied by client. Designer has made a good faith effort to outline damage and repair conditions as reported by client. When actual field conditions do not approximate those indicated on this drawing, client shall immediately inform the engineer and refrain from applying the repair.

Job	Truss	Truss Type	Qty	Ply	PROFESSIONALRALEIGH FARMHOUSE ROOF
72341284REP1	A1	Truss	6	1	Job Reference (optional)



Repair for the bottom chord broken at joint 13 and at the right edge of the plate at joint 14.

Add a new 2x4 SP or SPF No.2 members on top of the chord, and attach 3/4in. Plywood or OSB (23/32in. APA Rated Sheathing 48/24 Exposure 1) gusset to both sides of truss as shown with two rows of 10d (.131" x 3") nails spaced 4" oc in all members from each face, driven through both sheets of plywood.

Plate Offsets (X, Y): [2:0-2-0,0-1-12], [3:0-3-0,0-3-0], [8:0-3-4,0-0-8], [9:0-3-4,0-2-8]

Loading	(psf)	Spacing	2-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.38	13-15	>871	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.68	13-15	>491	180	MT18HS	244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 227 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP SS *Except* T1:2x4 SP No.2
BOT CHORD	2x4 SP No.1 *Except* B3:2x4 SP No.2
WEBS	2x4 SP No.3 *Except* W12:2x6 SP SS, W7:2x4 SP No.1, W8,W6:2x4 SP No.2

REACTIONS (lb/size) 8=1479/ Mechanical, (min. 0-1-8), 16=1410/0-3-8, (min. 0-1-11)
Max Horiz 16=478 (LC 10)
Max Uplift 8=-118 (LC 10), 16=-154 (LC 10)
Max Grav 8=1898 (LC 2), 16=1410 (LC 1)

BRACING

TOP CHORD	2-0-0 oc purlins (2-10-12 max.), except end verticals (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 6-0-0 oc bracing: 9-12
WEBS	1 Row at midpt 6-8, 4-13, 3-16
JOINTS	1 Brace at Jt(s): 5, 2, 17, 19, 6

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

TOP CHORD	2-3=-573/247, 3-4=-1959/326, 4-5=-3902/1172, 5-6=-1456/530, 8-9=-1684/389, 9-18=-1210/426, 6-18=-1207/425, 2-16=-512/290
BOT CHORD	15-16=-711/1788, 15-20=-470/1417, 14-20=-470/1417, 13-14=-470/1417, 13-21=0/634, 11-21=0/634, 8-11=-923/92, 12-22=-364/0, 10-22=-364/0, 9-10=-364/0
WEBS	4-13=-1615/728, 12-13=-429/1650, 12-17=-382/1803, 5-17=-565/2298, 3-16=-1664/85, 4-15=-133/569, 3-15=-283/307, 9-11=-85/1581, 17-19=-1023/2870, 18-19=-616/4, 5-19=-1951/578, 6-19=-598/2021, 4-17=-1079/2954

NOTES (11)

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 8 and 154 lb uplift at joint 16.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Attic room checked for L/360 deflection.
11) This repair has been prepared based on information and use conditions supplied by client. Designer has made a good faith effort to outline damage and repair conditions as reported by client. When actual field conditions do not approximate those indicated on this drawing, client shall immediately inform the engineer and refrain from applying the repair.