

Notes on Canopy spacing

NFPA 1144 and the handout "Reducing wildfire risks in the home ignition zone".

- "Tree placement should be planned to insure the mature canopy is no closer than 10' to the edge of the structure
- 5-30' from the structure, space trees (or *clumps of trees*) to have a minimum of 18' distance between crowns with the distance *increasing with the percentage of slope*.
- 30-60' from structure 12' crown spacing, 60-100' , 6' crown spacing.

I can find no guidance in 1144 about how much to increase distance with slope.

From the Quincy Firewise Community HIZ consultation checklist (Firewise USA)PRC 4291

- 30 to 100' from structure Horizontal tree canopy spacing standard
 - Flat or gentle slope(0 to 20%) 10 feet
 - Moderate slope(20-40%) 20 feet
 - Steep slope(greater than 40%) 30 feet

Putting these two together, canopies 10' from structure

	0-30'	30-60'	60-100'
	Canopy Separation Distances		
<20% slope	18'	12'	10'
20-40%	20'	20'	20'
>40%	30'	30'	30'

Some hypotheticals

1. Home has a 20' level bench to a 20% slope, 18' sep 0-30', then 20' out to 100'?
2. Home has 10' level bench, then 20 to 40% slope, 20' sep 0-100'
3. Home has level bench to the side, 18' sep 0-30', 12' sep 30-100, 10' 30-100'

Other factors-

1. Roadways are usually crown breaks.
2. Consider likely factors for increased fire severity (prevailing winds, slope, aspect, "chimneys", ridges). Consider the impacts from adjacent property fuels.
3. Ladder and ground fuels contribute to crown fires. Regularly remove those fuels..
4. Consider what you can do to reduce your neighbors' fire risks.