Client: Susan Blair

Arborist: Zach Vought

Project Address: 27 Bella Vista Ave., San Anselmo

Inspection Date: October 23, 2019

URBAN FORESTRY ASSOCIATES, INC.

Assignment

Susan Blair contacted Urban Forestry Associates to request an assessment of the mature douglas fir tree located in the front yard of her residential property at 27 Bella Vista Avenue in San Anselmo. The assessment was prompted by Ms. Blair's concern regarding the tree's health, as she has noticed the canopy looking sparse. Ms. Blair described how the sewer line (located within the tree's root zone) was replaced in the recent past and that roots were contributing to the line needing replacement. Ms. Blair is interested in removing the tree both due to its declining health and fire risk concerns. The purpose of this report is to satisfy the Town of San Anselmo requirement for an arborist's report to accompany heritage tree removal permit applications.

Observations

Tree 1

Species	douglas fir (*Pseudotsuga menziesii*)
Size	28.7 inches (Dbh[1])
Location	The tree stands in the front yard of 27 Bella Vista Avenue in a compact planter. The trunk is approximately 4 feet from the sidewalk and 12 feet from the home. The canopy extends over the roof. The tree reportedly stands within 5 feet of a recently replaced sewer line (See Figure 1,3).
Condition	The subject tree stands approximately 50 feet tall with a crown spread of approximately 40 feet. Much of the tree's root system is covered with and confined by manmade objects; including the street, sidewalk and home. (*For Condition Ratings, See Table 1, page 5*) **Health**- Fair. The canopy is sparsely foliated and exhibits dieback in the canopy over the home (See Figure 2). **Structure**- Good. No obvious maladies in the trunk or branches were identified and the tree exhibits a straight trunk. **Form**- Good. No significant abnormalities.

Figure 1. Subject tree as viewed from the street.

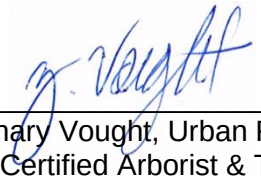
[1] Dbh- tree diameter measured at 4.5 feet above grade with a Spencer loggers tape.

Discussion
While coast redwood (*Sequoia sempervirens*) is touted as one of the largest trees in the world, douglas fir rivals the species both in terms of size potential and age. Although the species does not typically reach its size potential growing in disturbed urban soils, it can still become a very large tree, exceeding heights of 100 feet and trunk diameter of over 3 feet. Typical of many residential lots in San Anselmo the front yard of 27 Bella Vista Avenue is compact, providing limited space for landscape trees and shrubs. The subject tree dominates the front yard and while its structure and form ratings are favorable, the tree appears stressed as evidenced by the sparse appearance of the canopy.

There was no clear indication of why the canopy is sparse although it is possible that the trenching performed during sewer line replacement damaged roots. Regardless, the tree is placed in a suboptimal area near utilities and hardscape and is a fire prone species standing within the defensible space zone of the home. Per Firesafemarin.org Fir trees are not recommended for planting within the defensible space zone of homes.

Conclusions
The subject tree has outgrown the available space and is poorly placed as a species with such a large growth potential. Additionally, the tree appears unhealthy and is presenting a fire hazard to the home. In my opinion removal of the subject tree is a reasonable course of action to abate the issues outlined above.

Recommendation
Whole tree removal.



Zachary Vought, Urban Forester
ISA Certified Arborist & TRAQ
WE-9995A

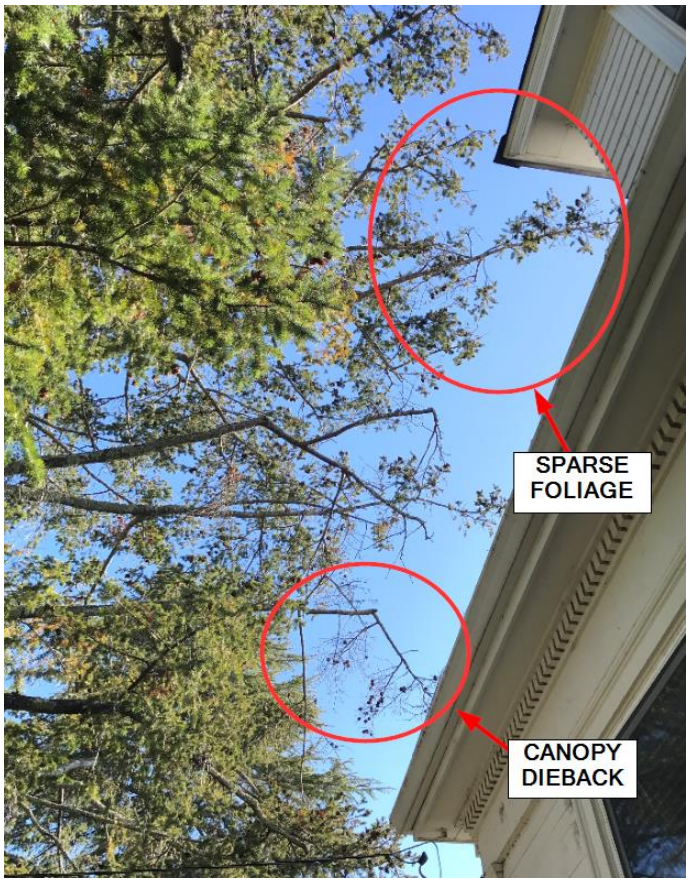


Figure 3. The canopy as viewed from the entry walkway of 27 Bella Vista Ave. Note how sparse the canopy appears.

Figure 2. The canopy as viewed from the front yard of 25 Bella Vista Ave.

Glossary

Health – overall health or ability of the pant to deal with stress (vitality). Health assessment is based on the appearance of foliage, incremental growth, and the amount of living vascular tissue.

Form – The plant's overall appearance as it relates to its shape or silhouette. Can be negatively affected by crown asymmetries.

Structure – Overall stability of the tree or its branches. This can be negatively affected by things such as acute angle crotches, decay cavities, strong leans, stem girdling roots, ambrosia beetles, history of failures, etc.

SCOPE OF WORK AND LIMITATIONS

Urban Forestry Associates has no personal or monetary interest in the outcome of this investigation. All observations regarding trees in this report were made by UFA, independently, based on our education and experience. All determinations of health condition, structural condition, or hazard potential of a tree or trees at issue are based on our best professional judgment. The health and hazard assessments in this report are limited by the visual nature of the assessment. Defects may be obscured by soil, brush, vines, aerial foliage, branches, multiple trunks or other trees. Even structurally sound, healthy trees are wind thrown during severe storms or other weather events. Consequently, a conclusion that a tree does not require corrective surgery or removal is not a guarantee of no risk, hazard, or sound health.

Table 1. Tree Condition Ratings

Rating category	Condition components		
	Health	Structure	Form
Excellent	High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation	Nearly ideal and free of defects.	Nearly ideal for the species. Generally symmetric. Consistent with the intended use.
Good	Vigor is normal for the species. No significant damage due to diseases or pests. Any twig dieback, defoliation, or discoloration is minor.	Well-developed structure. Defects are minor and can be corrected.	Minor asymmetries/deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.
Fair	Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration, and/or dead branches may comprise up to 50% of the crown.	A single defect of a significant nature or multiple moderate defects. Defects are not practical to correct or would require multiple treatments over several years.	Major asymmetries/deviations from species norm and/or intended use. Function and/or aesthetics are compromised.
Poor	Unhealthy and declining in appearance. Poor vigor. Low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig and/or branch dieback.	A single serious defect or multiple significant defects. Recent change in tree orientation. Observed structural problems cannot be corrected. Failure may occur at any time.	Largely asymmetric/abnormal. Detracts from intended use and/or aesthetics to a significant degree.
Very poor	Poor vigor. Appears to be dying and in the last stages of life. Little live foliage.	Single or multiple severe defects. Failure is probable or imminent.	Visually unappealing. Provides little or no function in the landscape.
Dead			