

MACNAIR
&
ASSOCIATES
CONSULTING ARBORISTS AND HORTICULTURISTS



August 3, 2015

San Francisco Urban Forestry Council
1455 Market Street
San Francisco, CA 94102

RE: Review of Landmark Tree Nomination- Norfolk Island Pine, 46 Cook Street, San Francisco

Dear Committee Members,

On behalf of Dale Rogers, the property owner, I have reviewed the Landmark Tree Nomination form nominating the Norfolk Island pine (*Araucaria heterophylla*) growing at 46 Cook Street and submitted to the San Francisco Urban Forestry Council. The purpose of this review is to verify the accuracy of the information provided in the nomination form and provide my opinion as to whether this tree would qualify for "Landmark" status pursuant to Ordinance 0017-06 and Public Works Code 810.

Following is a listing of the tree description and nomination criteria and my comments¹.

Height: Using a laser range finder I determined the height at 85 feet and not 100 feet as stated on the nomination form.

Average Canopy Width: Concur at approximately 30 feet.

Circumference at 4.5 feet: Using a diameter tape I measured the circumference at 110 inches (35 inch diameter).

Circumference at Ground Level: Concur at 138 inches.

Rarity: The nomination form lists this species as rare. I disagree. The species is common in coastal California and other Mediterranean climates, including San Francisco. The most limiting factor on distribution is this tree's susceptibility to cold damage, which limits the tree to coastal areas. Two references supporting this opinion are the Wikipedia discussion and a Pacific Horticultural article from 2010.

Wikipedia:

The distinctive appearance of this tree, with its widely spaced branches and symmetrical, triangular outline, has made it a popular cultivated species, either as a single tree or in avenues. When the tree reaches maturity, the shape may become less symmetrical. Despite the endemic implication of the species name Norfolk Island pine, it is distributed extensively across coastal areas of the world in

¹ My curriculum vitae setting forth my qualifications is attached hereto.

Mediterranean and humid-subtropical climate regions due to its exotic, pleasing appearance and fairly broad climatic adaptability.

As well as their eponymously native Norfolk Island, these conifers are planted abundantly as ornamental trees throughout coastal areas of Australia, Brazil, Chile, New Zealand, Peru, Portugal, South Africa, Spain, and coastal areas of the United States, such as southern California and the east and west coasts of Florida, as well as the northwestern most coast of Mexico.
(https://en.wikipedia.org/wiki/Araucaria_heterophylla)

Pacific Horticulture:

*Australian members of the Araucariaceae commonly grown in California include the tall, prickly-leaved bunya-bunya (*A. bidwillii*) of Queensland, with huge pineapple-shaped cones, hoop pine (*A. cunninghamii*), an important Australian timber tree, and Norfolk Island pine (*A. heterophylla*), native to Norfolk Island. The latter species is commonly grown in parks and gardens in the San Francisco Bay Area, and in containers in Southern California; it is often sold as star pine, because of its horizontal tiers of radiating branches. - See more at:
<http://www.pacifichorticulture.org/articles/the-araucaria-family-past-present/#sthash.x26NCVko.dpuf>*

Physical:

Size: This is a mature tree, but at 85 feet in height, is not exceptional. The Sunset Western Garden Book describes this species as having a moderately fast growth rate to 100 feet. I would rate this size in the medium category for this species.

Age: The nomination form estimates the age of the tree at 120 years based upon another tree previously removed. My estimate of the tree's age is 70 to 80 years based upon a conservative growth rate of .5 inches in diameter per year. This is a low to moderate growth rate for a moderately fast growing coniferous species. Additionally, the tree's location is 8.5 feet from the house foundation and in, what I assume, is the original driveway access to the carriage house. This location indicates the tree was a volunteer seedling from another tree and was allowed to grow after access to the carriage house was no longer used for vehicular storage.

Distinguished Form: The tree has the typical crown and limb structure for this species, although not unique compared to other Norfolk Island pines. There does not appear to be anything particularly unique or "distinguished" about this form.

Tree Condition: The tree is in good health and moderate structural condition with no severe defects. The live crown to height ratio is lower than preferred at approximately 50%. This moderately low ratio could increase the risk of lower limb breakage. The cones are moderately large (5 to 7 inches) and heavy, which is a concern in high use areas as the cones can cause injury if dislodged and strike a person. Otherwise, the tree has a low to moderate risk of failure projected over a three-year period.

Historical:

Historical Association: Given the tree's probable age and location in the carriage house driveway, the tree most likely dates to the 1940s. It could be a seedling from an older tree on the property, but has no apparent historical association of note, or at all.

Environmental:

Prominent Landscape Feature: This is a large tree, although it is set back from the front fence 81.5 feet. The property owner does not view this tree as an important (prominent) landscape feature.

Low Tree Density: I agree that the neighborhood has a moderate tree density.

Interdependent Group of Trees: I agree that the tree is not an integral member of a group of trees.

Visible or Accessible from Public Right-of-Way: The tree is visible from only a limited number of vantage points. From Cook Street, I could only see it unobstructed from one location. It may be visible from other streets at higher elevations. As stated, it is set back 81.5 feet from the sidewalk and therefor has low visibility.

High Traffic Area: In its location on a dead end street and significantly set back from the street, I do not believe the tree has any traffic calming effect and no high visibility as noted above.

Important Wildlife Habitat: As a non-native ornamental species, the primary wildlife benefit is likely limited to a perching site for birds of prey, but otherwise not a habitat. The cones are likely a potential food source for squirrels and rodents.

Erosion Control: I agree there are no erosion control benefits.

Wind or Sound Barrier: Because of the low live crown to height ratio and narrow crown form, there are no significant wind or sound barrier benefits.

Cultural:

The property owner does not believe the tree adds any "cultural" value to the neighborhood.

Summary:

Based upon my observations and information provided to me by the property owner and discussions with previous SFUFC members, this tree does not seem to meet the criteria for designation as a landmark tree. It is a large stature tree, but relatively common, not unique, not likely historically significant, and does not provide significant environmental benefits, other than marginal aesthetics.

Please contact me with any questions, or if additional information is required.

Sincerely,

James MacNair
International Society of Arboriculture Certified Arborist WC-0603A
International Society of Arboriculture Qualified Tree Risk Assessor

Tree Images:



View of tree from front portion of lot inside fence. Tree is 81.5 feet from fence at sidewalk.



View of tree from Cook Street. Cypresses along sidewalk frontage generally obscure views from the street.