

# Tree Management Experts

## Consulting Arborists

3109 Sacramento Street  
San Francisco, CA 94115

Member, American Society of Consulting Arborists  
Certified Arborists, Tree Risk Assessment Qualified

cell 415.606.3610

fax 415.921.7711

email [Roy@treemanagementexperts.com](mailto:Roy@treemanagementexperts.com)



## City of San Bruno

**Attn: Rene Walsh, Trees & Facilities Field Supervisor**  
**1125 Crystal Springs Avenue**  
**San Bruno, CA 94066-4247**

**Project: Florida Park**  
**Existing tree evaluations**

**Date: 9/6/18**

## ARBORIST REPORT

### Assignment

- Provide an evaluation of two existing trees at the Florida Park site.
- Evaluate current health and risk issues.
- Evaluate impacts from planned construction of new park infrastructure.
- Evaluate changes in tree viability and risk.
- Provide an Arborist Report of findings and recommendations.

### Tree Health and Risk Factors

The site has two existing trees that have been preserved during demolition with the intent of preserving them as part of the new park. These trees are large, mature examples of their species, will be subject to construction impacts and will contribute to risks posed to those using the park.

#### Deodar cedar (*Cedrus deodara*)

The deodar cedar is along the Martin Place frontage. The main part of the tree is 29.2-inches in diameter with a smaller 15.5-inch secondary trunk on the south side. The canopy spreads about 35 feet and the tree is about 40 feet tall. There is a slight lean in the trunk toward the southeast, and the limbs are also predominantly toward the south.

The tree was recently pruned and some lower limbs were removed. There are no dead branches or particularly end-heavy branches in the tree. One larger limb on the south side has a decayed and cracked area and should be removed. The tree has no other pruning needs at this time.

Risk posed by this tree is currently low.

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### Norfolk Island pine (*Araucaria heterophylla*)

The Norfolk Island pine is at the north end of the property and near the neighboring home. The trunk is about 36.5 inches diameter, is straight and without any visible defects in the lower regions except for 2 bark wounds at the base. The tree is about 90 feet tall, and has had the top removed after it had died. Lower limbs have been removed, and with normal limbs and normal limb distribution in the upper 60 percent of the tree (60% live crown ratio or LCR). There was a heavy load of debris beneath the tree comprised of fallen branchlets and cones including some squirrel damaged foliage.

Because the tree has lost its top, side limb development is likely to be faster and new tops will tend to develop. Both the new tops and proportionately longer limbs will be at an increased risk for failure. Thinning the tree by "lion-tailing" limbs (taking out interior foliage) would concentrate wind forces at the ends and will increase the risk of limb failures. Thinning by removing selected limbs would increase forces acting on limbs and will also increase the risk of limb failures. Rather than thinning, branch tips could be shortened where they are particularly long and extend beyond the average canopy. Shortening these limbs would reduce the chance of failures and would only minimally manage the crown size.

This tree is at a maturity point where it is producing many cones, and there are likely more than 100 currently in the tree. These cones are about the size of a grapefruit and weigh about 1 to 2 pounds. As with all *Araucaria* species, most cones mature, dry out and then disintegrate and fall as cone scales. There are frequent exceptions to the disintegration, however, and green cones can fall. The presence of squirrel damage increases the risk that a green cone could be chewed free. These cones fall from near the top of the tree, or at about 50 to 80 feet. If a green cone were to hit someone it would cause serious harm or death.

### **Florida Park Construction Impacts**

The general design of the new park places the play structures and benches beneath these two trees. These features will impact the root systems of the trees, and will place people beneath the trees.

Root system impacts will not remove structural roots, but will require deep curb construction and irrigation trenching well within the root zone of both trees. The trees are likely to have diminished health over the next several years. Based on the distances to construction, the Deodar cedar will likely have a smaller health impact than the Norfolk Island pine.

If either or both trees are retained, a Tree Protection Report (TPR) will be a critical path to successful preservation of a tree or trees. The TPR will specify what the tree needs are, what areas are off-limits during routine work, where we need to be present during construction, and how to mitigate for potential damage by modifying the work plan or by using specialized techniques.

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### Tree Health and Risk Changes

The health of the Deodar cedar will likely be impacted in some way, but should be manageable if a TPR is implemented and if we are on site during excavation activities. The risk posed by this tree will increase due to people being beneath it on a frequent basis. The defective limb with decay present is a known potential failure point and should be removed before construction begins. Other maintenance needs have already been met with recent pruning.

The health of the Norfolk Island pine will likely be impacted more significantly, and although it would likely survive and have minimal impact to structural roots, it will likely show thinning and decline. The size of the tree is considerably larger than the Deodar, yet the construction encroaches to nearly as close and will occur on 3 sides. The tree will pose a much higher risk after construction due to the presence of people on a frequent basis, and particularly due to the large number of cones, any one of which could strike a person.

### Recommendations

We recommend that the Deodar cedar be pruned to remove the decayed limb and that a Tree Protection Report be created and implemented.

We recommend that the Norfolk Island pine be considered for removal due to the risks posed from the cones.

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**Damaged Branch  
in Deodar Cedar**

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**Wound at Base of  
Norfolk Island Pine**

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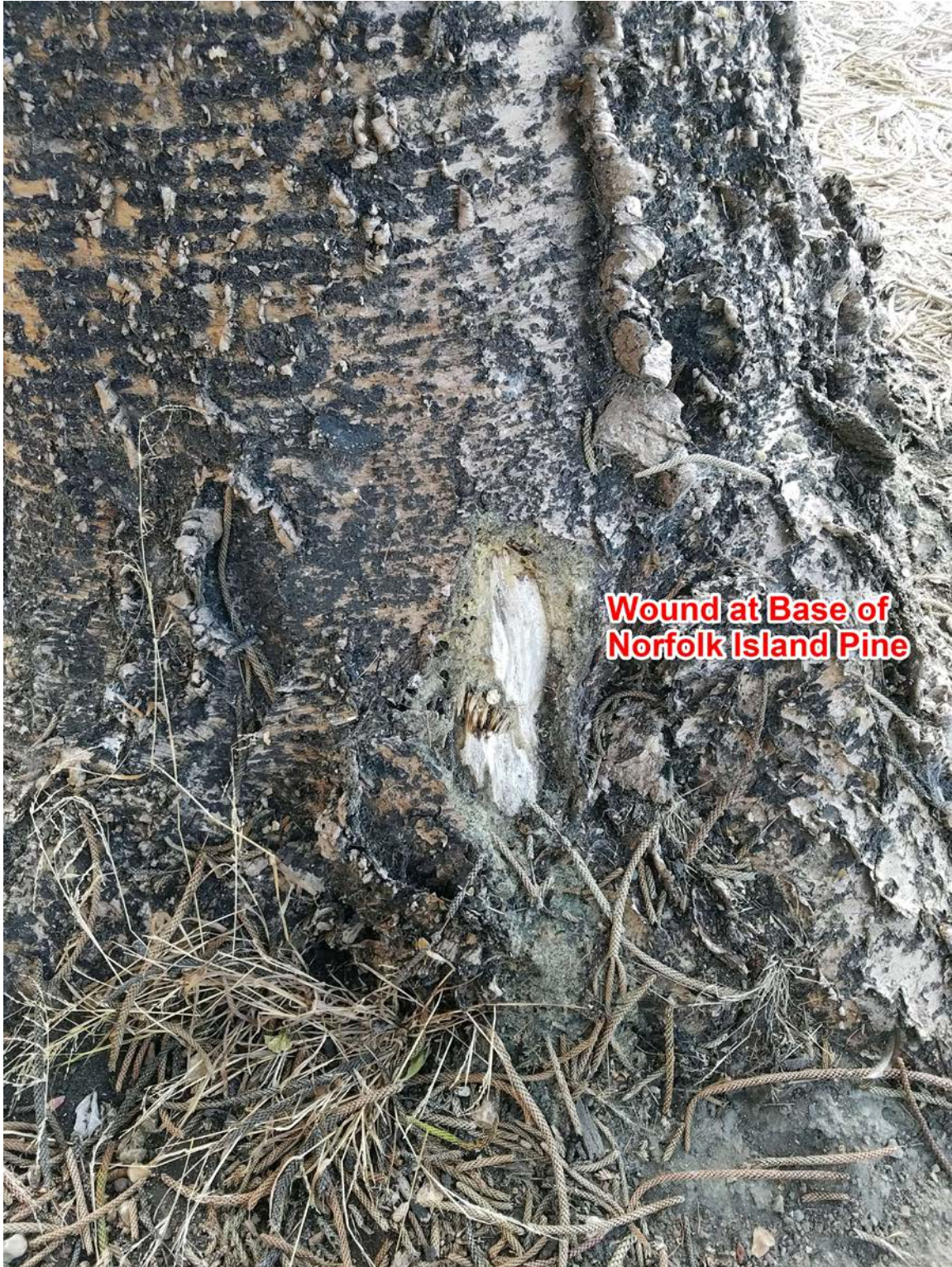
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**Norfolk Island Pine  
Cone Scales**

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**Aborted Cone  
Among Litter**

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## Assumptions and Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. Title and ownership of all property considered are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.
3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
4. Various diagrams, sketches and photographs in this report are intended as visual aids and are not to scale, unless specifically stated as such on the drawing. These communication tools in no way substitute for nor should be construed as surveys, architectural or engineering drawings.
5. Loss or alteration of any part of this report invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior written or verbal consent of the consultant.
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8. This report represents the opinion of the consultant. In no way is the consultant's fee contingent upon a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
9. The consultant shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule, an agreement or a contract.
10. Information contained in this report reflects observations made only to those items described and only reflects the condition of those items at the time of the site visit. Furthermore, the inspection is limited to visual examination of items and elements at the site, unless expressly stated otherwise. There is no expressed or implied warranty or guarantee that problems or deficiencies of the plants or property inspected may not arise in the future.

## Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

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Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. An arborist cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate the trees.

### Certification of Performance


I, Aaron Wang, Certify:

- That we have inspected the trees and/or property evaluated in this report. We have stated findings accurately, insofar as the limitations of the Assignment and within the extent and context identified by this report;
- That we have no current or prospective interest in the vegetation or any real estate that is the subject of this report, and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions and conclusions stated herein are original and are based on current scientific procedures and facts and according to commonly accepted arboricultural practices;
- That no significant professional assistance was provided, except as indicated by the inclusion of another professional report within this report;
- That compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I am a member and Certified Arborist with the International Society of Arboriculture.

I have attained professional training in all areas of knowledge asserted through this report by completion of a Bachelor of Science degree in Forestry and Natural Resources, by routinely attending pertinent professional conferences and by reading current research from professional journals, books and other media.

I have rendered professional services in a full-time capacity in the field of horticulture and arboriculture for more than 3 years.

*Signed:*  \_\_\_\_\_

*Date:* 9/6/18

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### Certification of Performance

I, Roy C. Leggitt, III, Certify:

- That we have inspected the trees and/or property evaluated in this report. We have stated findings accurately, insofar as the limitations of the Assignment and within the extent and context identified by this report;
- That we have no current or prospective interest in the vegetation or any real estate that is the subject of this report, and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions and conclusions stated herein are original and are based on current scientific procedures and facts and according to commonly accepted arboricultural practices;
- That no significant professional assistance was provided, except as indicated by the inclusion of another professional report within this report;
- That compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I am a member in good standing of the American Society of Consulting Arborists and a member and Certified Arborist with the International Society of Arboriculture.

I have attained professional training in all areas of knowledge asserted through this report by completion of a Bachelor of Science degree in Plant Science, by routinely attending pertinent professional conferences and by reading current research from professional journals, books and other media.

I have rendered professional services in a full-time capacity in the field of horticulture and arboriculture for more than 30 years.

*Signed:* \_\_\_\_\_

*Date:* 9/6/18