

SBCA TREE CONSULTING

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Date: August 26, 2016

To: Sara Billing, Assistant Planner
City of Emeryville

Subject: Inspection of adjacent trees

Project: 5876 and 5880 Doyle Street

Assignment: Arborist was requested to inspect trees adjacent to the proposed construction site and provide commentary on the potential impacts and tree protection concerns. This report is to be considered preliminary as much is not known regarding the level of root presence and encroachment into the site.

Introduction

The project proposes to construct a six unit apartment on the parcels of 5876 and 5880 Doyle Street. The project will impact a number of neighbor trees and one City of Emeryville street tree. This report provides information on the designated tree Root Protection Zones (RPZ)¹. An accurate assessment of the root presence can only be made after the site has been cleared.

Discussion of Trees and Possible Conflicts and Mitigation.

Coast Redwood (*Sequoia sempervirens*) – The large Coast Redwood, located on property to the north, has two main stems with DBHs² measured at 49.5 and 40 inches. The RPZ covers a distance of 64 feet out from the base of the tree. The Primary Root Plate (PRP)³ is 16 feet out from the tree base. Both designated RPZ and PRP extend into the project site. The tree is currently very healthy, displaying good foliage color and density. This tree will require pruning to accommodate the 30 foot height of the proposed structure.

Investigation with a 1.5 inch bucket augur in the open soil area adjacent to the tree found feeder roots throughout. If later investigation finds a significant root presence, the structure foundation must be a

¹ **The tree Root Protection Zone (RPZ)** designates an area surrounding a tree or grouping of trees that is to be fenced off from all access until designated by a certified arborist. The RPZ is commonly defined as one (1) foot radial distance for every one (1) inch in tree diameter (DBH). Example: A single stem tree measuring 30 inches in diameter, (measured at 54 inches or 4.5 feet above grade) would have a critical root zone with a radius of 30 feet.

² **DBH** is Diameter measured at Breast Height of 4.5 above soil grade.

³ **The Primary Root Plate (PRP)** is the radial distance from the base of the tree equal to three times the tree diameter (DBH). This represents the critical area where root cutting will compromise the structural stability of the tree. Whenever healthy trees fail due to extreme soil saturation and/or high gusting winds, the root plate is generally visible rootball, where the roots fail.

pier-on-grade beam type. Design would allow for slight relocation of piers to avoid severing significant roots.

Monterey Pine (*Pinus radiata*) – This is a City street tree on Doyle. This tree has a DBH of 26 inches and therefore has an RPZ that extends out 26 feet from the tree and into the project site. The tree is currently suffering a minor attack by the Red Turpentine Beetle (*Dendroctonus valens*), but is showing signs of defense with evidence of pitch exuding from the beetle entry hole. Regardless, this is an indication that the tree is vulnerable and is best not impacted adversely.

Orange Tree (*Citrus sp.*) – This is located in the southeast corner of 5876 Doyle and is not a significant tree.

Hollywood Juniper (*Juniperus chinensis*) – The two junipers are located in the property to the east of the site. The RPZs designated for these trees, based on DBH measurements, are 13.5 and 15 feet out from the tree bases. A 20 foot wide open area is designated at the east end of the project site. As long as care is taken in removing the current structure, there should be little adverse impact to the junipers. Adjacent to the tree is a small New Zealand Tea Tree (*Leptospermum scoparium*) and would be included in the RPZs of the juniper.

Glossy Privet (*Ligustrum lucidum*) – One Glossy Privet with a DBH of 6 inches is located at the north west corner of the property to the east. The tree is not particularly valuable and the species is considered a weed.

Recommendations

Demolition – Prior to beginning demolition, the root protection zones are to be marked and arborist supervision is required for demolition activities within this area.

Root Investigation – Once site demolition is complete, a full and accurate assessment of the root presence can be conducted.

Health Mitigation – Health mitigation is prescribed based on level of soil compaction and root presence identified during assessment. Treatments include water jetting⁴, supplemental irrigation, and application of wood chip mulch.

Proposed Plant Material – Another species other than the *Pyrus kawakamii* is recommended for street tree planting due to the proliferation of fire blight between trees. Small to medium stature species are recommended, such as a Crepe Myrtle (*Lagerstroemia indica x fauriei* 'Natchez'), due to high voltage power lines above and the 3.5 foot parkway.

End Report

⁴ Water Jet - A procedure that uses high-pressure water and a probe to create air passages in the soil. Primary reason for use is mitigation for compacted soil.