

SBCA TREE CONSULTING

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Date: March 21, 2018

To: Ryan O'Connell
P.E. Senior Civil Engineer, City of Emeryville

Project Site: Shellmound, west side of Ikea

Subject: 8 Date Palms (*Phoenix dactylifera*)

Assignment: Arborist was requested to assess the eight trees with reference to proposed plans to remove the medians.

Introduction

Eight Date Palms are located in the median strips in front of Ikea:

Southern trees – One group of four trees is located near the entrance to the parking garage. Proposed plans call for the removal of the four southern trees and the median.

- Arborist was requested to evaluate the different options proposed by the City in regards to the palms:
 1. Remove the trees and sell them.
 2. Remove and relocate the trees to another area of the city.
 3. Remove and dispose of the trees.

Northern trees – Another group of four palms is located to the north adjacent to the Ikea exit drive. Extensive digging is proposed adjacent to the palms in order to re-construct the pavement. Root loss is anticipated. There is a proposal to remove the northern medians and the four palms at a later date.

- Arborist was requested to provide professional opinion as to whether the excavation can be completed without de-stabilizing the trees?

Summary

Southern trees – Two of the trees appear to be producing multiple apical meristems and subsequent aerial branches that can become a safety issue when they fall out¹; therefore the trees are not desirable

¹ Hodel, Donald R. *The Biology and Management of Landscape Palms*. The Britton Fund, 2012. Print

specimens. The other two trees currently appear in poor health. For these reasons, it is likely best to consider removal and disposal of all four trees. The trees can also be offered at no cost to whoever wishes to relocate them.

It is uncertain if the trees have been receiving sufficient moisture or nutrition. If in the event it is decided to attempt relocation, reasons for the poor performance must be identified.

Northern Trees – Based on normal road construction details, it is likely the offending roots will be found only in the aggregate base material. Removal of these roots is not likely to destabilize the trees. However, final assessment can be made when pavement is exposed and roots are made visible.

Tree and Site Observations

| Health | | Pavement uplift | Notes |
|---------------------------------|-----|-----------------|-------------------------|
| Southern trees (South to North) | | | |
| 1 | F | Yes | Off color |
| 2 | F-P | No | Off color, Sparse, Lean |
| 3 | F | Minor | Secondary stems |
| 4 | F | Yes | Secondary stems |
| Northern trees (South to North) | | | |
| 1 | F | Yes | Off color |
| 2 | F | Yes | Off color |
| 3 | F-P | No | Off color, Sparse |
| 4 | F-P | No | Off color, Sparse |

- Off Color – The frond color is not the rich blue-green color of healthy date palms.
- Lack of vigorous growth – The foliage for 6 trees is sparse and browning.
- Site conditions – It appears the trees may have access only to a limited soil volume.
- Coastal winds – Trees are exposed to coastal fog and winds.
- Unknown soil conditions – We have no information regarding the soil in which the trees are growing.
- Irrigation – Again, the irrigation regime and soil moisture conditions are not known.
- Apical meristems – The upper crowns of two trees shows sign that multiple apical meristems/secondary stems are developing. Genetics and/or boron deficiency maybe the cause.

Discussion

Species – The tree is native to the middle-east and does best under hot dry conditions and sandy soil with adequate moisture. The date palm generally does not produce fruit in cooler coastal locations.

Relocation may be a gamble – Unless the trees can be assured a suitable relocation planting site and close care for a few years after, the already stressed trees are unlikely to survive relocation. Best time for transplanting palm trees is in mid-spring season when soils begin to warm.



Preliminary considerations to relocating by City of Emeryville – Prior to consideration for moving the trees to a new location, it is best to understand the reason for the poor performance in the current planting location. The first logical step would be laboratory analysis of the soil.

Recommendations

Southern trees – It is likely not practical to relocate the trees. Considering the likelihood of success and the cost of relocation, the current value of the trees is not sufficient to warrant the effort. In addition to the cost of moving the trees to a new location, the cost of future maintenance, whatever it may entail, must be considered.

Northern trees – Arborist should be on site when pavement is removed so roots can be assessed. Clean crushed rock can be used below the aggregate base material. This treatment will help to minimize future root encroachment.

End Report

Report submitted by:



*Molly Batchelder, Consulting Arborist
WC ISA Certified Arborist #9613A
Tree Risk Assessment Qualified (TRAQ)*



Photo Supplement



Photo 1. Photo to the left shows two northern palms. Foliage is sparse with browning fronds. Both are signs of marginal health. It is uncertain if the moisture and nutritional needs of the trees are being met. The median planting site does not likely offer a significant amount of rootable soil to draw water and nutrients.



Photo 2. Photo to the right shows two southern palms. Arrow points to the “pencil” or reduced trunk diameter. Such reduced diameter is indicative of poor health.

The reasons for the poor health have not been determined.



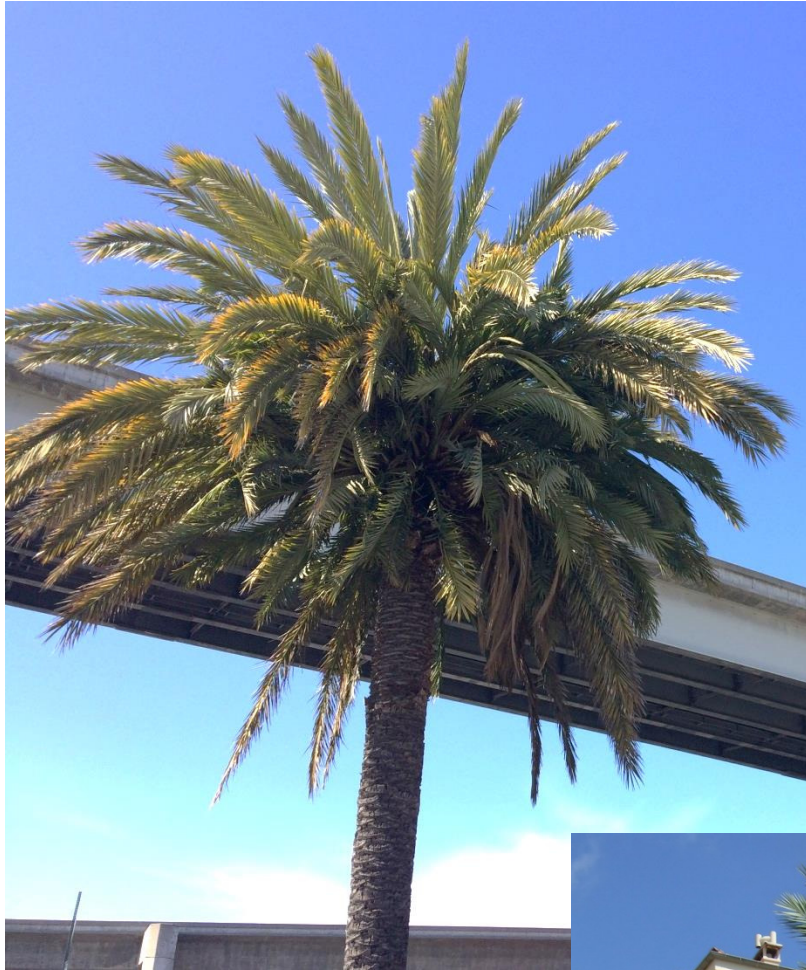


Photo 3. *Photo left shows the wayward fronds that are likely developing secondary stems. These are known be a safety issue when they fall out and therefore the tree is not a desirable specimen for relocation.*

Photo 4. *Photo to the left shows what appears to be a healthy date palm located in Meton, France.*



End

