



mastering the art and science of tree care

August 28, 2017

Bob Cunningham
Arcadia Studio
202 E. Cota Street
Santa Barbara, CA 93101

RE: 1424 State Street—Addendum for Coral Tree Arborist Letter dated July 8, 2017

Dear Bob,

On August 7, 2017 I met with Tim Downey, City of Santa Barbara Urban Forest Superintendent at 1424 State Street in regards to the proposed removal of the six Coral trees in the fountain area. The application for removal was presented to the Historic Landmark Commission (HLC) on July 12, 2017. Per our discussion, Tim requested an addendum to the original Arborist Letter dated July 8, 2017 to include: 1) methodology used to determine the subject trees' High Hazard Rating; 2) a phase out plan for removal and reduction of remaining trees and; 3) elaboration on arboriculture standards that favor smaller replacement trees.

As noted in the Arborist Letter (2017), the subject trees have a history of trunk and large limb failure in spite of arboricultural intervention that has exceeded the property owner's acceptable risk level. Therefore, an assessment was conducted on April 6, 2017 utilizing the guidelines set forth by the Pacific Northwest Chapter of the International Society of Arboriculture (PNW-ISA), International Society of Arboriculture (ISA) and American Society of Consulting Arborists (ANSI). Based on my assessment, it was concluded that the six Coral trees were "overmature with a High Hazard Rating and in overall fair to poor condition."

The systematic process of determining a tree risk rating includes identification of possible targets, likelihood of each part to fail, likelihood of impacting targets and the consequences of impact (Figure 1). In the case of the subject trees, there are several static targets (historic fountain, seating area, sidewalks, power lines, etc.) within the potential failure zone that cannot be moved. Identified visual defects, the subject trees' failure history and species characteristic contributed to a probable likelihood of another trunk or branch failure. The likelihood of a failed trunk or branch impacting one of these static targets is probable. Given the large diameter and length of the trunk or branches that could potentially fail the Consequences of Failure would be Significant. Therefore based on the ISA Risk Assessment Matrix, a High Risk rating was assigned.

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Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Figure 1: Tree Risk Assessment Matrix (ISA, 2013)

To minimize the impact of biomass loss, a phase out plan could be utilized. Phase I could include the removal and replacement of three Corals with a significant Crown Thinning and Crown Reduction of the remaining two trees to lower risk potential. The latter pruning may require a permit from the City of Santa Barbara (15.24035) if canopy reduction will exceed 25%. Once the newly planted trees are established, the Phase II removal and replacement of the remaining two trees could be implemented.

Twenty-four inch boxed replacement trees are recommended to allow for optimum site adaptation. Trees with a "well developed root system," according to Harris (1995) generate more vigorous growth. Although they provide more instant biomass, larger trees ultimately take more time than smaller trees to establish themselves.

If you have any additional needs regarding this addendum, please contact me. I appreciate the opportunity to provide consulting services for this project.

Sincerely,

Leigh Christman
 Certified Arborist/Certified Tree Risk Assessor