



Landscape Architecture • Planning • Design

December 29, 2020

Mr. Alexander Tchourbanov
426 E. 30TH St
Tucson, AZ 85713

Mr. John Salat, Architect
22386 Woodgrove Rd.
Lake Forest CA 92630

Dear Sirs:

Regarding: Oak Trees @ 20601 Trabuco Oaks Drive, Trabuco Canyon, CA 92678

The following is a replacement strategy for the existing oak trees on site should they become irreparably damaged or killed. I have reviewed the proposed improvement plans, the arborist's report, and I have spoken to the architect and the consulting arborist regarding this matter. The following are my observations and recommendations.

EXISTING OAK TREES

The six existing *Quercus agrifolia* - Coast Live Oak trees are numbered 1 - 6 in the Tchourbanov Oak Tree Preservation Report prepared by Peter C. Harnisch, Consulting Arborist, dated June 11, 2019. The same reference numbers are used on the approved Conceptual Fuel Modification Plan (Sheet FM-1; Dated: June 11, 2020-R3) prepared by this office. Trees identified as # 1 – # 5 are located within the property and tree # 6 is located off-site, immediately south of the property.

REPLACEMENT RATIO

The consulting arborist has calculated the replacement ratio based on the trunk diameter of each tree and the prescriptive replacement formula. The replacement ratio is as follows:

<u>Tree #</u>	<u>Replacement Ratio</u>
1	10:1
2	5:1
3	8:1
4	8:1
5	8:1
6	<u>12:1</u>

51 Worst case scenario: Maximum number of oak trees that would need to be replaced if ALL of the Oak Trees were severely damaged or killed

As demonstrated in the above tabulation, in a worst-case scenario, where all 6 of the Coast Live Oak trees need to be replaced, a total of 51 new Oak trees would need to be planted. However, based on my review of the proximity of the trees to the proposed construction and some general assumptions on my part about the proposed grading and construction, it appears that excavation would occur close to trees #2, and #3. Grading may also impact tree #1, albeit further from its trunk. If we find major roots where grading occurs, these trees could be affected. If only tree # 2 and # 3 are lost, a total of 13 new trees would need to be planted. If tree # 1, # 2 & # 3 are lost, then a total of 23 new trees would need to be planted.

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PLANTING NEW TREES

In my opinion, the site can only accommodate 4-8 new trees, depending on the final landscape concept, which is yet to be developed. The remaining trees would need to be planted elsewhere offsite.

The preferred location to plant new oak trees on site would be on the north side of the property, north of the new structure, and on the upper terrace in the open area along the upper west end of the property, which is referred to as "Zone C" on the approved Conceptual Fuel Modification Plan. I would not recommend planting replacement oak trees along the southern property line where trees # 2 & # 3 are currently located because the area is too narrow and the mature tree canopies would interfere with the proposed solar panels. Additionally, considering the plan to preserve the existing mature stand of *Opuntia littoralis* – Prickly Pear Cactus, I would not recommend planting new trees on the southern side of the existing stand of cactus because the new trees would eventually cast shadows over the cactus, which require a significant amount of regular sunlight.

The total number of trees to be planted offsite would be dependent on the remaining number of trees required to be planted. A plan to facilitate the distribution of the required trees to be planted offsite has been discussed with Kevin Allison, owner of Tree of Life Nursery, who has acknowledged the nursery's willingness to participate in a program to distribute new oak trees.

Tree of Life Nursery
33201 Ortega Highway
San Juan Capistrano, CA 92675
<https://californianativeplants.com/>

Under this plan, the owner would establish an account at the nursery, which would pay for the procurement, staging and distribution of the new trees to interested local property owners at no cost to the property owner.

Regards,
FREDERICK THOMAS HUME



Rick T. Hume, FASLA

CC: Peter Harnisch, Consulting Arborist