BALCERAK DESIGN

LANDSCAPE ARCHITECTURE • URBAN FORESTRY
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M E M O R A N D U M

DATE: October 12, 2021

TO: Leslie Mendez and David Hogan

FROM: Gary Balcerak

RE: 52 Fremont Road, San Rafael

CC: Millard Arterberry and Mark Hanf

This memo has been prepared to explain the reasoning behind why coast redwood (*Sequoia sempervirens*) trees were not recommended as mitigation trees in the Planting Plan proposed for 52 Fremont Road. Because coast redwood trees are proposed to be removed to construct the residence it may seem reasonable to use the same species as mitigation trees. However, there are a number of reasons I feel this would not be appropriate.

Generally speaking, it is the desire to get as many mitigation trees on-site as possible. Coast redwood trees are very large at maturity, the site would only support the planting of a couple of these trees. By using understory trees, the current proposal is to plant seven western hazelnut (*Corylus cornuta*) trees. Additionally, it is my professional opinion that the understory trees will create a more naturalistic feel, which was a point the Design Review Board (DRB) emphasized. The DRB was supportive of using understory trees, but they had a keen interest in what tree species was used. Ultimately, it was the DRB that wanted the western hazelnut (*Corylus cornuta*) used as mitigation trees.

There is also the consideration that the landscape design cannot exceed the Maximum Applied Water Allowance (MAWA) established for the project. Coast redwood trees are rated as high water consumers. If two of these trees were to be used in lieu of the western hazelnut trees, and the rest of the design remained as is, the MAWA would be exceeded by 28%. While it would be possible to redesign the landscaping and meet the MAWA, the plant palette would be driven by the water calculations, and the overall design would change considerably.

There is also the issue of the ongoing drought we are experiencing. The Marin Municipal Water District currently has water use limits and penalties. They are also informing people, when their landscape plans are approved that: "*current restrictions, set forth by Drought Ordinance 452, limit watering with drip irrigation to two-days per week; overhead spray is limited to one day per week. These irrigation limitations are inadequate to establish new plant material. New planting will be required to comply with these and any future watering restrictions."* Given that the drought conditions will continue (and by

some predictions get worse), the use of plants heavily dependent on irrigation does not seem suitable.

Lastly, I would point out that with very few exceptions all woody plants, including trees perform much better when planted in groups rather than isolated individuals. There are a number of biological reasons for this. One main reason is because the roots will graft together and work as a system. This allows the stronger more vigorous members to support the weaker ones by sharing resources. When viewing a group of trees, you are not seeing a bunch of individuals that are growing adjacent to each other, instead, you are looking at a living system where the individual trees are members of a collective.

For these reasons I support the landscape design as presented. Please contact me should you have any questions or need to discuss this matter further, thank you.