



Memo

To: The Atherton Planning Commission
From: Sally D Bentz-Dalton, Town Arborist
CC: Sean Manalo, Associate Planner
Date: 9/25/24
Re: Tree Protection Zone (TPZ) Exception 9 Knoll Vista

I have reviewed the application at 9 Knoll Vista. and offer the following observations and recommendation for your review:

The applicant is applying for Planning Commission TPZ exceptions for the following trees for a proposed new pool, retaining wall and hardscape.:

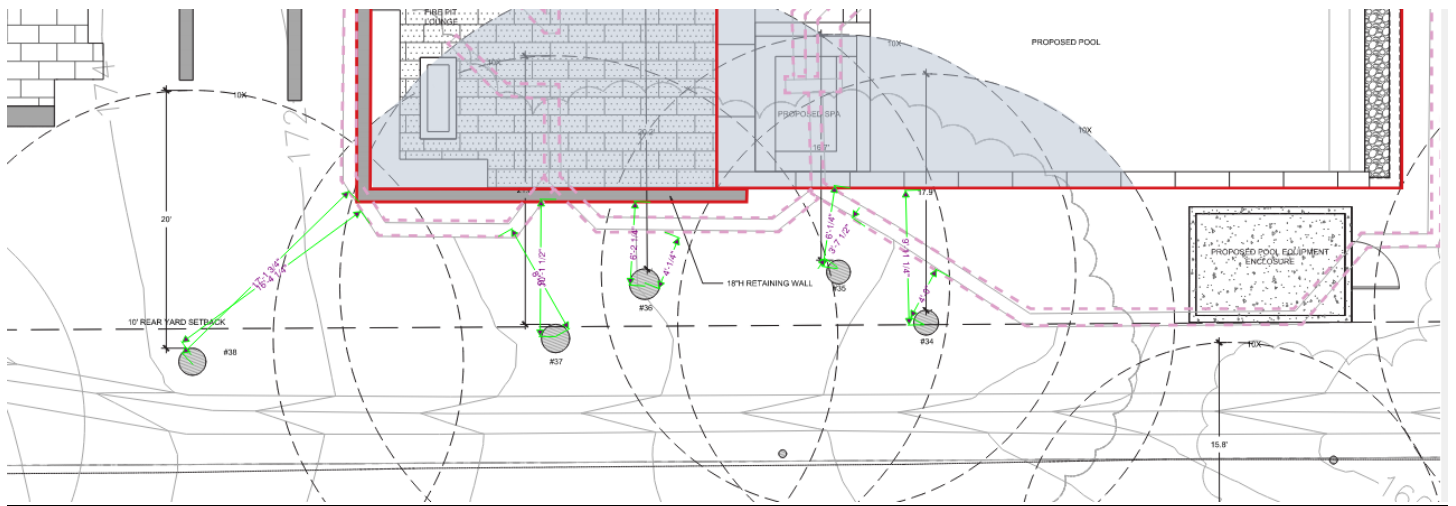
Tree #37 – 5x - pool, retaining wall and hardscape
 Tree#36 – 3x- pool, retaining wall and hardscape
 Tree #35 – 3x - pool, retaining wall and hardscape
 Tree #34 – 5x – pool, retaining wall and hardscape
 Tree #38 will need a staff level exception of 8x.

On September 11th, 2024, an Arborist report and inventory was conducted for the trees by Kielty Arborist Services LLC.

Tree #37 –Redwood – 26.2” dbh – good health
 Tree#36 – Redwood – 24.2” dbh – good health
 Tree #35 –Redwood – 20” dbh – good health
 Tree #34 –Redwood – 21.5” dbh – good health

Tree Tag #	Protected Tree	Preserve or Remove	Common Name / Scientific Name	Appraised Value	Trunk (in.)	Six Times the Diameter in (ft.)	Eight Times the Diameter in (ft.)	Ten Times the Diameter in (ft.)	Height (ft.) / Canopy Spread (ft.)	Health Rating	Structural Rating	Form Rating	Suitability for Preservation	Overall Condition (0-100%)	Summary
33	Yes	(P)	REDWOOD <i>Sequoia sempervirens</i>	\$14,100	25	12.5	16.7	20.8	55/35	Good	Good	Good	Good	70%	Next to landscaping and drainage ditch. On slope below pool deck. Aesthetically pleasing tree.
34	Yes	(P)	REDWOOD <i>Sequoia sempervirens</i>	\$10,600	21.5	10.8	14.3	17.9	60/35	Good	Good	Good	Good	70%	Next to pool deck, privacy screen. Aesthetically pleasing tree.
35	Yes	(P)	REDWOOD <i>Sequoia sempervirens</i>	\$9,300	20	10.0	13.3	16.7	65/35	Good	Good	Good	Good	70%	Next to pool deck, privacy screen. Aesthetically pleasing tree.
36	Yes	(P)	REDWOOD <i>Sequoia sempervirens</i>	\$13,300	24.2	12.1	16.1	20.2	70/35	Good	Good	Good	Good	70%	Next to pool deck, privacy screen. Aesthetically pleasing tree.
37	Yes	(P)	REDWOOD <i>Sequoia sempervirens</i>	\$15,400	26.2	13.1	17.5	21.8	70/35	Good	Good	Good	Good	70%	Next to pool deck, privacy screen. Aesthetically pleasing tree.
38	Yes	(P)	COAST LIVE OAK <i>Quercus agrifolia</i>	\$10,100	24	12.0	16.0	20.0	45/45	Fair	Good	Good	Good	85%	Next to drainage ditch. Buried root crown. Leaning towards rear of property. Suppressed by redwood. Aesthetically pleasing tree.

He notes that the 4 trees are next to the pool deck, are a privacy screen and are aesthetically pleasing.



Analysis:

The applicant wants to update the pool and patio area. This is not a flat lot and has different grades. The applicant states that they want to maintain the existing footprint. The new swimming pool and hardscape will remain within the boundaries of the old pool and retaining wall. By doing they state they will avoid any further encroachment into the TPZ and limit the disturbance to the surrounding area. They state they are also increasing the growing space for the tree. They are also raising the pool elevation and pulling the pool closer to the house. They state the change will provide more open soil and growing space for the tree, which will improve its conditions compared to the existing setup.

For a new pool the TPZ regulation is 10x TPZ. I can grant a staff exception down to 8x. The applicant is asking for 5x and 3x. The current location of the retaining wall and pool do not confirm to our current TPZ regulations. 3x is the start of the critical root area.

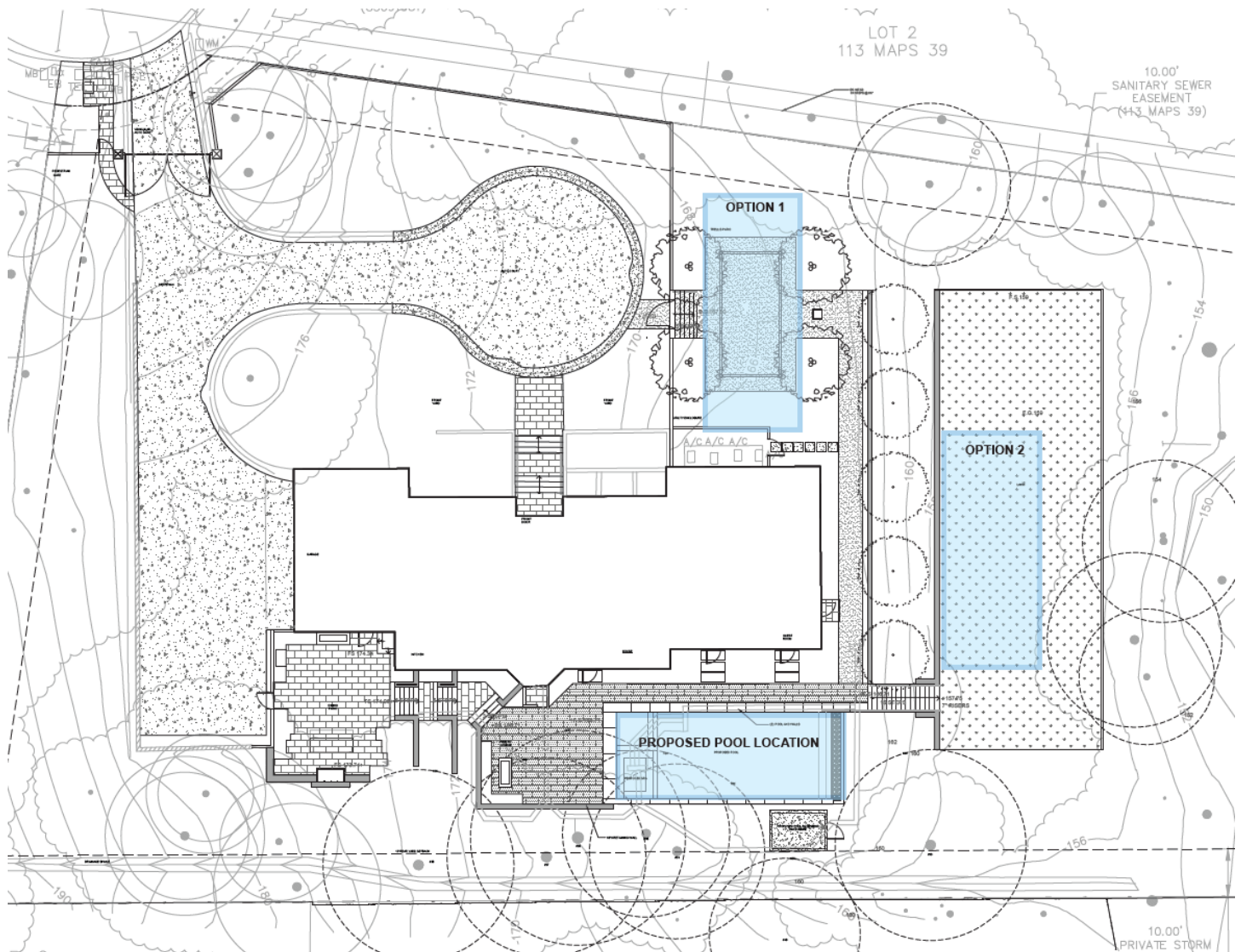
The applicant is extending the TPZ for every tree by a few feet. This will improve the area around the trees. However, my concern is the demo work for the existing retaining wall, walls and pool. Kielty states that the plan will benefit the trees as soil space will be increased. The existing retaining walls and pool have likely acted as a root barrier for these trees, and little to no root growth is expected beyond the existing retaining walls. Kielty feels the impacts are expected to be minor to nonexistent as little to no root growth is expected beyond the existing retaining walls where the work is proposed. Impacts from the work are expected to be minor to non-existent.

The applicant explored other locations, but they found that none of them were suitable.

Option 1 - Front Yard: The front yard space is too tight to host a pool. While we could fit the pool within the setback lines, it would leave minimal space for a pool deck and circulation, making the area impractical for use.

Option 2: Lower Area (10 feet below house level) This area is significantly lower than the house's finished floor. Due to the grade change, the clients feel disconnected from the house and the rest of the property when using this location. It would also make it difficult for them to supervise their children while swimming.

Remaining Areas The rest of the property is either too steep or allocated for the driveway and circulation, leaving no viable space for the pool.



The Planning Commission must meet one or more of the below findings to approve:

5. The Planning Commission may approve or reject such applications as submitted in Section 2.2 B 3 or Section 2. B 4, based on the following criteria:

- a. The criteria as listed in 2.2.B.2.
- b. The probability of failure which is a function of heritage tree and site conditions such as, but not limited to, structural defects, presence of disease, species history, age or remaining life span, and varying weather conditions.
- c. The probability of a public safety hazard, personal injury or significant property damage as a function of proximity to existing structures and objects of value and interference with utility services
- d. The number, species, size and location of existing trees in the area and the effect of the requested EXCEPTION upon shade, noise buffers, protection from wind damage, air pollution, historic value, scenic beauty, health, safety and general welfare of the area and town as a whole.
- e. The necessity to allow reasonable use or other enjoyment of the property when there is no demonstrated feasible alternative to the EXCEPTION while meeting other adopted goals and policies of the general plan to the greatest extent feasible.

In conclusion:

Redwood trees and oak trees have a good tolerance to construction impacts as seen in the Matheny and Clark relative tolerance to construction chart.

I can recommend the below requests because of redwoods having good tolerance, existing conditions, that they are expanding the TPZ, that impacts should be minor and that no other locations were feasible. The trees are rated as healthy and should be able to handle the construction impacts. However, because the demo work is so close to the trees I can only recommend the requests with the following requirements:

I can recommend the below 4 requests with the below requirements:

Tree #37 – 5x - pool, retaining wall and hardscape

Tree#36 – 3x - pool, retaining wall and hardscape

Tree #35 – 3x - pool, retaining wall and hardscape

Tree #34 – 5x - pool, retaining wall and hardscape

The following are requirements:

- Demolition of the existing retaining walls within 10x the diameter of the trees will need to be carefully done under the direct supervision of the project arborist. Add note to plans.
- Any exposed roots at the retaining wall will need to be covered by layers of wetted-down burlap to help avoid root desiccation.
- Demolition equipment must be placed as far from the trees as possible during the demolition work to reduce the risk of compaction within the tree protection zones. If access is needed within the tree protection zones, the areas shall be protected by a landscape barrier.
- Exposed roots after demolition shall be covered by native or imported soils and heavily irrigated.

- Excavation for the new pool and retaining walls is required to take place by hand under the direct supervision of the project arborist. Add note to plans.
- All roots encountered must be shown to the project arborist and documented in the required monthly inspection letters during construction
- Any root that needs to be cut must be cut cleanly using a hand saw or loppers while under the direct supervision of the project arborist.
- Maintain any existing irrigation for the redwood trees as redwood trees require supplemental irrigation during the dry season. If irrigation is no longer present, install an inline drip emitter system set up in a grid like manner to provide deep irrigation during the dry season. The irrigation system should be placed on top of grade and require no excavation. Irrigation shall be turned on weekly until the top foot of soil is saturated.
- Deep water fertilize, the redwood grove and oak tree #38 with Nutriroot in spring of 2025. This will help to keep the trees healthy and mitigate the expected minor to non-existent impacts.
- All excavation is to be done by hand under the Project Arborist supervision when within 10x the tree's diameter.
- Sufficient tree protection installed.
- No roots over 2" to be cut.

The information included in this memo is believed to be true and based on sound arboricultural principles and practices.

Sincerely,

Sally Bentz

Town Arborist- Certified Arborist WE#9238AM