

Kiely Arborist Services LLC

Certified Arborist WE#0476A

P.O. Box 6187

San Mateo, CA 94403

650- 532-4418

Revised January 27th, 2022

Navneet Aron

Site: 166 Lyell Street, Los Altos CA

Dear Mr. Aron,

DRG NUMBER	DARWING NAME	DATE
A-1.001	TITLE SHEET	25-JAN-2022
A-1.002	SITE NEIGHBOURHOOD	25-JAN-2022
A-1.003	NEIGHBOURHOOD CONTEXT	25-JAN-2022
A-1.004	SITE LAYOUT	25-JAN-2022
A-1.005	SITE LAYOUT PART - 1	25-JAN-2022
A-1.006	SITE LAYOUT PART -2	25-JAN-2022
A-1.007	SITE DEMOLITION LAYOUT	25-JAN-2022
A-1.008	TREE PROTECTION PLAN	25-JAN-2022
A-2.001	BASEMENT LEVEL PLAN	25-JAN-2022
A-2.002	FIRST LEVEL PLAN	25-JAN-2022
A-2.003	SECOND LEVEL PLAN	25-JAN-2022
A-2.004	ROOF LEVEL PLAN	25-JAN-2022
A-3.001	WEST AND EAST SIDE ELEVATION	25-JAN-2022
A-3.002	SOUTH AND NORTH SIDE ELEVATION	25-JAN-2022
A-4.001	SECTION A-A & B-B	25-JAN-2022
A-5.001	DOOR & WINDOW SCHEDULE	25-JAN-2022
A-6.001	AREA CALCULATION	25-JAN-2022
A-7.001	MATERIAL BOARD	25-JAN-2022
A-7.002	RENDER VIEWS	25-JAN-2022
A-7.003	SITE SECTIONS	25-JAN-2022
C-1	GRADING AND DRAINAGE PLAN	25-JAN-2022
C-2	DETAILS	25-JAN-2022
C-3	EROSION CONTROL PLAN	25-JAN-2022
C-4	STANDARD DETAILS	25-JAN-2022
C-5	BLUEPRINT FOR CLEAN BAY	25-JAN-2022
L-0	LANDSCAPE DOCUMENTATION	25-JAN-2022
L-1	LANDSCAPE SITE / PLANTING PLAN	25-JAN-2022
L-2	HYDROZONE PLAN	25-JAN-2022
L-3	LANDSCAPE SCREENING PLAN	25-JAN-2022
L-4	IRRIGATION PLAN	25-JAN-2022
L-5	LANDSCAPE DETAILS	25-JAN-2022
L-6	LANDSCAPE SPECIFICATIONS	25-JAN-2022
LC-1	COLORLED LANDSCAPE SITE / PLANTING PLAN	25-JAN-2022
S-001	TEMPORARY SHORING PLAN & SECTION	25-JAN-2022
SU-1	TOPOGRAPHIC MAP	25-JAN-2022
U-1	UTILITY PLAN	25-JAN-2022

As requested on Thursday, September 10th, 2020, and again on January 21st, 2022 I visited the above site for the purpose of inspecting and commenting on the trees. A new home with a basement is proposed on site, and your concern as to the future health and safety of the existing trees has prompted this visit. A tree protection plan will be found within this report to protect the retained trees from construction. The entire 36 page planning submittal package has been reviewed.

Showing plans reviewed

Method: All inspections were made from the ground; the trees were not climbed for this inspection. The trees in question were located on an existing topography map and will be provided in this report. The trees were then measured for diameter at 48 inches above ground level (DBH or diameter at breast height). The trees were given a condition rating for form and vitality. Each tree was put into a health class using the following rating system:

- F- Very Poor
- D- Poor
- C- Fair
- B- Good
- A- Excellent

The height of the trees was measured using a Nikon Forestry 550 Hypsometer. The spread was paced off. Comments and recommendations for future maintenance are provided.

Survey Key:

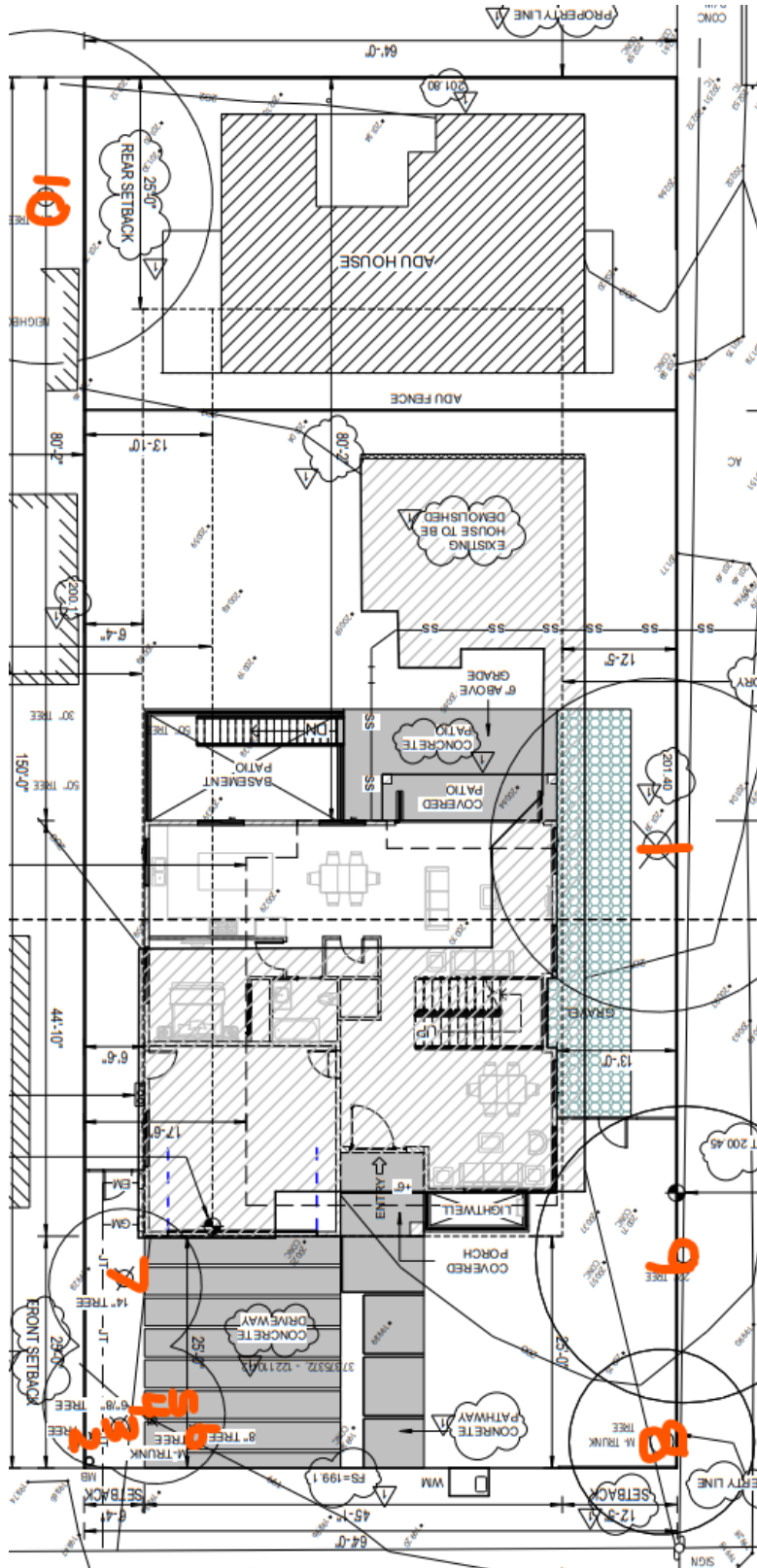
P- Indicates protected tree (15 inches in diameter or larger) **DBH-**Diameter at breast height (48 inches above grade) **CON-**Condition rating **HT/SP-**Tree height and canopy spread

R-Indicates proposed tree removal

Survey:

Tree#	Species	DBH	CON	HT/SP	Comments
1 P/R	London Plane (<i>Platanus x hispanica</i>)	22.9	D	30/30	Good vigor, poor form, topped/pollarded in past, 5 feet from foundation, needs ongoing maintenance due to topping cuts made, recommended for removal.
2 R	Birch (<i>Betula pendula</i>)	7.0	C	15/12	Fair vigor, poor form, suppressed, leans, drought stressed.
3 R	Birch (<i>Betula pendula</i>)	7.2-7.0	C	35/15	Fair vigor, poor form, codominant at 1 foot, leader topped in past, drought stressed.
4 R	Birch (<i>Betula pendula</i>)	6.0	C	35/15	Fair vigor, fair form, suppressed, drought stressed.
5 R	Birch (<i>Betula pendula</i>)	3.5-5.5	F	15/12	Poor vigor, poor form, nearly dead, codominant at grade, decay at grade.
6 R	Birch (<i>Betula pendula</i>)	6.8	D	20/12	Poor vigor, poor form, irregular bend in trunk, abundance of dead wood.
7 R	Japanese maple (<i>Acer palmatum</i>)	14.2	B	20/20	Good vigor, good form, aesthetically pleasing, close to existing foundation.
8 P	Birch (<i>Betula pendula</i>)	18.0	F	25/25	Poor vigor, poor form, topped for line clearance in decline, nearly dead.
9 P	Jeffery Pine (<i>Pinus jeffreyi</i>)	18.6	D	25/25	Fair to poor vigor, poor form, topped for line clearance.
10* P	Coast Live Oak (<i>Quercus agrifolia</i>)	24est	B	35/30	Good vigor, good form, 3 feet from property line.

*indicates neighbor's tree.



Showing tree locations

Site Observations:

The landscape at 166 Lyell Street is under drought stress. All of the grass is dead and is a sign that no irrigation has been provided for the trees. Many Birch trees were observed on the lot. Birch trees require significant dry season irrigation to maintain a healthy canopy. The Birch trees are drought stressed and are in decline. London Plane tree #1, Birch tree #8, and Jeffrey Pine #9 are located underneath high voltage utility lines and have been topped in the past for line clearance. Topping trees creates poor structure, weakens tree roots, and can make for a tree with a higher risk of limb failure. Birch tree #8 has declined further since my last site visit and now has a condition rating of F.



Showing topped London Plane tree #1

Showing topped trees #8 and #9

Protected Tree Proposed For Removal:

London Plane sycamore tree #1 is proposed for removal. The tree is in poor condition as it has been topped in the past. Topping trees creates risk of future limb failure and is not an approved pruning practice by ANSI Standards or Best Management Practices. Growth following a topping cut consist of many small shoots arising from the topping cut. These new shoots are a trees defense mechanism to stay alive in such an event where a limb would fail. The new shoots develop into limbs and do not form proper branch to trunk unions and will therefore increase risk of failure. Topping trees leads to decay at the point of origin leading to an increase of risk of limb failure, can weaken a tree to a point of death, can cause sunscald, makes trees unsightly, and is expensive due to frequently reoccurring corrective pruning needed throughout the remainder of the tree's lifespan. If the tree were to be retained, the basement cut would need to maintain a distance equal to the existing home on the site from the tree or 5 feet. If the plan were redesigned the tree would still be too close to the existing/proposed home and future damages would be likely due to root pressure on the foundation/basement wall. Removing and replacing the tree further away from the foundation will eliminate future risk of damages and will eliminate the future risk of limb failure due to the topping cuts made in the past. A new tree can be easily planted slightly further away from the proposed home and properly maintained so that there is little to no risk of limb failure or foundation damage. This tree meets the following criteria to support tree removal: (1) The condition of the tree with respect to disease, imminent **danger of falling, proximity to existing or proposed structures** and interference with utility services. (2) **The necessity to remove the tree for economic or other enjoyment of the property.** The alternative would be to redesign the home to the existing home set back from the tree. This is not reasonable for a tree in poor condition that has been topped.

Trees to be removed that are under 15" in diameter:

Birch trees #2-6 and Japanese maple tree #7 are proposed for removal to facilitate the construction of a new driveway and garage. A driveway is needed for the main home as the site's existing driveway is now used for the already constructed ADU. The driveway would have to be in this location as having the driveway closer to the intersection of the cross street could be dangerous for the owner when entering and exiting the home. These trees are not of a protected size (under 15"). Impacts would be high for the trees at the edge of the driveway and garage and would likely decline because of the construction. Birch trees have a poor tolerance to construction impacts, are short lived, and require too much water to maintain a healthy canopy within an oak woodland habitat (Los Altos). Removal and replacement is recommended.

Shrubs previously removed:

Previous arborist report dated May 17th, 2021 shows shrubs #12-18 and #20 proposed to be removed. The only reason these shrubs were ever surveyed was because they were shown on the land survey. Notice that even on the land survey a size was not established likely due to the fact that these are shrubs. These shrubs consisted of Giant Bird of Paradise shrubs and an angel's trumpet shrub (very poisonous). These trees are not of a protected tree size in the city of Los Altos and were are all in poor condition. The site has benefited from the removal of these trees.

Trees to be planted:

Landscape plan LC-1 shows a total of 13 trees to be planted on site consisting of four *Pittosporum eugenoides* and nine *Laurus nobilis* trees. The planted trees will quickly restore any lost screening from the trees removed or to be removed on site.

Proposed work/Recommendations:

The basement has been redesigned to be further away from pine tree #9. The Project Arborist is recommended to be on site during the basement excavation. Any exposed roots will need to be cleanly cut using a hand saw or loppers. Exposed cut root ends are recommended to be covered with 3 layers of wetted down burlap. Impacts to pine tree #9 are expected to be minor from the proposed basement cut. Tree protection fencing is recommended to be placed at 3 feet from the basement cut and out to 15 feet from the tree where possible. A series of soaker hoses are recommended to be installed within the tree protection fencing area and be turned on every other week until the top foot of soil is saturated as a mitigation measure for the minor impacts.

An area drain is proposed in front of the home. The area drain is shown at a minimum distance of 15' from pine tree #9 as recommended. The area drain is 12' from Birch tree #8. The area drain work will need to be supervised by the Project Arborist. Hand excavation is recommended for the proposed area drain. Any roots encountered are recommended to be cleanly cut as needed under the Project Arborist supervision. Impacts are expected to be minor.

A swale leading to the area drain is shown at 8' from the pine tree. All swale work when within 20' from the pine tree is recommended to take place by hand under the Project Arborist supervision. All roots encountered measuring 2" or large must be retained within the swale. Impacts are expected to be minor.

Tree Protection Plan:*Tree Protection Zones*

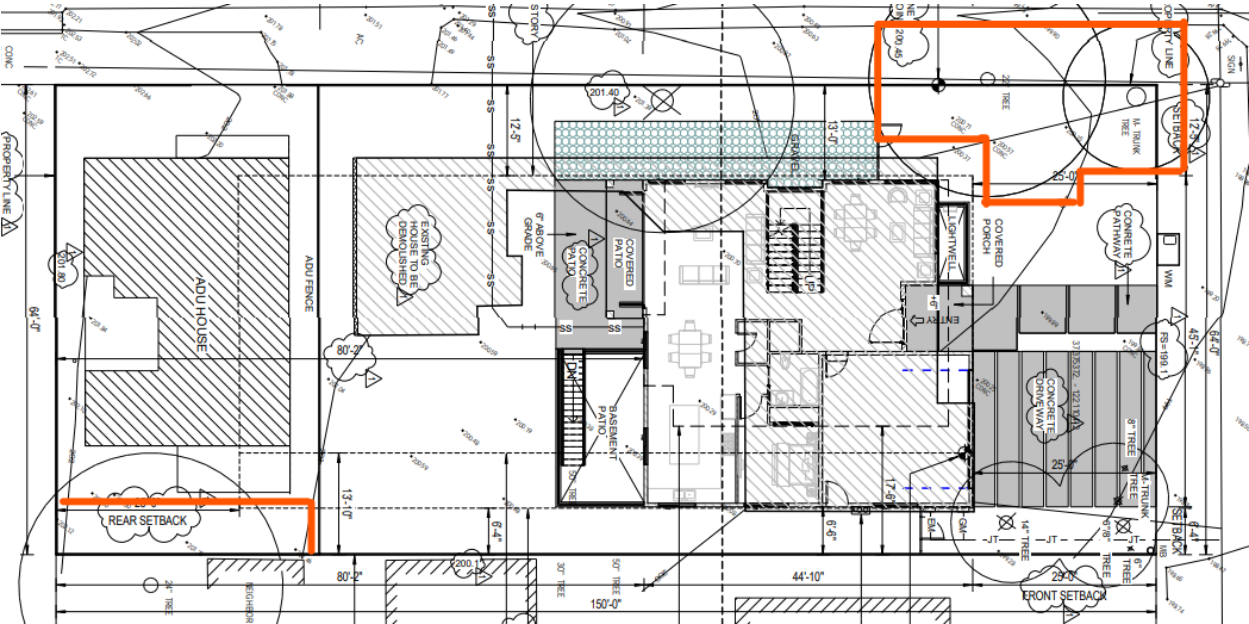
Tree protection zones should be installed and maintained throughout the entire length of the project. Prior to the commencement of any Development Project, a chain link fence shall be installed at the drip line (canopy spread) of any protected tree which will or will not be affected by the construction. Non-protected trees to be retained are recommended to also be protected in the same way. The drip line shall not be altered in any way so as to increase the encroachment of the construction. When work is to take place underneath a tree's dripline, fencing must be placed as close as possible to the tree proposed work. If an area of access is needed underneath a tree's canopy, the area shall be protected by a landscape barrier. Fencing for the protection zones should be 6-foot-tall metal chain link type supported by 2 inch metal poles pounded into the ground by no less than 2 feet. The support poles should be spaced no more than 10 feet apart on center. Signs should be placed on fencing signifying "Tree Protection Zone - Keep Out". No materials or equipment should be stored or cleaned inside the tree protection zones. Excavation, grading, soil deposits, drainage and leveling is prohibited within the tree protection zones without the project arborist consent. No wires, signs or ropes shall be attached to the protected trees on site. Utility services and irrigation lines shall all be placed outside of the tree protection zones when possible. When access is needed and tree protection fencing restricts access a landscape barrier shall be installed to protect the non-protected root zone.

Tree protection fencing distances

Tree protection fencing for the neighbor’s oak tree #10 should be 6-foot-tall metal chain link type supported by 2 inch metal poles pounded into the ground by no less than 2 feet. The support poles should be spaced no more than 10 feet apart on center. The fencing must extend off of the property line fence out to a distance of 3 feet from the proposed ADU or 15 feet from the tree whichever is further from the tree.

Birch tree #8 will need to have tree protection fencing located 12 feet from the tree where possible.

Pine tree #9 will need to have tree protection fencing located at 3 feet from the proposed basement cut, and out to 15 feet from the tree wherever else possible. Below is a diagram showing the recommended placement of the tree protection fencing.



Showing the recommended tree protection fencing placement

Landscape Barrier zone

If for any reason a smaller tree protection zone is needed for access, a landscape buffer consisting of wood chips spread to a depth of six inches with plywood or steel plates placed on top will be placed where tree protection fencing is required. The landscape buffer will help to reduce compaction to the unprotected root zone.

Inspections

The site arborist will need to verify that tree protection fencing has been installed before the start of construction. The site arborist must inspect the site anytime excavation work is to take place underneath a protected trees dripline. It is the contractor’s responsibility to contact the site arborist if excavation work is to take place underneath the protected trees on site. Kiely Arborist Services can be reached at kkarbor0476@yahoo.com or by phone at (650) 532-4418.

Root Cutting and Grading

If for any reason roots are to be cut, they shall be monitored and documented. Large roots (over 2" diameter) or large masses of roots to be cut must be inspected by the site arborist. The site arborist, at this time, may recommend irrigation or fertilization of the root zone. All roots needing to be cut should be cut clean with a saw or lopper. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist. The site arborist must first give consent if roots over 2 inches in diameter are to be cut.

Trenching and Excavation

Trenching for foundation, irrigation, drainage, electrical or any other reason shall be done by hand when inside the dripline of a protected tree. Hand digging and the careful placement of pipes below or besides protected roots will significantly reduce root loss, thus reducing trauma to the tree. All trenches shall be backfilled with native materials and compacted to near its original level, as soon as possible and if possible. Trenches to be left open for a period of time, will require the covering of all exposed roots with burlap and be kept moist. The trenches will also need to be covered with plywood to help protect the exposed roots.

Pruning

At this time no pruning is proposed on site. If at anytime pruning is needed, it shall be done by a Certified Arborist and shall follow all pruning guidelines as seen in ANSI A300 Pruning Standards.

Irrigation

Normal irrigation shall be maintained on this site at all times. The imported trees will require normal irrigation. On a construction site, I recommend irrigation during winter months, 1 time per month. Seasonal rainfall may reduce the need for additional irrigation. During the warm season, April – November, my recommendation is to use heavy irrigation, 2 times per month. This type of irrigation should be started prior to any excavation. The irrigation will improve the vigor and water content of the trees. The on-site arborist may make adjustments to the irrigation recommendations as needed. The foliage of the trees may need cleaning if dust levels are extreme. Removing dust from the foliage will help to reduce mite and insect infestation. Native Oak trees do not require irrigation unless their root zones are traumatized.

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

Sincerely, David Beckham Certified Arborist WE#10724A TRAQ Qualified

David Beckham

Kielty Arborist Services

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San Mateo, CA 94403
650-532-4418

ARBORIST DISCLOSURE STATEMENT

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like a medicine, cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, landlord-tenant matters, etc. Arborists cannot take such issues into account unless complete and accurate information is given to the arborist. The person hiring the arborist accepts full responsibility for authorizing the recommended treatment or remedial measures.

Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risks is to eliminate all trees.

Arborist: David Beckham David Beckham Date: January 27th, 2022