
Nigel Belton

Consulting Arborist

THE PRELIMINARY ARBORIST REPORT & TREE RESOURCE ANALYSIS CONCERNING THE PROPOSED
HOUSING DEVELOPMENT AT 2838 PARK AVENUE – SOQUEL, CALIFORNIA

Prepared at the request of:
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Site visit by:
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February 18, 2022

Job – 2838 Park Ave. Soquel – 3.15.22



WE-410A

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THE PRELIMINARY ARBORIST REPORT & TREE RESOURCE ANALYSIS CONCERNING THE PROPOSED HOUSING DEVELOPMENT AT 2838 PARK AVENUE – SOQUEL, CALIFORNIA

SUMMARY:

This is a preliminary report.

Sixty-five trees were surveyed in preparation for this report. The majority of these trees are located within the property boundary lines (approximately seven of the surveyed trees appear to be located in the Public Right of Way next to Park Avenue and Cabrillo College Drive).

Fifty-two of the surveyed trees are identified as being suitable for preservation, because of their good overall health and structural condition ratings.

Thirteen of these trees are identified as being unsuitable for preservation, because they have poor health and/or structural conditions. Five of these trees are Blue Gum Eucalyptus Trees that are located within the Protected Riparian Zone.

I determined that approximately 16 of the surveyed trees will likely have to be removed because of their locations within the proximity of the proposed construction footprint, as shown on the preliminary plan provided to me (all of these trees appear to be located outside of the riparian setback line).

The Critical Root Zone Areas of the trees that are situated outside of the construction footprint must be protected during the design & construction phases of this project.

The Project Arborist must provide specific recommendations for the protection of the trees outside of the construction footprint during the design period. This work will entail reviews of the civil plans, coordination with the design team and the development of a dedicated Tree Protection Plan.

The Project Arborist must provide an approval of the completed Construction Plans as a component of the Building Permit Application Submittal process.

The Project Arborist must provide inspections and supervision throughout the construction period.

BACKGROUND:

Iman Novin, President of Novin Development, asked me to prepare a tree resource assessment and an arborist report for this project. The project entails the construction of a high-density housing development on an undeveloped parcel. The eastern portion of the project site consists of a Protected Riparian Area, within which there is a stand of mature eucalyptus trees. A number of the trees on the project site will have to be removed because they are located within the construction footprint. A number of other trees on this property are unsuitable for preservation because of their poor health or structural condition ratings. A tree preservation and protection plan are required for the approval of this project.

ASSIGNMENT:

1- Survey the trees within the project area that have trunks measuring 6-inches and larger in diameter, when measured at 54-inches above ground. Affix numbered tags to the trunks of these trees and plot their locations on a Tree Location Map.

2- Document the surveyed tree's dimensions and note their health and structural condition ratings in a Tree Resource Survey Matrix.

- The matrix identifies the trees that are suitable for preservation based upon their good health and structural condition ratings. The matrix also serves to identify trees that are unsuitable for preservation because of their poor condition ratings.

- The matrix identifies those trees that must be removed because of their locations within the proposed construction footprint.

3- Prepare an arborist report.

- Review the preliminary construction plan provided to me (Exhibit Site Plan – Prepared by Ifland Engineers – 1/7/22).

- Provide observations regarding the site and the individual tree conditions.

- Provide preliminary tree preservation and protection recommendations for both the design and the construction phases of this project.

- Provide an inspection schedule, showing at which time the project arborist must be on site to provide inspections and supervision during the construction period.

LIMITATIONS:

This is a preliminary arborist report. The report provides preliminary tree protection recommendations based upon a review of Exhibit Site Plan provided to me. The report does not provide final recommendations for tree protection during the design and construction phases of this project. I must review the Civil and Landscape Plans during the design period and provide further guidance concerning tree protection requirements, as needed.

The tree location map I prepared for this project only shows the approximate locations of the property boundaries, the riparian setback line and the construction footprint, on a Google Earth Image (the tree locations were geolocated on a hand-held device). An accurate Topographic Map was not provided to me for this purpose. The numbered tree locations must be plotted on a Topographic Map when it becomes available.

The inspection of these trees was made from the ground only. The subject tree's canopies were not accessed to assess their above ground structures, nor were their roots examined below soil grade. The inspections of these trees were limited to visual examinations and did not entail any advanced testing of their interior structures. The trunks of some of the Blue Gum Eucalyptus Trees in the riparian area had Poison Oak and debris around their trunks, which prevented thorough examinations of their structural conditions in these areas. I recommend that all of the trees are inspected periodically in order to maintain them in good health and in a safe condition in the future.

DISCUSSION:

Sixty-six trees were surveyed in preparation for this report (see the attached Tree Resource Matrix). About 20 of the surveyed trees appear to be located within the proximity proposed construction footprint, which precludes their preservation (the actual number of trees to be removed must be determined once a Topographic Map and more detailed Site Plans become available).

The Critical Root Zones of the balance of the surveyed trees must be protected as much as is possible during the construction period (The Critical Root Zones of trees are defined by the surveyed tree's canopy drip-line perimeters in this report).

The construction activities of greatest concern entail the following activities:

- Grading work near trees
- The construction of retaining walls near trees
- The construction of driveway and parking infrastructure near trees
- The installation of drains near trees
- The installation of underground utilities near trees
- The installation of irrigation lines near trees

OBSERVATIONS & DETERMINATIONS:

Tree #1 – 14-inch DBH Liquidambar (*Liquidambar styraciflua*):

Tree #2 – 17-inch DBH Liquidambar:

Tree #3 – 12.5-inch DBH Liquidambar:

Tree #4 – 11.5-inch DBH Liquidambar:

Tree #5 – 11-inch DBH Liquidambar:

Tree #6 – 14-inch DBH Liquidambar:

Note – DBH = The trunk diameter measured at 54-inches above ground.



Located next to the parking stalls in the front of the existing offices.

These trees exhibit good health, as evidenced by their foliage condition. Five of the six trees have poor structural conditions because they have developed weak codominant growth patterns, consisting of multiple stems that share weak areas of attachment at the trunk or each other.



I observed that the roots of these Liquidambar are damaging the surface of the adjacent asphalt parking area.



I determined that Tree #2 is unsuitable for preservation because of its poor structural condition.



I determined that the other five trees require structural pruning and the installation of tree support cables in order to reduce the likelihood of tree failures occurring next to the parking stalls.

I determined that the five trees that are suitable for preservation must be protected during the construction period (with protective fences).

Tree #7 – 15-inch DBH Koelreuteria Tree (*Koelreuteria spp.*):

Tree #8 – 15-inch DBH Koelreuteria Tree:

Tree #9 – 13.5-inch DBH Koelreuteria Tree:

Tree #10 – 13-inch DBH Koelreuteria Tree:

Tree #11 – 11-inch DBH Koelreuteria Tree:



These trees appear to be located on the Public Right of Way next to Park Avenue and Cabrillo College Drive. They exhibit good health and have fair structural conditions.

I determined that these trees will benefit from structural pruning work and that this work will also improve their appearance.

I determined that these trees must be protected during the construction period because of their close proximity to construction area.

Tree #12 – 16-inch DBH Coast Live Oak (*Quercus agrifolia*):

Tree #12A – 9.5-inch DBH Coast Live oak:

Both of these trees appear to be located on the Public Right of Way next to Cabrillo College Drive. The trees exhibit good health and they have fair structural conditions.



I determined that these trees will benefit from structural pruning work and that this work will also improve their appearance.

I determined that these trees must be protected during the construction period because of their close proximity to construction area.

Tree #13 – 10-inch DBH Coast Live Oak:

Tree #14 – 7-inch DBH Coast Live Oak:



These oaks appear to be located on the Public Right of Way and within the footprint of the proposed parking area respectively. They exhibit good health and they have fair structural conditions.

I determined that both of these trees may have to be removed because of their locations concerning the proximity of the proposed parking area for the housing facility.

Tree #15 – 5, 5 & 4-inch DBH Wild Plum (*Prunus spp.*):

This plum is located within the footprint of the proposed development and it will have to be removed.

Tree #16 – 12.5-inch DBH Coast Live Oak:

Tree #17 – 28-inch DBH Coast Live Oak:

Tree #18 – 8-inch DBH Coast Live Oak:

All of these trees are suitable for preservation, based upon their good overall condition ratings. I determined that Tree #16 appears to be very close to the proposed retaining wall, which will likely preclude its preservation. Tree's #17 & #18 must be protected during the construction period.

Tree #19 – 9.5-inch DBH Coast Live Oak:

This oak has a poor health condition, as a result of having an extensive area of dead bark on the trunk.

I determined that it is unsuitable for preservation.

Tree #20 – 11-inch DBH Coast Live Oak:

Tree #21 – 13.5-inch DBH Coast Live Oak:

Tree #22 – 8.5-inch DBH Coast Live Oak:

Tree #23 – 14.5-inch DBH Coast Live Oak:



All of these trees are suitable for preservation, based upon their good overall condition ratings.

I determined that these oaks must be protected during the construction period.

Tree #24 – 11-inch DBH Coast Live Oak:

Tree #25 – 15.5-inch DBH Coast Live Oak:



I determined that these oaks will likely have to be removed because they appear to be located within the proposed construction footprint.

Tree #26 – 22-inch DBH Blue Gum Eucalyptus (*Eucalyptus globulus*):

This tree is suitable for preservation and protection during the construction period, based upon its good overall condition rating.

Tree #27 – 21-inch DBH Blue Gum Eucalyptus:

Tree #28 – 7.5-inch DBH Blue Gum Eucalyptus:

Both of these trees may be located within the proposed construction footprint, which would preclude their preservation. Their actual locations must be determined when a Topographic Map becomes available.

In the event that they will be setback from the construction footprint, they must be protected during the construction period.

Tree #29 – 12.5-inch DBH Blue Gum Eucalyptus:

Tree #30 – 13-inch DBH Blue Gum Eucalyptus:

Tree #31 – 11.5-inch DBH Blue Gum Eucalyptus:

Tree #32 – 12.5-inch DBH Blue Gum Eucalyptus:

Tree #33 – 11.5-inch DBH Blue Gum Eucalyptus:

Tree #34 – 8.5-inch DBH Blue Gum Eucalyptus:

Tree #35 – 8.5-inch DBH Blue Gum Eucalyptus:

Tree #36 – 20-inch DBH Blue Gum Eucalyptus:



All of these eucalyptus trees appear to be located outside the proposed construction footprint, the majority of which are growing within the Riparian Zone. These trees are suitable for preservation, based upon their good overall condition ratings.

I determined that these trees must be protected during the construction period.

Tree #37 – 12-inch DBH Blue Gum Eucalyptus:

This tree has a poor health and structural condition rating. The trunk is obscured by Ivy growth and the top is dead. I determined that this tree is not suitable for preservation. It is located within the Riparian Zone.

Tree #38 – 26-inch DBH Blue Gum Eucalyptus:

This large tree has a good condition rating and it is suitable for preservation and protection during the construction period. It is located within the Riparian Zone.

Tree #39 – 8-inch DBH Coast Live Oak:

This oak has a good condition rating and it is suitable for preservation and protection during the construction period.

Tree #40 – 56, 16 & 35-inch DBH Blue Gum Eucalyptus:

Tree #41 – 53-inch DBH Blue Gum Eucalyptus:

Tree #42 – 51-inch DBH Blue Gum Eucalyptus:

Tree #43 – 22 & 9-inch DBH Blue Gum Eucalyptus:



All of these large trees are located outside the proposed construction footprint and are within the Riparian Zone. They are suitable for preservation and protection during the construction period, based upon their good overall condition ratings.

Tree #44 – 12-inch DBH Arroyo Willow:

This tree has a poor structural condition as a result of having decay in the trunk. The tree is situated on the steep bank above the dry creek (in the Protected Riparian Zone). It has fallen onto the meadow above. I determined that this tree is not suitable for preservation.

Tree #45. – 82-inch DBH Blue Gum Eucalyptus:

This large tree has a good condition rating and it is suitable for preservation and protection during the construction period.

Tree #46 – 60-inch DBH Blue Gum Eucalyptus (measured near ground level):



This tree has regenerated from a stump, resulting in the development of multiple codominant stems.

I determined that this tree has a poor structural condition and that it will become increasingly vulnerable to failure as it grows larger over time. I determined that this tree is unsuitable for preservation. It is located within the Protected Riparian Zone.

Tree #47 – 84-inch DBH Blue Gum Eucalyptus:

Tree #48 – 59-inch DBH Blue Gum Eucalyptus:

These large trees are located within the Riparian Zone.

I determined that they are suitable for preservation and protection during the construction period, based upon their good overall condition ratings.

Tree #49 – 21, 30 & 34-inch DBH Blue Gum Eucalyptus:

This large tree is located within the Riparian Zone. It has a poor structural condition as a result of having developed three codominant trunks that are attached to the stump near ground level. The areas of attachment between the trunks appear to be weak.

I determined that this tree has a poor structural condition and that it will become increasingly vulnerable to failure over time. I determined that this tree is unsuitable for preservation, when taking into consideration its close proximity to the project site and the adjacent residences.

Tree #50 – 42-inch DBH Blue Gum Eucalyptus:

Tree #51 – 36-inch DBH Blue Gum Eucalyptus:



These large trees are located within the Riparian Zone.

I determined that these trees have good overall condition ratings and that they are suitable for preservation and protection during the construction period.

Tree #52 – 34-inch DBH Blue Gum Eucalyptus:

This large tree is located within the Riparian Zone. The tree was topped at about 90-feet above ground. I observed an area of fungal decay in the base of the trunk, where a codominant stem had previously been removed. I determined that this tree has a poor structural condition and that it will become increasingly vulnerable to failure over time.

I determined that this tree is unsuitable for preservation, when taking into consideration its close proximity to the project site and the adjacent residences.

Tree #53 – 20-inch DBH Blue Gum Eucalyptus:

This tree is located in the Riparian Zone. It has a poor structural condition and is vulnerable to failure.

I determined that it is unsuitable for preservation, when taking into consideration the close proximity of the adjacent residence.

Tree #54 – 8 & 8-inch DBH Blue Gum Eucalyptus:

Tree #55 – 8, 6, 8 & 6-inch DBH Blue Gum Eucalyptus:



Both of these trees regenerated from cut stumps and they have developed multiple codominant stems, all of which share weak areas of attachment. These trees will become increasingly vulnerable to failure as they grow larger over time.

I determined that these trees are unsuitable for preservation because of their poor structural conditions.

Tree #56 – 6, 10.5, 10 & 8-inch DBH Coast Live Oak:

Tree #57 – 10-inch DBH Coast Live Oak:

Tree #58 – 8 & 6-inch DBH Coast Live Oak:

Tree #59 – 8-inch DBH Coast Live Oak:

Tree #60 – 7 & 8-inch DBH Coast Live Oak:



Tree's #59 & #60 have poor health and structural condition ratings respectively, which makes them unsuitable for preservation.

I determined that all of these oaks are located within the proposed construction footprint, which precludes their preservation.

Tree #61 – 12.5 & 7-inch DBH Blue Gum Eucalyptus:

This tree has a very poor structural condition, having regenerated from a stump. The area of attachment in between the two stems is weak.

This tree is located within the proposed construction footprint, which precludes its preservation.

Tree #62 – 8.5, 11, 7 & 11.5-inch DBH Coast Live Oak:

Tree #63 – 8-inch DBH Coast Live Oak:

Tree #64 – 12, 10.5 & 12-inch DBH Coast Live Oak:



Tree #62 has a poor structural condition, having regenerated from a stump. The areas of attachment in between the codominant stems are weak.

These oaks are located within the proposed construction footprint, which precludes their preservation.

PRELIMINARY RECOMMENDATIONS:

DESIGN PERIOD TREE PRESERVATION RECOMMENDATIONS:

The project arborist must provide recommendations for the protection of the trees that are identified for preservation during the design development phase of this project. These recommendations pertain to the protection of the Critical Root Zone areas of the trees that will be impacted by construction activities. These activities include demolition work, grading work, construction work and the installation of underground utilities and storm drains.

1- The locations of required tree Protection Zone fences must be shown on the Grading Plans. The trees identified in this report must be numbered on this plan as well.

2- The following Tree Protection Notes must be added to the Cover Sheet of the final construction plans or be shown on a dedicated Tree Protection Plan:

(a)- Tree Protection Zone Fencing must be installed and approved of by the project arborist before demolition and construction work can proceed. These fences must not be dismantled or moved at any time during the construction period, without first obtaining the consent of the project arborist. The fences must comprise of steel chain-link material or heavy-duty snow fences, attached to steel posts driven into the ground. Laminated Tree Protection Notices must be attached to the TPZ fences at distances of every 15-feet (see the attached TPZ notice template).

(b)- The project arborist must attend a pre-construction meeting with the General Contractor and must also be notified concerning scheduled site meetings throughout the construction period.

(c)- Grading and construction activities must be excluded from fenced Tree Protection Zones. Vehicles and equipment must be excluded from Tree Protection Zones. No materials, chemicals or waste products may be stored or disposed of within these protected areas.

(d)- The project arborist must be notified in the event that significant roots over 2-inches diameter are encountered during any underground work.

TREE PRUNING & MAINTENANCE RECOMMENDATIONS:

The Project Arborist must meet with the approved Tree Service Provider to discuss the scope of all the recommended pruning work on this site before it proceeds and should also be available to inspect the work in progress in order to ensure that it is being performed correctly. This work must comply with ANSI A-300 Best Management Practices and ISA Standards for tree pruning and the installation of tree support systems (tree props and support cables). This work must also be performed under the supervision of an ISA Certified Arborist (See the attached list of recommended tree service providers).

- I recommend that the Cape Ivy and the English Ivy growing on the trunks and in canopies of the oaks and Eucalyptus trees is removed. These vines are invasive and they can hide structural defects.

- I recommend that the Poison Oak and the debris built up around the trunks of the Blue Gum Eucalyptus Trees on the bank above the dry creek is removed. This action will serve to expose any structural defects that may have been obscured at the time of my assessment and it will also reduce potential fuels in the event of a wildfire situation. The removal of the debris and the poison oak will also serve to discourage trespassing and camping on the property.

- I recommend that all of the trees that are to be preserved, are pruned to improve their structural conditions and to reduce the risk of tree failures. The scope of work for the individual trees is yet to be determined.

CONSTRUCTION PERIOD TREE PROTECTION RECOMMENDATIONS & SITE INSPECTION SCHEDULE:

1 – THE TREE PROTECTION ZONE FENCES:

- Tree Protection Zone Fencing must be installed and approved of by the project arborist before any site demolition and construction work proceeds.

- TPZ fences must not be dismantled or moved at any time during the construction period, without first obtaining the consent of the project manager and the project arborist.

- Note - All construction activities must be excluded from fenced Tree Protection Zones, unless such encroachments are unavoidable, in which case the project arborist must provide supervision regarding root protection and preservation within these areas. Vehicles and equipment must be excluded from Tree Protection Zones. No materials, chemicals or waste products may be stored or disposed of within these protected areas.

2 – THE PRE-CONSTRUCTION MEETING:

- The project arborist must attend a pre-construction meeting with the General Contractor and the grading contractor and must also be notified concerning scheduled site meetings throughout the construction period.

3 – SITE INSPECTIONS & SUPERVISION:

- The project arborist must be notified in the event that significant roots over 2-inches diameter are encountered during any underground work. Roots encountered within the limits of grading and excavation work that exceed 2-inches diameter must be pruned properly and not be torn by equipment.
- The project arborist must also provide supervision oversight concerning all construction disturbances that will encroach within the Critical Root Zones Areas of Protected Trees (as defined by the tree's canopy drip line perimeters or a factor of their trunk diameter measurements).

Please contact me if you have any questions regarding this report.

Respectfully submitted



Nigel Belton

Attachments:

- Assumptions & Limiting Conditions
- Tree Resource Matrix
- Tree Location Map
- Exhibit Site Plan
- Recommended Tree Service Providers

Assumptions and limiting Conditions

1. Any legal description given by the appraiser/consultant is assumed to be correct. No responsibility is assumed for matters legal in character nor is any opinion rendered as to the quality of any title.
2. The appraiser /consultant can neither guarantee nor be responsible for accuracy of information provided by others.
3. The appraiser/consultant shall not be required to give testimony or to attend court by reason of this appraisal unless subsequent written arrangements are made, including payment of an additional fee for services.
4. Loss or removal of any part of this report invalidates the entire appraisal/evaluation.
5. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person(s) to whom it is addressed without written consent of the appraiser/consultant.
6. This report and the values expressed herein represent the opinion of the appraiser/consultant, and the appraiser's/consultant's fee is in no way contingent upon the reporting of a specified value nor upon any finding to be reported.
7. Sketches, diagrams, graphs, photos, etc in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys.
8. This report has been made in conformity with acceptable appraisal/evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
9. When applying any pesticide, fungicide, or herbicide, always follow label instructions.
10. No tree described in this report was climbed, unless otherwise stated. We cannot take responsibility for any defects which only could have been discovered by climbing. A full root collar inspection, consisting of excavating the soil around the tree to uncover the root collar and major buttress roots was not performed, unless otherwise stated. We cannot take responsibility for any root defects which could only have been discovered by such an inspection.

Consulting 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 risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to 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 the 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 medicine, cannot be guaranteed.

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

Nigel Belton
ISA Certified Arborist – WE 410A

TREE RESOURCE MATRIX – 2838 PARK AVENUE – SOQUEL, CALIFORNIA (APN 037-231-20):

#	SPECIES	TRUNK DIAMETER AT 54-INCHES ABOVE GRADE – (DBH)	ESTIMATED HEIGHT (IN FEET)	ESTIMATED SPREAD (IN FEET)	HEALTH (1 = BEST RATING OUT OF 5)	STRUCTURE (1 = BEST RATING OUT OF 5)	SUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	UNSUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	LOCATED IN THE PROPOSED CONSTRUCTION FOOTPRINT	COMMENTS
<p><i>SHEET 1 of 5.</i></p> <p>SUMMARY:</p> <ul style="list-style-type: none"> - Sixty-five trees were surveyed on the site. - Fifty-two of these trees are identified as being suitable for preservation, based on their health & structural condition ratings. - Thirteen of these trees are identified as being unsuitable for preservation, based upon their health & structural condition ratings. - Approximately 16 of these trees appear to be located within the construction footprint, which would preclude their preservation. 										
1	Liquidambar (<i>Liquidambar styraciflua</i>)	14	40	20	2	4	X	-	X	The top previously broke out.
2	Liquidambar	17	45	25	2	4	-	X	-	Noted – A poor area of attachment between the codominant stems.
3	Liquidambar	12.5	40	20	2	4	X	-	-	Noted – A poor area of attachment between the codominant stems.
4	Liquidambar	11.5	40	15	2	3	X	-	-	-
5	Liquidambar	11	40	20	2	4	X	-	-	Noted – A poor area of attachment between the codominant stems.
6	Liquidambar	14	45	30	2	4	X	-	-	Noted – A heavy & overextended limb structure.
7	Koelreuteria (<i>Koelreuteria spp.</i>)	15	25	25	2	3	X	-	-	-
8	Koelreuteria	15	25	25	2	3	X	-	-	-
9	Koelreuteria	13.5	25	25	2	3	X	-	-	-
10	Koelreuteria	13	25	20	2	3	X	-	-	-
11	Koelreuteria	11	25	20	2	3	X	-	-	-

Site visit by Nigel Belton, ISA Certified Arborist WE-0410A – February 18, 2022

TREE RESOURCE MATRIX – 2838 PARK AVENUE – SOQUEL, CALIFORNIA (APN 037-231-20):

#	SPECIES	TRUNK DIAMETER AT 54-INCHES ABOVE GRADE – (DBH)	ESTIMATED HEIGHT (IN FEET)	ESTIMATED SPREAD (IN FEET)	HEALTH (1 = BEST RATING OUT OF 5)	STRUCTURE (1 = BEST RATING OUT OF 5)	SUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	UNSUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	LOCATED IN THE PROPOSED CONSTRUCTION FOOTPRINT	COMMENTS
	<i>SHEET 2 of 5.</i>									
12	Coast Live Oak (<i>Quercus agrifolia</i>)	16	25	20	2	3	X	-	-	-
12A	Coast Live Oak	9.5	20	15	2	3	X	-	-	Located beside Tree #12 (no tag).
13	Coast Live Oak	10	15	15	2	2	X	-	X	-
14	Coast Live Oak	7	20	15	3	3	X	-	X	-
15	Wild Plum (<i>Prunus spp.</i>)	5/5/4.5	20	15	2	3	X	-	X	-
16	Coast Live Oak	12.5	40	40	2	2	X	-	-	-
17	Coast Live Oak	28	50	35	2	3	X	-	-	Noted – A poor area of attachment between the codominant stems.
18	Coast Live Oak	8	20	15	2	2	X	-	-	The canopy is suppressed by adjacent trees.
19	Coast Live Oak	9.5	30	10	4	3	-	X	-	Noted – Bark death on the trunk at 9-feet above ground.
20	Coast Live Oak	11	50	20	2	3	X	-	-	The trunk leans northwest.
21	Coast Live Oak	13.5	50	20	2	3	X	-	-	The trunk leans northwest.
22	Coast Live Oak	8.5	25	15	2	2	X	-	-	The canopy is suppressed by adjacent trees.
23	Coast Live Oak	14.5	50	35	2	3	X	-	-	-
24	Coast Live Oak	11	45	20	2	2	X	-	X	-
25	Coast Live Oak	15.5	50	30	2	3	X	-	X	The trunk leans northwest.
26	Blue Gum Eucalyptus (<i>Eucalyptus globulus</i>)	22	80	25	2	2	X	-	-	-
27	Blue Gum Eucalyptus	21	100	35	2	2	X	-	X	Noted – The trunk is obscured by ivy growth.
28	Blue Gum Eucalyptus	7.5	45	10	3	2	X	-	-	The canopy is suppressed by adjacent trees.

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TREE RESOURCE MATRIX – 2838 PARK AVENUE – SOQUEL, CALIFORNIA (APN 037-231-20):

#	SPECIES	TRUNK DIAMETER AT 54-INCHES ABOVE GRADE – (DBH)	ESTIMATED HEIGHT (IN FEET)	ESTIMATED SPREAD (IN FEET)	HEALTH (1 = BEST RATING OUT OF 5)	STRUCTURE (1 = BEST RATING OUT OF 5)	SUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	UNSUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	LOCATED IN THE PROPOSED CONSTRUCTION FOOTPRINT	COMMENTS
	SHEET 3 of 5.									
29	Blue Gum Eucalyptus	12.5	75	20	2	3	X	-	-	Noted – The trunk is obscured by ivy growth.
30	Blue Gum Eucalyptus	13	65	15	2	3	X	-	-	The trunk leans northwest.
31	Blue Gum Eucalyptus	11.5	50	15	2	3	X	-	-	The canopy is suppressed by adjacent trees.
32	Blue Gum Eucalyptus	12.5	60	20	2	3	X	-	-	The canopy is suppressed by adjacent trees.
33	Blue Gum Eucalyptus	11.5	60	15	2	3	X	-	-	The canopy is suppressed by adjacent trees.
34	Blue Gum Eucalyptus	8.5	60	15	2	3	X	-	-	The canopy is suppressed by adjacent trees.
35	Blue Gum Eucalyptus	8.5	60	15	2	3	X	-	-	The canopy is suppressed by adjacent trees.
36	Blue Gum Eucalyptus	20	150	35	2	3	X	-	-	Noted – The trunk is obscured by ivy growth.
37	Blue Gum Eucalyptus	12	125	25	4	4	-	X	-	Noted – The trunk is obscured by ivy growth. The top is dead.
38	Blue Gum Eucalyptus	26	175	35	2	2	X	-	-	-
39	Coast Live Oak	8	35	15	2	2	X	-	-	-
40	Blue Gum Eucalyptus	56/16/35	175	75	2	3	X	-	-	Noted – A large tree that appears to transect the property line. The tree has codominant trunks near ground level. Large dead wood observed in the canopy.
41	Blue Gum Eucalyptus	53	175	60	2	3	X	-	-	Large dead wood observed in the canopy.
42	Blue Gum Eucalyptus	51	175	60	2	3	X	-	-	Large dead wood observed in the canopy.
43	Blue Gum Eucalyptus	22/9	80	40	2	3	X	-	-	The trunk leans west. Large dead wood observed in the canopy. Noted - A codominant structure at ground level.
44	Arroyo Willow (<i>Salix lasiolepis</i>)	12	25	20	2	4	X	-	-	Located on the bank. Noted – Extensive decay in the trunk and in the root collar. The tree has fallen in a westerly direction and it is laying on the meadow.
45	Blue Gum Eucalyptus	82	175	60	2	3	X	-	-	Noted – Three codominant stems at 6-feet above ground.

Site visit by Nigel Belton, ISA Certified Arborist WE-0410A – February 18, 2022

TREE RESOURCE MATRIX – 2838 PARK AVENUE – SOQUEL, CALIFORNIA (APN 037-231-20):

#	SPECIES	TRUNK DIAMETER AT 54-INCHES ABOVE GRADE – (DBH)	ESTIMATED HEIGHT (IN FEET)	ESTIMATED SPREAD (IN FEET)	HEALTH (1 = BEST RATING OUT OF 5)	STRUCTURE (1 = BEST RATING OUT OF 5)	SUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	UNSUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	LOCATED IN THE PROPOSED CONSTRUCTION FOOTPRINT	COMMENTS
	<i>SHEET 4 of 5.</i>									
46	Blue Gum Eucalyptus	60 at base of trunk	40	20	2	4	-	X	-	Noted – This tree regenerated from a cut stump. The canopy consists of multiple codominant stems.
47	Blue Gum Eucalyptus	84	175	40	2	3	X	-	-	Noted – A codominant structure (3 stems).
48	Blue Gum Eucalyptus	59	175	45	2	3	X	-	-	Noted – A codominant structure (3 stems).
49	Blue Gum Eucalyptus	21/30/34	175	45	2	4	-	X	-	Noted – A codominant structure (3 stems near ground level). The inspection of this tree was limited by poison oak and debris around the trunk, which precluded a more thorough examination.
50	Blue Gum Eucalyptus	42	190	50	2	2	X	-	-	The inspection of this tree was limited by poison oak and debris around the trunk, which precluded a more thorough examination.
51	Blue Gum Eucalyptus	36	175	45	2	2	X	-	-	The inspection of this tree was limited by poison oak and debris around the trunk, which precluded a more thorough examination.
52	Blue Gum Eucalyptus	34	90	15	2	4	-	X	-	The inspection of this tree was limited by poison oak and debris around the trunk, which precluded a more thorough examination. Noted – The tree was previously topped at about 90-feet above ground. I observed an area of decay in the base of the trunk where a codominant stem had been removed.
53	Blue Gum Eucalyptus	20	45	10	3	4	-	X	-	The inspection of this tree was limited by ivy around the trunk, which precluded a more thorough examination.
54	Blue Gum Eucalyptus	8/8	45	5	2	4	-	X	-	Noted – Regenerated from a cut stump. The two codominant stems share a weak area of attachment.

TREE RESOURCE MATRIX – 2838 PARK AVENUE – SOQUEL, CALIFORNIA (APN 037-231-20):

#	SPECIES	TRUNK DIAMETER AT 54-INCHES ABOVE GRADE – (DBH)	ESTIMATED HEIGHT (IN FEET)	ESTIMATED SPREAD (IN FEET)	HEALTH (1 = BEST RATING OUT OF 5)	STRUCTURE (1 = BEST RATING OUT OF 5)	SUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	UNSUITABLE FOR PRESERVATION (BASED ON CONDITION RATING)	LOCATED IN THE PROPOSED CONSTRUCTION FOOTPRINT	COMMENTS
55	Blue Gum Eucalyptus	8/6/8/6	70	20	2	4	-	X	-	Noted – Regenerated from a cut stump. The four codominant stems share weak areas of attachment.
56	Coast Live Oak	6/10.5/10/8	25	35	2	3	X	-	X	Noted – Regenerated from a cut stump.
57	Coast Live Oak	10	20	15	2	3	X	-	X	-
58	Coast Live Oak	8/6	20	15	2	3	X	-	X	Noted – Regenerated from a cut stump.
59	Coast Live Oak	8	20	10	4	2	-	X	X	Noted – Thin foliage throughout the canopy and evidence of declining health.
60	Coast Live Oak	7/8	25	20	2	4	-	X	X	Noted – Regenerated from a stump. A weak area of attachment between the codominant stems.
61	Blue Gum Eucalyptus	12.5/7	60	15	2	4	-	X	X	Noted – Regenerated from a stump. A very weak area of attachment between the codominant stems.
62	Coast Live Oak	8.5/11/7/11.5	40	35	2	4	-	X	X	Noted – Regenerated from a stump. Weak areas of attachment between the codominant stems.
63	Coast Live Oak	8	15	15	2	3	X	-	X	Leans northwest.
64	Coast Live Oak	12/10.5/12	30	30	2	3	X	-	X	A codominant structure at 4-feet above ground.

DIRECTIONS TO SITE

FROM HIGHWAY 1, IN SOQUEL, TAKE THE PARK AVENUE OFF-RAMP AND TURN NORTH ONTO PARK AVENUE. TRAVEL APPROXIMATELY 0.14 MILES NORTH ON PARK AVENUE UNTIL JUST PAST THE CABRILLO COLLEGE DRIVE INTERSECTION. SUBJECT PROPERTY IS ON THE EASTERLY SIDE OF PARK AVENUE.

TREE REMOVALS

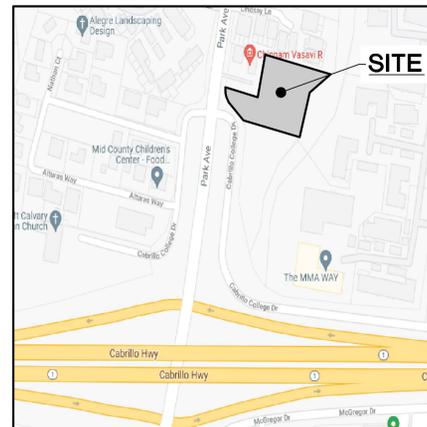
PER THE ARBORIST REPORT PREPARED BY NIGEL BELTON, CONSULTING ARBORIST, JOB NO. "2823 PARK AVE. SOQUEL," DATED 04/24/2022, 25 EXISTING TREES ARE TO BE REMOVED DUE TO POOR HEALTH, STRUCTURAL CONDITION, AND/OR LOCATION IN PROXIMITY OF THE PROPOSED CONSTRUCTION.

SURVEY NOTE:

1. BOUNDARY AND TOPOGRAPHIC SURVEY DATA SHOWN HEREON PROVIDED BY HANAGAN LAND SURVEYING, JOB NO. 21150, DATED 01/18/22.

FIRE NOTE:

1. PER A CENTRAL FIRE DISTRICT CONDITION OF APPROVAL, A NEW FIRE HYDRANT CAPABLE OF SUPPLYING A MINIMUM OF 1,500 GALLONS A MINUTE SHALL BE INSTALLED WITHIN 600 FEET OF THE NEW FIRE-SPRINKLERED BUILDING ON THE SAME SIDE OF THE STREET, IN A LOCATION APPROVED BY THE SOQUEL CREEK WATER DISTRICT.

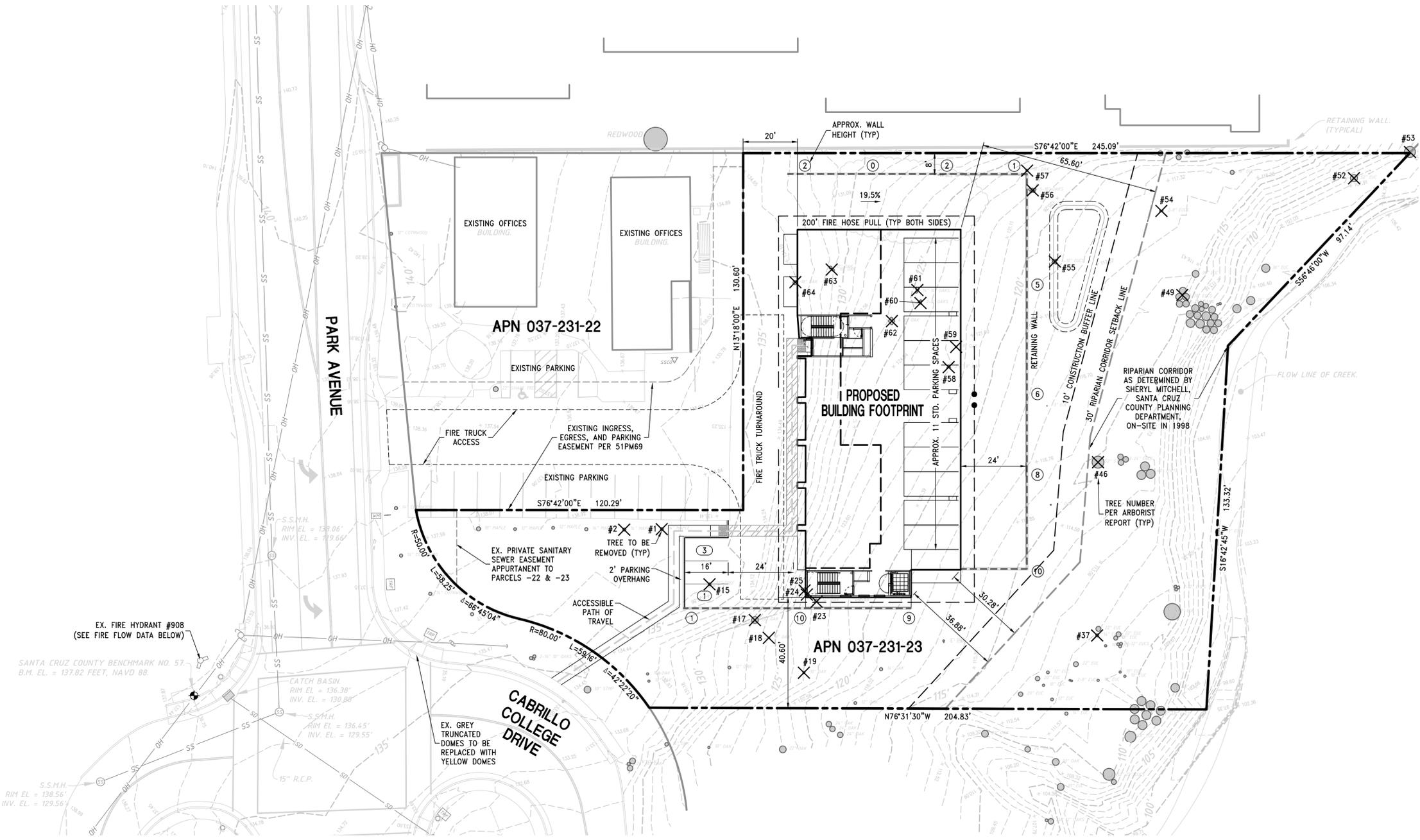


MAP DATA © GOOGLE

VICINITY MAP
N.T.S.

NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY



LIST OF REQUIRED INFORMATION

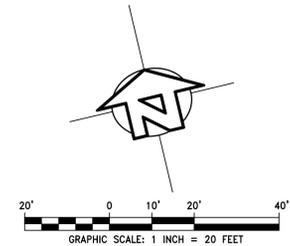
MAP PREPARED BY:	IFLAND ENGINEERS 5300 SOQUEL AVENUE, SUITE 101 SANTA CRUZ, CA 95062 (831) 426-5313 CONTACT: JON IFLAND
DEVELOPER:	NOVIN DEVELOPMENT 1990 N. CALIFORNIA BLVD, STE 800 WALNUT CREEK, CA 94596 (925) 344-6244 CONTACT: IMAN NOVIN
OWNER:	PAJARO WALL STREET INN, LLC 30 W. BEACH ST, #105 WATSONVILLE, CA, 95076 (831) 768-8373 CONTACT: ABE NOVIN
APN:	037-231-22 & -23
EXISTING USE:	PARCEL -22: OFFICE PARCEL -23: VACANT
PROPOSED USE:	MIXED USE WITH 35 RESIDENTIAL UNITS + 1 MANAGER'S UNIT
EXISTING ZONING:	PROFESSIONAL-ADMIN OFFICE (PA) & PARKS, RECREATION, AND OPEN SPACE (PR) FOR RIPARIAN CORRIDOR
PROPOSED ZONING:	PROFESSIONAL-ADMIN OFFICE (PA)
WATER SUPPLY:	SOQUEL CREEK WATER DISTRICT
SANITARY SEWER:	SANTA CRUZ COUNTY SANITATION DISTRICT
STORM DRAIN:	SURFACE FLOW TO SEASONAL GULLY
PROPOSED LOTS:	2
EXISTING LOT AREA:	PARCEL -22: 0.38± ACRES GROSS / 0.23± ACRES NET (PER RECORDED MAP 051 PM 69) PARCEL -23: 1.01± ACRES GROSS / 0.73± ACRES NET (PER RECORDED MAP 051 PM 69)
PROPOSED LOT AREA:	SAME
PROPOSED BUILDING AREA:	SEE SHEET A-0.00
PROPOSED FLOOR AREA:	SEE SHEET A-0.00
PROPOSED FLOOR AREA RATIO:	SEE SHEET A-0.00
PROPOSED LOT COVERAGE:	SEE SHEET A-0.00
PROPOSED AREA OF DISTURBANCE:	SEE SHEET A-0.00
EXISTING IMPERVIOUS AREA:	PARCEL -22: 11,570 SF PARCEL -23: 0 SF
PROPOSED NEW IMPERVIOUS AREA:	SEE SHEET C3.0

FIRE FLOW DATA

FLOW DATA PROVIDED BY SOQUEL CREEK WATER DISTRICT DATED 06/02/2022

HYDRANT #	STATIC PRESSURE (PSI)	RESIDUAL PRESSURE (PSI)	FLOW (GPM)	FLOW @ 20PSI (GMP)
908	44	30	1500	2041

NOTE: REQUIRED FIRE FLOW IS 1,000 GALLONS PER MINUTE FOR 120 MINUTES PER CENTRAL FIRE PROTECTION DISTRICT.



INDEX OF CIVIL SHEETS

SHEET NO.	DESCRIPTION
C0.0	PRELIMINARY SITE PLAN
C1.0	PRELIMINARY GRADING AND DRAINAGE PLAN
C2.0	PRELIMINARY UTILITY PLAN
C3.0	PRELIMINARY STORMWATER CONTROL PLAN

PRELIMINARY SITE PLAN

2838 PARK AVENUE

IFLAND ENGINEERS
 CIVIL ENGINEERING • LAND PLANNING • STRUCTURAL DESIGN
 6800 SOQUEL AVE SUITE 101
 SANTA CRUZ, CA 95062
 TEL (831) 426-5313
 FAX (831) 426-1763
 www.iflandengineers.com

APN 037-231-22 & -23
 DESIGN DEVELOPMENT
 DATE 01/28/22
 DESIGN JPI
 DRAWN STAFF

C0.0

JOB NO. 20026

I:\PROJECTS\2020\NOVIN Park\DWG\2 - DD PHASE\00-0-SITE.dwg 02Jun22 12:41:42 PM jimifland © IFLAND ENGINEERS, INC.

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Nigel Belton

Consulting Arborist

Recommended Tree Services and Pest and Disease Specialists:

Page 1

Please find below a list of recommended tree service providers. Note that all tree service providers must be State Licensed Contractors and should have an ISA Certified Arborist on staff concerning any tree pruning and maintenance work. I recommended that prospective contractors provide proof of current General Liability and Workman's Compensation Insurance coverage for your own protection.

Recommended Companies for Tree Pruning and Support Cable Installation Work:

- Lewis Tree Service (Crew with Tito) – 831 476 1200
- Nature First Tree Service – (now Davey Residential) - 831 462 8233
- Peter Quintanilla – 831 760 0160 (small tree specialist in Monterey & Santa Cruz Counties)
- Area Custom Tree Service – 650 969 7076
- Smith Tree Service 831 649 4343 (Monterey Peninsula Area)
- Quality Arborcare 831 423 6441
- Arborwell (888) 969 8733

Recommended Companies for Tree Removal Work:

- Lewis Tree Service – 831 476 1200
- Community Tree Service – 831 763 2391
- Christianson Tree Experts – 831 425 0801
- Quality Arborcare – 831 423 6441
- La Selva Tree Service (831) 708 8733
- Econo Tree Service – 650 367 4900
- Professional Tree Care Co. – 888 335 8733
- Atlas Tree Surgery 707 523 4399 (Santa Rosa)



Ph / Fax (831) 688-1239

P.O. Box 1744 ~ Aptos, CA 95001 ~

~ beltonnigel@gmail.com

Recommended Tree Services and Pest and Disease Specialists:

Page 2

Recommended Pest and Disease Control People:

- Geno Vitale – Vitale Tree Care - (831) 234 3520
- Don Cox – drtreelove@gmail.com
- West Valley Spray Company – 408 378 8530
- Peninsula Pest Management (Monterey County) - 831 753 2847
- Smith's Pest Management – 408 514 5703

Fruit Tree Pruning and Orchard Management:

- Terence Welch – 831 435 8733
- Orchard Keepers – 831 854 7811

Olive Tree Specialist:

John Hadley – (707) 887-0240 – From Santa Rosa – Comes down to existing clients in this area periodically.

Referred by:

**Nigel Belton – Consulting Arborist – ISA Certified Arborist WE-0410A
831 688 1239 – beltonnigel@gmail.com**

RIPARIAN HABITAT

(Please read notes for plant availability & property and habitat protection)

Scientific Name	Common Name	Form	Notes	Sun
<i>Acer negundo</i>	Box Elder	tree	Max. Height 35 - 66 ft Max. Width 40 ft	Part Shade, Sun
<i>Aer macrophyllum</i>	Big Leaf Maple	tree	Max. Height 30 - 114.8 ft Max. Width 65 ft	Part Shade, Sun
<i>Aesculus californica</i>	Buckeye	tree	Max. Height 13.1 - 39.4 ft Max. Width 40 ft	Part Shade, Sun
<i>Alnus rhombifolia</i>	White Alder	tree	Max. Height 49–82 ft Max. Width 40 - 70 ft	Part Shade, Sun
<i>Alnus rubra</i>	Red Alder	tree	Max. Height 40 - 50 ft	Part Shade, Sun
<i>Platanus racemosa</i>	Sycamore	tree	Max. Height 20 - 115 ft Max. Width 50 ft	Sun
<i>Populus trichocarpa</i>	Black Cottonwood	tree	Max. Height 98 to 164 ft Max. Width 25 - 30 ft	Sun
<i>Achillea millefolim</i>	Yarrow	rhizomatous perennial	Max. Height 1 - 3 ft Max. Width .5 - 1.5 ft	Sun, Part Shade, Full Shade
<i>Acmispon glaber</i>	Deer Weed	bunching perennial	Max. Height 1.6 - 3 ft Max. Width 3 ft	Sun
<i>Agrostis pallens</i>	Dune Bent Grass	rhizomatous perennial	Max. Height 0.33 - 2.3 ft Max. Width 3 ft	Sun, Part Shade, Full Shade
<i>Anisocarpus madioides</i>	Woodland Tarweed	bunching perennial	Max. Height 2.5 ft	Shade
<i>Aquilegia formosa</i>	Columbind	bunching perennial	Max. Height 1.5 - 3 ft Max. Width 1 ft	Sun, Part Shade, Full Shade
<i>Artemisia douglasiana</i>	Mugwort	rhizomatous perennial	Max. Height 3-5 - 3 ft Max. Width 3-5 ft	Sun
<i>Asarum caudatum</i>	Wild Ginger	rhizomatous perennial	Max. Height 1 ft	Full Shade, Part Shade
<i>Baccharis pilularis</i>	Coyote Bush	shrub	Max. Height 1.5 - 10 ft Max. Width 12 ft	Sun, Part Shade
<i>Bromus carinatus</i>	California Brome	bunching perennial	Max. Height 1 - 4 ft Max. Width 4 ft	Sun, Part Shade
<i>Carex barbarae</i>	Santa Barbara Sedge	rhizomatous perennial	Max. Height 1.6 - 3.3 ft Max. Width 3 ft	Part Shade
<i>Carex bolanderi</i>	Bolander's Sedge	bunching perennial	Max. Height 2 ft Max. Width 2 ft	Sun, Part Shade
<i>Carex densa</i>	Dense Sedge	bunching perennial	Max. Height 2 ft Max. Width 2 ft	Sun, Part Shade
<i>Carex globosa</i>	Round-fruited Sedge	bunching perennial	Max. Height 2 ft Max. Width 2 ft	Sun, Part Shade
<i>Carex subbracteata</i>	Small-bracted Sedge	bunching perennial	Max. Height 2 ft Max. Width 2 ft	Sun, Part Shade
<i>Carex tumulicola</i>	Foothill Sedge	bunching perennial	Max. Height 0.5 - 1 ft Max. Width 2 ft	Sun, Part Shade

<i>Ceanothus thyrsiflorus</i>	Wild Lilac	large shrub/small tree	Max. Height 2 - 30 ft Max. Width 2 - 40 ft	Part Shade
<i>Clinopodium douglasii</i>	Yerba Buena	layering perennial	Max. Height 3.6 - 7.2 in Max. Width 3 ft	Full Shade, Part Shade
<i>Cornus sericea</i>	Dogwood	colonial shrub	Max. Height 3-20 ft Max. Width 8-12 ft	Sun, Part Shade
<i>Corylus cornuta</i>	Hazelnut	large shrub	Max. Height 5 - 26.3 ft Max. Width 10 ft	Shade, Part Shade
<i>Cyperus eragrostis</i>	Umbrella Sedge	clumping perennial	Max. Height 3 ft Max. Width 30 ft	Sun
<i>Dicentra formosa</i>	Bleeding Heart	rhizomatous perennial	Max. Height 0.7 - 1.6 ft Max. Width 3 ft	Sun, Part Shade, Shade
<i>Elymus glaucus</i>	Blue Wild Rye	bunching perennial	Max. Height 4 - 5 ft Max. Width 5 ft	Part Shade, Sun
<i>Epilobium canum</i>	California Fuschia	rhizomatous perennial	Max. Height 0.25 - 1.5 ft Max. Width 2-3 ft	Sun
<i>Euonymus occidentalis</i>	Burning Bush	shrub	Max. Height 6.6 - 20 ft Max. Width 10 - 20 ft	Shade, Part Shade
<i>Euthamia occidentalis</i>	Western Goldenrod	rhizomatous perennial	Max. Height 3.5 - 7 ft	Sun
<i>Fragaria vesca</i>	Wood Strawberry	stoloniferous perennial	Max. Height 0.1 - 1 ft Max. Width 3 ft	Sun, Part Shade
<i>Frangula californica</i>	Coffeeberry	large shrub/small tree	Max. Height 6 - 15 ft Max. Width 5- 15 ft	Sun, Part Shade
<i>Heracleum maximum</i>	Cow Parsnip	bunching perennial	Max. Height 4-8 ft	Part Shade
<i>Heteromeles arbutifolia</i>	Toyon	large shrub/small tree	Max. Height 6 - 30 ft Max. Width 10- 15 ft	Sun
<i>Heuchera micrantha</i>	Small-flowered Alum-rod	bunching perennial	Max. Height 1 - 3 ft Max. Width 1 ft	Full Shade, Part Shade
<i>Holodiscus discolor</i>	Oceanspray	shrub	Max. Height 3 - 16.4 ft Max. Width 10 - 15 ft	Shade, Part Shade
<i>Iris douglasiana</i>	Douglas' Iris	bunching perennial	Max. Height 0.6 - 2.6 ft Max. Width 2 - 4 ft	Sun, Part Shade, Full Shade
<i>Iris fernaldii</i>	Fernalds Iris	bunching perennial	Max. Height 1.3 ft	Shade, Part Shade
<i>Juncus patens</i>	Grey Rush	bunching perennial	Max. Height 1 - 3 ft Max. Width 3 ft	Sun
<i>Lonicera hispidula</i>	Hairy Honeysuckle	vine, groundcover	Max. Height 4 ft Max. Width 8 ft	Part Shade
<i>Maianthemum racemosum</i>	False Solomon's Seal	rhizomatous perennial	Max. Height 1.6 - 3 ft	Part Shade
<i>Maianthemum stellatum</i>	Slim Solomon's Seal	rhizomatous perennial	Max. Height 2.5 ft	Full Shade, Part Shade

<i>Mimulus aurantiacus</i>	Sticky Monkeyflower	small shrub	Max. Height 4 - 5 ft Max. Width 5 ft	Part Shade, Sun
<i>Monardella villosa</i> subsp. v.	Coyote Mint	bunching perennial	Max. Height 2 ft Max. Width 3 ft	Sun, Part Shade
<i>Morella californica</i>	Wax Myrtle	large shrub/small tree	Max. Height 6 - 30 ft Max. Width 20 ft	Part Shade, Sun
<i>Oenothera elata</i>	Evening Primrose	self-seeding biennial	Max. Height 5 ft Max. Width 3 ft	Part Shade, Sun
<i>Oxalis organa</i>	Redwood Sorel	rhizomatous perennial	Max. Height 0.16 - 1.3 ft	Part Shade
<i>Petasites frigidus</i> var. palmatus	Western Sweet Coltsfoot	rhizomatous perennial	Max. Height 2 ft	Shade, Part Shade
<i>Polypodium californicum</i>	California Polypody	rhizomatous fern	Max. Height 1.5 ft Max. Width 3 ft	Full Shade, Part Shade
<i>Polypodium calirhiza</i>	Nested Polypody	rhizomatous fern	Max. Height 1-1.5 ft	Full Shade, Part Shade
<i>Polypodium glycyrrhiza</i>	Licorice Fern	rhizomatous fern	Max. Height 1 ft Max. Width 1-2 ft	Full Shade, Part Shade
<i>Polystichum munitum</i>	Sword Fern	bunching fern	Max. Height 1.6 - 5.9 ft Max. Width 2 - 3 ft	Full Shade
<i>Prosartes hookeri</i>	Hooker's Fairy Bells	bunching perennial	Max. Height 2.6 - 3.3 ft	Part Shade
<i>Ribes menziesii</i> var. m.	Canyon Gooseberry	shrub	Max. Height 9.8 ft	Part Shade
<i>Ribes sanguineum</i> var. glutinosum	Pink-flowering Currant	large shrub	Max. Height 13 ft Max. Width 7 ft	Sun, Part Shade
<i>Rosa californica</i>	California Rose	rhizomatous perennial	Max. Height 6-10 ft Max. Width 6-10 ft	Sun
<i>Rosa gymnocarpa</i>	Wood Rose	bunching perennial	Max. Height 3 - 6.6 ft Max. Width 6-9 ft	Sun, Part Shade, Full Shade
<i>Rubus parviflorus</i>	Thimbleberry	rhizomatous perennial	Max. Height 4 - 8.2 ft	Part Shade
<i>Rubus ursinus</i>	California Blackberry	layering perennial	Max. Height 2-5 ft Max. Width 6-8 ft	Sun, Part Shade, Full Shade
<i>Salix exigua</i> var. hindsiana	Hind's Willow	colonial shrub	Max. Height 15-20 ft Max. Width 15-20 ft	Sun, Part Shade
<i>Salix laevigata</i>	Red Willow	large shrub/tree	Max. Height 25-50 ft Max. Width 15-35 ft	Sun, Part Shade
<i>Salix lasiandra</i> var. lasiandra	Shining Willow	large shrub/tree	Max. Height 3-30 ft Max. Width 3-9 ft	Sun, Part Shade
<i>Salix lasiolepis</i>	Arroyo Willow	large shrub/tree	Max. Height 3-5 ft Max. Width 3-7 ft	Sun, Part Shade
<i>Salix scouleriana</i>	Scouler's Willow	large shrub/tree	Max. Height 12 ft Max. Width 30 ft	Sun, Part Shade
<i>Salix sitchensis</i>	Sitka Willow	large shrub/tree	Max. Height 3-25 ft Max. Width 3-25 ft	Sun, Part Shade
<i>Salvia spathacea</i>	Hummingbird Sage	rhizomatous perennial	Max. Height 1 - 3 ft Max. Width 3 ft	Full Shade, Part Shade
<i>Sambucus nigra</i>	Blue Elderberry	large shrub/small tree	Max. Height 13.1 - 30 ft Max. Width 10-20 ft	Part Shade, Sun

<i>Scrophularia californica</i>	Bee Plant	rhizomatous perennial	Max. Height 2 - 4 ft Max. Width 6 - 12 ft	Part Shade
<i>Stachys bullata</i>	Hedge Nettle	rhizomatous perennial	Max. Height 1.3 - 2.6 ft	Shade, Part Shade
<i>Struthiopteris spicant</i>	Deer Fern	bunching fern	Max. Height 1-3 ft Max. Width 1 - 3 ft	Full Shade, Part Shade
<i>Symphoricarpos albus var. laevigatus</i>	Snowberry	shrub	Max. Height 4-6 ft Max. Width 8-12 ft	Shade, Part Shade
<i>Symphotrichum chilense</i>	California Aster	rhizomatous perennial	Max. Height 1.3 - 3.3 ft	Part Shade, Sun
<i>Tellima grandiflora</i>	Fringe Cups	bunching perennial	Max. Height 1.3 - 3 ft Max. Width 2 ft	Shade, Part Shade
<i>Tiarella trifoliata var. unifoliata</i>	Sugar Scoop	rhizomatous perennial	Max. Height 5.9 - 8.4 in	Shade, Part Shade
<i>Vaccinium ovatum</i>	Huckleberry	shrub	Max. Height 1.6 - 8 ft Max. Width 15 ft	Part Shade, Sun
<i>Verbena lasiostachys var. l.</i>	California Vervain	bunching perennial	Max. Height 2.6 ft	Sun
<i>Woodwardia fimbriata</i>	Giant Chain Fern	bunching fern	Max. Height 4 - 6 ft Max. Width 4 - 6 ft	Full Shade, Part Shade

PLANT AVAILABILITY, PROPERTY & HABITAT PROTECTION:

- After a fire, revegetating riparian areas with native plants can prevent erosion and restore habitat
- Consider consulting with a native plant expert from the area such as Central Coast Wilds, UC Santa Cruz Arboretum, Rana Creek or Grassroots Ecology
- Riparian habitats should be restored with local native plant nursery stock and should ideally be watershed specific to maintain genetic integrity
- Consider using species that are consistent with the guidelines of defensible space