Appendix D

Draft Arborist Report

Arborist Draft Report

for

Silicon Valley Power – 115 kV T-line NRS-KRS Project

Santa Clara, California

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Draft Arborist Report -

Silicon Valley Power – NRS to KRS 115 kV Transmission Line Project

Table of Contents

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Project Overview

Silicon Valley Power (SVP) is proposing to construct approximately 2.24 miles of a new 115 kV transmission line (Project) within the City of Santa Clara (City) limits in Santa Clara County, California. Based on a Project Description provided by Aspen Environmental Group (AEG) on April 5, 2024, the proposed transmission line will begin at the SVP Northern Receiving Station (NRS), approximately 0.2 miles southeast of Levi's Stadium, and would travel south down Lafayette Street, Bassett Street and Duane Avenue to end at the SVP Kifer Receiving Station (KRS), approximately 0.1 miles northwest of the intersection of Lafayette Street and Central Expressway.

Two different Options have been proposed for the Project. Under Option 1, the entire Project would be overhead, with transmission lines on new poles. Under Option 2, the Project would be underground from the median of Lafayette Street near NRS to approximately 300 feet south of the intersection of Lafayette Street and Agnew Road, then overhead south of Agnew Road to KRS.

Figure 1 provides an overview of the proposed SVP – NRS-KRS 115kV Transmission-line (T-line) Project route and shows proposed alignments for both Option 1 and Option 2.

Scope of Report

This preliminary arborist report provides the following:

- An inventory of trees within and immediately adjacent to proposed SVP – 115 kV T-Line NRS-KRS Project boundaries. Project boundaries extend 20 feet on either side of the Project centerline. Boundaries are shown on tree location Maps 1-9, provided with this report as Attachment B.
- A general assessment of health/condition for each tree surveyed.
- An assessment of anticipated project impacts to trees within the Project area.
- A Tree Protection Plan for trees to be retained.

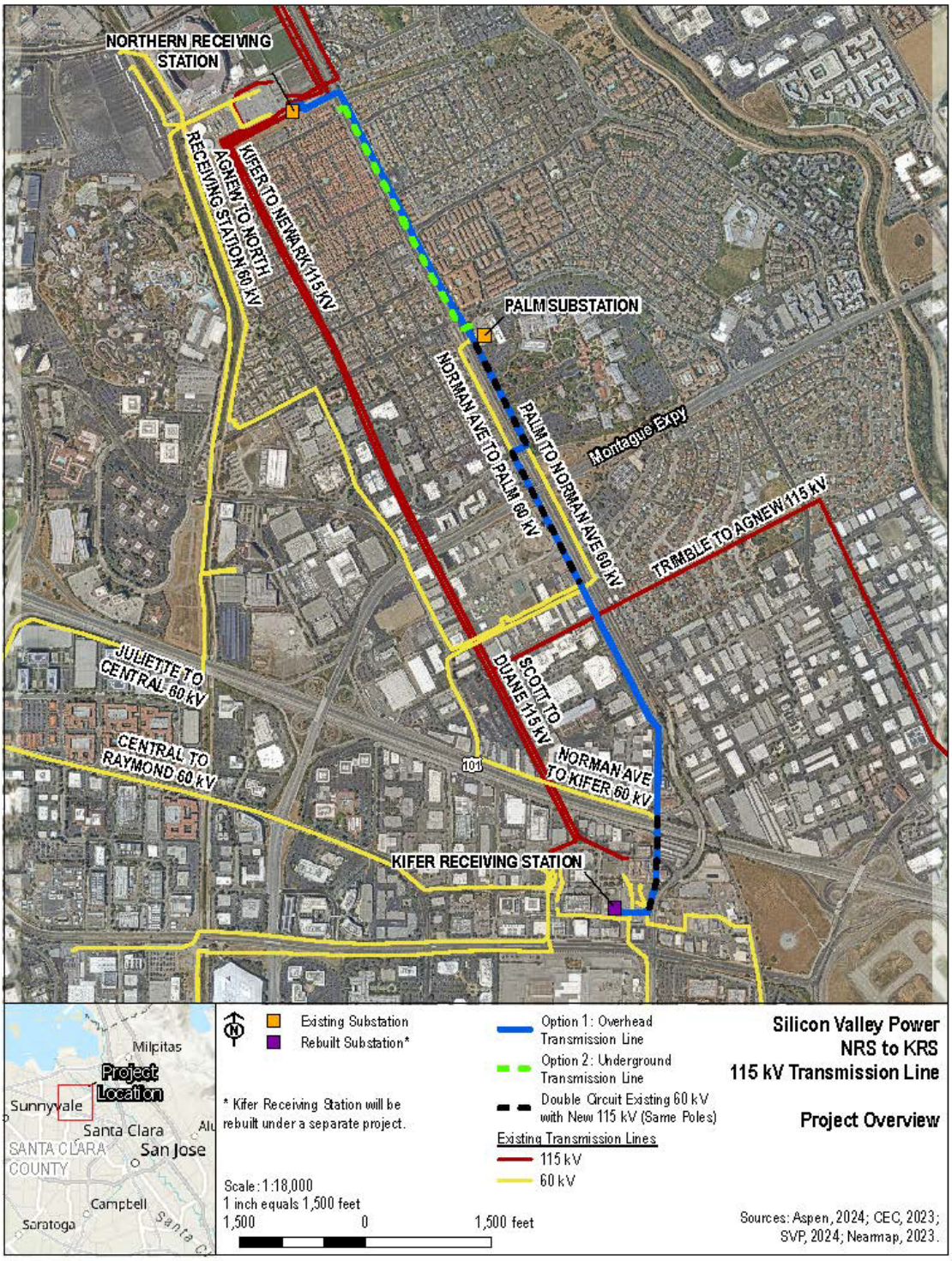
City of Santa Clara Tree Policies

City of Santa Clara General Plan policies which may apply to trees documented by this report for the SVP NRS-KRS 115kV T-line Project include the following:

5.10.1-P4 Protect all cedars, redwoods, oaks, olives, bay laurel and pepper trees of any size, and all other trees over 36 inches in circumference (approximately 11.5 inches in diameter) measured at 48 inches above-grade on private and public property as well as in the public right-of-way.

5.10.1-P3 Require preservation of all City-designated heritage trees listed in the Heritage Tree Appendix 8.10 of the General Plan

Figure 1. Project Overview Map.



Survey Methods

A tree survey for the SVP NRS-KRS 115 kV T-line Project was conducted by Kramer Botanical certified arborist Neal Kramer, with Project site visits on March 7, 13, 14, 16 and 20, 2024. All trees within Project boundaries, or immediately adjacent with canopy overhanging a Project boundary, having at least one woody trunk with a diameter of 3 inches or greater at 48 inches above the ground were surveyed for this report. Newly planted trees with trunk diameters of less than 3 inches were also included in the survey.

Each surveyed tree has been marked with a numbered round aluminum tag, tags 101 – 177 and tags 189 - 262, with 101 starting at the north end of the project alignment. Tree tag 178 – 188 represent trees that were a part of the March 2024 survey but are no longer a part of the alignments proposed for this report revision. GPS coordinates for each tree were documented using ArcGIS Field Maps paired with a Bad Elf Flex, Mini GNSS Receiver to enhance accuracy. The approximate location of each tree was also noted on an aerial field map, and information regarding the species, trunk diameter at 48 inches above the ground, and the approximate canopy spread, and height was collected for each tree.

Health and structure were evaluated for each tree using a basic ground-based inspection, and a general condition rating was assigned using the categories shown below. Individual tree ratings consider a variety of factors, including overall tree vigor, evidence of decay, insects or diseases, and/or any other structural defects observed.

Good: 80-100% healthy foliage and no significant defects.

Fair: 50-79% healthy foliage and/or minor defects.

Poor: 5-49% healthy foliage and/or other significant defects.

Based on maps provided by AEG, which show the proposed transmission alignment and transmission pole positions for both overhead alignment Option 1, and underground alignment Option 2, and considering a 20-foot buffer on either side of the transmission centerline, an assessment of project impacts to trees was made. Each tree was assigned a project impact code using one of the following three categories:

(R) Tree may need to be removed for underground trenching, overhead pole placement, or for transmission line clearance.

(CP) Clearance pruning may be required, but trees can likely be retained.

(-) No impact expected.

In general, tree branches that are closer than 5 feet vertically or 10 feet horizontally to any conductor or wire (with or without wind) would be trimmed to meet these minimum clearance standards. According to the Project Description, maximum allowable tree height under transmission lines will vary from 27 to 35 feet depending on location.

Survey Results

A total of 151 trees along the Project Alignment were documented for this report. A summary of all 151 trees is provided with this report as Attachment A. Attachment A lists each surveyed tree sequentially by tag number, and includes information regarding the common and scientific name, trunk diameter at 48 inches above the ground, approximate canopy spread and height, City protected status, and a general tree condition rating at the time of the March 2024 survey. Preliminary Project impact assessments for each tree are indicated in Attachment A for both Project Option 1 (overhead) and Project Option 2 (underground and overhead). Specific notes regarding individual trees are included where relevant.

Approximate tree locations along the transmission alignment are shown on aerial maps 1-9 provided with this report as Attachment B.

Trees documented for this report include 29 different species. Table 1 below lists each species by common and scientific name in descending order of abundance and includes the total number of each species documented.

Tree Health/Condition

Of the 151 trees documented for this report, 88 trees (58%) are rated in *good* condition, 51 trees (34%) are in *fair* condition and 12 trees (8%) are in *poor* condition. The condition ratings for individual trees are included in Attachment A.

Thirty trees were still "dormant" during March 2024 surveys conducted for this report, making true condition assessment difficult. Dormant tree species included American elm, Crape myrtle, Linden, Horse chestnut, Liquidambar and Tree of heaven. The condition of these dormant trees should be reviewed again later in the season, once the trees have leafed out, to confirm condition ratings assigned for this report and update them if necessary.

Unless expressed otherwise, tree condition assessments for this report were limited to visual examination of accessible tree parts without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies regarding the trees discussed in this report may not arise in the future.

Protected Trees

The City of Santa Clara General Plan (5.10.1-P4) defines "protected trees" as "all healthy cedars, redwoods, oaks, olives, bay laurel and pepper trees of any size and all other trees over 36 inches in circumference (approximately 11.5 inches in diameter) measured at 48 inches above-grade".

Seventy-seven (77) of the 151 trees surveyed for this report qualify as "protected trees" under the City of Santa Clara General Plan. Each protected tree is indicated as such in Attachment A under the "Santa Clara Protected Tree" column.

No “Heritage trees” are present within or immediately adjacent to the proposed SVP NRS-KRS 115 kV T-line Project boundaries.

Table 1: Tree species documented along the Project alignments, by descending order of abundance (March 2024)

Common Name	Scientific Name	Trees Documented	Native/ Non-native
Olive	*Olea europea*	28	Non-
Shamel ash	*Fraxanus uhdei*	17	Non-
Chinese Elm	*Ulmus parvifolia*	14	Non-
Glossy privet	*Ligustrum lucidum*	13	Non-
Ginkgo	*Ginkgo biloba*	13	Non-
American elm	*Ulmus americana*	12	Non-
Jacaranda	*Jacaranda mimosifolia*	11	Non-
Crape myrtle	*Lagerstroemia indica*	11	Non-
Canary Island Pine	*Pinus canariensis*	5	Non-
Deodar cedar	*Cedrus deodara*	3	Non-
Bradford pear	*Pyrus calleryana*	3	Non-
Blackwood acacia	*Acacia melanoxylon*	2	Non-
Red ironbark	*Eucalyptus sideroxylon*	2	Non-
Purple-leaf plum	*Prunus cerasifera 'Atropurpurea'*	2	Non-
Evergreen pear	*Pyrus kawakamii*	2	Non-
Linden	*Tillia* sp.	2	Non-
Horse chestnut	*Aesculus* sp.	1	Non-
Tree of heaven	*Ailanthus altissima*	1	Non-
Nichol's willow-leafed peppermint	*Eucalyptus nicholii*	1	Non-
Eucalyptus	*Eucalyptus* sp.	1	Non-
Liquidambar	*Liquidambar styraciflua*	1	Non-
Magnolia	*Magnolia* sp.	1	Non-
Italian stone pine	*Pinus pinea*	1	Non-
Fremont cottonwood	*Populus fremontii*	1	Native
Holly oak	*Quercus ilex*	1	Non-
Southern live oak	*Quercus virginiana*	1	Non-
Water gum	*Tristaniopsis laurina*	1	Non-

Assessment of Project Impacts on Trees

Some trees along the Project alignment may need to be removed for the placement of new transmission line structures, or for installation of underground lines.

Furthermore, some trees along the new alignment will need to be pruned to create minimum clearance distances around new structures and transmission lines. Based on clearance guidelines provided by project engineers, tree branches that are closer than 5 feet vertically or 10 feet horizontally to any conductor or wire will be trimmed to meet these minimum clearance standards. Maximum allowable tree height within 25 feet of the transmission centerline is expected to vary between 27 feet to 35 feet above the ground.

The Project Impact Code column in Attachment A of this report designates likely impacts to individual trees using one of the following impact codes:

(R) Tree may need to be removed for structure placement, line clearance, or underground installation.

(CP) Clearance pruning may be required for pole installation, line clearance or equipment access, but tree to be retained.

(-) No impact expected.

Table 2 below summarizes projected impacts to all surveyed trees by impact code as described above for Project Option 1 (all overhead). Table 3 summarizes projected impacts to all surveyed trees by impact code for the Project Option 2 (underground and overhead).

Table 2: Impacts to Trees - Option 1 (All Overhead)

	To be Removed	May Require Clearance Pruning	No Impact Expected	Total
All trees	3	33	115	151
"Protected" trees	2	26	57	77

Table 3: Impacts to Trees - Option 2 (Underground and Overhead)

	To be Removed	May Require Clearance Pruning	No Impact Expected	Total
All trees	2	32	117	151
"Protected" trees	1	22	54	77

The above assessment of project impacts on individual trees is preliminary, based on information provided July 5, 2024. During Project final development processes, in consultation with the City arborist or City designated arborist, it may be determined that additional trees will need to be removed for the Project. Or it may also be determined that with special protection measures, or by adjusting a pole location, a tree listed to be removed can be retained.

Table 4 below shows trees with survey tree tag number, that are projected to be removed for Project Alignment Option 1 vs. Alignment Option 2.

Table 4: Trees Projected for Removal
Alignment Option 1 vs. Option 2
(City Protected trees shown in bold font)

	Option 1	Option 2
Olive	tree #132	--
Deodar Cedar	tree #177	tree #177
Ginkgo	tree #236	tree #236
Total	3 trees	2 trees

Once final Project plans are in place, the Project arborist will review the plans and update this report to reflect changes made during final design processes. After the Project is completed, a post construction tree inventory can be conducted to confirm the actual number of trees removed for the Project.

Tree Protection for Retained Trees.

Development activities along the Project alignment have the potential to cause damaging impacts to trees to be retained. Tree root systems can be functionally compromised by soil compaction resulting from heavy equipment operating within tree root zones, and roots can be damaged or lost during excavation activities related to undergrounding, or installation of foundations for new transmission line poles. Furthermore, if not properly managed construction equipment operating in the vicinity of retained trees can cause significant and irreversible damage to tree trunks and canopies.

To minimize potential damage and ensure the long-term health, stability and survival of retained trees, measures outlined in the Tree Protection Plan below shall be implemented.

TREE PROTECTION PLAN

Tree Protection Zone

- A Tree Protection Zone (TPZ) shall be defined by the City arborist or City designated arborist for all trees that could be impacted by project activities and are intended for preservation. A TPZ will typically include all area within the dripline of trees to be retained.

- The TPZ will be protected by a fenced enclosure to prevent unauthorized access during project activities. At minimum, TPZ fencing will be constructed of 4-foot-tall high-visibility orange ESA fencing hung from a heavy wire attached to firmly anchored T-posts at no more than 8 foot spacing. Warning signs (e.g. “WARNING - Tree Protection Zone – This fence shall not be moved without approval by the City Arborist or a City designated arborist”) shall be prominently displayed and visible from all sides of the TPZ fencing.

- TPZ fencing shall be installed prior to any demolition, grading, staging, stockpiling, or any other construction activities within 50 feet of the TPZ, and unless otherwise approved by the City Arborist or a City designated arborist, shall remain in place until all construction activities are complete on the affected construction segment.

- No construction, staging, or storage of materials, equipment or vehicles shall occur within a TPZ without advanced approval and oversite by the City arborist or a City designated arborist.

- No excess soil, excess concrete or concrete wash, chemicals, refuse or other waste shall be placed within the TPZ.

- The primary contractor shall be responsible for maintaining TPZ fencing and enforcing all TPZ guidelines outlined above throughout the course of the Project.

Site Grading and Excavation and Trenching

- Soil disturbance or grade changes within a TPZ are not permitted unless approved by the City arborist or a City designated arborist. Any approved grading, excavation or trench work within a TPZ will be field staked and inspected by the City arborist or a City designated arborist prior to implementation.

- All approved grading, excavation and trenching work within a TPZ shall be performed under the observation of a City designated Arborist.

- All grading shall be designed to provide positive drainage away from the base of trees to be preserved and shall not create ponding within a TPZ.

- Grade changes in the vicinity of trees to be preserved should remain as close to natural grade as possible.

Canopy Pruning

- To the extent possible, any necessary canopy pruning shall be completed prior to the commencement of construction activities.

- Pruning shall be performed by a qualified tree service worker under the direction of a certified arborist following International Society of Arboriculture tree pruning best management practices. Pruning shall not be performed by construction personnel.

Root Pruning

- Any roots one inch and larger requiring removal shall be cut cleanly in sound tissue. No pruning seals or paint shall be used on wounds.

- Roots two inches and greater shall remain in place and undamaged to the extent practicable. If removal is required, cuts shall be made with the approval and under the direction of a certified arborist.

Communication for Tree Protection Compliance

- A preconstruction meeting shall be arranged for the City arborist or City designated arborist to meet with the Project Engineer, Project Contractors, Onsite Project Supervisors, Tree Pruning and Removal Contractor, and/or other appropriate Project Leads to review and secure a commitment to compliance with all tree protection measures.

The City of Sana Clara provides additional guidelines for tree protection. These are outlined in “City of Santa Clara Arborist notes”, a copy of which is included with this report as Attachment C.

Attachment A: Tree Survey Results – March 2024 Survey

Appendix A: Tree Survey Results March 2024 - Silicon Valley Power NRS-KRS Transmission Line Alignment, Santa Clara, Ca

rev. nk7/8/24

Tree #	Common Name	*Scientific Name*	Diameter (inches) at 48" above grade[1]	Canopy Spread (feet)	Tree Height (feet)	Santa Clara Protected Tree (P)	Project Impact Code (Op1)[2]	Project Impact Code (Op2)[2]	General Condition[3]	Comments
101	Crape myrtle	*Lagerstroemia indica*	5	15	15		-	-	Fair	Dormant. Canopy buried under trumpet vine
102	Crape myrtle	*Lagerstroemia indica*	5	12	18		-	-	Fair	Dormant. Canopy buried under trumpet vine
103	Jacaranda	*Jacaranda mimosifolia*	10	24	20		-	-	Good	
104	Jacaranda	*Jacaranda mimosifolia*	9	21	18		-	-	Fair	thin canopy
105	Jacaranda	*Jacaranda mimosifolia*	8	18	16		-	-	Fair	thin canopy
106	Jacaranda	*Jacaranda mimosifolia*	6	15	12		-	-	Fair	thin canopy
107	Jacaranda	*Jacaranda mimosifolia*	10	24	18		-	-	Fair	thin canopy
108	Jacaranda	*Jacaranda mimosifolia*	7	16	16		-	-	Fair	thin canopy
109	Jacaranda	*Jacaranda mimosifolia*	9	22	18		-	-	Good	
110	Jacaranda	*Jacaranda mimosifolia*	8	15	15		-	-	Fair	thin canopy
111	Jacaranda	*Jacaranda mimosifolia*	9	20	14		-	-	Good	
112	Jacaranda	*Jacaranda mimosifolia*	5	14	15		-	-	Fair	thin canopy
113	Jacaranda	*Jacaranda mimosifolia*	6	12	14		-	-	Good	
114	Olive	*Olea europaea*	5+5+7	17	18	P	-	-	Good	
115	Olive	*Olea europaea*	7+6+7	20	20	P	-	-	Good	
116	Olive	*Olea europaea*	5+3+3	11	12	P	-	-	Fair	
117	Olive	*Olea europaea*	5+3+3+4	15	12	P	-	-	Good	
118	Olive	*Olea europaea*	5+4+4+2	16	14	P	-	-	Good	
119	Olive	*Olea europaea*	4+3+3	13	12	P	-	-	Good	
120	Olive	*Olea europaea*	3+5+5	16	14	P	CP	-	Good	Pole #12
121	Olive	*Olea europaea*	4+3+5	13	14	P	-	-	Fair	
122	Olive	*Olea europaea*	4+7+6	17	16	P	-	-	Good	
123	Olive	*Olea europaea*	5+4	12	12	P	-	-	Good	
124	Olive	*Olea europaea*	3+5	11	11	P	-	-	Good	
125	Olive	*Olea europaea*	5+5+3	14	14	P	-	-	Good	
126	Olive	*Olea europaea*	5+5+5	14	14	P	-	-	Good	
127	Olive	*Olea europaea*	5+6	13	13	P	-	-	Good	
128	Olive	*Olea europaea*	6+4	15	15	P	-	-	Good	
129	Olive	*Olea europaea*	4+3+4	12	12	P	-	-	Good	
130	Olive	*Olea europaea*	4	9	9	P	-	-	Good	
131	Olive	*Olea europaea*	4+3+3	16	16	P	-	-	Good	
132	Olive	*Olea europaea*	4+6	12	12	P	R	-	Good	Pole #13
133	Olive	*Olea europaea*	7	10	10	P	-	-	Good	
134	Olive	*Olea europaea*	4+5+3	12	12	P	-	-	Good	

[1]More than one diameter in the trunk diameter column represent multiple stems arising below 48 inches above the ground.

[2] Project Impact code: **R** = Remove for underground line, pole placement or line clearance, **CP** = May require pruning for line clearance, **(-)** = No impacts expected. **Op1** = Overhead Option 1, **Op2** = Underground and Overhead Option 2.

[3] Condition: **Good** = 80-100% healthy foliage and no significant defects; **Fair** = 50-79% healthy foliage and/or minor defects; **Poor** = 5-49% healthy foliage and/or other significant defects; **Dead** = less than 5% healthy foliage.

Tree #	Common Name	*Scientific Name*	Diameter (inches) at 48" above grade[1]	Canopy Spread (feet)	Tree Height (feet)	Santa Clara Protected Tree (P)	Project Impact Code (Op1)[2]	Project Impact Code (Op2)[2]	General Condition[3]	Comments
135	Red ironbark	*Eucalyptus sideroxylon*	21	28	32	P	CP	CP	Fair	History of branch removals, water sprouts
136	Canary Island pine	*Pinus canariensis*	12	16	34	P	CP	CP	Good	
137	Canary Island pine	*Pinus canariensis*	16	24	30	P	CP	CP	Good	
138	Canary Island pine	*Pinus canariensis*	13	24	36	P	-	-	Good	
139	Eucalyptus	*Eucalyptus* sp.	18	36	40	P	-	-	Good	30° lean SW
140	Horse chestnut	*Aesculus* sp.	4	8	11		-	-	Fair	Dormant, cracked bark at base
141	Chinese elm	*Ulmus parvifolia*	7	28	25		-	-	Fair	40° lean SE, soil lifted on NW side
142	Nichol's willow-leafe	*Eucalyptus nicholii*	30	40	35	P	CP	CP	Fair	Thin canopy, previous topped for utility lines
143	Glossy privet	*Ligustrum lucidum*	14	18	24	P	-	-	Good	
144	Chinese elm	*Ulmus parvifolia*	5	18	20		-	-	Good	
145	Chinese elm	*Ulmus parvifolia*	6	25	22		-	-	Good	
146	Magnolia	*Magnolia sp.*	8	16	24		-	-	Good	
147	Glossy privet	*Ligustrum lucidum*	15	25	26	P	-	-	Good	
148	Chinese elm	*Ulmus parvifolia*	7	28	25		-	-	Fair	Thin canopy
149	Glossy privet	*Ligustrum lucidum*	14	30	25	P	-	-	Good	
150	Chinese elm	*Ulmus parvifolia*	6	22	18		-	-	Fair	Thin canopy
151	Chinese elm	*Ulmus parvifolia*	see comment	16	17		-	-	Fair	Numerous small stems from base, 1-3" dia.
152	Chinese elm	*Ulmus parvifolia*	8	28	28		-	-	Fair	Late leaf break
153	Chinese elm	*Ulmus parvifolia*	7	24	26		-	-	Good	Late leaf break
154	Chinese elm	*Ulmus parvifolia*	6	25	25		-	-	Good	
155	Glossy privet	*Ligustrum lucidum*	13	25	24	P	-	-	Good	
156	Glossy privet	*Ligustrum lucidum*	15	30	27	P	CP	CP	Good	
157	Chinese elm	*Ulmus parvifolia*	13	35	32	P	CP	CP	Good	
158	Glossy privet	*Ligustrum lucidum*	13	25	24	P	-	-	Good	
159	Glossy privet	*Ligustrum lucidum*	7+8+8+13	26	30	P	CP	CP	Good	
160	Glossy privet	*Ligustrum lucidum*	17	27	25	P	-	-	Good	
161	Glossy privet	*Ligustrum lucidum*	15	25	25	P	-	-	Fair	Thin canopy, cracked bark SW side. Root damage from recent concrete work?
162	Linden	*Tilia* sp.	33	25	35	P	-	-	Poor	Dormant. Significant basal decay cavity, poor response growth. Hard prune, epicormic sprouts
163	Linden	*Tilia* sp.	24	32	44	P	-	-	Fair	Dormant
164	Liquidambar	*Liquidambar styraciflua*	10	20	30		-	-	Good	Dormant
165	Chinese elm	*Ulmus parvifolia*	20	43	30	P	-	-	Good	
166	Glossy privet	*Ligustrum lucidum*	15	21	28	P	CP	CP	Good	Canopy unbalances to NW
167	Deodar cedar	*Cedrus deodara*	25	42	60	P	-	-	Good	
168	Chinese elm	*Ulmus parvifolia*	13	35	35	P	-	-	Good	
169	Chinese elm	*Ulmus parvifolia*	13	28	30	P	CP	CP	Good	
170	Chinese elm	*Ulmus parvifolia*	17	44	36	P	-	-	Good	

[1]More than one diameter in the trunk diameter column represent multiple stems arising below 48 inches above the ground.

[2] Project Impact code: **R** = Remove for underground line, pole placement or line clearance, **CP** = May require pruning for line clearance, **(-)** = No impacts expected. **Op1** = Overhead Option 1, **Op2** = Underground and Overhead Option 2.

[3] Condition: **Good** = 80-100% healthy foliage and no significant defects; **Fair** = 50-79% healthy foliage and/or minor defects; **Poor** = 5-49% healthy foliage and/or other significant defects; **Dead** = less than 5% healthy foliage.

Tree #	Common Name	*Scientific Name*	Diameter (inches) at 48" above grade[1]	Canopy Spread (feet)	Tree Height (feet)	Santa Clara Protected Tree (P)	Project Impact Code (Op1)[2]	Project Impact Code (Op2)[2]	General Condition[3]	Comments
171	Deodar cedar	*Cedrus deodara*	18	28	30	P	CP	CP	Good	Previously topped for utility line
172	Glossy privet	*Ligustrum lucidum*	13	18	28	P	CP	CP	Good	
173	Glossy privet	*Ligustrum lucidum*	14	25	30	P	CP	CP	Good	
174	Glossy privet	*Ligustrum lucidum*	13	20	24	P	-	-	Good	
175	Southern live oak	*Quercus virginiana*	19	42	26	P	-	-	Good	
176	Fremont cottonwood	*Populus fremontii ssp. fremontii*	43	60	65	P	-	-	Good	
177	Deodar cedar	*Cedrus deodara*	21	30	30	P	R	R	Poor	Pole #20. Hard pruned for utility lines, 20% dead branches
178	Coast live oak	*Quercus agrifolia*	24	46	34	P	-	-	Good	
179	Cork oak	*Quercus suber*	11	15	12	P	-	-	Fair	50° lean to W
180	Glossy privet	*Ligustrum lucidum*	12	24	24	P	-	-	Good	
181	Deodar cedar	*Cedrus deodara*	19	22	28	P	CP	CP	Poor	Hard prune for utility lines
182	American elm	*Ulmus americana*	9+12	24	25	P	-	-	Fair	Dormant, canopy unbalanced to NW, pruned for utility lines, epicormic sprouting at cuts
183	American elm	*Ulmus americana*	12	27	35	P	CP	CP	Fair	Dormant, canopy unbalanced to SE, pruned for utility lines, epicormic sprouting at cuts
184	American elm	*Ulmus americana*	15+11+10+14	45	32	P	CP	CP	Fair	Dormant
185	American elm	*Ulmus americana*	9	23	25		-	-	Poor	Dormant, trunk bowed 90° to NE
186	American elm	*Ulmus americana*	18	26	14	P	-	-	Fair	Dormant
187	Glossy privet	*Ligustrum lucidum*	10	16	16		-	-	Poor	Trunk diameter measured @ 3', 14 codominants stems above, some dead
188	Glossy privet	*Ligustrum lucidum*	5+9+3+4	18	14		-	-	Fair	Multi-stemmed from base
189	Blackwood acacia	*Acacia melanoxylon*	5+6+3	15	28		-	-	Good	
190	Blackwood acacia	*Acacia melanoxylon*	6+7+4	18	25		-	-	Good	
191	Shamel ash	*Fraxinus uhdei*	10	30	32		CP	CP	Fair	Codominant with included bark at 8'
192	Shamel ash	*Fraxinus uhdei*	16	30	36		CP	CP	Fair	Pole #23. Thin canopy south side
193	Shamel ash	*Fraxinus uhdei*	4+7+4	12	18		-	-	Poor	Pole #23. Dead top removed
194	Shamel ash	*Fraxinus uhdei*	16	30	34	P	CP	CP	Good	
195	Shamel ash	*Fraxinus uhdei*	15	25	35	P	CP	CP	Good	
196	Shamel ash	*Fraxinus uhdei*	10	18	30		CP	CP	Fair	Bark seam, flush cuts
197	Shamel ash	*Fraxinus uhdei*	13+5	18	28	P	CP	CP	Fair	Main stem removed @ 5', codominants weak attachments
198	Shamel ash	*Fraxinus uhdei*	10	10	27		CP	CP	Poor	Main stem removed @ 5', 1 codominant dead
199	Shamel ash	*Fraxinus uhdei*	11	11	20		-	-	Fair	
200	Shamel ash	*Fraxinus uhdei*	8	8	18		-	-	Fair	
201	Shamel ash	*Fraxinus uhdei*	12	12	22	P	-	-	Good	
202	Shamel ash	*Fraxinus uhdei*	10	10	24		CP	CP	Poor	Pole #24. 50% deadwood

[1]More than one diameter in the trunk diameter column represent multiple stems arising below 48 inches above the ground.

[1] Project Impact code: **R** = Remove for underground line, pole placement or line clearance, **CP** = May require pruning for line clearance, **(-)** = No impacts expected. **Op1** = Overhead Option 1, **Op2** = Underground and Overhead Option 2.

[2] Condition: **Good** = 80-100% healthy foliage and no significant defects; **Fair** = 50-79% healthy foliage and/or minor defects; **Poor** = 5-49% healthy foliage and/or other significant defects; **Dead** = less than 5% healthy foliage.

Tree #	Common Name	*Scientific Name*	Diameter (inches) at 48" above grade[1]	Canopy Spread (feet)	Tree Height (feet)	Santa Clara Protected Tree (P)	Project Impact Code (Op1)[2]	Project Impact Code (Op2)[2]	General Condition[3]	Comments
203	Shamel ash	*Fraxinus uhdei*	12	12	24	P	-	-	Fair	20% deadwood
204	Shamel ash	*Fraxinus uhdei*	6	8	18		-	-	Poor	Main stem dead @ 6'
205	Shamel ash	*Fraxinus uhdei*	9	9	26		CP	CP	Poor	50% deadwood, weak new growth
206	Shamel ash	*Fraxinus uhdei*	4+4+3+5	15	20		-	-	Fair	
207	Shamel ash	*Fraxinus uhdei*	10	16	22		-	-	Good	
208	Italian stone pine	*Pinus pinea*	14	24	24	P	-	-	Fair	Significant needle drop 30% of W side
209	Red ironbark	*Eucalyptus sideroxylon*	29	38	42	P	-	-	Good	
210	Olive	*Olea europaea*	10+7+9	26	22	P	-	-	Good	
211	Olive	*Olea europaea*	13+12+13+14	34	32	P	CP	CP	Fair	Thin canopy and dead branches on SW side
212	Olive	*Olea europaea*	6+7+8+8+11	28	24	P	-	-	Fair	30% dead canopy
213	Olive	*Olea europaea*	7+9+10+7	24	24	P	-	-	Good	
214	Olive	*Olea europaea*	8+8+12+8+11	30	34	P	CP	CP	Good	
215	Olive	*Olea europaea*	11+8+7	24	22	P	-	-	Good	
216	Olive	*Olea europaea*	13+10+13+11	24	30	P	CP	CP	Fair	Thin canopy SE side
217	Evergreen pear	*Pyrus kawakamii*	17	30	30	P	CP	CP	Good	
218	Evergreen pear	*Pyrus kawakamii*	10	30	24		-	-	Fair	Thin canopy
219	American elm	*Ulmus americana*	18+15	40	45	P	CP	CP	Fair	Dormant, codominant with included bark from base
220	American elm	*Ulmus americana*	11	20	42		CP	CP	Fair	Dormant
221	American elm	*Ulmus americana*	10+5+8+11+11+12	35	45	P	CP	CP	Fair	Dormant, 6 stems from base
222	American elm	*Ulmus americana*	8+11	28	36		CP	CP	Fair	Dormant, codominant, included bark from base
223	American elm	*Ulmus americana*	9	25	42		CP	CP	Fair	Dormant, canopy unbalanced NE
224	American elm	*Ulmus americana*	8	22	36		CP	CP	Fair	Dormant, canopy unbalanced W
225	American elm	*Ulmus americana*	16+10	32	42	P	-	-	Fair	Dormant, included bark, canopy unbalanced SE
226	American elm	*Ulmus americana*	4+4	28	22		-	-	Poor	Dormant, included bark, canopy unbalanced SW
227	American elm	*Ulmus americana*	8	22	45		-	-	Poor	Dormant, trunk imbedded in chain link fence
228	American elm	*Ulmus americana*	8+8	40	42		-	-	Fair	Dormant
229	American elm	*Ulmus americana*	8	25	42		-	-	Fair	Dormant, canopy unbalanced E
230	American elm	*Ulmus americana*	11	40	45		-	-	Fair	Dormant, canopy unbalanced W
231	Ginkgo	*Ginkgo biloba*	12	15	24	P	-	-	Good	
232	Ginkgo	*Ginkgo biloba*	8	14	18		-	-	Good	
233	Ginkgo	*Ginkgo biloba*	13	16	25	P	-	-	Good	
234	Ginkgo	*Ginkgo biloba*	8	13	20		-	-	Good	
235	Ginkgo	*Ginkgo biloba*	8	11	20		-	-	Good	
236	Ginkgo	*Ginkgo biloba*	8	14	18		R	R	Good	Pole #36
237	Ginkgo	*Ginkgo biloba*	6	10	16		-	-	Good	
238	Ginkgo	*Ginkgo biloba*	3	8	12		-	-	Good	

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[2] Condition: **Good** = 80-100% healthy foliage and no significant defects; **Fair** = 50-79% healthy foliage and/or minor defects; **Poor** = 5-49% healthy foliage and/or other significant defects; **Dead** = less than 5% healthy foliage.

Tree #	Common Name	*Scientific Name*	Diameter (inches) at 48" above grade[1]	Canopy Spread (feet)	Tree Height (feet)	Santa Clara Protected Tree (P)	Project Impact Code (Op1)[2]	Project Impact Code (Op2)[2]	General Condition[3]	Comments
239	Ginkgo	*Ginkgo biloba*	6	10	16		-	-	Good	
240	Water gum	*Tristaniopsis laurina*	8	15	16		-	-	Good	
241	Ginkgo	*Ginkgo biloba*	6	9	14		-	-	Good	
242	Ginkgo	*Ginkgo biloba*	8	12	18		-	-	Good	
243	Purple-leaf plum	*Prunus cerasifera 'Atropurpurea'*	8	8	14		-	-	Good	
244	Purple-leaf plum	*Prunus cerasifera 'Atropurpurea'*	7+8	8	14		-	-	Good	
245	Crape myrtle	*Lagerstroemia indica*	9	18	18		-	-	Poor	No live 2024 buds apparent
246	Crape myrtle	*Lagerstroemia indica*	8	18	18		-	-	Poor	No live 2024 buds apparent
247	Crape myrtle	*Lagerstroemia indica*	2	6	12		-	-	Fair	Recent planting, waersprouts from base
248	Ginkgo	*Ginkgo biloba*	3	8	10		-	-	Good	
249	Ginkgo	*Ginkgo biloba*	5	8	16		-	-	Good	
250	Tree of heaven	*Ailanthus altissima*	4+3+3	10	16		-	-	Poor	Dormant, root sprouts, topped @ 16'
251	Holly oak	*Quercus ilex*	3+9+6+8	18	10	P	-	-	Good	Topped @10" but full green canopy
252	Bradford pear	*Pyrus calleryana 'Bradford'**	13	24	30	P	-	-	Good	
253	Canary Island pine	*Pinus canariensis*	14	16	40	P	-	-	Good	
254	Bradford pear	*Pyrus calleryana 'Bradford'**	14	28	30	P	-	-	Good	
255	Canary Island pine	*Pinus canariensis*	8	14	22		-	-	Good	
256	Bradford pear	*Pyrus calleryana 'Bradford'**	30	30	25	P	CP	CP	Good	
257	Crape myrtle	*Lagerstroemia indica*	7	14	24		-	-	Fair	Dormant
258	Crape myrtle	*Lagerstroemia indica*	6	15	16		-	-	Fair	Dormant
259	Crape myrtle	*Lagerstroemia indica*	6	14	16		-	-	Fair	Dormant
260	Crape myrtle	*Lagerstroemia indica*	6	14	16		-	-	Fair	Dormant
261	Crape myrtle	*Lagerstroemia indica*	6	18	16		-	-	Fair	Dormant
262	Crape myrtle	*Lagerstroemia indica*	6	12	16		-	-	Fair	Dormant

[1]More than one diameter in the trunk diameter column represent multiple stems arising below 48 inches above the ground.

[1] Project Impact code: **R** = Remove for underground line, pole placement or line clearance, **CP** = May require pruning for line clearance, **(-)** = No impacts expected. **Op1** = Overhead Option 1, **Op2** = Underground and Overhead Option 2.

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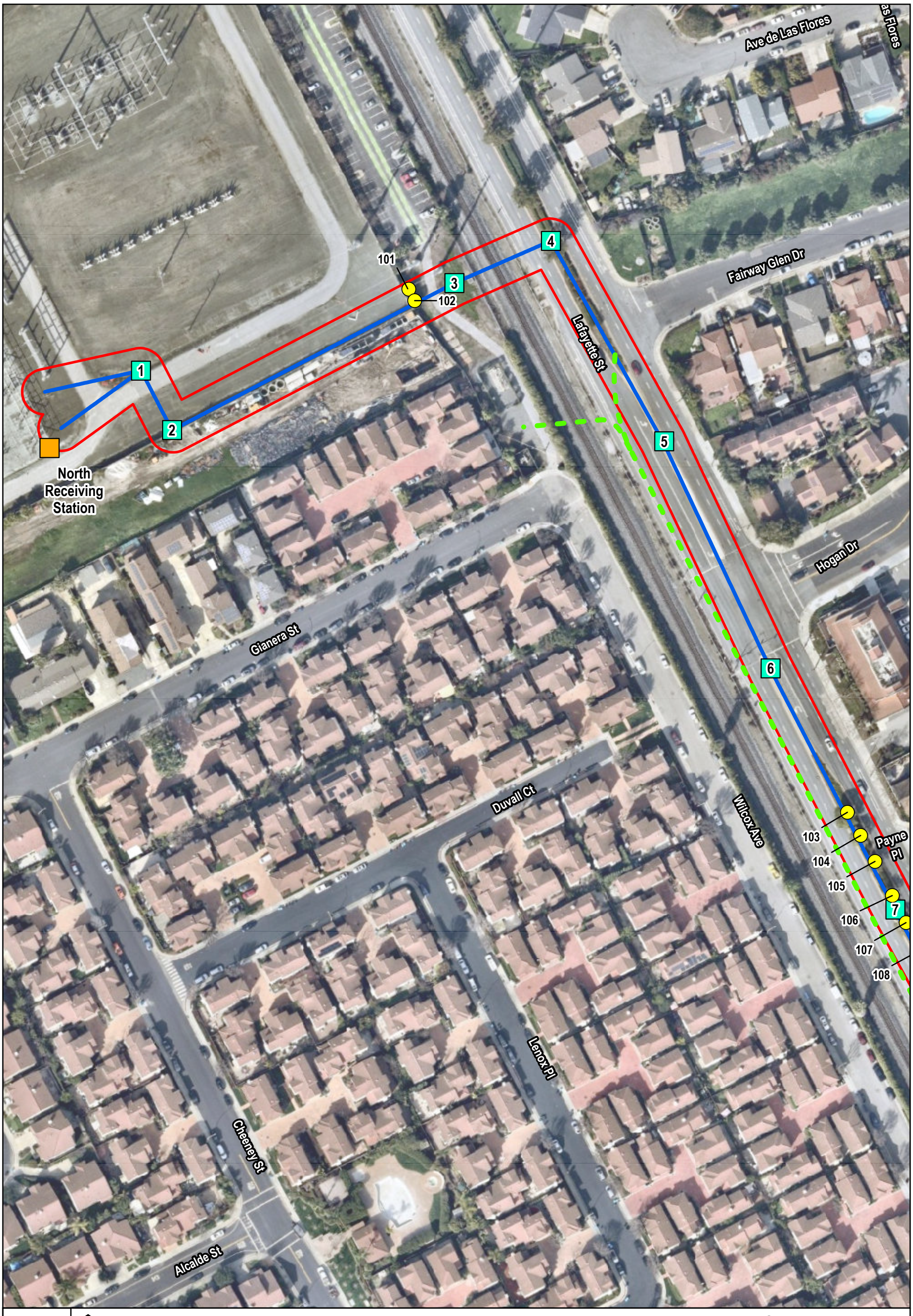
Attachment B: Tree Location Maps



Scale: 1:1,200
1 inch = 100 feet
100 0 100 feet

Tree
Existing Pole
Existing Substation
Option 1: Overhead Transmission Line
Option 2: Underground Transmission Line
Survey Area

Silicon Valley Power
NRS to KRS
115 kV Transmission Line

Tree Survey Results

Sources: Aspen, 2024; Esri, 2024; NearMap, 2024.

Scale: 1:1,200
1 inch = 100 feet
100 0 100 feet

Tree
Existing Pole
Option 1: Overhead Transmission Line
Option 2: Underground Transmission Line
Survey Area

Silicon Valley Power
NRS to KRS
115 kV Transmission Line

Tree Survey Results

Sources: Aspen, 2024; Esri, 2024; NearMap, 2024.

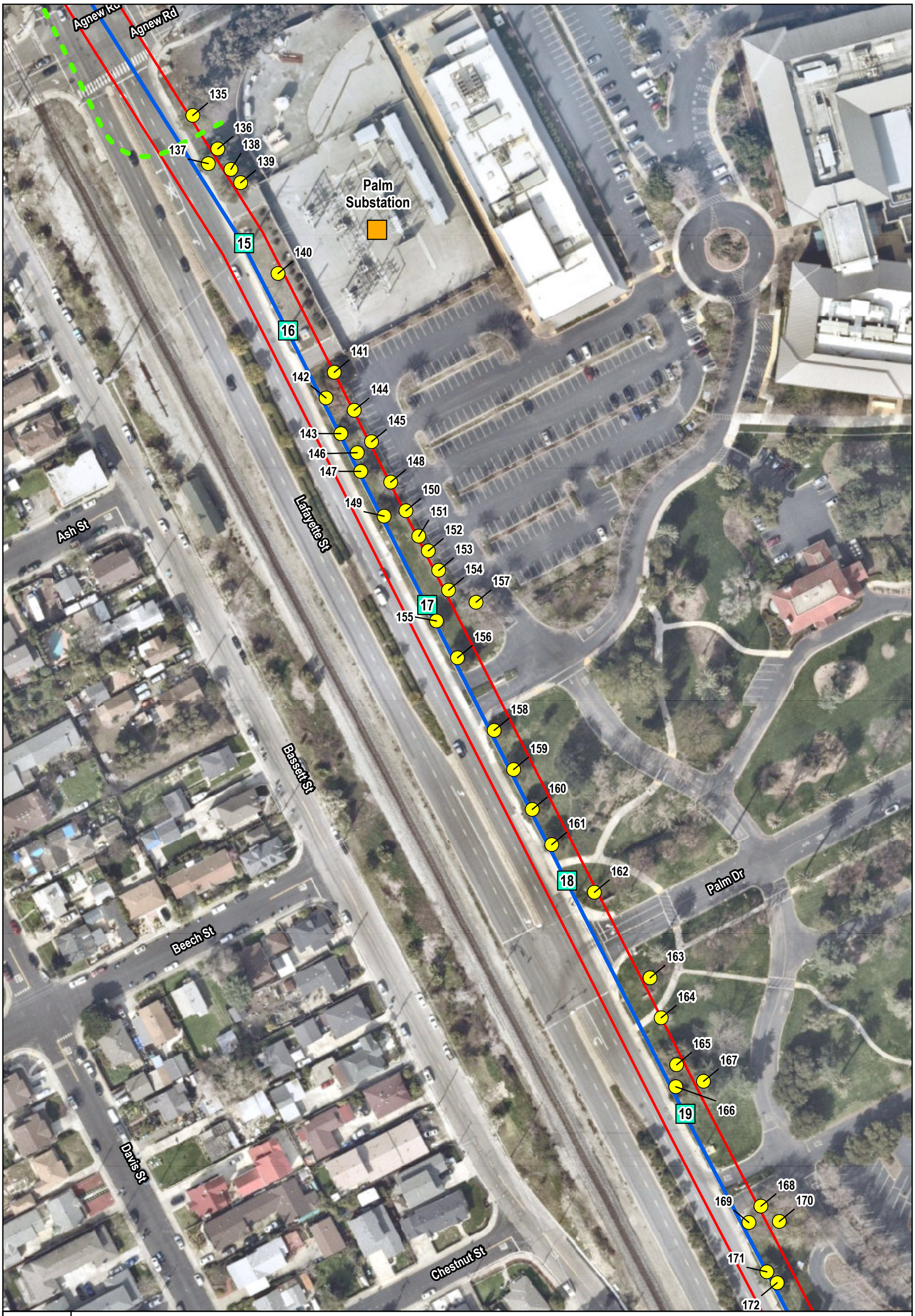
Scale: 1:1,200
1 inch = 100 feet
100 0 100 feet

Tree
Existing Pole
Existing Substation
Option 1: Overhead Transmission Line
Option 2: Underground Transmission Line
Survey Area

Silicon Valley Power
NRS to KRS
115 kV Transmission Line

Tree Survey Results

Sources: Aspen, 2024; Esri, 2024; NearMap, 2024.



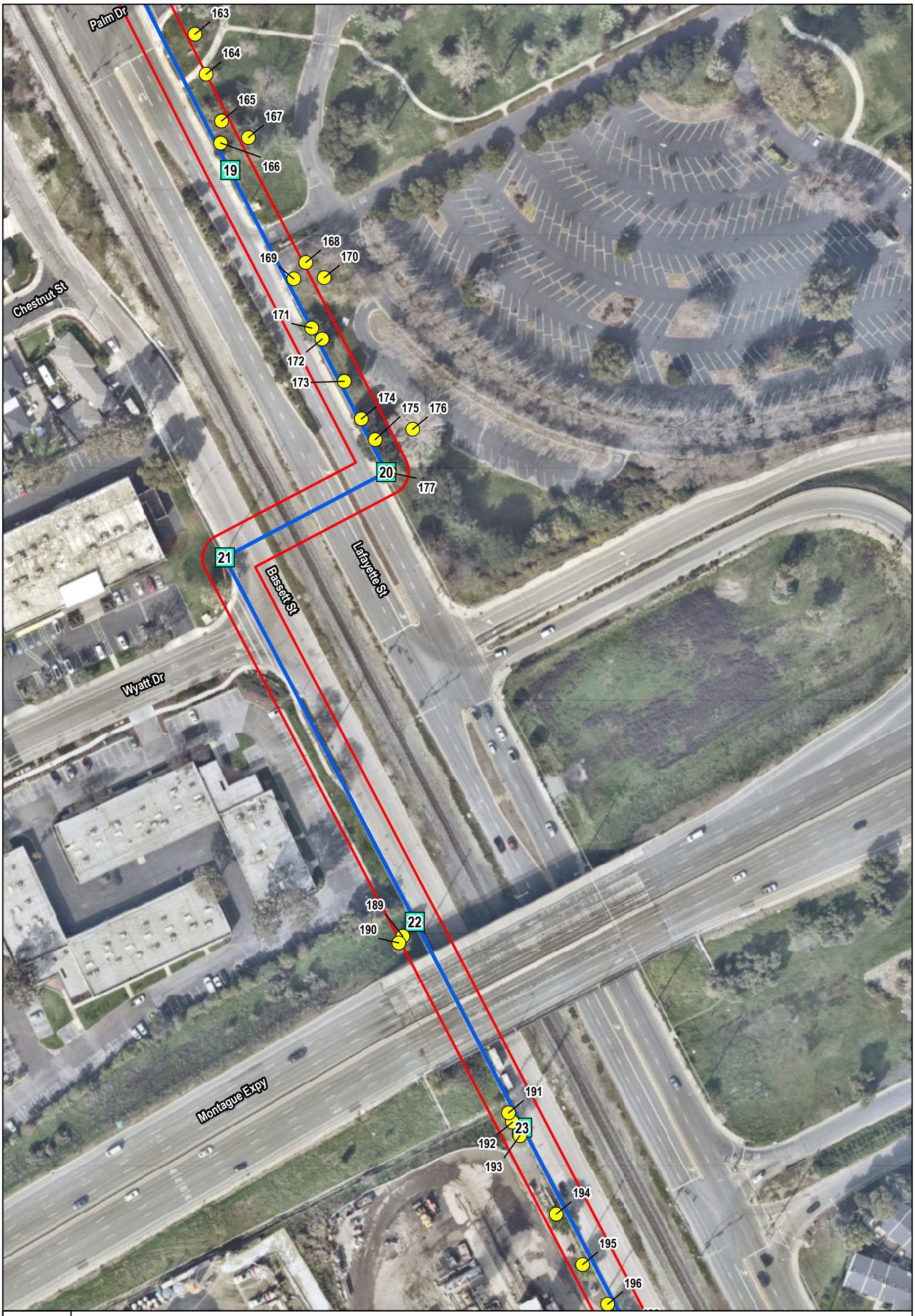
Scale: 1:1,200
1 inch = 100 feet
100 0 100 feet

Tree
Existing Pole
Existing Substation
Option 1: Overhead Transmission Line
Option 2: Underground Transmission Line
Survey Area

Silicon Valley Power
NRS to KRS
115 kV Transmission Line

Tree Survey Results

Sources: Aspen, 2024; Esri, 2024; NearMap, 2024.



Scale: 1:1,200
1 inch = 100 feet
100 0 100 feet

Tree
Existing Pole
Option 1: Overhead Transmission Line
Survey Area

Silicon Valley Power
NRS to KRS
115 kV Transmission Line

Tree Survey Results

Sources: Aspen, 2024; Esri, 2024; NearMap, 2024.

Tree
Existing Pole
Option 1: Overhead Transmission Line
Survey Area

Scale: 1:1,200
1 inch = 100 feet
100 0 100 feet

Silicon Valley Power
NRS to KRS
115 kV Transmission Line

Tree Survey Results

Sources: Aspen, 2024; Esri, 2024; NearMap, 2024.

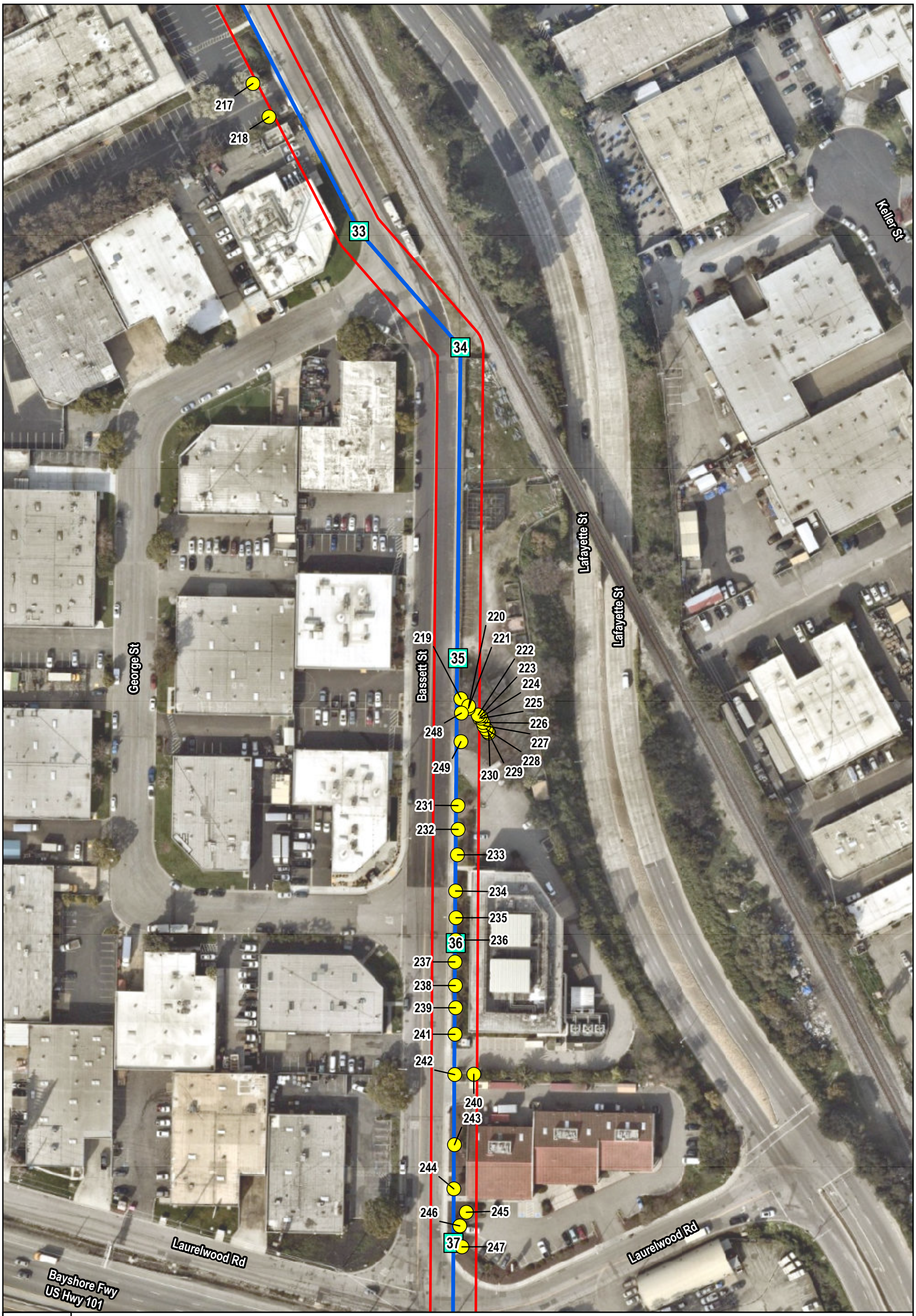
Scale: 1:1,200
1 inch = 100 feet
100 0 100 feet

Tree
Existing Pole
Option 1: Overhead Transmission Line
Survey Area

Silicon Valley Power
NRS to KRS
115 kV Transmission Line

Tree Survey Results

Sources: Aspen, 2024; Esri, 2024; NearMap, 2024.



Tree
Existing Pole
Option 1: Overhead Transmission Line
Survey Area

Scale: 1:1,200
1 inch = 100 feet
100 0 100 feet

Silicon Valley Power
NRS to KRS
115 kV Transmission Line

Tree Survey Results

Sources: Aspen, 2024; Esri, 2024; NearMap, 2024.

*Kifer Receiving Station will be rebuilt under a separate project.

Tree
Existing Pole
Rebuilt Substation*
Option 1: Overhead Transmission Line
Survey Area

Scale: 1:1,200
1 inch = 100 feet
100 0 100 feet

Silicon Valley Power
NRS to KRS
115 kV Transmission Line

Tree Survey Results

Sources: Aspen, 2024; Esri, 2024; NearMap, 2024.

Attachment C: Tree Protection "City of Santa Clara Arborist Notes"

CITY OF SANTA CLARA
ARBORIST NOTES

I. GENERAL

1. No cutting of any part of city trees, including roots, shall be done without securing approval and direct supervision from the city arborist or arborist employed by city (408-615-3080).

2. No cutting of any part of private trees, including roots, shall be done without direct supervision of an international society of arboriculture (ISA) certified arborist.

3. When construction occurs within the drip line of existing trees, contractor shall pile the soil on the side away from the tree. When this is not possible, place soil on plywood, tarp, or 4"-5" thick bed of mulch. This is to help prevent cutting into the soil surface when the backhoe or tractor blade refills the trench.

4. Refill open trenches quickly within hours of excavation when they occur within the drip line of existing trees. If this is not possible and the weather is hot, dry, or windy, contractor must keep root ends moist by covering them with wet burlap. If the temperature is 80°f or greater, the burlap must be inspected every hour and re-wet as necessary to maintain a constant cool moist condition. If the temperature is below 80°, the burlap must be inspected every four hours and re-wet as necessary to maintain a constant cool moist condition. Small roots can dry out and die in 10-15 minutes. Larger roots can succumb in an hour or less under unfavorable weather conditions.

5. When roots 2" or larger are required to be cut, shovel by hand near the roots and prune the roots with an industry-approved pruning tool. Roots that are accidentally broken should be pruned two inches from the damaged end. Crushed or torn roots are more likely to allow decay to begin. Sharply cut roots produce a flush of new roots helping the tree to recover from its injury.

6. Contractor shall notify the city arborist or arborist employed by city 72 hours in advance of any work requiring digging around or within the drip line of existing trees.

7. A clear system of flagging must be provided around trees within 20' of the proposed grading. Contractor shall secure approval of such system from the city arborist or arborist employed by city.

8. Materials, equipment, temporary buildings, fuels, paints and other construction items shall not be placed within the drip line of existing trees.

9. Fence all trees to be retained to completely enclose the tree protection zone prior to demolition, grubbing or grading. Fencing shall be placed at the drip line of existing trees or, if possible, 1.5 times the radius of the drip line out from the trunk of the tree. A warning sign shall be prominently displayed on each fence. The sign shall be a minimum of 8.5"x11" and clearly state "**warning – tree protection zone this fence shall not be removed without approval from the city arborist/project arborist**". Fences shall be 6-foot tall chain link or

   equivalent, as approved by the city arborist or arborist employed by city. Fences shall remain until all grading and construction work is completed. In addition, wrap all trees with straw waddle up to the first main branch, and then wrap snow fencing around the waddle on all trees in the construction zone to protect them from bark damage caused by the work.

10. No trenching shall be done within the drip line of existing trees without the approval of the city arborist or arborist employed by city. Open trenching in the root zone of a public tree is prohibited except in cases where the trenching falls outside the drip line of the tree involved. Exceptions may be allowed if, in the opinion of the city arborist or arborist employed by city, the impact of trenching on the tree will be negligible.

11. Any cutting of existing roots of city trees shall be done with approved light equipment under the direct supervision of the city arborist or arborist employed by city. Any cutting of existing roots of private trees shall be done with approved equipment under the direct supervision of an ISA certified arborist.

12. Grading should not create drainage problems for trees by channeling water into them, or creating sunken areas.

13. All grading within the drip line of city trees shall be done with approved light equipment under the direct supervision of the city arborist or arborist employed by city. All grading within the drip line of private trees shall be done with approved equipment under the direct supervision of an ISA certified arborist. The original grade at the base of existing trees shall not be modified. If a grade increase is necessary, dry wells should be used.

14. When trenching is allowed, the contractor must first cut roots with a vermeer root cutter prior to any trenching to avoid tugging or pulling of roots.

15. Trees that are determined to be removed by the city arborist or arborist employed by city due to an unforeseen circumstance during construction shall be replaced by the

contractor. The city arborist or arborist employed by city shall determine the replacement specie, size, quantity, and spacing.

16. Place 4"-5" thick mulch around all existing trees (out to their drip line) that are to be retained prior to any construction. This will help maintain moisture under the tree within the fencing area.

17. Bore pits are not allowed within the drip line of any tree.

II. BORING

Where there is insufficient space to bypass the drip line by trenching adjacent to all existing trees in excess of 5" DBH, the installation must be made by boring. The beginning and ending distance of the bore from the face of the tree in any direction is determined by the diameter of the tree as specified by the accompanying table:

When the tree diameter at 4½ feet is:	Trenching will be replaced by boring at this minimum distance from the face of the tree in any direction:
0-2 inches	1 foot
3-4 inches	2 feet
6-9 inches	5 feet
10-14 inches	10 feet
15-19 inches	12 feet
over 19 inches	15 feet

Tree diameter	(minimum) depth of bore
9 inches or less	2.5 feet
10-14 inches	3.0 feet
15-19 inches	3.5 feet
20 inches or more	4.0 feet

III. TREE PROTECTION

1. Contractor shall tag and identify existing trees which are to remain within the project limits and on the public right-of-way prior to start of work. Protect all tagged trees at all times from damage by the work. Treatment of all minor damage to tagged trees shall be performed by an ISA certified arborist or other personnel approved by the city arborist or arborist employed by city. If a tagged tree is permanently

disfigured or killed as a result of the work, contractor shall remove the tree, including its roots, from the site and replace each removed tree with an equal-sized tree. If such replacement is not possible, the contractor shall reimburse to the tree owner the amount listed in the table below. The city arborist or arborist employed by city shall be the sole judge of the condition of any tree. Contractor shall provide regular watering of existing landscaping within the construction area through the construction period.

2. Contractor shall pay the tree owner the value of existing trees to remain that died or were damaged because of the contractor's failure to provide adequate protection and maintenance. The payment amount shall be in accordance with the following schedule of values, using "tree caliper" method established in the most recent issue of the "guide for establishing values of trees and other plants", prepared by the council of tree and landscape architects.

7 inches	$ 2,400
8 inches	$ 3,400
9 inches	$ 4,400
10 inches	$ 5,200
11 inches	$ 6,200
12 inches	$ 7,200
13 inches	$ 8,200
14 inches	$ 9,200
15 inches	$ 10,000
16 inches	$ 11,000
17 inches	$ 12,000
18 inches and over: Add for each caliper inch	$ 1,200