

Arborist Report

120, 130 E Grand Ave/129, 140, 160, 180 Sylvester Rd
South San Francisco, CA 94080



Inspection Date:
April 12, 2022

Prepared by: Colin Blackie
Project Arborist: Colin Blackie/Michael Young

contractors license # 755989
certified arborist #WE-12996A
tree risk assessment qualified

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Assignment

It was our assignment to physically inspect trees in the survey area based on a general site plan provided by the client. We were to map, tag, and compile data for each tree and write an inventory/survey report documenting our observations.

Summary

This survey provides a numbered tree chart with complete and detailed information for each tree surveyed. There are twelve (12) trees included in this report with four (4) of the trees protected under the City of South San Francisco's tree protection ordinance. During our survey, none of the trees were rated "A" condition, five (5) trees were rated "B" condition, seven (7) trees were rated "C" condition, and no trees were rated "D" condition.

A - Retain, condition warrants long-term preservation.

B - Preservable, tree is a benefit and may be worthy of extensive effort or design accommodation.

C - May be preservable, but is not worthy of extensive effort or design accommodation.

D - Recommend removal due to existing condition and/or structure.

Discussion

All the trees surveyed were examined and then rated based on their individual health and structure according to the following table. For example, a tree may be rated "good" under the health column for excellent/vigorous appearance and growth, while the same tree may be rated "fair/poor" in the structure column if structural mitigation is needed. More complete descriptions of how health and structure are rated can be found under the "Methods" section of this report. The complete list of trees and all relevant information, including their health and structure ratings, their "protected/significant" status, a map and recommendations for their care can be found in the data sheet that accompanies this report.

<u>Rating</u>	<u>Health</u>	<u>Structure</u>
Good	excellent/vigorous	flawless
Fair/good	no significant health concerns	very stable
Fair	showing initial or temporary disease, pests, or lack of vitality. measures should be taken to improve health and appearance.	routine maintenance needed such as pruning or end weight reduction as tree grows
Fair/poor	in decline, significant health issues	significant structural weakness(es), mitigation needed, mitigation may or may not preserve the tree
Poor	dead or near dead	hazard

Tree Disposition Categories

Each tree onsite has been categorized for its suitability for preservation relative to its existing condition. Factors such as tree health, condition, age, planting location, species, and structure are all considered to determine if each tree is suitable for preservation. Each tree in the survey (Tree Data Table) has been assigned one of the following categories:

A - Retain, condition warrants long-term preservation.

B - Preservable, tree is a benefit and may be worthy of extensive effort or design accommodation.

C - May be preservable, but is not worthy of extensive effort or design accommodation.

D – Recommend removal due to existing condition and/or structure.

If trees with poor structure or less than ideal conditions are retained, they may require further assessments, monitoring, access restrictions, maintenance, or eventual removal. More thorough conversations about impacts and specific preservation plans can be reported as the project evolves.

Survey Methods

The trunks of the trees are measured using an arborist's diameter tape at 54" above soil grade. The canopy height and spread are estimated using visual references only.

The condition of each tree is assessed by visual observation only from a standing position without climbing or using aerial equipment. No invasive equipment is used. Consequently, it is possible that individual tree(s) may have internal (or underground) health problems or structural defects, which are not detectable by visual inspection. In cases where it is thought further investigation is warranted, a "full tree risk assessment" is recommended. This assessment may be inclusive of drilling or using sonar equipment to detect internal decay and include climbing or the use of aerial equipment to assess higher portions of the tree.

The health of an individual tree is rated based on leaf color and size, canopy density, new shoot growth and the absence or presence of pests or disease.

Individual tree structure is rated based on the growth pattern of the tree (including whether it is leaning); the presence or absence of poor limb attachments (such as co-dominant leaders); the length and weight of limbs and the extent and location of apparent decay. For each tree, a structural rating of fair or above indicates that the structure can be maintained with routine pruning such as removing dead branches and reducing end weight as the tree grows. A fair/poor rating indicates that the tree has significant structural weaknesses and corrective action is warranted. The notes section for that tree will then recommend a strategy/technique to improve the structure or mitigate structural stresses. A poor structural rating indicates that the tree or portions of the tree are likely to fail and that there is little that can constructively be done about the problem other than removal of the tree or large portions of the tree. Very large trees that are rated Fair/Poor for structure AND that are near structures or in an area

frequently traveled by cars or people, receive an additional ****CONSIDER REMOVAL**** notation under recommendations. This is included because structural mitigation techniques do not guarantee against structural failure, especially in very large trees. Property owners may or may not choose to remove this type of tree but should be aware that if a very large tree experiences a major structural failure, the danger to nearby people or property is significant.

Survey Area Observations

The properties are in an industrial area in the City of South San Francisco. The surveyed area contains six (6) industrial lots on two (2) perpendicular streets.

Tree Health on this Property

Generally, the health of the trees in the survey area was “fair.” There were two (2) especially healthy trees receiving ratings of “fair/good.” This property would have benefited from a regular maintenance schedule, as these trees have not been properly pruned according to ISA standards for at least several years, if ever. Individual issues and recommendations for each tree are listed under the “Notes” column on the accompanying data sheet.

Tree Structure on this Property

Ideally, trees are pruned for structure when young and are properly maintained to reduce end-weight as they grow. This practice prevents the growth of codominant leaders, and excessively long, lateral branches that are prone to breakage. As mentioned above, the property would have benefited from a regular maintenance program to help correct the structure of the trees while young. No trees in the surveyed area received developmental structure pruning to facilitate proper growth habits. As a result, the majority of the trees in the surveyed area have received structure ratings of “fair/poor”, with only two (2) exceptions receiving “fair” ratings.

Recommended Removals Based on Health/ Structure/Species

No trees are recommended for removal due to hazardous health and/or structure conditions at this time. There are, however, three (3) trees to consider removal for as they have “fair/poor” structure conditions and are close to buildings. These trees are denoted in the Data Sheet at the end of this report.

Site Images



Tree #50



Tree #51



Tree #53



Tree #54



Tree #55



Tree #60

Local Regulations Governing Trees

Protected trees in South San Francisco are as follows:

Any tree of the following species with a circumference of 75" or more when measured 54" above natural grade:

- Blue Gum (*Eucalyptus globulus*)
- Black Acacia (*Acacia melanoxydon*)
- Myoporum (*Myoporum laetum*)
- Sweetgum (*Liquidambar styraciflua*)
- Glossy Privet (*Ligustrum lucidum*)
- Lombardy Poplar (*Populus nigra*)

Any heritage tree of the following species with a circumference of 30" or more when measured at 54" above natural grade:

- California Bay (*Umbellularia californica*)
- Oak (*Quercus* spp.)
- Cedar (*Cedrus* spp.)
- California Buckeye (*Aesculus californica*)
- Catalina Ironwood (*Lyonothamnus floribundus* var. *asplenifolius*)
- Strawberry Tree (*Arbutus* spp.)
- Mayten (*Maytenus boaria*)
- Little Gem Dwarf Southern Magnolia (*Magnolia grandiflora* 'Little Gem')

Any tree other than the species listed above with a circumference of 48" or more when measured 54" above natural grade

A tree or stand of trees so designated based upon findings that it is unique and of importance to the public due to its unusual appearance, location, historical significance

A stand of trees whereby each tree is dependent upon the others for survival

Risks to Trees by Construction

Besides the above-mentioned health and structure-related issues, the trees at this site could be at risk of damage by construction or construction procedures that are common to most construction sites. These procedures may include the dumping or the stockpiling of materials over root systems; the trenching across the root zones for utilities or for landscape irrigation; or the routing of construction traffic across the root system resulting in soil compaction and root dieback. It is therefore essential that Tree Protection Fencing be used as per the Architect's drawings. In constructing underground utilities, it is essential that the location of trenches be done outside the drip lines of trees except where approved by the Arborist.

General Tree Protection Plan

Protective fencing is required to be provided during the construction period to protect trees to be preserved. This fencing must protect a sufficient portion of the root zone to be effective. Fencing is recommended to be located 8 to 10 X the diameter at breast height (DBH) in all directions from the tree. DBH for each tree is shown in the attached data table. The minimum recommendation for tree protection fencing location is 6 X the DBH, where a larger distance is not possible. There are areas where we will amend this distance based upon tree condition and proposed construction. In my experience, the protective fencing must:

- a. Consist of chain link fencing and having a minimum height of 6 feet.
- b. Be mounted on steel posts driven approximately 2 feet into the soil.
- c. Fencing posts must be located a maximum of 10 feet on center.
- d. Protective fencing must be installed prior to the arrival of materials, vehicles, or equipment.
- e. Protective fencing must not be moved, even temporarily, and must remain in place until all construction is completed, unless approved by a certified arborist.
- f. Tree Protection Signage shall be mounted to all individual tree protection fences.

Based on the lack of existing development and the condition and location of trees present on site, the following is recommended:

1. The Project Arborists are Michael Young (650) 321-0202 and Colin Blackie (650) 507-5666. A Project Arborist should supervise any excavation activities within the tree protection zone of these trees.
2. Any roots exposed during construction activities that are larger than 2 inches in diameter should not be cut or damaged until the project Arborist has an opportunity to assess the impact that removing these roots could have on the trees.
3. The area under the drip line of trees should be thoroughly irrigated to a soil depth of 18" every 3-4 weeks during the dry months.
4. Mulch should cover all bare soils within the tree protection fencing. This material must be 6-8 inches in depth after spreading, which must be done by hand. Coarse wood chips are preferred because they are organic and decompose naturally over time.
5. Loose soil and mulch must not be allowed to slide down slope to cover the root zones or the root collars of protected trees.
6. There must be no grading, trenching, or surface scraping inside the driplines of protected trees, unless specifically approved by a Certified Arborist. For trenching, this means:
 - a. Trenches for any underground utilities (gas, electricity, water, phone, TV cable, etc.) must be located outside the driplines of protected trees, unless approved by a Certified Arborist. Alternative methods of installation may be suggested.
 - b. Landscape irrigation trenches must be located a minimum distance of 10 times the trunk diameter from the trunks of protected trees unless otherwise noted and approved by the Arborist.
7. Materials must not be stored, stockpiled, dumped, or buried inside the driplines of protected trees.

8. Excavated soil must not be piled or dumped, even temporarily, inside the driplines of protected trees.
9. Landscape materials (cobbles, decorative bark, stones, fencing, etc.) must not be installed directly in contact with the bark of trees because of the risk of serious disease infection.
10. Landscape irrigation systems must be designed to avoid water striking the trunks of trees, especially oak trees.
11. Any pruning must be done by a Company with an Arborist Certified by the ISA (International Society of Arboriculture) and according to ISA, Western Chapter Standards, 1998.
12. Any plants that are planted inside the driplines of oak trees must be of species that are compatible with the environmental and cultural requirements of oak trees. Plants compatible with California native oaks can be found in The California Oak Foundation's 1991 publication "Compatible Plants Under & Around Oaks." This publication details plants compatible with California native oaks and is currently available online at: <http://californiaoaks.org/wpcontent/uploads/2016/04/CompatiblePlantsUnderAroundOaks.pdf>

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I certify that the information contained in this report is correct to the best of my knowledge and that this report was prepared in good faith. Please call me if you have questions or if I can be of further assistance.

Respectfully,



Colin Blackie
ISA Certified Arborist WE-12996A



TREE SURVEY DATA

Address: 120, 130 E Grand Ave/129, 145, 160, 180, Sylvester Rd, South San Francisco, CA 94080

Inspection Date: 4/12/2022

Ratings for health and structure are given separately for each tree according to the table below. IE, a tree may be rated "Good" under the health column For excellent, vigorous appearance and growth, while the same tree may be rated "Fair, Poor" in the structure column if structural mitigation is needed.

KEY	Health	Structure
Good	excellent, vigorous	flawless
Fair - Good	no significant health concerns	very stable
Fair	declining; measures should be taken to improve health and appearance	routine maintenance needed
Fair - Poor	in decline: significant health issues	mitigation needed, it may or may not preserve this tree
Poor	dead or near dead	hazard

TAG NO.	COMMON NAME	DIAMETER AT BREAST HEIGHT"	H'/W'	HEALTH	STRUCTURE	PROTECTED (X)	TREE DISPOSITION	NOTES, RECOMMENDATIONS
50	Black Acacia	29	35'/30'	f	fp	x	C	DWR, EWR, lots of mechanical damage and wounds, sign bolted to tree, **Consider removal**
51	Yucca	14.1	25'/12'	f	f		B	DWR
52	Griselenia spp.	7.6, 8.3	18'/12'	f	fp		C	DWR, SP, growing against building, CD at base, **Consider removal**
53	Syzigium spp.	4.2, 3.1, 2.2	20'/7'	f	fp		C	SP, growing against building, CD at base, **Consider removal**
54	Stone Pine	16.8 at 2'	22'/13'	fg	fp	x	B	EWR, SP, CD at 7'
55	Juniper	22" at 1' above grade	25'	fg	fp	x	B	SP, CD, large bush splitting at 5'
56	London Plane	5.1	18'/7'	f	fp		B	lean, CD at 7', SP
57	London Plane	5.1	18'/6'	f	f		B	lean, SP
58	Red Ironbark	11.2	28'/7'	f	fp		C	lean, previously topped, CD at 7', weight concentrated on one side
59	Red Ironbark	8.5	18'/5'	f	fp		C	lean, overshadowed by dominant trees
60	Red Ironbark	23.7	30'/30'	f	fp	x	C	lean, extremely unbalanced canopy, CD at 10'
61	Red Ironbark	15.2	13'/8'	f	fp		C	extreme twists in trunk, unbalanced canooy, CD at 8'

Not part of proposed project

Trees on adjacent site

A = Retain, condition warrants long-term preservation	0
B = Preservable, tree is a benefit and may be worthy of extensive effort or design accommodation.	5
C = May be preservable, but is not worthy of extensive effort or design accommodation.	7
D= Recommend removal due to existing condition and/or structure	0
TOTAL TREES	12
Total Protected Trees	4

KEY TO ACRONYMS

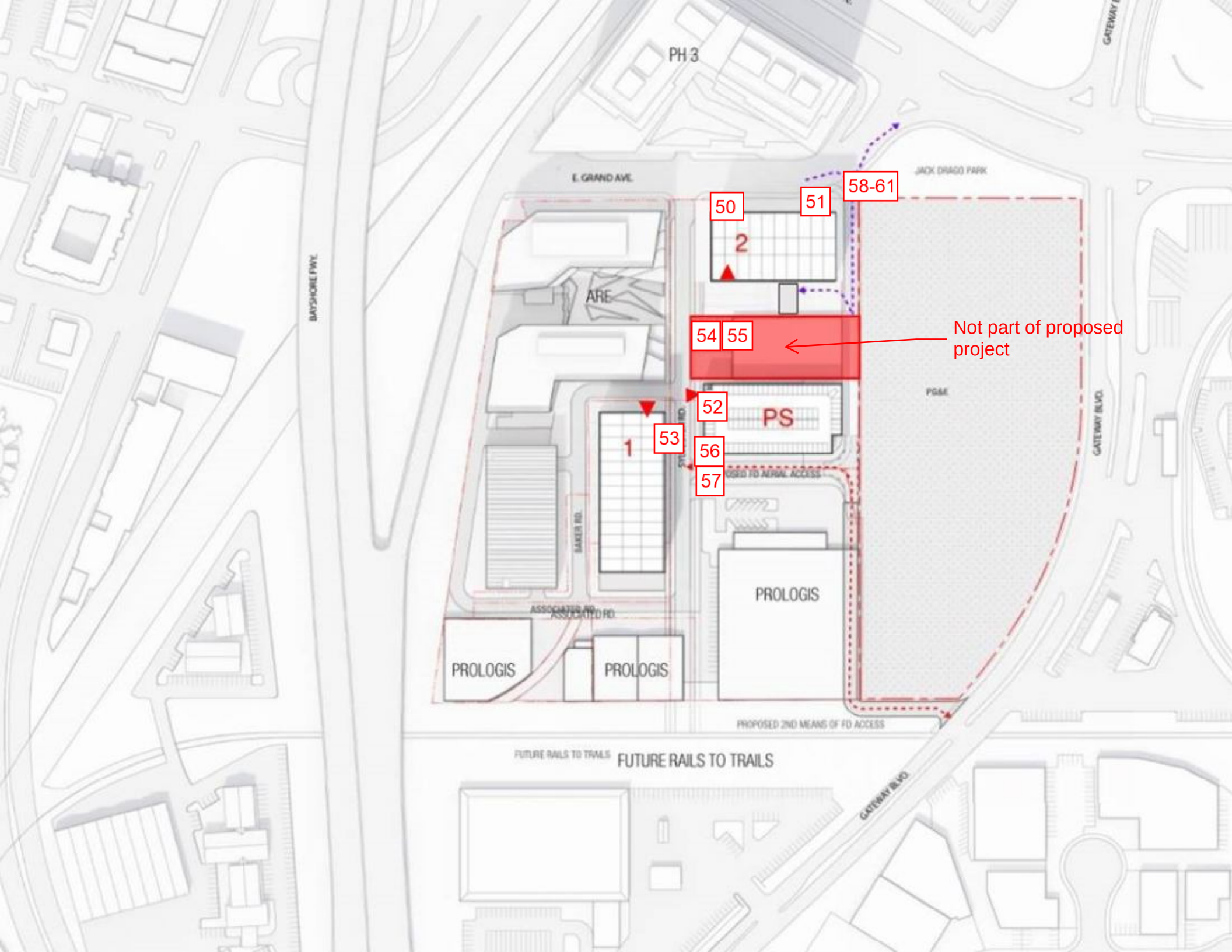
- DWR - Dead Wood Removal pruning recommended.
- EWR - End Weight Reduction: pruning to remove weight from limb ends, thus reducing the potential for limb failure(s).
- RCE - Root Collar Excavation: excavating a small area around a tree that is currently buried by soil or refuse above buttress roots, usually done with a hand shovel.
- SP - Structural pruning - removal of selected non-dominant leaders in order to balance the tree.
- CD - Codominant Leader, two leaders with a narrow angle of attachment and prone to failure.
- LCR-Live Crown Ratio.
- RR - Recommend Tree Removal based upon Health or Structure of tree.
- Prop - Steel prop in concrete footing recommended to help support a tree/limb.
- Cable - Recommend a steel cable(s) be installed to help support a weakly attached limb(s).

Protected trees in South San Francisco are as follows:

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TREE SURVEY DATA

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	A stand of trees whereby each tree is dependent upon the others for survival							



PH 3

E GRAND AVE

BAYSHORE FWY

ARE

50

51

58-61

JACK DRAGO PARK

2

54

55

Not part of proposed project

52

PS

PS&E

53

56

57

1

PROPOSED 2ND MEANS OF FD ACCESS

PROLOGIS

ASSOCIATED RD

PROLOGIS

PROLOGIS

FUTURE RAILS TO TRAILS

PROPOSED 2ND MEANS OF FD ACCESS

GATEWAY BLVD