Appendix B

Arborist Report

CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

February 5, 2021

Sophie Rubin
Assistant Project Manager
First Community Housing
75 East Santa Clara Street
San Jose, CA 95113
(Via email: sophier@firsthousing.org)

Subject: Arborist Report for the Magnolias Project
Gilroy, California

Dear Ms. Rubin:

This arborist report provides the results of a tree survey and analysis of significant trees that may be impacted by the development of the Magnolias Project (project) located at 17965 Monterey Road in Morgan Hill (Assessor's Parcel Number 764-12-006), California (Figure 1, attached).

This report was prepared to satisfy the City of Morgan Hill's (City) provisions and policies regarding Restrictions on Removal of Significant Trees (tree ordinance).[1] LSA performed a tree survey to identify, map, and assess the condition of all trees within the project's tree survey area (Figure 2, attached). The tree survey area is bounded by the property line of the approximately 1.5-acre rectangular lot.

The residential project is anticipated include a five story building of modular construction. Common areas will include the Property Management and Social Service Coordinator's offices, open lounge/seating areas, a central laundry facility, indoor and outdoor play spaces for children, a secured bicycle storage area, and a community garden area. Parking will be provided at a rate of 1 space per residential unit in a surface lot behind the building. FCH also plans to include pet relieving and washing areas on the property.

Significant trees on the property include 19 trees, eight indigenous and 11 non-indigenous.

METHODS

Prior to conducting the tree survey, LSA reviewed the tree data in the following documents:

- MH Engineering. 2019. Boundary, Topography and Utilities. ALTA/NSPS Land Title Survey.
- SERA. 2020. Ground Floor Plan (conceptual development plan), 17965 Monterey Road, Morgan Hill, California.

[1] City of Morgan Hill Municipal Code Title 12.32 Streets Sidewalks and Public Places, Chapter 12.32.

Tree Inventory

LSA certified arborist Tim Milliken (International Society of Arboriculture Certification #WE-5539A) conducted the tree survey on January 21, 2021. The tree survey involved measuring and recording trunk circumference at breast height (in inches as measured 4.5 feet above natural root crown), approximate height, and health and structural condition of trees on the project site. If an individual tree had multiple trunks, the circumference of all the trunks was totaled. Each tree was marked in the field with a tree tag corresponding in number with the tree numbers provided in the tree tables and sketched on the tree map (Figure 2, attached).

Based on a brief visual assessment of each tree, the health and structural condition of each tree were classified as follows:

- Good – Trees with good health and structure that have potential for longevity on site.
- Fair – Trees with somewhat declining health and/or structural defects.
- Poor – Trees in poor health or with significant structural defects that cannot be mitigated. Trees in this category are expected to continue to decline.

Protected Trees

The recorded information facilitated a determination of which trees would qualify as significant trees as defined by the tree ordinance. The tree ordinance defines “significant tree” as follows:

- **Ordinance Sized Tree** means any live woody plant rising above the ground with a single stem or trunk of a circumference of 40 inches or more for non-indigenous species and 18 inches or more for indigenous species measured at 4.5 feet vertically above the ground or immediately below the lowest branch, whichever is lower, and having the inherent capacity of naturally producing one main axis continuing to grow more vigorously than the lateral axes. All commercial tree farms, non-indigenous tree species in residential zones, and orchards (including individual fruit trees) are exempted from the definition of ordinance sized tree.
- **Street Tree** is a tree, of any size, situated within the public street right-of-way or publicly accessible private street (e.g., trees within a landscape park strip), or within 5 feet of a publicly accessible sidewalk adjacent to a public or private street in the case of a street without a landscape park strip.
- **Indigenous Tree** means any tree that is native to the Morgan Hill region. Such trees include oaks (all types), California bays, madrones, sycamore, and alder.

RESULTS

As stated in Chapter 12.32.050 of the tree ordinance, any person desiring to cut down, remove, destroy, or cause to be removed any tree regulated in this chapter shall apply to the community development department for a tree cutting permit on forms provided by the department. The application shall be accompanied by such drawings, written material, photographs, and other

information as are necessary to provide necessary data concerning trees within the affected area and which shall include: 1) the diameter and height of the tree; 2) the type of trees (e.g., coniferous, evergreen hardwood, and deciduous hardwood); 3) map or accurate sketch of location and trees proposed to be cut (showing other significant trees, shrubs, buildings or proposed buildings; photographs may be used to show the area); 4) method for marking the tree proposed to be cut down, removed, or destroyed; 5) description of method to be used in removing the tree; 6) description of tree planting or replacement program; 7) reasons for proposing removal of the tree; 8) address where tree is located; 9) general health of tree to be cut down or removed; and 10) other pertinent information which the community development director may require.

This arborist report provides the information to satisfy the above conditions for granting a tree removal permit from the City of Morgan Hill.

Tree Inventory

A total of 54 trees representing 14 species were inventoried on the project site (Table A and Figure 2, attached). Trees located on the project site include: 7 silver dollar gum (*Eucalyptus polyanthemos*), 24 manna gum (*Eucalyptus viminalis*), 1 edible fig (*Ficus carica*), 1 raywood ash (*Fraxinus angustifolia*), 1 English walnut (*Juglans regia*), 1 Ngaio tree (*Myoporum laetum*), 2 Canary Island pine (*Pinus canariensis*), 1 Lombardy poplar (*Populus nigra*), 1 purple leaf plum (*Prunus cerasifera*), 8 coast live oak (*Quercus agrifolia*), 4 black locust (*Robinia pseudoacacia*), 1 Brazilian pepper tree (*Schinus terebinthifolia*), 1 shrub, and 1 Mexican fan palm (*Washingtonia robusta*). Many trees on the perimeter of the site may have shared ownership with the neighboring property.

A total of eight significant indigenous trees were inventoried on the project site (Table B and Figure 2, attached). Significant indigenous trees include five single-stemmed coast live oaks ranging in size from 19 to 38 inches in circumference and three multiple-stemmed coast live oaks ranging in size from 38 to 63 inches in circumference. All significant indigenous trees are in good condition and have structural conditions that rate from poor to good. Photographs of indigenous significant trees are attached (Figure 3).

A total of 11 significant non-indigenous trees were inventoried on the project site (Table B and Figure 2, attached). Significant non-indigenous trees include three silver dollar gum, five manna gum, one raywood ash, one Brazilian pepper tree, and one Mexican fan palm. All significant non-indigenous trees are single stemmed and over 40 inches in circumference. All but one of the significant non-indigenous trees are in good condition and have structural conditions that rate from poor to good. Photographs of non-indigenous significant trees are attached (Figure 3).

There are no significant street trees associated with the project site.

Table C contains additional information on all trees identified during the inventory including tree ID number; common and scientific name; trunk circumference; tree height; canopy spread; health and structural condition; and tree ordinance status.

Table A: Summary of Trees on the Project Site

Species Classification	Number of Trees on the Project Site	Significant Indigenous	Significant Non-Indigenous	Not Significant
Silver dollar gum *Eucalyptus polyanthemos*	7		3	4
Manna gum *Eucalyptus viminalis*	24		5	19
Edible fig *Ficus carica*	1			1
Raywood ash *Fraxinus angustifolia*	1		1	
English walnut *Juglans regia*	1			1
Ngaio tree *Myoporum laetum*	1			1
Canary Island pine *Pinus canariensis*	2			2
Lombardy poplar *Populus nigra*	1			1
Purple leaf plum *Prunus cerasifera*	1			1
Coast live oak *Quercus agrifolia*	8	8		
Black locust *Robinia pseudoacacia*	4			4
Brazilian pepper tree *Schinus terebinthifolia*	1		1	
Shrub	1			1
Mexican fan palm *Washingtonia robusta*	1		1	
Total	**54**	**8**	**11**	**35**

Table B: Summary of Significant Trees on the Project Site

Species Classification	Significant Trees Total	Significant Trees Removed	Significant Trees Retained
Indigenous Ordinance-Sized Trees			
Coast live oak *Quercus agrifolia*	8	8	0
Non-Indigenous Ordinance-Sized Trees			
Silver dollar gum *Eucalyptus viminalis*	3	3	0
Manna gum *Eucalyptus viminalis*	5	5	0
Raywood ash *Fraxinus angustifolia*	1	1	0
Brazilian pepper tree *Schinus terebinthifolia*	1	1	0
Mexican fan palm *Washingtonia robusta*	1	1	0
Total	**19**	**19**	**0**

Table C: Detailed Data for Trees on the Project Site

Tree #	Species Name	Common Name	Circumference (inches)	Height (feet)	Spread (feet)	Health Condition	Structural Condition	Tree Status
1	*Washingtonia robusta*	Mexican fan palm	63	50	20	Good	Good	Significant Non-Indigenous
2	*Populus nigra*	Lombardy poplar	75	70	15	Good	Fair	Not Significant
3	*Ficus carica*	Edible fig	94	15	25	Fair	Poor	Not Significant
4	*Eucalyptus polyanthemos*	Silver dollar gum	94	40	35	Good	Poor	Not Significant
5	*Eucalyptus viminalis*	Manna gum	100	40	35	Good	Fair	Not Significant
6	*Eucalyptus viminalis*	Manna gum	57	40	30	Good	Fair	Significant Non-Indigenous
7	*Eucalyptus viminalis*	Manna gum	57	40	30	Good	Fair	Significant Non-Indigenous
8	*Eucalyptus viminalis*	Manna gum	126	40	35	Good	Fair	Not Significant
9	*Eucalyptus viminalis*	Manna gum	38	40	35	Good	Fair	Not Significant
10	*Eucalyptus viminalis*	Manna gum	107	40	35	Good	Fair	Not Significant
11	*Quercus agrifolia*	Coast live oak	50	15	20	Good	Fair	Significant Indigenous
12	*Eucalyptus viminalis*	Manna gum	88	40	35	Good	Poor	Not Significant
13	*Eucalyptus viminalis*	Manna gum	107	40	40	Good	Poor	Not Significant
14	*Eucalyptus viminalis*	Manna gum	107	40	30	Good	Poor	Not Significant
15	*Eucalyptus viminalis*	Manna gum	38	40	30	Good	Poor	Not Significant
16	*Eucalyptus viminalis*	Manna gum	75	40	30	Good	Poor	Not Significant
17	*Eucalyptus viminalis*	Manna gum	75	40	30	Good	Poor	Not Significant
18	*Eucalyptus viminalis*	Manna gum	100	40	30	Good	Poor	Not Significant
19	*Eucalyptus viminalis*	Manna gum	38	40	25	Good	Poor	Not Significant
20	*Eucalyptus viminalis*	Manna gum	31	40	25	Good	Fair	Not Significant
21	*Eucalyptus viminalis*	Manna gum	88	40	30	Good	Poor	Not Significant
22	*Quercus agrifolia*	Coast live oak	38	25	20	Good	Fair	Significant Indigenous
23	*Prunus cerasifera*	Purple leaf plum	57	15	20	Good	Poor	Not Significant
24	*Pinus canariensis*	Canary Island pine	13	20	10	Good	Fair	Not Significant
25	*Eucalyptus polyanthemos*	Silver dollar gum	38	40	30	Good	Fair	Not Significant
26	*Quercus agrifolia*	Coast live oak	19	20	20	Good	Fair	Significant Indigenous
27	*Quercus agrifolia*	Coast live oak	63	20	30	Good	Poor	Significant Indigenous

Table C: Detailed Data for Trees on the Project Site

Tree #	Species Name	Common Name	Circumference (inches)	Height (feet)	Spread (feet)	Health Condition	Structural Condition	Tree Status
28	*Eucalyptus viminalis*	Manna gum	100	40	30	Good	Fair	Not Significant
29	*Eucalyptus polyanthemos*	Silver dollar gum	44	40	25	Good	Good	Significant Non-Indigenous
30	*Eucalyptus polyanthemos*	Silver dollar gum	57	40	35	Good	Poor	Significant Non-Indigenous
31	*Eucalyptus polyanthemos*	Silver dollar gum	44	40	25	Good	Poor	Significant Non-Indigenous
32	*Quercus agrifolia*	Coast live oak	19	15	6	Good	Poor	Significant Indigenous
33	*Pinus canariensis*	Canary Island pine	13	15	10	Good	Good	Not Significant
34	*Eucalyptus polyanthemos*	Silver dollar gum	25	40	20	Good	Good	Not Significant
35	*Eucalyptus polyanthemos*	Silver dollar gum	69	40	35	Good	Poor	Not Significant
36	*Eucalyptus viminalis*	Manna gum	119	40	40	Good	Poor	Not Significant
37	*Eucalyptus viminalis*	Manna gum	220	40	40	Good	Poor	Not Significant
38	*Fraxinus angustifolia*	Raywood ash	75	35	50	Good	Good	Significant Non-Indigenous
39	*Quercus agrifolia*	Coast live oak	38	20	25	Good	Good	Significant Indigenous
40	*Eucalyptus viminalis*	Manna gum	57	40	40	Good	Fair	Significant Non-Indigenous
41	*Eucalyptus viminalis*	Manna gum	85	40	40	Good	Fair	Not Significant
42	*Myoporum laetum*	Ngaio tree	176	25	30	Fair	Poor	Not Significant
43	*Eucalyptus viminalis*	Manna gum	119	40	50	Good	Fair	Not Significant
44	*Robinia pseudoacacia*	Black locust	113	25	25	Good	Poor	Not Significant
45	*Eucalyptus viminalis*	Manna gum	57	40	50	Good	Fair	Significant Non-Indigenous
46	*Robinia pseudoacacia*	Black locust	69	25	25	Good	Poor	Not Significant
47	*Robinia pseudoacacia*	Black locust	88	25	25	Good	Poor	Not Significant
48	*Eucalyptus viminalis*	Manna gum	63	40	40	Good	Poor	Significant Non-Indigenous
49	*Quercus agrifolia*	Coast live oak	22	10	12	Good	Fair	Significant Indigenous
50	*Juglans regia*	English walnut	38	15	20	Good	Fair	Not Significant
51	*Schinus terebinthifolia*	Brazilian pepper tree	44	25	30	Good	Fair	Significant Non-Indigenous
52	*Robinia pseudoacacia*	Black locust	25	15	10	Fair	Poor	Not Significant
53	*Quercus agrifolia*	Coast live oak	28	15	10	Good	Poor	Significant Indigenous
54	Shrub	Shrub	50	10	10	Good	Fair	Not Significant

Source: LSA (2021).

Tree Removal and Protection Plan

Review of the conceptual development plan indicates the entire site will be cleared of trees including 19 significant trees. Although construction of a 6-foot-tall masonry wall would preclude the consideration of retaining some indigenous significant trees on the perimeter of the site, any existing tree to be retained should be protected by implementing the attached tree protection measures (Appendix A).

Tree Replacement Plan

The community development director, planning commission, or city council may attach reasonable conditions of approval for granting a tree removal permit (Chapter 12.32.080, tree ordinance). These conditions include, but are not limited to:

- Replacement of trees removed with plantings of trees acceptable to the community development director. In all cases, native trees shall be planted to replace native trees removed unless practical reasons preclude this option.

- Posting of a bond to insure maintenance of substitute landscaping.

The project's conceptual development plan indicates the location of 21 trees as part of the site's landscaping. One of the proposed trees is identified as a magnolia; the types of trees for the remaining 20 locations are not identified.

To off-set impacts related to removal of eight significant indigenous trees, one new native tree shall be planted on site. This ratio (1:1) is provided to compensate for the loss of eight native trees on the project site. The same replacement ratio is proposed to compensate for the loss of 11 significant non-indigenous trees. At least eight of the mitigation plantings should include the native coast live oak; the remainder may be a combination of native coast live oak and non-native trees as proposed by the landscape contractor and approved under the discretion of the governing agency. Possible non-indigenous tree species include: Catalina ironwood (*Lyonothamnus floribundus* subsp. *aspleniifolius*), erect European hornbeam (*Carpinus betulus* 'Fastigata'), Brisbane box (*Lophostemon confertus*), and holly oak (*Quercus ilex*). Suggested mitigation includes:

- Eight coast live oak

- 11 other trees (as proposed by the project's landscape architect)

CONCLUSIONS

The tree inventory identified 54 trees on the project site, including 19 significant trees.

Mitigation for removed significant trees includes the planting of 19 trees on site or posting of a monetary bond in the amount determined by the governing agency.

Existing significant trees to be retained on site should be protected by implementing tree protection.

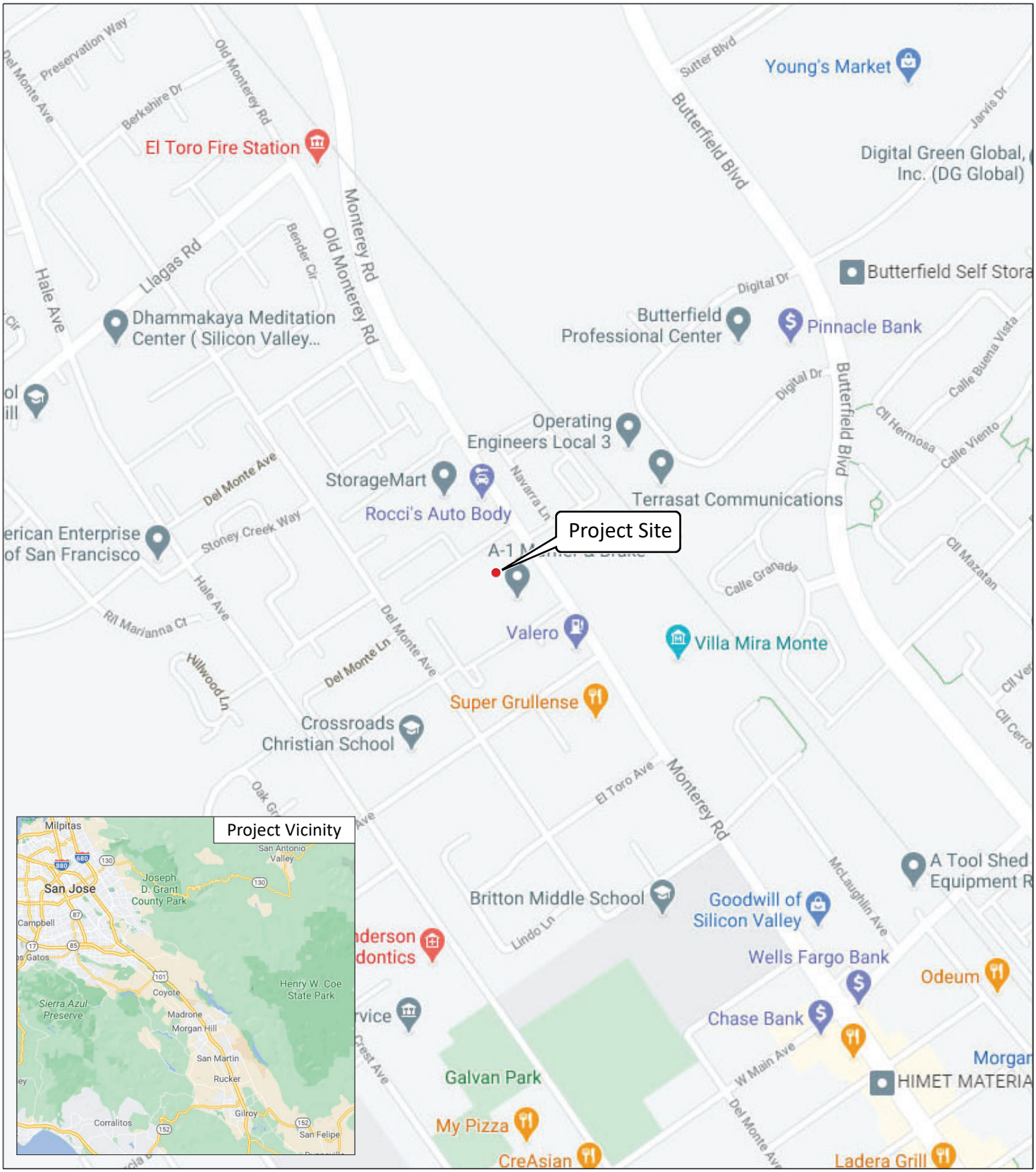
LSA appreciates the opportunity to provide this arborist report to you, and I am available to answer questions regarding it if needed. Please feel free to contact me (510.236.6810) if you have questions or comments.

Sincerely,

LSA Associates, Inc.

Tim Milliken
International Society of Arboriculture (ISA) Certified Arborist WE-5539A

Attachments: Figure 1: Project Location
Figure 2: Tree Map
Figure 3: Significant Tree Photographs
Appendix A: Tree Protection Plan



LSA

LEGEND

- Project Site

FIGURE 1

N

0 2 4

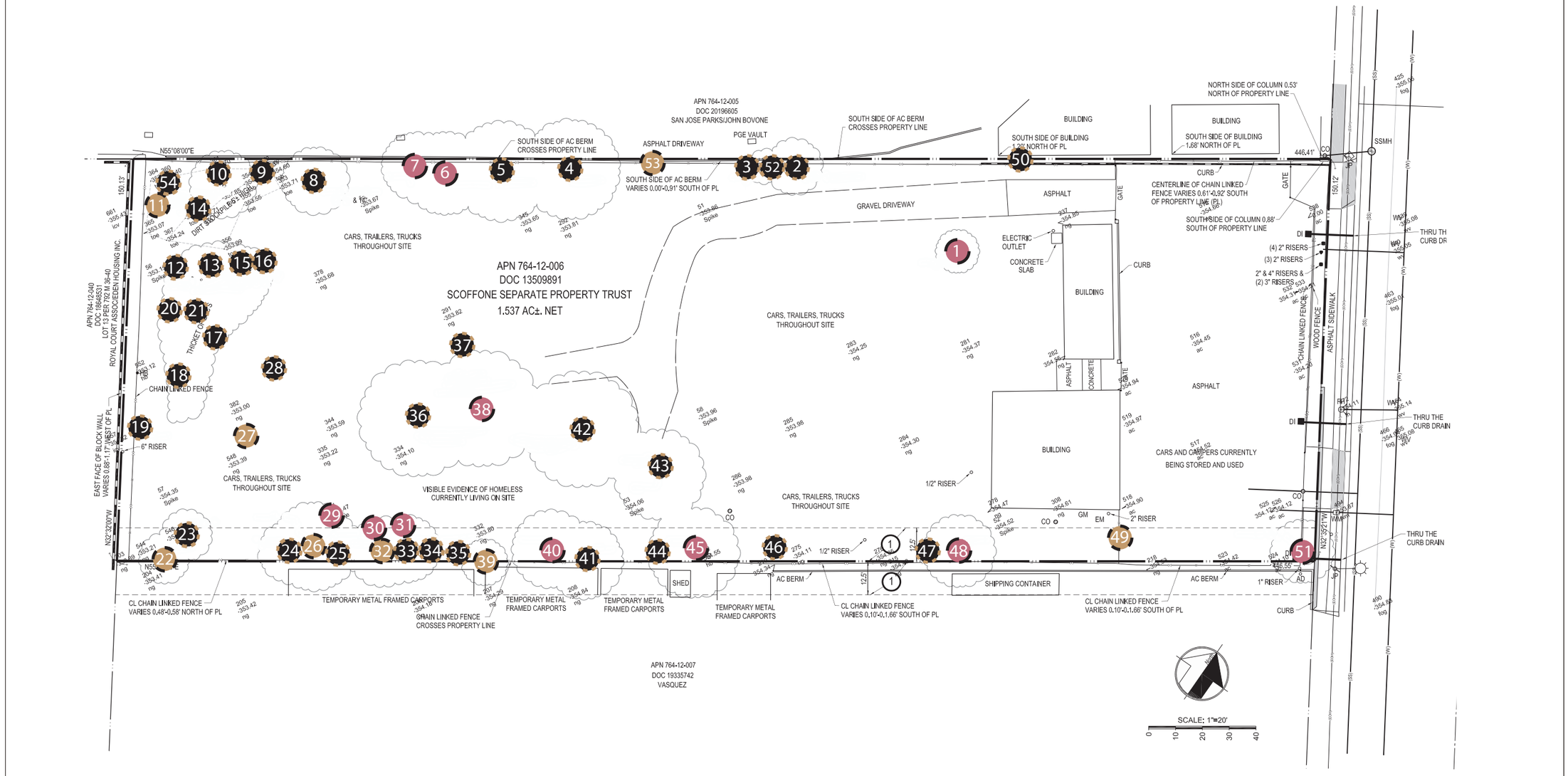
MILES

SOURCE:Google Imagery (2021).

P:\FCY2001\Figure 1.pdf

Magnolias Project
Morgan Hill, California

Regional Location



LSA

LEGEND

- Significant Indigenous Tree to be Removed
- Significan Non-Indigenous Tree to be Removed
- Non-protected Tree to be Removed

Figure 2

Magnolias Project
City of Morgan Hill, California
Tree Map

SOCURCE: Boundary, Topgraphy and Utilities. **Prepared by MH Engineering Co.**

P:\FCY2001\Arborist Report\Figure 2Tree Map.pdf

Tree #11, Coast live oak
January 21, 2021.

Tree #22, Coast live oak
January 21, 2021.

LSA

Figure 3

Magnolias Project
City of Morgan Hill, California

Significant Indigenous Trees Photographic Documentation

Tree #26, Coast live oak
January 21, 2021.

Tree #27, Coast live oak
January 21, 2021.

LSA

Figure 3

Magnolias Project
City of Morgan Hill, California

Significant Indigenous Trees Photographic Documentation

Tree #32, Coast live oak
January 21, 2021.

Tree #39, Coast live oak
January 21, 2021.

LSA

Figure 3

Magnolias Project
City of Morgan Hill, California

Significant Indigenous Trees Photographic Documentation

Tree #49, Coast live oak
January 21, 2021.

Tree #53, Coast live oak
January 21, 2021.

LSA

Figure 3

Magnolias Project
City of Morgan Hill, California
Significant Indigenous Trees Photographic Documentation

APPENDIX A: TREE PROTECTION PLAN

The objective of the tree protection measures is to minimize the potential negative impacts of construction to protected/retained trees. Typical negative impacts that may occur during construction include mechanical injury to roots, trunks, or branches; compaction of the soil and reduced tree root function; grade changes that cut or suffocate tree roots; alteration of water table; microclimate changes including exposing sheltered trees to sun or wind; and creating sterile soil conditions associated with stripping of topsoil.

The following standard recommendations/best management practices shall be implemented to protect retained trees during project construction.

Tree Avoidance. The project plan should avoid as many significant indigenous trees as feasible. Tree protection zones (TPZ) shall be indicated on the project plans. Tree protection zones are delineated in the field with Tree Protection Fencing, which is installed as described in the following section entitled Tree Protection Fencing.

Tree Protection Fencing. Prior to the start of construction, Tree Protection Fencing (TPF) should be installed. The TPF should be maintained during the construction period to prevent direct damage to trees and their growing environment. The TPF should consist of blaze orange barrier fencing supported by metal "T rail" fence posts. The TPF should be placed at a distance that is at or outside of the driplines of avoided trees. The TPF should be installed as part of the site preparation before construction begins and should be installed under the supervision of a qualified arborist. The TPF should not be altered in any way that would increase the encroachment on the avoided trees during construction activities.

Tree Maintenance Prior to and During Construction, Canopy

It may be necessary to trim the canopy of a retained tree to reduce the hazard of accidental limb failure or to allow the movement of construction machinery. Although no specific branch or branches are recommended for removal, planned tree work should consider removing dead, crossed, and/or malformed limbs. All branches to be removed should be pruned back to an appropriately sized lateral or to the trunk by following proper pruning guidelines (International Society of Arboriculture; Best Management Practices; Tree Pruning). It is recommended that a professional tree company with certified arborists be retained to do this work. If accidental damage of tree trunks and limbs should occur during construction, a professional arborist shall be consulted to properly address these issues. Tree trimming shall not be allowed to be performed by construction personnel.

Tree Maintenance Prior to and During Construction, Root Zones

Tree roots often extend far beyond the canopy dripline. To reduce the root shock trees are likely to experience during construction, a watering schedule should be initiated a minimum of 30 days prior to the start of construction. During construction supplemental irrigation should be applied as needed based upon seasonal temperatures and soil moisture. An arborist can help determine the watering schedules.

Excavation Within the Tree Protection Zone

Excavation adjacent to and within the TPZ of any protected/retained tree shall not be permitted where damage to the large structural or fibrous matting root system will result. Root removal that jeopardizes the structural integrity or the health of the tree shall be avoided. The existing ground surface within the TPZ should not be cut, filled, compacted, or paved.

In situations where construction necessitates excavation work within the TPZ of protected/retained trees, excavation shall be done with low impact machinery and hand tools. If large roots of protected/retained trees become exposed during construction and need to be removed to allow construction to proceed, these roots must not be torn, but cut cleanly with a sharp blade. Cut root surfaces shall be covered with backfill soil immediately or covered in wet burlap if backfill is delayed. No more than 30 percent of a tree's root system roots shall be removed, and any root pruning required for construction purposes should receive the prior approval of and be supervised by LSA's certified arborist or a consulting arborist retained for the supervision of tree work on site.

Activities Prohibited Within Canopy Driplines

Use of Heavy Equipment

Heavy machinery shall not be allowed to operate (excavation, grading, drainage, and leveling) or to park within the dripline of protected/retained trees unless approved by a qualified arborist. If it is necessary for heavy machinery to operate within the dripline of the protected/retained trees, then a temporary layer of mulch or pea gravel at least 4 inches in depth should be placed on the ground beneath the dripline. A 3/4-inch sheet of plywood should be placed on top of the mulch. The plywood and mulch will reduce compaction of the soil within the dripline.

Storage of Construction Materials and Debris

Construction materials (excess soil, gravel, aggregate, chemicals, debris, equipment, or other materials) shall not be placed, stored, or spilled within the TPZ or upslope of the protected/retained trees. Furthermore, the attachment of wires, signs, and ropes to any protected/retained tree or placement of fill, debris, or aggregate materials against or on tree trunks and branches is strictly prohibited. Workers may be allowed to rest under trees, but they must not injure trees by any means. The City shall be notified if any damage occurs to a retained tree during construction so that proper treatment may be administered.

Tree Protection Signage

A warning sign shall be prominently displayed on each TPF. The sign shall be a minimum of 8.5 inches by 11 inches and clearly state "Keep Out - Tree Protection Area." The sign shall be laminated in plastic and placed at 50-foot intervals for continuous fence lines or on all sides of smaller enclosures.

Monitoring

A certified arborist shall conduct periodic monitoring of the project site and the health of protected/retained trees. The certified arborist shall be present whenever activities that may pose a potential threat to the health of protected/retained trees may occur.