Appendix C: Biological Resources and Arborist Reports

H. T. HARVEY & ASSOCIATES
Ecological Consultants
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Blossom Hill Station
Arborist Report

Project #4361-01

Prepared for:

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Section 1. Introduction

H. T. Harvey & Associates has prepared this arborist report for the Blossom Hill Station project located on an approximately 7.4-acre property north of Blossom Hill Road, east of Canoas Creek, south of Highway 85, and west of the Highway 85 off-ramp to Blossom Hill Road in San José, California (Figure 1). This report provides an inventory of each tree on the project site with diameter at 54 inches above grade (diameter at breast height [DBH]) greater than or equal to 4 inches, and includes documentation of each tree's DBH, species, an assessment of each tree's health and structural condition, and a figure showing the location of each surveyed tree.

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Figure 1. Vicinity Map
Blossom Hill Station Arborist Report (4361-01)
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Section 2. Applicable Codes and Ordinances

The City of San José defines ordinance-size trees on private property as follows (City of San José 2020a and 2020b):

Single Trunk - 38 inches or more in circumference at 4 1/2 feet above ground, or

Multi-trunk - The combined measurements of each trunk circumference, at 4 1/2 feet above ground, add up to 38 inches or more in circumference.

The City requires a permit to remove a tree of any size located on a commercial property, such as the project site. A tree removal permit[1] is required for the removal of ordinance-size trees. For non-ordinance-size trees, a permit adjustment application[2] is required instead.

[1] https://www.sanjoseca.gov/home/showdocument?id=15395
[2] https://www.sanjoseca.gov/home/showdocument?id=15361

Section 3. Methods

H. T. Harvey & Associates International Society of Arboriculture (ISA) Certified Arborist (WE-12542A) Ryan Hegstad, M.S., and restoration ecologist Vicki Chang, B.S., conducted a site visit to assess the trees on the project site on September 24, 2019. All trees with a DBH greater than 4 inches were included in the inventory, and DBH was measured to the nearest whole inch. Tasks conducted during the site visit consisted of the following:

- identifying each tree to species (scientific name and common name);
- tagging each tree with an identifying number;
- recording the approximate location of each tree;
- measuring tree trunk diameter at approximately 4.5 feet above finish grade (DBH);
- determining the ordinance-size status of each tree based on size;
- evaluating tree health and structural condition using a scale of 0 to 5 as shown in Table 1; and
- rating tree condition based on the combined tree health and structure ratings as follows:
    - *Poor* if the summed ratings were between 1 and 4
    - *Fair* if the summed ratings were between 5 and 6
    - *Good* if the summed ratings were between 7 and 10

Table 1. Tree Health and Structural Condition Evaluation Criteria

Condition Rating	Tree Health	Tree Structure
5	A healthy, vigorous tree with a well-balanced crown. No apparent pest problems or signs and symptoms of disease. Normal to exceeding shoot length on new growth. Leaf size and color normal. Exceptional life expectancy for the species.	Root plate undisturbed and clear of any obstructions. Root flare has normal development. Trunk is sound and solid. No visible trunk defects or cavities. Branch spacing, structure, and attachments are free of defects.
4	Tree with slight decline in health. May have imperfect canopy density in few parts of the tree, less than normal growth rate, and minor deficiency in leaf development. Few pest issues or damage. Normal branch and stem development with healthy growth. May have small amount of twig dieback. Typical life expectancy for the species.	Root plate appears normal; only minor damage, if any. Possible signs of root dysfunction around trunk flare. May have minor trunk defects from previous injury with good closure. Less than 25% of bark section missing. Good branch habit. May have minor dieback with some signs of previous pruning.
3	Tree with moderate health. Crown decline and dieback up to 30% of the canopy. Leaf color may be somewhat chlorotic with smaller leaves. Shoot extensions may indicate some stunting and stressed growing conditions. May have obvious signs of pest problems contributing to lesser condition. Some decay may be present in main stem and branches. Below average life expectancy.	Root plate may reveal previous damage or disturbance and dysfunctional roots may be visible around main stem. Evidence of trunk damage or cavities with decay or defects may be present. Less than 30% of bark sections may be missing on trunk. Co-dominant stems may be present. Branching habit and attachments may indicate poor pruning or damage.
2	Tree in decline. May have epicormic growth. Lacking full crown with more than 50% decline and dieback, especially affecting larger branches. Stunting may be obvious with little evidence of growth on smaller stems. Leaf size and color may reveal overall stress in the plant. Insect or disease infestation may be severe. May be overmature. Life expectancy is low.	Root plate disturbance and defects may indicate major damage with girdling roots around the trunk flare. Trunk reveals more than 50% of bark section missing. Co-dominant stems may be present. Branch structure may have poor attachments, with several structurally important dead or broken branches. Canopy may have signs of severe damage or topping. May have extensive decay or be hollow.
1	Tree in severe decline. Crown may have little vigor and/or a disease or insect problem that is likely ultimately fatal.	Root plate may major structural problems that present an unacceptable risk. Tree structure may be irregular, unbalanced, and/or have multiple dominant stems. Tree may in severe decline, with dieback of scaffold branches and/or trunk.
0	Dead	Dead

DBH was measured to the nearest whole inch using a diameter tape, and the location of each tree was recorded using a Trimble Geo 7X GPS unit. The ordinance status of each tree was evaluated based on the City's definition provided in Section 2 (above). A DBH of 12 inches is generally accepted as equal to a circumference of 38 inches and all trees with single or summed DBH of 12 inches or greater were considered ordinance-size trees. Tree assessments were based on ground-level visual observations and physical measurements.

An advanced assessment to quantify interior wood structure, root condition, and upper canopy condition was not performed as part of this assessment. Therefore, tasks performed did not include an excavation of the root zones of the trees, drilling for decay detection, collecting soil samples for laboratory testing, sending animal or vegetative material for laboratory testing, climbing the trees for an aerial inspection, a tree risk assessment, or a valuation (see Appendix A for assumptions and limiting conditions and Appendix B for a certification of performance). These tasks are not typically included in a standard arborist report.

Section 4. Results

4.1 Site History and General Condition

The site is located on land historically used for agriculture (Archives and Architecture 1992). The parking lots that currently occupy the site were constructed before 1998, and the configuration of planting beds appears largely unchanged since that time (Google Earth 2020). Therefore, some trees are likely more than 21 years old.

4.2 Summary of Findings

One-hundred thirty-eight (138) trees, representing eight species, were identified on the project site (Figure 2). Table 2 provides a summary of the 138 assessed trees. Descriptions of each tree including DBH,health rating, structural rating, tree condition rating, and ordinance-size status are included in Appendix C. Of the 138 trees that were surveyed, 85 (62%) met the City of San José's criteria for ordinance-size (see Section 4.4 below). The most common species on the site was Chinese pistache (*Pistacia chinensis*) (39%).

Table 2. Tree Condition Summary

		Tree Condition			
Scientific Name	**Common Name**	**Poor**	**Fair**	**Good**	**Total Trees**
Lagerstroemia indica	Crape myrtle	0	0	4	4
Pistacia chinensis	Chinese pistache	2	22	30	54
Platanus ×hispanica	London planetree	0	4	17	21
Pyrus kawakamii	Evergreen pear	10	14	8	32
Quercus agrifolia	Coast live oak	0	2	7	9
Quercus ilex	Holly oak	0	1	9	10
Quercus rubra	Red oak	1	2	1	4
Washingtonia robusta	Mexican fan palm	0	0	4	4
	Totals:	**13**	**45**	**80**	**138**

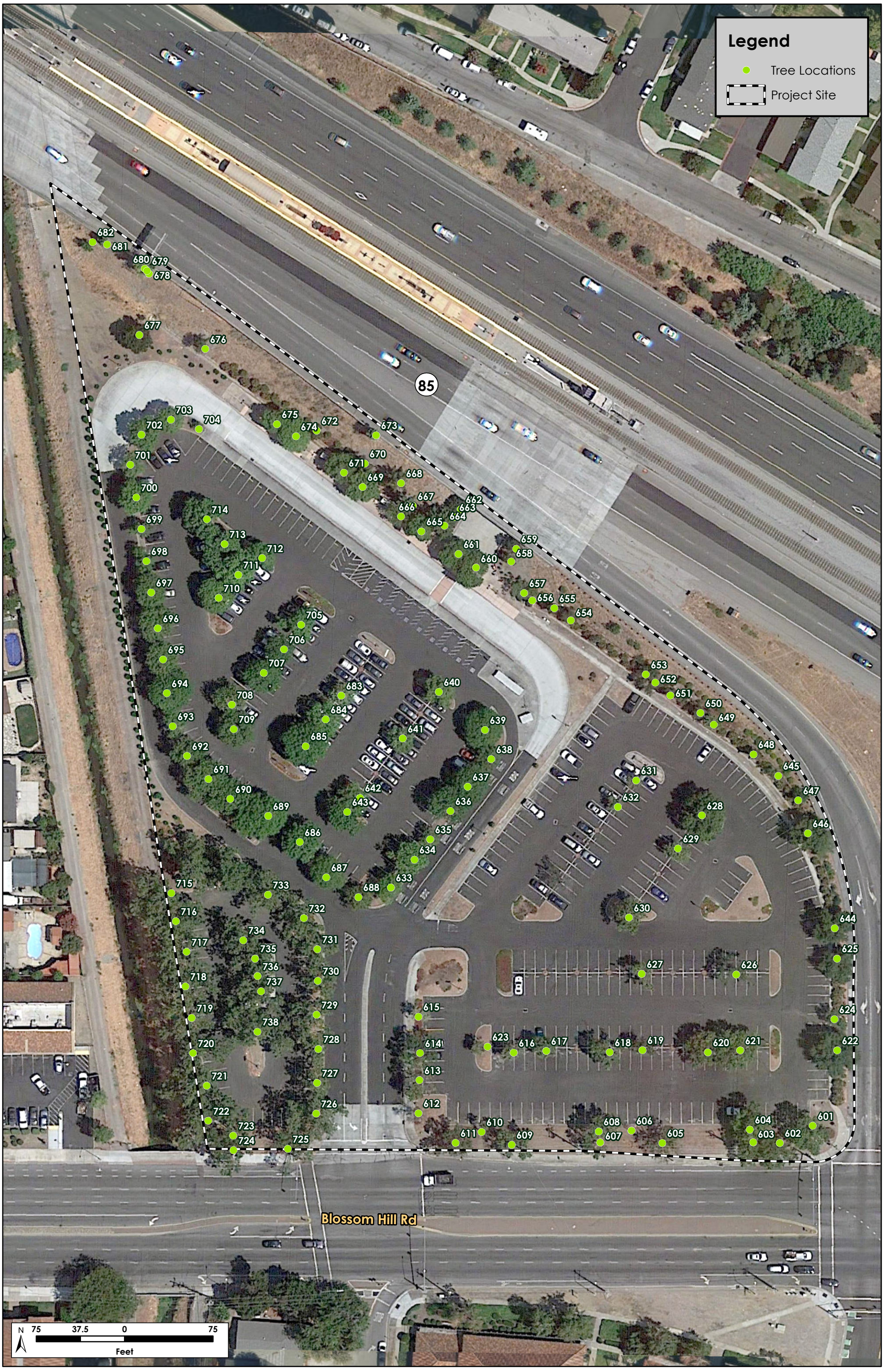

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Figure 2. Locations of Existing Trees
Blossom Hill Station Arborist Report (4361-01)
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4.3 Tree Condition

Eighty (80) trees (58%), including 30 of the 54 Chinese pistache trees, were in good condition, 45 trees (33%) were in fair condition, and 13 trees (9%) were in poor condition (Table 2). Health and vigor scores and condition ratings of each tree are presented in Appendix C. Most trees in poor and fair condition were evergreen pear (*Pyrus kawakamii*) and exhibited canopy dieback such as shown in Photo 2 in Appendix D.

4.4 Ordinance-Size Trees

Eighty-five (85) ordinance-size trees were observed on the project site. These trees were 33 Chinese pistache, 20 London planetree (*Platanus ×hispanica*), 22 evergreen pear (*Pyrus kawakamii*), and 10 trees of other species (see Appendix C). Because it is standard practice to measure DBH and circumference to the nearest whole inch, trees with a measured DBH of 12 inches are considered to have a circumference of 38 inches (rounded up from a calculated value of 37.7 inches). The City of San José requires a permit for the removal of trees of any size on the project site; a Tree Removal Permit is required to remove trees that are ordinance-size, and a Permit Adjustment is required to remove trees that are smaller than ordinance-size (City of San José 2020a and 2020b).

4.5 Invasive Trees

The California Invasive Plant Council lists one of the eight species of trees on the site as invasive. The Mexican fan palm (*Washingtonia robusta*) is listed as a moderate-alert invasive species (California Invasive Plant Council 2020). This rating means that this species can have substantial impacts to California ecosystems and is likely to spread, but currently has a limited distribution in California. There are four Mexican fan palms on the project site.

4.6 Photo Documentation

A selection of representative photos of inventoried trees is presented in Appendix D.

Section 5. References

Archives and Architecture. 1992. Historical Overview and Context for the City of San Jose. Submitted to the Planning Department of the City of San Jose. March 30.

California Invasive Plant Council. 2020. California Invasive Plant Inventory Database. Accessed January 2020. <http://cal-ipc.org/plants/inventory/>.

City of San José. 2020a. Description of tree removal regulations and permitting under the Planning, Building and Code Enforcement, Tree Removal Permits section of the City of San Jose website. Accessed February 3, 2020. <https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/tree-removal-permits>.

City of San José. 2020b. Tree Removal on Private Property Permit Application. Accessed February 5, 2020. Dated February 3, 2020. <https://www.sanjoseca.gov/home/showdocument?id=15395>.

Google Earth. 2020. Aerial imagery of Blossom Hill Station in San Jose, California. Accessed <https://www.google.com/earth/>.

Appendix A. Assumptions and Limiting Conditions

The following are the assumptions and limiting conditions of this tree survey and arborist report. These assumptions and limitations are typical of tree surveys and arborist reports of existing conditions.

1. Any legal description provided to the consultant is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
2. Property lines were not clearly surveyed or marked in the field by the owner. The consultant attempted to provide as accurate of boundary for the inventory as possible using the limited data available.
3. Care has been taken to obtain all information from reliable sources. All data have been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
4. The consultant shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
5. Loss or alteration of any part of this report invalidates the entire report.
6. 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 to whom it is addressed, without the prior expressed written or verbal consent of the consultant.
7. Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the prior expressed written or verbal consent of the consultant particularly as to value conclusions, identity of the consultant, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant as stated in her qualifications.
8. This report and values expressed herein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
9. Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
10. Unless expressed otherwise: a) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection and b) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no

warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

Appendix B. Certification of Performance

I, Ryan Hegstad, certify that:

I have personally inspected the trees and the property referred to in this report and have stated my findings accurately. The extent of the evaluation is stated in the attached report and the terms of the assignment.

I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.

The analysis, opinions, and conclusions stated herein are my own and are based on current scientific procedures and facts.

My analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.

No one provided significant professional assistance to me, except as indicated within the report.

Compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

Ryan Hegstad

ISA-Certified Arborist WE-12542A

Appendix C. Tree Assessment

Tree Tag	Scientific Name	Common Name	DBH	Circumference	Ordinance-Size Tree	Health Rating	Structure Rating	Tree Condition
601	*Pyrus kawakamii*	Evergreen pear	17	53	Ordinance-size	4	3	Good
602	*Pyrus kawakamii*	Evergreen pear	17	53	Ordinance-size	3	2	Fair
603	*Pyrus kawakamii*	Evergreen pear	14	44	Ordinance-size	3	3	Fair
604	*Pyrus kawakamii*	Evergreen pear	17	53	Ordinance-size	4	3	Good
605	*Pyrus kawakamii*	Evergreen pear	17	53	Ordinance-size	1	2	Poor
606	*Pyrus kawakamii*	Evergreen pear	7	22	Not ordinance-size	0	0	Poor
607	*Pyrus kawakamii*	Evergreen pear	12	38	Ordinance-size	2	2	Poor
608	*Pyrus kawakamii*	Evergreen pear	14	44	Ordinance-size	2	2	Poor
609	*Pyrus kawakamii*	Evergreen pear	16	50	Ordinance-size	2	1	Poor
610	*Pyrus kawakamii*	Evergreen pear	10	31	Not ordinance-size	1	2	Poor
611	*Pyrus kawakamii*	Evergreen pear	15	47	Ordinance-size	3	2	Fair
612	*Pyrus kawakamii*	Evergreen pear	12	38	Ordinance-size	0	0	Poor
613	*Pyrus kawakamii*	Evergreen pear	16	50	Ordinance-size	2	2	Poor
614	*Pyrus kawakamii*	Evergreen pear	16	50	Ordinance-size	3	3	Fair
615	*Pyrus kawakamii*	Evergreen pear	8	25	Not ordinance-size	2	4	Fair
616	*Pyrus kawakamii*	Evergreen pear	11	35	Not ordinance-size	2	3	Fair
617	*Pyrus kawakamii*	Evergreen pear	11	35	Not ordinance-size	4	4	Good
618	*Pyrus kawakamii*	Evergreen pear	14	44	Ordinance-size	2	2	Poor
619	*Pyrus kawakamii*	Evergreen pear	11	35	Not ordinance-size	2	4	Fair
620	*Pyrus kawakamii*	Evergreen pear	15	47	Ordinance-size	4	4	Good
621	*Pyrus kawakamii*	Evergreen pear	19	60	Ordinance-size	4	4	Good
622	*Quercus agrifolia*	Coast live oak	22	69	Ordinance-size	4	2	Fair

Tree Tag	Scientific Name	Common Name	DBH	Circumference	Ordinance-Size Tree	Health Rating	Structure Rating	Tree Condition
623	*Pyrus kawakamii*	Evergreen pear	10	31	Not ordinance-size	2	2	Poor
624	*Quercus agrifolia*	Coast live oak	8	25	Not ordinance-size	3	4	Good
625	*Quercus agrifolia*	Coast live oak	18	57	Ordinance-size	5	4	Good
626	*Pyrus kawakamii*	Evergreen pear	15	47	Ordinance-size	2	3	Fair
627	*Pyrus kawakamii*	Evergreen pear	13	41	Ordinance-size	2	4	Fair
628	*Pyrus kawakamii*	Evergreen pear	19	60	Ordinance-size	3	4	Good
629	*Pyrus kawakamii*	Evergreen pear	11	35	Not ordinance-size	3	5	Good
630	*Pyrus kawakamii*	Evergreen pear	19	60	Ordinance-size	4	4	Good
631	*Pyrus kawakamii*	Evergreen pear	10	31	Not ordinance-size	2	4	Fair
632	*Pyrus kawakamii*	Evergreen pear	9	28	Not ordinance-size	2	3	Fair
633	*Pistacia chinensis*	Chinese pistache	11	35	Not ordinance-size	3	3	Fair
634	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	3	2	Fair
635	*Pistacia chinensis*	Chinese pistache	8	25	Not ordinance-size	5	3	Good
636	*Pistacia chinensis*	Chinese pistache	14	44	Ordinance-size	3	2	Fair
637	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	2	2	Poor
638	*Pistacia chinensis*	Chinese pistache	9	28	Not ordinance-size	5	3	Good
639	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	4	3	Good
640	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	4	5	Good
641	*Pistacia chinensis*	Chinese pistache	10	31	Not ordinance-size	3	3	Fair
642	*Pistacia chinensis*	Chinese pistache	17	53	Ordinance-size	3	2	Fair
643	*Pistacia chinensis*	Chinese pistache	14	44	Ordinance-size	3	4	Good
644	*Quercus agrifolia*	Coast live oak	19	60	Ordinance-size	4	4	Good
645	*Quercus ilex*	Holly oak	5	16	Not ordinance-size	4	4	Good
646	*Quercus agrifolia*	Coast live oak	18	57	Ordinance-size	5	3	Good
647	*Quercus ilex*	Holly oak	5	16	Not ordinance-size	5	5	Good

Tree Tag	Scientific Name	Common Name	DBH	Circumference	Ordinance-Size Tree	Health Rating	Structure Rating	Tree Condition
648	*Quercus ilex*	Holly oak	6	19	Not ordinance-size	5	5	Good
649	*Pistacia chinensis*	Chinese pistache	9	28	Not ordinance-size	4	4	Good
650	*Quercus agrifolia*	Coast live oak	7	22	Not ordinance-size	4	4	Good
651	*Quercus ilex*	Holly oak	5	16	Not ordinance-size	4	3	Good
652	*Quercus agrifolia*	Coast live oak	8	25	Not ordinance-size	4	4	Good
653	*Quercus agrifolia*	Coast live oak	10	31	Not ordinance-size	4	2	Fair
654	*Quercus agrifolia*	Coast live oak	6	19	Not ordinance-size	5	4	Good
655	*Quercus ilex*	Holly oak	4	13	Not ordinance-size	4	4	Good
656	*Quercus ilex*	Holly oak	5	16	Not ordinance-size	4	3	Good
657	*Quercus rubra*	Red oak	7	22	Not ordinance-size	2	2	Poor
658	*Lagerstroemia* sp.	Crape myrtle	2, 2, 2, 2, 1	28	Not ordinance-size	4	4	Good
659	*Lagerstroemia* sp.	Crape myrtle	3, 3, 3, 2	35	Not ordinance-size	4	4	Good
660	*Pistacia chinensis*	Chinese pistache	16	50	Ordinance-size	4	3	Good
661	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	4	4	Good
662	*Lagerstroemia* sp.	Crape myrtle	3, 3, 3, 3, 2, 2	50	Ordinance-size	4	4	Good
663	*Lagerstroemia* sp.	Crape myrtle	3, 3, 2, 2	31	Not ordinance-size	4	3	Good
664	*Quercus rubra*	Red oak	9	28	Not ordinance-size	3	3	Fair
665	*Pistacia chinensis*	Chinese pistache	15	47	Ordinance-size	4	2	Fair
666	*Pistacia chinensis*	Chinese pistache	8	25	Not ordinance-size	4	3	Good
667	*Quercus rubra*	Red oak	6	19	Not ordinance-size	4	3	Good
668	*Quercus rubra*	Red oak	4, 4, 3	35	Not ordinance-size	3	3	Fair
669	*Pistacia chinensis*	Chinese pistache	11	35	Not ordinance-size	4	2	Fair

Tree Tag	Scientific Name	Common Name	DBH	Circumference	Ordinance-Size Tree	Health Rating	Structure Rating	Tree Condition
670	*Quercus ilex*	Holly oak	7	22	Not ordinance-size	4	4	Good
671	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	4	2	Fair
672	*Quercus ilex*	Holly oak	5	16	Not ordinance-size	5	4	Good
673	*Washingtonia robusta*	Mexican fan palm	16	50	Ordinance-size	4	4	Good
674	*Pistacia chinensis*	Chinese pistache	11	35	Not ordinance-size	4	4	Good
675	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	5	3	Good
676	*Quercus ilex*	Holly oak	5	16	Not ordinance-size	3	2	Fair
677	*Quercus ilex*	Holly oak	14	44	Ordinance-size	4	3	Good
678	*Washingtonia robusta*	Mexican fan palm	20	63	Ordinance-size	4	4	Good
679	*Pistacia chinensis*	Chinese pistache	4	13	Not ordinance-size	3	2	Fair
680	*Washingtonia robusta*	Mexican fan palm	18	57	Ordinance-size	4	4	Good
681	*Washingtonia robusta*	Mexican fan palm	21	66	Ordinance-size	4	4	Good
682	*Pistacia chinensis*	Chinese pistache	4, 3, 3, 2, 1	41	Ordinance-size	4	2	Fair
683	*Pistacia chinensis*	Chinese pistache	9	28	Not ordinance-size	4	3	Good
684	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	5	3	Good
685	*Pistacia chinensis*	Chinese pistache	14	44	Ordinance-size	4	2	Fair
686	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	5	3	Good
687	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	3	3	Fair
688	*Pistacia chinensis*	Chinese pistache	9	28	Not ordinance-size	4	3	Good
689	*Pistacia chinensis*	Chinese pistache	14	44	Ordinance-size	5	4	Good
690	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	4	2	Fair
691	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	4	2	Fair

Tree Tag	Scientific Name	Common Name	DBH	Circumference	Ordinance-Size Tree	Health Rating	Structure Rating	Tree Condition
692	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	4	2	Fair
693	*Pistacia chinensis*	Chinese pistache	11	35	Not ordinance-size	3	2	Fair
694	*Pistacia chinensis*	Chinese pistache	16	50	Ordinance-size	4	2	Fair
695	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	3	2	Fair
696	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	4	2	Fair
697	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	4	2	Fair
698	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	5	3	Good
699	*Pistacia chinensis*	Chinese pistache	8	25	Not ordinance-size	4	2	Fair
700	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	4	3	Good
701	*Pistacia chinensis*	Chinese pistache	11	35	Not ordinance-size	4	3	Good
702	*Pistacia chinensis*	Chinese pistache	15	47	Ordinance-size	4	3	Good
703	*Pistacia chinensis*	Chinese pistache	11	35	Not ordinance-size	4	3	Good
704	*Pistacia chinensis*	Chinese pistache	8	25	Not ordinance-size	1	1	Poor
705	*Pistacia chinensis*	Chinese pistache	15	47	Ordinance-size	4	4	Good
706	*Pistacia chinensis*	Chinese pistache	11	35	Not ordinance-size	4	3	Good
707	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	4	3	Good
708	*Pistacia chinensis*	Chinese pistache	11	35	Not ordinance-size	4	3	Good
709	*Pistacia chinensis*	Chinese pistache	11	35	Not ordinance-size	5	4	Good
710	*Pistacia chinensis*	Chinese pistache	10	31	Not ordinance-size	4	3	Good
711	*Pistacia chinensis*	Chinese pistache	12	38	Ordinance-size	4	3	Good
712	*Pistacia chinensis*	Chinese pistache	10	31	Not ordinance-size	4	2	Fair
713	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	4	3	Good
714	*Pistacia chinensis*	Chinese pistache	13	41	Ordinance-size	4	3	Good
715	*Platanus ×hispanica*	London planetree	19	60	Ordinance-size	4	2	Fair

Tree Tag	Scientific Name	Common Name	DBH	Circumference	Ordinance-Size Tree	Health Rating	Structure Rating	Tree Condition
716	*Platanus ×hispanica*	London planetree	17	53	Ordinance-size	4	2	Fair
717	*Platanus ×hispanica*	London planetree	16	50	Ordinance-size	4	3	Good
718	*Platanus ×hispanica*	London planetree	15	47	Ordinance-size	4	4	Good
719	*Platanus ×hispanica*	London planetree	17	53	Ordinance-size	5	4	Good
720	*Platanus ×hispanica*	London planetree	15	47	Ordinance-size	4	4	Good
721	*Platanus ×hispanica*	London planetree	17	53	Ordinance-size	4	2	Fair
722	*Platanus ×hispanica*	London planetree	18	57	Ordinance-size	4	2	Fair
723	*Pyrus kawakamii*	Evergreen pear	16	50	Ordinance-size	3	3	Fair
724	*Pyrus kawakamii*	Evergreen pear	13	41	Ordinance-size	3	2	Fair
725	*Pyrus kawakamii*	Evergreen pear	17	53	Ordinance-size	3	2	Fair
726	*Platanus ×hispanica*	London planetree	18	57	Ordinance-size	5	4	Good
727	*Platanus ×hispanica*	London planetree	12	38	Ordinance-size	4	4	Good
728	*Platanus ×hispanica*	London planetree	12	38	Ordinance-size	5	3	Good
729	*Platanus ×hispanica*	London planetree	14	44	Ordinance-size	4	4	Good
730	*Platanus ×hispanica*	London planetree	12	38	Ordinance-size	4	3	Good
731	*Platanus ×hispanica*	London planetree	12	38	Ordinance-size	4	4	Good

Tree Tag	Scientific Name	Common Name	DBH	Circumference	Ordinance-Size Tree	Health Rating	Structure Rating	Tree Condition
732	*Platanus ×hispanica*	London planetree	13	41	Ordinance-size	4	4	Good
733	*Platanus ×hispanica*	London planetree	14	44	Ordinance-size	4	4	Good
734	*Platanus ×hispanica*	London planetree	12	38	Ordinance-size	4	3	Good
735	*Platanus ×hispanica*	London planetree	12	38	Ordinance-size	5	4	Good
736	*Platanus ×hispanica*	London planetree	11	35	Not ordinance-size	5	4	Good
737	*Platanus ×hispanica*	London planetree	14	44	Ordinance-size	4	3	Good
738	*Platanus ×hispanica*	London planetree	18	57	Ordinance-size	5	4	Good

Appendix D. Representative Photos

Photo 1. **Tree #622, Coast live oak (*Quercus agrifolia*)**

Photo 2. **Tree #626, Evergreen pear (*Pyrus kawakamii*)**

Photo 3. **Tree #687, Chinese pistache (*Pistacia chinensis*)**

Photo 4. **From left to right: trees #735–737, all are London planetree (*Platanus* × *hispanica*)**

Photo 5. **From left to right: tree #627 and #630. Both are evergreen pear (*Pyrus kawakamii*)**

Photo 6. From left to right: trees #682 Chinese pistache (*Pistacia chinensis*) and #681 Mexican fan palm (*Washingtonia robusta*)

January 28, 2022

Natalie Noyes
David J. Powers & Associates
1871 The Alameda, Suite 200
San José, CA 95126

Subject: Blossom Hill Station Project – Updated Biological Resources Assessment (HTH #4361-01)

Dear Natalie Noyes:

Per your request, this report provides H. T. Harvey & Associates' updated assessment of existing conditions and potential impacts related to riparian setbacks and bird collisions with new buildings for the Blossom Hill Station project located at the intersection of California State Route (SR) 85 and Blossom Hill Road in San José, California. The project site currently consists of a Santa Clara Valley Transportation Authority (VTA) Park & Ride Lot with paved parking areas and associated ornamental trees. Canoas Creek flows south to north along the site's western boundary. It is our understanding that the proposed project entails (1) the redevelopment of a portion of the site with two new residential buildings, (2) the reconfiguration of drive aisles and other surface improvements within the remaining areas of the site, and (3) construction of an approximately 0.6-mile, 10 to 12-foot-wide paved asphalt concrete pedestrian/bicycle trail between Blossom Hill Road and Martial Cottle Park, adjacent to Canoas Creek.

This report evaluates potential project impacts related to potential for encroachment within the Canoas Creek riparian corridor and bird collisions with the proposed new buildings under the California Environmental Quality Act (CEQA), as well as any specific conditions necessary for compliance with the Santa Clara Valley Habitat Plan (VHP). In addition, we provide conceptual mitigation measures to mitigate potentially significant impacts under CEQA. We understand that the City of San Jose may consider development of the site to be considered a covered activity under the VHP, so we have assumed for the sake of our assessment that the project would be VHP-covered. The VHP, which is implemented by the Santa Clara Valley Habitat Agency, is "intended to provide an effective framework to protect, enhance, and restore natural resources in specific areas of Santa Clara County, while improving and streamlining the environmental permitting process for impacts on threatened and endangered species" (ICF International 2012).

Project Description and Location

The approximately 12.5-acre project site is located north of Blossom Hill Road and east of Canoas Creek in San José, California (Figure 1). Included in the project site boundary is the VTA Park & Ride Lot as well as a narrow, roughly 3,290-foot long corridor that extends along the east side of Canoas Creek from Blossom Hill Road to the existing Martial Cottle Bike Trail (Figure 2). Surrounding areas consist of a mix of commercial and residential development.

The VTA Park & Ride Lot primarily consists of impervious surfaces (i.e., a paved parking lot) with associated ornamental trees. Within this area, the project would entail the demolition of two parking lots, construction of a six-story mixed-use residential and commercial building (Building A), construction of a six-story affordable residential building (Building B), and construction of improvements to existing parking and transit facilities.

Along Canoas Creek, an existing gravel access road extends from Blossom Hill Road along the VTA Park & Ride Lot approximately 1,390 feet to the north, north of SR 85 (Figure 2). The northernmost 1,900 feet of the project site consists of agricultural (i.e., the grain, row-crop, hay and pasture, disked/short-term fallowed land cover type defined in the VHP) habitat adjacent to the eastern bank of the creek. Along the length of the project site adjacent to the eastern bank of Canoas Creek, the project will construct an approximately 0.6-mile long, 10 to 12-foot-wide paved asphalt concrete pedestrian/bicycle trail to connect Blossom Hill Road with Martial Cottle Park. The trail would be located on the east side of Canoas Creek between 5 and 20 feet from (outside of) the top of bank (Figure 3). Two trailhead plazas would be constructed on-site to mark the entrance of the trail at Blossom Hill Road and another in the northwest corner of the project site marking the direction to the Blossom Hill light rail station. The trail improvements would pass through land owned by VTA, the California Department of Transportation (Caltrans), and the County of Santa Clara. The proposed trail segment south of SR 85 will be coordinated with VTA, the segment that runs under SR 85 will be coordinated with Caltrans, and the segment north of SR 85 will be coordinated with the County of Santa Clara. No improvements within the bed and banks of Canoas Creek are proposed.

Construction of the trail improvements would include demolition of a portion of the freestanding wall and fence under SR 85, demolition of the cheek wall and staircase at the Blossom Hill light rail station, and construction of a new staircase and landing separate from the trail. No construction work is proposed within the bed and banks of Canoas Creek, and the limits of grading required for the construction of the trail, the trail shoulder, and storm water drainage features are located entirely outside the top of bank of the creek.

Lighting would be provided along the trail adjacent to and underneath SR 85 for user safety. Signage, landscaping, and/or fencing would buffer the trail from the adjacent residential neighborhoods to the west and east of Canoas Creek. The trail would cross an existing gravel path used by farmers at Martial Cottle Park to transport farm equipment between agricultural fields. Signage would be provided along the proposed trail alignment before and after this crossing warning trail users of potential farm equipment crossing.

Methods

Prior to conducting field work, H. T. Harvey & Associates ecologists reviewed the project description, plans, and maps provided by David J. Powers & Associates through January 2022; aerial images (Google Inc. 2022); the California Department of Fish and Wildlife's California Natural Diversity Database (2022); the City of San José's General Plan *Envision San José 2040* (City of San José 2020); habitat and species information from the VHP (ICF International 2012); and other relevant reports, scientific literature, and technical databases. For the purposes of this report, the *project vicinity* is defined as the area within a 5-mile radius surrounding the project site.

Following our background review, H. T. Harvey & Associates plant ecologist Mark Bibbo, M.S., conducted a reconnaissance-level survey of the project site on August 20, 2019, and I conducted a reconnaissance-level survey of the project site on May 7, 2020. Following receipt of the final plans for the pedestrian/bicycle trail component, on June 10, 2021, H. T. Harvey & Associates plant ecologist Jill Pastick, M.S., conducted a site survey to assess existing conditions of the proposed trail alignment and to map the top of bank from SR 85 to Martial Cottle Park.

Riparian Setback/Encroachment Assessment

To determine appropriate riparian setbacks to comply with City of San José policy, M. Bibbo and J. Pastick conducted focused evaluations of the boundary and quality of the riparian habitat adjacent to the project site. They mapped the top of bank of the Canoas Creek channel using a Geographic Position System unit with sub-meter accuracy (Trimble GeoXT™). The top of bank was identified in the field as an obvious hinge point between the steep banks of the Canoas Creek channel and the adjacent Santa Clara Valley Water District (Valley Water) access road. Per the guidance provided by the City, the outer edge of the riparian corridor along Canoas Creek should also be mapped; however, no trees or shrubs were present along the channel such that a riparian corridor would be defined outside of the top of bank adjacent to the site.

Bird Collision Hazard Assessment

For the bird collision hazard assessment, H. T. Harvey & Associates ornithologists assessed how birds might use resources on and around the project site, including using vegetation or artificial structures as roost or nest sites or for cover from predators and the elements; obtaining food (such as invertebrate prey, fruit, or seeds) from vegetation; and obtaining anthropogenic food resources such as food waste. We assessed the potential for avian collisions with the façades of the proposed buildings, taking into account the applicant-proposed bird-safe design measures, the location of the proposed buildings relative to food or structural resources (such as vegetation along Canoas Creek) and presumed flight paths, the distance from the proposed towers to those resources, the potential for vegetation to be reflected in the glass façades, and the existing conditions of the façades of other buildings in the vicinity.

Because some new vegetation will be planted on the project site, future habitat conditions in the project vicinity will differ somewhat from existing conditions. Thus, we also considered the potential future use of the site by birds based on the project's landscape plan, the surrounding land use, and existing/expected bird use of the site. We are familiar with the birds of Canoas Creek in the vicinity of the site, and we drew on this knowledge in assessing bird use of the segment of river immediately adjacent to the site. To ensure that we were taking into account all available information, we also searched for bird observations on the internet to determine what birds others have seen in the vicinity of the site and nearby areas. We searched archives of the South Bay Birds List Serve (2022) for bird observations along Canoas Creek in the site vicinity. This internet list is used by the community of birders in Santa Clara County to report interesting bird observations. In addition, we searched the eBird database (Cornell Lab of Ornithology 2022), which has been established by the Cornell University Laboratory of Ornithology to archive records of birds seen worldwide, for bird records in the vicinity of the site.

Existing Conditions

Biotic Habitats

Within the VTA Park & Ride Lot, the project site is characterized by the urban-suburban VHP land cover type, which consists of a paved parking lot with a number of ornamental Chinese pistache (*Pistacia chinensis*) trees, evergreen pears (*Pyrus kawakamii*), London plane (*Platanus* x *hispanica*) trees, holly oaks (*Quercus ilex*), red oaks (*Quercus rubra*), crape myrtles (*Lagerstroemia indica*), and western fan palms (*Washingtonia robusta*) as well as several native coast live oaks (*Quercus agrifolia*) (H. T. Harvey & Associates 2020) (Photo 1) (Figure 2). No other structures or landscape vegetation are present on the site. Canoas Creek is located adjacent to the project site to the west, and no project activities will occur within the bed and banks of the creek.

Photo 1. Ornamental London plane trees lining the parking lot on the project site, with channel slopes of Canoas Creek (outside the project site) in the background.

The northernmost approximately 640 feet of the proposed trail alignment passes along the edge of a fallowed agricultural field and consists of the grain, row-crop, hay and pasture, disked/short-term fallowed VHP land cover type (Photo 2). The proposed trail would be constructed in between the edge of the existing field and the top of bank of Canoas Creek. The vegetation in this portion of the alignment is dominated by a dense cover of non-native annual grasses, such as bromes (*Bromus* spp.) and invasive forbs such as black mustard (*Brassica nigra*) and Italian thistle (Photo 2).

Photo 2. The proposed trail alignment at the north end of the site follows the edge of a fallowed field (view to the north).

Photo 3. The Valley Water access road and Canoas Creek channel adjacent to the project site (looking downstream).

The Canoas Creek corridor adjacent to the project site (i.e., outside the project's impact footprint) is an engineered, trapezoidal stormwater and flood-control channel owned and operated by Valley Water (Photos 3–5). Water was present in the channel during the August 2019 and June 2021 field surveys, indicating that flow in the channel is perennial. The channel alignment is straight along the length of the project site. The bed of the channel is approximately 4 feet wide and lacked any continuous wetland vegetation within the channel bed at the time of the August 2019 and June 2021 surveys. Due to the straightened nature of channel adjacent to the project site, flows in this stretch following winter storm events are expected to be high-velocity and scouring, prohibiting the establishment of wetland vegetation. In addition, Valley Water maintains the channel by periodically removing accumulated sediment and vegetation to encourage the stormwater conveyance function of the channel when necessary. Vegetation cover on the banks of the channel is herbaceous, with the dominant species being non-native grasses and forbs such as wild oats (*Avena* spp.), Harding grass (*Phalaris aquatica*), and Italian thistle (*Carduus pychnocephala*). This vegetation is periodically mown by Valley Water along most of the alignment. An existing gravel road that currently serves as a Valley Water maintenance access road extends northward from Blossom Hill Road along approximately 1,390 feet of the project site on the eastern side of Canoas Creek (Photos 3–5).

Photo 4. The Valley Water access road Canoas Creek channel adjacent to the project site (looking upstream).

Photo 5. The Valley Water access road and Canoas Creek channel to the north of State Route 85 (view to the north).

Wildlife Use

General Wildlife Use. Due to the scarcity of vegetation, the project site provides low-quality habitat for wildlife species (Photos 6 and 7). The wildlife most often associated with these areas are those that are tolerant of periodic human disturbances, including introduced species such as the nonnative European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house mouse (*Mus musculus*), and Norway rat (*Rattus norvegicus*). Several common, urban-adapted native species also use this habitat, including the American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), and raccoon (*Procyon lotor*). Few birds are likely to nest on the site due to the sparseness of vegetation, but common species such as the lesser goldfinch (*Spinus psaltria*), Anna's hummingbird (*Calypte anna*), and bushtit (*Psaltriparus minimus*) may nest in the trees present. Burrows of California ground squirrels (*Otospermophilus beecheyi*) are present along the western edge of the site within the project's impact area. Birds such as the black phoebe (*Sayornis nigricans*) and cliff swallow (*Petrochelidon pyrrhonota*) are expected to nest on the Blossom Hill Road and SR 85 bridges over Canoas Creek immediately adjacent to the site; however, no large colonies of swallows were observed on these bridges during the May 2020 survey.

Photo 6. The parking areas on the project site are planted with trees that provide limited habitat for wildlife.

Photo 7. The parking areas on the project site are planted with trees that provide limited habitat for wildlife.

Common bird species that inhabit nearby developed areas are expected to use the grain, row-crop, hay and pasture, disked/short-term fallowed habitat in the northern portion of the project site for foraging. These include year-round residents such as the native American crow, Canada goose (*Branta canadensis*), house finch, mourning dove (*Zenaida macroura*), American robin (*Turdus migratorius*), and lesser goldfinch (*Spinus psaltria*), as well as the nonnative European starling. Birds that nest in the adjacent agricultural fields such as the red-winged blackbird (*Agelaius phoeniceus*), killdeer (*Charadrius vociferous*), and western meadowlark (*Sturnella neglecta*) will also forage in this area, though they are unlikely to nest within the project site as the trail alignment is located along the periphery of their habitat, where nests are more exposed to predators. Migrants and wintering birds that forage within this habitat include the American pipit (*Anthus rubescens*), white-crowned sparrow (*Zonotrichia leucophrys*), and golden-crowned sparrow (*Zonotrichia atricapilla*).

Several reptile species regularly occur in agricultural habitats, such as those present within and adjacent to the project's impact areas, including the western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), and southern alligator lizard (*Elgaria multicarinata*). Burrows of California ground squirrels provide refuges for these reptile species, as well as for common amphibians that may occur along the adjacent creek such as the western toad (*Anaxyrus boreas*) and Pacific tree frog (*Hyliola regilla*). Mammals such as the native striped skunk (*Mephitis mephitis*), raccoon, and black-tailed jackrabbit (*Lepus californicus*), as well as the nonnative Virginia opossum (*Didelphis virginiana*) and feral cat (*Felis catus*) use the grain, row-crop, hay and pasture, disked/short-term fallowed habitat on the site for foraging.

Avian Use (to Inform Bird Collision Hazard Assessment). This assessment focuses on the portion of the project site located south of SR 85, as this is the only area where the project proposes to construct buildings (and therefore where bird collision impacts could potentially occur).

Terrestrial land uses and habitat conditions on the project site and in surrounding areas consist primarily of developed areas such as buildings, parking lots, and roads. Vegetation in most of the surrounding areas is very limited in extent, and consists primarily of nonnative landscaped trees and shrubs. Nonnative vegetation supports fewer of the resources required by native birds than native vegetation, and the structural simplicity of the vegetation (without well-developed ground cover, understory, and canopy layers) further limits resources available to birds (Anderson et al. 1977, Mills et al. 1989). Thus, although a number of bird species will regularly use the vegetation on the project site and surrounding developed areas, they typically do so in low numbers, and particularly rare species or species of conservation concern are not expected to occur on the project site. As a result, the number of individual landbirds that inhabit and regularly use vegetation on the project site at any given time is relatively low under existing conditions.

We consider the riparian habitat along this reach of Canoas Creek to be of low quality for most native birds found in the region due to the limited vegetation present, the lack of any native riparian vegetation, the absence of well-layered vegetation (e.g., with shrub and canopy tree layers), and the amount of human disturbance along the creek. The suite of common, urban-adapted species of birds that occur in the surrounding urban area, including residents, migrants, and wintering birds, are expected to be attracted to the habitat along the creek for foraging and drinking opportunities. However, due to the limited habitat structure present along the creek, this riparian habitat is not expected to provide especially valuable habitat for birds or attract large numbers of birds.

Canoas Creek lacks well-layered riparian vegetation with shrub and canopy tree layers from Cottle Road 3.3 miles upstream of the site (where the creek emerges from below ground) to its confluence with the Guadalupe River 3.9 miles downstream of the site. Further, no parks or natural areas that provide higher-quality habitat for birds are present in the site vicinity, or along Canoas Creek. As a result, there is no habitat to attract large numbers of birds to the general or immediate vicinity of the project site, and we expect relatively low numbers of birds to use the habitat along the creek compared to other streams in the vicinity (e.g., the Guadalupe River and Coyote Creek) that support dense riparian understory vegetation and trees.

Also, the project site is not located in a landscape position that would result in high numbers of birds, especially migratory birds, to be moving past the site. Although a number of birds move along the edges of San Francisco Bay, the site is located approximately 14 miles from the edge of baylands habitats and is separated from those habitats by dense urban development. Because the project site is well inland from the baylands edge, waterbirds using habitats around the Bay would not commute in the direction of the project site. Moderate numbers of migratory songbirds are often concentrated at the edge of the bay during spring and fall migration. However, they tend to use more heavily vegetated areas such as riparian corridors shrub and canopy tree layers or large, well-vegetated parks such as Coyote Point in San Mateo, Shoreline Park in Mountain View, or Sunnyvale Baylands Park in Sunnyvale. Similarly, the site is well removed from heavily vegetated areas in the Santa Cruz Mountains that are heavily used by resident and migratory birds. No heavily vegetated areas or extensive areas of natural habitat is present in the vicinity of the project site, and the project site is not located between two high-quality habitat areas such that birds would be flying past the site when commuting between higher-quality habitat. Martial Cottle Park, located immediately northwest of the project site (across State Route 85), provides extensive agricultural habitat that would attract migrant and wintering birds associated with agricultural fields, such as American pipits (*Anthus rubescens*) and savannah sparrows (*Passerculus sandwichensis*). However, the project site would not be attractive to the same guilds of birds as Martial Cottle Park due to the absence of extensive open grasslands or fields from the project site. Otherwise, the nearest urban parks that provide habitat for large numbers and high diversities of birds, including birds that would be associated with riparian habitats, are Almaden Lake Park 1.5 miles to the northwest and Santa Teresa County Park 2.7 miles to the southeast; the project site is isolated from both locations by miles of dense commercial and residential development. As a result, there is no expectation that migratory birds would be particularly attracted to, or would make heavy use of, the habitats in the immediate project vicinity.

Biotic Impacts and Mitigation

Following is an assessment of potential project impacts related to riparian setback encroachment and bird collisions with new buildings. For each potential impact, we describe potential CEQA and regulatory considerations. In addition, the proposed project is a "covered project" under the VHP (ICF International 2012). In conformance with the VHP, project proponents are required to pay impact fees in accordance with the types and acreage of habitat or "land cover" impacted, and to implement conservation measures specified by the VHP. The northernmost approximately 640 feet of the project site are located within Fee Zone B (Agricultural and Valley Floor Lands), and fees for impacts within this area will be required by the VHP. The remaining areas of the site are located within Urban Areas (No Land Cover Fee), and no fees are required to be paid for impacts within these areas. Because this report focuses on encroachment within the Canoas Creek riparian corridor and bird collisions with the proposed new buildings, impacts within grain, row-crop, hay and pasture, disked/short-term fallowed areas are not discussed in this section. However, these impacts will be considered during CEQA review of the project.

Impacts due to Encroachment into the Stream/Riparian Buffer (Less than Significant)

To protect the ecological functions and values of a stream, buffers/setbacks are often prescribed between new development and the stream, including its banks and any associated riparian habitat. These buffers provide habitat for plants and animals associated with the stream, provide habitat connectivity (i.e., areas used for wildlife movement, including flight paths for birds), reduce indirect effects of adjacent development (e.g., noise, lighting, human activity, or invasive species) on the natural stream and riparian habitats, allow for the possible future expansion of natural habitat, help to maintain site hydrology, and in some areas allow for runoff to be treated (e.g., by flowing through vegetated areas) before it enters the stream. In addition, along streams such as Canoas Creek, vegetative communities within stream buffers may provide important refugia for animals associated with wetland and riparian habitats along the river during flood events, when little to no such refugia may be present within the banks of the river itself. In general, larger buffers protect more of the ecological functions and values of the stream than smaller buffers.

The City of San José's riparian buffer policy is administered through use of a Riparian Corridor Policy Study (Policy Study) document that describes suggested buffer widths (City of San José 1999). The Policy Study, which was incorporated into the City's *Envision San José 2040 General Plan* (City of San José 2020) and further clarified by the Riparian Corridor Protection and Bird Safe Design Council Policy (City of San José 2016), states that riparian setbacks should be measured 100 feet from the outside edges of riparian habitat or the top of bank, whichever is greater. However, the Policy Study also states that setback distances for individual sites may vary if consultation with the City and a qualified biologist, or other appropriate means, indicates that a smaller or larger setback is more appropriate for consistency with riparian preservation objectives (City of San José 1999). Goal E2.2 of the City's General Plan also requires a 100-foot setback in all but a limited number of instances, and only where no significant environmental impacts would occur (City of San José 2020). It is our understanding that the City has indicated that the 100-foot setback does not apply to the project. Thus, for the purpose of this report, we assume that no City setback is required.

Similarly, the City Council-adopted VHP, specifically Condition 11, includes an analysis of relevant literature and studies informing the applicant of appropriate setbacks based on stream hydrology and function that are adequate to provide protection of habitat functions and values (ICF International 2012). The VHP-defined standard setback for Canoas Creek, which is a Category 2 stream, adjacent to the project site is 35 feet. The VHP provides for exceptions to standard stream setbacks, including an exception to prevent denying an owner economically viable use of their land or adversely affecting recognized real property interests (ICF International 2012), which the Santa Clara Valley Habitat Agency may grant in the case of the project. It is our understanding that the City has indicated that, based on conversations with the Habitat Agency, the 35-foot VHP setback does not apply within the urban-suburban portions of the project site (i.e., within the VTA Park & Ride Lot). In addition, the proposed trail to be constructed along Canoas Creek (i.e., within grain, row-crop, hay and pasture, disked/short-term fallowed areas of the project site) is an exempt use within the setback. Thus, based on guidance from the City, it is our understanding that the 35-foot VHP setback does not apply to the project.

In our opinion, the quality of riparian habitat present along this reach of Canoas Creek (which is limited to herbaceous habitat along the creek's banks) is very low. Consequently, this reach does not support a diverse animal community, riparian-associated wildlife, or special-status wildlife. For example, the native bird community present at this location is similar to that in surrounding developed, non-riparian areas. As a result, the ecological value of Canoas Creek on the scale of the Santa Clara Valley is relatively low compared to creeks supporting higher-quality riparian habitat in the region. In addition, the site has existing paved areas approximately 15 feet from the top of bank along approximately 1,390 feet of the length of the reach of Canoas Creek adjacent to the site, so that the CEQA baseline is a site that already has substantial encroachment of developed land uses very close to the creek.

Under CEQA, owing to the importance of maintaining setbacks (and maintaining habitat quality within those setbacks) between new development and riparian habitat, impacts of encroachment into the riparian buffer would be significant for the project (due to the ecological impacts of closer development to sensitive riparian communities) if (a) new development is located any closer to the creek than existing conditions, or (b) changes in existing development or landscaping would result in substantial adverse effects on the ecological functions and values of the creek/riparian corridor. On the project site, all areas are currently developed as paved parking, nonnative landscape, or pedestrian areas, or consist of agricultural areas with dense non-native vegetation. The replacement/improvement of developed areas with similar paved parking, nonnative landscape, and/or pedestrian areas would not encroach closer to the creek than baseline conditions. Also, the proposed improvements within developed areas and the creation of a new pedestrian trail within agricultural areas would not substantially degrade the ecological functions and values of the creek/riparian corridor, for reasons described below. Therefore, it is our opinion that the project's encroachment into the riparian setback would not be considered a significant biological impact under CEQA.

New development features compatible with open space and/or maintenance of water quality functions within Canoas Creek such as native landscape vegetation, biotreatment swales, and pedestrian trails that will be constructed on the project site are considered beneficial uses and would not be considered a significant impact.

The project is expected to increase the number of human users of the Canoas Creek trail, potentially subjecting nesting birds along the creek corridor to increased human disturbance. However, few birds nest along the creek due to the limited vegetation present, and the Canoas Creek trail is already regularly disturbed by homeless individuals and Valley Water staff, as well as by uses on adjacent properties (e.g., vehicle and pedestrian activity on the project site) which are set back only about 15 feet from the top of bank. The increase in users of the Canoas Creek trail as a result of this project is not expected to contribute substantially to human disturbance of birds that nest within the Canoas Creek corridor.

The proposed 6-foot tall fence to be constructed adjacent to the creek is similar to the existing chain-link fence that separates the southern portion of the site from the levee road along the creek, and is farther away from the creek than the existing fence. As a result, the construction of this fence is not considered a significant impact.

In summary, the proposed construction of improvements and reconfiguration of parking areas, pedestrian areas, and landscape vegetation along the creek on the project site is not expected to result in substantial adverse effects on biological resources, and is not considered a significant impact under CEQA from a biological perspective, in our opinion.

Impacts from Avian Collisions with New Buildings (Less than Significant)

This assessment focuses on the portion of the project site located south of SR 85, as this is the only area where the project proposes to construct buildings. No impacts due to avian collisions with new buildings would occur as a result of the proposed trail improvements.

The numbers of birds that currently use the site are expected to increase somewhat following project construction due to the proposed landscaping improvements. The project's planting plans include a mix of native and nonnative trees and other plants, including coast live oak, European olive (*Olea europea*), Peruvian pepper (*Schinus molle*), strawberry tree (*Arbutus* sp.), penstemon (*Penstemon* sp.), California sagebrush (*Artemisia californica*), and sticky monkeyflower (*Mimulus aurantiacus*). This vegetation is likely to attract somewhat greater numbers of birds than under existing conditions; however, the relatively small numbers of new plants proposed, the limited extent of the areas proposed to be landscaped, and the lack of structural diversity of these areas, would not provide high-quality habitat for native birds, and any increase in bird abundance as a result of the proposed landscaping would be modest. In general, we expect that the majority of birds that will occur on the site following project construction would be resident species, both because the low-quality habitat on the site is more conducive to use by urban-adapted resident birds than by migrants and because resident birds would spend far more time on the site than would birds that are migrating through the region and are present in the vicinity only briefly.

It has been well documented that glass windows and building façades can result in injury or mortality of birds due to birds' collisions with these surfaces (Klem 2009, Sheppard and Phillips 2015). Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas); when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners); and when the combination of transparent glass and interior vegetation (such as in planted atria) results in attempts by birds to fly through glass to reach that vegetation. The greatest risk of avian collisions with buildings occurs in the area within 40–60 feet of the ground because this is the area in which most bird activity occurs (San Francisco Planning Department 2011, Sheppard and Phillips 2015). Very tall buildings (e.g., buildings 500 feet or more high) may pose a threat to birds that are migrating through the area, particularly to nocturnal migrants that may not see the buildings or that may be attracted to lights on the buildings (San Francisco Planning Department 2011).

As noted above, relatively low numbers of native, resident birds and occasional migrants occur in the project vicinity, but even during migration, the number of native birds expected to occur in the project vicinity will be low. As a result, the proposed glazing on the facades of Buildings A and B is expected to result in relatively few bird collisions regardless of the building designs. Further, several features of the architecture of the buildings would reduce the potential for avian collisions. Based on the project plans, the building facades are composed of opaque wall panels broken up by smaller windows, and no extensive areas of glazing are proposed. As a result, birds would be better able to perceive the building facades as solid obstructions to flight than if the glassy surface appeared more uniform.

Based on the project plans, there is potential for some birds to collide with new building façades for the following reasons:

- Under the project, trees and other landscaping will be present immediately adjacent to the glass façades (e.g., along Canoas Creek and on the building's green roofs) (Figure 4). Such vegetation is expected to attract birds. Once birds are using that vegetation, they may not perceive the adjacent glass as a solid structure. The vegetation would reflect in the glass of the building's façades, potentially causing birds to attempt to fly in to the reflected "vegetation" and strike the glass. As a result, some birds that are attracted to the trees and other landscaping that is adjacent to the glass façades are expected to collide with the glass.
- Reflections of the sky in glass façades may be perceived by birds as an open flight path (i.e., the sky) rather than solid glass, and birds may then collide with the facades.
- Night lighting associated with new buildings has some potential to disorient birds, especially during inclement weather when night migrating birds descend to lower altitudes. As a result, some birds moving through the project site at night may be disoriented by night lighting and potentially collide with buildings.

There are some features evident in the project's plans where bird collisions are more likely to occur compared to other locations because they may not be as easily perceived by birds as physical obstructions. For example,

the west façade of Building B faces Canoas Creek, which is expected to support higher numbers of birds compared to other areas of the site. Because vegetation is planted immediately adjacent to the building's west facade, birds moving along the creek may be attracted to this vegetation, where they would be more likely to collide with glazing on the west façade. In addition, Building A includes a vegetated courtyard on the Level 3 podium, which is surrounded on all sides by facades (Figure 4). Birds may be attracted to the vegetation within the courtyard, and potentially collide with glazing on the surrounding facades when attempting to exit the courtyard.

Figure 4. Project site plan showing the extent of proposed landscape vegetation relative to building facades.

Thus, some of the birds using the site and/or adjacent riparian habitat along Canoas Creek are expected to occasionally collide with the new buildings, resulting in injury or death. However, we expect the number and frequency of avian collisions with glass façades on the proposed buildings to be low due to the overall low abundance of birds on and immediately adjacent to the site and the predominantly opaque nature of the building facades. In addition, we expect the majority of birds that collide with glazing on project buildings to be resident species. The resident species occurring on the project site are all common, urban-adapted species that are widespread in urban, suburban, and (for many species) natural land use types throughout the San Francisco

Bay area. As a result, these species have high regional populations, and the number of individuals that might be impacted by collisions with the project building would represent a very small proportion of regional populations. Therefore, the project would not result in the loss of a substantial proportion of any species' Bay-area populations or any Bay-area bird community, and according to CEQA standards, we would consider such impacts to be less than significant.

Summary

In conclusion, the findings of our assessment are as follows:

- The proposed project will not reduce the existing setback between developed areas and Canoas Creek any further compared to existing conditions, but areas within the setback will be improved, redeveloped, and/or reconfigured. In our opinion, this encroachment impact would not rise to a level of significance under CEQA on a project-specific basis, from a biological perspective.
- Although building collisions by some migrant songbirds are likely to occur, we would expect that the number of bird collisions on the site to be low due to the limited glazing on building facades and the low numbers of birds expected to occur on the site over the long term. In addition, we expect that the majority of bird strikes would be by resident species. The resident species occurring on the project site are all common, urban-adapted species that are widespread in urban, suburban, and (for many species) natural land use types throughout the San Francisco Bay area. As a result, these species have high regional populations, and the number of individuals that might be impacted by collisions with the project building would represent a very small proportion of regional populations. Therefore, the project would not result in the loss of a substantial proportion of any species' Bay-area populations or any Bay-area bird community, and according to CEQA standards, we would consider such impacts to be less than significant.

Please feel free to contact me by email at rcarle@harveyecology.com or by phone at (408) 458-3241 if you have any questions regarding this report. Thank you for contacting H. T. Harvey & Associates regarding this project.

Sincerely,

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Attachments: Figures 1–3

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Figure 1. Vicinity Map

Figure 2. Project Site

Figure 3. Riparian and Top of Bank Setbacks